

TAKING OUT THE TRASH:

A New Direction for New York City's Waste



by
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**Organization of Waterfront Neighborhoods
and
Consumer Policy Institute/Consumers Union**

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The **Consumer Policy Institute** is a division of Consumers Union, publisher of *Consumer Reports* magazine. The Institute was established to do research and education on environmental quality, public health and economic justice and other issues of concern to consumers. The Consumer Policy Institute is funded by foundation grants, government contracts, individual donations, and by Consumers Union.

The **Organization of Waterfront Neighborhoods** (OWN) is a citywide community-based coalition formed to address the common threat to New York City neighborhoods presented by solid waste transfer stations. OWN's members, over 20 community-based groups from the neighborhoods of Greenpoint /Williamsburg, South Bronx, East N.Y., Red Hook, Sunset Park, Southeast Queens, Washington Heights and Harlem have joined together in an effort to find an equitable and environmentally sound solution to waste handling in New York City.

Members: Concerned Homeowners Association
East New York United Front
El Puente
Hispanos Unidos de Greenpoint
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Lower Washington Heights Neighborhood Association
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Neighbors Against Garbage (NAG)
Neighbors United/Columbia St. Waterfront District
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West Harlem/Morningside Heights Sanitation Coalition
West Harlem Environmental Action (WHE Act)
Vinegar Hill Neighborhood Association

Advisors: Consumer Policy Institute (CPI)/Consumers Union
New York City Environmental Justice Alliance (NYCEJA)
New York Lawyers for the Public Interest (NYLPI)

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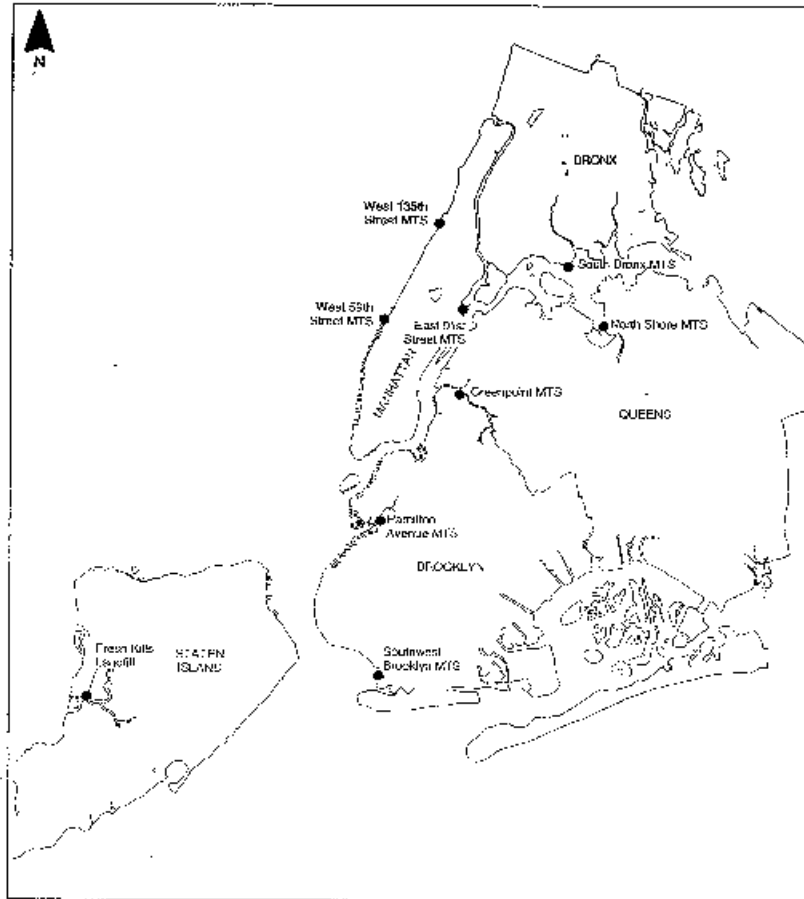
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ABOUT THE AUTHOR

Barbara Warren, M.S., Director of the New York Toxics Project at the Consumer Policy Institute/ Consumers Union, has been involved in waste management issues in NYC since 1980. As an officer of Staten Island Citizens for Clean Air, she worked to defeat municipal waste incinerators and to close the Fresh Kills landfill. She has been Chairperson of the Staten Island Solid Waste Advisory Board and has also served for over a decade on the Citywide Recycling Advisory Board. She also worked on the development of the *Recycle First* alternative waste plan. She was appointed by the Mayor to the Fresh Kills Closure Task Force as an environmental representative. In 1996, she helped establish the Organization of Waterfront Neighborhoods, and has worked with that coalition along with the NYC Environmental Justice Alliance and NY Lawyers for the Public Interest. She received her MS in Environmental Health Science from Hunter College and has received numerous environmental awards including a Clean Air Award from the City Club.



**Location of Municipal Marine
Transfer Stations and
Fresh Kills Landfill**



**(Draft Comprehensive Solid Waste Management Plan
NYC Department of Sanitation, May 2000)**

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EXECUTIVE SUMMARY

The Fresh Kills landfill on Staten Island, which until 1997 was the final resting place for all of New York City's residential garbage, is closing at the end of 2001. This closure presents the City with both an opportunity and a danger. The City has an opportunity to rethink and restructure the City's solid waste system in an equitable and sustainable manner, which reuses and recycles valuable resources creating economic development and jobs. The danger is that the choices made now are ones that will impact the City for decades, and the wrong choices could lead to financial, social and environmental difficulties which could be severe in the years ahead.

The Organization of Waterfront Neighborhoods and the Consumer Policy Institute have worked to develop an Alternative Plan for managing New York City's solid waste that maximizes opportunities and minimizes problems. Our plan is based on maximizing the sustainability-- environmental, economic, and social-- of the waste system. It therefore minimizes garbage export, which is expensive. Instead, it maximizes waste prevention and recycling which are cheaper, more environmentally sound, and can result in social benefits for low and middle income neighborhoods. Any plan for the City should be evaluated in terms of whether it is economically viable, environmentally sound over the long term, and socially just. Any unavoidable burdens of waste management must be equitably allocated among all communities and income groups.

City Administration Plans, 1996-98

Over the last few years, Mayor Rudy Giuliani and the NYC Department of Sanitation(DOS) have put forward several proposals for what to do with the

City's residential garbage—which amounts to some 11,500 tons per day—when Fresh Kills closes. Although the proposals varied somewhat, they generally had as their centerpiece, the building of extremely large—5,000 ton and up—privately owned waste transfer facilities in waterfront communities in the Bronx and Brooklyn. Large waste companies would contract with the City to containerize garbage at these facilities prior to transport to out-of-state landfills.

The difficulties with the City Administration's solid waste plans have been numerous. The Administration's proposals have suffered from the following drawbacks:

- They placed an inequitable and unjust burden on certain communities, and in particular on low-income, minority waterfront neighborhoods, for processing waste. The South Bronx, Greenpoint/Williamsburg and Red Hook in particular were targeted for these large private transfer facilities for containerization of garbage.
- They failed to effectively use and develop City-owned infrastructure, particularly the City's Marine Transfer Stations and thereby left the City in an economically vulnerable situation. Instead of compacting and containerizing at these stations, the City proposed using the Marine Transfer Stations only as pass-throughs on the way to large private waste containerization facilities, which meant that the waste would be handled twice, at two separate facilities. Double handling raises the costs of the export program.
- They relied too exclusively on export, rather than advancing a diverse set of responsible, environmentally sound options including waste reduction, reuse, recycling and composting. The City failed to propose the infrastructure for these sustainable options, which could save money, reduce pollution, and provide an economic boost to neighborhoods.
- They relied extensively on private companies despite recent waste industry consolidation and the possible impacts of limited competition. The large containerization facilities would be built at City expense, but would be the property of the operating corporation. Once these facilities are built, the City will be at the mercy of the companies owning and operating them—it will be impossible to request bids from competing companies, because there will be no other companies with viable containerization facilities in or near the City. Long term the City would be putting itself at the economic mercy of a few large multinational waste companies.
- Finally, they did nothing to address the desperate problems associated with the commercial waste stream, which is even larger than the residential waste

stream. The commercial waste stream is already handled by private haulers, a number of whom have been bidding for the residential waste contracts. They currently operate waste transfer facilities in the South Bronx, Greenpoint/Williamsburg and Red Hook, which frequently do not meet environmental standards, create enormous garbage truck traffic problems in surrounding neighborhoods, and have had unacceptable worker accident rates.

The drawbacks of the City Administration's proposals have been apparent to many. In fact, very different solid waste solutions have been recommended by reports published by the City Council, borough and city-wide Solid Waste Advisory Boards, academic and citizen organizations and even the Mayor's Fresh Kills Closure Task Force. Because of the shortcomings of the City Administration's proposals, the Organization of Waterfront Neighborhoods in collaboration with the Consumer Policy Institute have developed an Alternative Plan for solid waste management in New York City. This Alternative Plan is grounded in the work of these prior studies and advisory bodies.

The OWN/ CPI Alternative Plan

The goal of the OWN/CPI Alternative Plan for solid waste management is a system that is socially equitable, environmentally sound and economically sustainable.

The central elements of the Alternative Plan are as follows:

1. **Retrofit the existing municipal Marine Transfer Stations(MTSs)** and sites, which are located in all five boroughs, to containerize the waste from that borough for direct export by barge or rail. This is an equitable approach, because the processing facilities will be sited in all five boroughs. This is an economically sound approach because it avoids double handling of waste and retains City options for competitive bidding for disposal in the future. It is also the most environmentally sound approach, because it minimizes truck traffic.
2. **Comprehensive reform of private waste transfer stations** and the handling of commercial waste, through a package of legislative measures and through regulatory enforcement. Focused analysis and planning for commercial waste generated in Manhattan is a key element. In the meantime there should be no new siting or expansion of waste transfer facilities in overburdened neighborhoods: the South Bronx, Greenpoint/Williamsburg and Red Hook.

3. Increase the amount of both waste streams that we **reuse and recycle, and reduce waste generation**. The City should immediately comply with the City's recycling law, and then move to meet the goal of the State 1988 Solid Waste Management Act to achieve 10 percent waste reduction and 40 percent recycling by 1997. The City is currently recycling only about 21 percent of the City-managed waste stream. And while the benefits of waste prevention are well recognized, there can be no effective programs without increased funding. Waste prevention does not happen by itself with no resources, despite its clear cost-effectiveness.

Mayor's May 2000 Proposals

Any proposals for the City's waste should be measured against the goals and proposals of the Alternative Plan. The Administration's latest proposals, released in May 2000 partially address some of the worst inequities in previous proposals. No borough would have to handle another borough's residential waste. Waste movement out of the City would be by rail or barge, rather than by polluting and congestion-generating trucks.

However the May 2000 proposal still only partially meets criteria of long-term environmental, social and economic sustainability.

- The proposal contains no plan to upgrade and improve commercial waste handling in the City of New York.
The OWN Plan addresses the entire waste stream- residential and commercial.
- It does not propose expanding waste reduction, reuse, recycling or composting, which are both environmentally and economically sound alternatives.
The OWN Plan calls for compliance with the City's Recycling Law and Community-based planning for income and job-generating recycling and reuse programs.
- Despite staggering export costs, the City is "putting all its eggs in the export basket" and relies excessively on private companies. Private companies will process a total of 10,400 tons per day of waste, building one huge containerization facility in Linden, one new facility in Queens, and possibly new facilities in the Bronx and Greenpoint/Williamsburg as well. Five City Marine Transfer Stations (all three in Manhattan, one in Queens, and one of three in Brooklyn) will continue to serve merely as pass-throughs for garbage going to Linden. In contrast the City will containerize only 2100 tons per day of waste, at one new facility on Staten Island and at one modified City Marine Transfer Station in Southwest Brooklyn. This plan leaves the City at the economic mercy of large corporations in the future. Such reliance on export

also leaves the City vulnerable to efforts in importing states to restrict waste flows.

The OWN Plan retains more City control of the waste transfer and containerization process, providing the City with more options for increasing recycling and maintaining competitive bidding in the future.

Recommendations to City Council and Administration Officials for Modifying the Administration Plan

Ideally, the City would adopt the OWN Alternative Plan for managing the City's waste. On the other hand, if the Administration's May 2000 plan is to be adopted-- with the BFI/Allied facility in Linden, New Jersey as its centerpiece, processing more than half of all City waste (6430 tons per day)-- the City Council must modify the Plan in order to meet basic standards of equity, environmental soundness and economic sustainability. If not modified, the City Council should veto the Solid Waste Management Plan and any Budget for long term export. The City Council should vote only on a specific final plan, not the current version, which actually offers a menu of options and alternatives. The Department of Sanitation must be held accountable in this process.

The City Council should modify the Mayor's May 2000 proposal to:

1. Reduce private sector waste handling and increase City-owned waste handling. Specifically, the Greenpoint, Brooklyn MTS should remain in city ownership and control and be modified like the Southwest Brooklyn MTS to containerize residential waste. The new facility proposed for Queens should also be City-built, owned and operated. These steps will reduce the amount of garbage being containerized at private facilities under the May 2000 plan by approximately 2000 tons per day.
2. On Staten Island, rather than build a 1150 ton-per-day City-owned containerization facility, which is much larger than needed to process the 575 tons per day Staten Island currently generates, the City should build a previously cancelled recycling processing center. The small amount of remaining mixed waste—less than 600 tons per day--should be barged to the Linden facility for containerization.
3. Process Bronx waste (1900 tons per day) at an existing private facility. There is absolutely no need for any new private waste handling facility to be built in the Bronx. The South Bronx already hosts numerous waste facilities including a recently built one at the Harlem River Yard.

4. Expand waste reduction, recycling and composting programs and provide budget equity with export contracts. Real alternatives to expensive export contracts must be funded—waste prevention at 10% of waste collection and disposal and recycling/composting at 40% of waste collection and disposal. The May 2000 plan must show how the City will increase its recycling rate from 21 percent to the 50 percent State goal.
5. Exercise Council oversight over export contracts to ensure the City is economically protected. The City should particularly not agree to “put or pay” contracts which would require us to pay for processing and disposal of a certain tonnage, whether or not we generate that much waste.
6. Require a comprehensive study leading to comprehensive reform of the numerous problems of private transfer stations in NYC and commercial waste handling. Require stringent enforcement of environmental and occupational safety and health regulations and prohibit any further siting of private transfer stations in the three most affected communities — Greenpoint/Williamsburg, the South Bronx and Red Hook.
7. Include a back-up plan, centered on retrofit of the existing MTSs to containerize waste for direct export. This is needed to provide an option in the event that the BFI/Allied Linden proposal does not come to fruition for any reason.

CHAPTER I

INTRODUCTION

Fresh Kills on Staten Island is New York City's only remaining landfill and the largest in the world. Its sheer magnitude has been something of a wonder, with international visitors and news reporters endlessly making the pilgrimage to the site. However, the news about Fresh Kills has almost never been good. In fact, Fresh Kills has been an environmental disaster. For over 50 years, the massive dumping into tidal wetlands has left over 100 million tons of garbage rotting in place, generating harmful leachate into soil and water and producing hazardous air emissions.

On May 29, 1996, Mayor Rudolph Guiliani, Governor George Pataki, and Staten Island Borough President Guy Molinari stunned many with the announcement that Fresh Kills would close by December 31, 2001. The closure announcement was greeted with cheers on Staten Island and simultaneously with concern in other communities within and far from New York City. The obvious question was, what would New York City do with all that garbage?

Among the communities in New York City with very serious concerns were the South Bronx, Greenpoint/Williamsburg, and Red Hook, waterfront neighborhoods already processing a lot of the City's commercial garbage. Residential garbage is collected by the NYC Dept. of Sanitation (DOS) and ends up at Fresh Kills. But commercial garbage is removed by private haulers, who take it to private waste transfer stations concentrated in a few waterfront neighborhoods, and ultimately to private landfills outside the City. These private waste facilities are concentrated primarily in communities of color, where city policies and zoning allow industry to reside with families and children. The

waste industry moved into these neighborhoods as other industry has moved out, leaving vacant industrial land. This trend got a big push in the late 1980s when the City increased the tipping fees for dumping commercial waste at Fresh Kills from \$18 to approximately \$40 a ton, in an effort to preserve landfill space. Large numbers of illegal transfer stations opened up overnight, so that garbage could be processed and packaged for export. Organized crime involvement contributed to difficulties in getting these facilities properly reviewed and permitted. Odor, congestion, and vermin problems proliferated. Community organizations in Greenpoint/Williamsburg, the South Bronx and Red Hook who fought these improper and illegal operations were immediately alarmed about what the closure of Fresh Kills would mean for them. Would facilities in their communities now be processing residential waste too?

The impending closure of Fresh Kills also caused alarm in far away neighborhoods in Pennsylvania, Virginia and elsewhere which for some time have been hosting landfills and incinerators receiving commercial waste from New York City. Would their burden increase?

The closing of Fresh Kills presents New York City with both an opportunity and a danger. There is a fork in the road that reveals two paths. One path, which is sustainable, maximizes waste prevention and recycling and leads us toward sustainable consumption, the reuse of valuable resources, economic development, jobs, and a host of opportunities and benefits for the communities currently most affected by all the negatives associated with solid waste. The other path, clearly unsustainable, relies primarily on contracting with private firms to export NYC garbage. This path promotes waste and will drain financial resources from the City, resources that could be used for schools, health care and parks. It will subject the City to waste industry price increases and make it vulnerable to actions by other states or Congress limiting waste export. And it puts inequitable burdens for processing garbage on certain waterfront communities, which are largely communities of color.

Elsewhere in the United States, when sustainability in the solid waste arena has been nurtured and cared for, it has, like a well-raised child, prospered and succeeded. The public has embraced it whole-heartedly, perhaps because in the context of solid waste, sustainability translates so easily into concrete actions like recycling or making smarter purchasing decisions. In recent years, federal government policy has consistently supported a hierarchy for solid waste management that promotes sustainability. That policy gives top preference to waste prevention, or not creating waste in the first place. Waste reflects inefficient use of resources and energy; the less waste we produce in providing goods and services to people, the more efficient we are. Recycling is on the second rung of the solid waste hierarchy. Recycling not only includes

reprocessing of cans and bottles, but also includes composting, the recycling of organic materials, such as food and yard wastes. These policies, although still inadequate, have been having an impact. The 25% national recycling goal set in 1989 was surpassed and amended to 35% in the span of just seven years, in 1996. At the bottom of the hierarchy are landfilling and incineration.

Nationally, landfilling has declined as a waste management method from a high of 81% in 1980 to 55% in 1997. Incineration is handling 17% of the waste stream. Recycling is now claiming a total of 28% of the waste stream having grown exponentially from almost 7% in 1970. Composting is just beginning to grab significant quantities of the waste stream as municipal programs are realizing there are significant recycling gains to be made by recycling food and yard waste. (EPA, Characterization of Municipal Solid Waste in the United States: 1998 Update, 1999) For the first time EPA has quantified waste NOT entering the waste stream, waste that is prevented or reduced at the source. For 1996 waste reduction prevented 23.2 million tons of waste or 6.4 years worth of NYC's residential waste. The nation's total waste stream would have been 11% higher were it not for these efforts. (EPA, National Source Reduction Characterization Report for Municipal Solid Waste in the US, Nov., 1999)

The continuing success stories from states and municipalities across the country--of increased waste diversion, new business engaged in manufacturing using secondary materials and the associated economic benefits and job creation—are good news for the environment. However they are not good news for waste companies that have invested heavily in waste disposal--in landfills and incinerators.

Will NYC government act to pursue society's overall interest in sustainability? The task then is to fully expose what the choices in a democratic system should be. The City has a choice about whether and to what degree to privatize its solid waste system. However, this choice has never been presented to New Yorkers; instead, privatization and export have been presented as an unavoidable fact. Key questions for the City are: Should we develop our own landfill capacity? Should we own our own transfer station capacity? What services should we contract privately for? Is it less expensive to operate our own facilities or to contract out? How can we optimize the expenditure of public funds for solid waste management to simultaneously achieve environmental, social and economic goals for the City of New York?

This report will present a plan for a waste system that is sustainable and highlight some pitfalls in the Administration's current plans. Our alternate waste plan builds on a considerable body of work completed over many years by dozens of public officials, major environmental organizations, technical experts

and hundreds of volunteers who have devoted countless hours to developing a sound and sustainable solid waste system for the City of New York.

Our recommendations are realistic and fully doable. If implemented, they will help close Fresh Kills on time without dumping on other communities and outraging other states and Congress. They will set the City on a sustainable course that involves citizens in solutions that preserve neighborhoods and keep them as wholesome places to live.

CHAPTER II

NYC'S CURRENT SOLID WASTE SITUATION

New York City generates an enormous amount of waste –approximately 18,500 tons per day of residential and commercial waste, plus 8,600 tons per day of construction and demolition debris and 11,500 tons per day of fill material (dirt, rocks, concrete). In fact, no one knows exactly how much waste is generated and carted off daily. This is because there are actually two waste streams in NYC, as in most areas of the country. One, picked up by the Department of Sanitation (DOS), is largely residential and institutional. The second, managed by private sector waste companies and haulers, consists of commercial waste. While we have relatively good data on the DOS-collected residential waste, the data on commercial waste is poor.

These two waste streams have been largely separate since the late 1980s when in an effort to extend the life of the landfill, the City raised dumping fees for private carters at Fresh Kills. Private carters then stopped dumping at the Municipal Marine Transfer Stations, which transport garbage to Fresh Kills, and instead began utilizing existing private transfer stations or opened new ones.

Residential Waste

Historically, the Department of Sanitation (DOS) has collected garbage curbside in packer trucks and delivered it to eight City-owned Marine Transfer Stations(MTSs). These stations are designed to allow dumping of garbage directly into deep barges. A small amount of waste is also collected from

dumpsters. Each barge is capable of holding 600 tons of garbage. Tugboats shuttle the garbage barges over to the Fresh Kills Landfill on Staten Island, where cranes remove waste from the barge and place it on trucks. The trucks then shuttle the waste to the active working area of the 3000-acre landfill.

Today in the year 2000, approximately 11, 441 tons of garbage per day are currently sent for disposal. Some 2403 tons per day are diverted for recycling from the curbside collection program (Figures for FY 2000, May 2000 Draft Solid Waste Management Plan). Some 4000 tons per day of waste are currently going to Fresh Kills. This is a sharp decline from the late 1980s when a maximum of 27,000 tons per day of commercial and residential waste was moved through the City's marine transfer system for disposal at Fresh Kills. Currently the entire operation of marine transfer stations and disposal at Fresh Kills involves City-owned and operated facilities.

The remainder is being exported under "interim contracts." In 1997, as part of the Fresh Kills shut down, for the first time the City began to contract with private companies to dispose of residential, DOS-collected waste. The City has issued interim contracts to export residential waste for the Bronx, parts of Brooklyn and Queens, Manhattan and Staten Island. "Interim" contracts will last until a more permanent long term plan is in place. In the Bronx, Brooklyn and Queens, waste goes by DOS truck to private waste transfer stations where it is repackaged into larger trailer trucks for the trip to a distant landfill. For Staten Island and Manhattan, under interim contracts, DOS garbage trucks will deliver waste to New Jersey transfer stations and a Newark incinerator immediately after picking up from city streets.

As a result of these contracts, on an annual basis, an estimated 700,000 extra truck trips will clog bridges and the Hudson River tunnels (Lipton, *NYTimes*, 2/21/00) spewing additional diesel exhaust into a region already burdened with unhealthy air quality. Truck traffic would increase 15% in the Lincoln Tunnel alone (Lipton, *NYTimes*, 2/21/00). The City claims that these interim contracts will not have a significant effect on the environment. However, the NYS Attorney General filed suit in early 2000 disputing that claim (Lipton, *NYTimes*, 2/21/00). Community groups and citywide organizations have raised concerns that in the absence of a good long term plan for waste export that adopts more environmentally sound transportation plans and is acceptable to the public, the interim plans will become permanent or at least long term, thus aggravating the air pollution burden.

Commercial Waste Handling in NYC

The private commercial system has been even more problematic. The influx of transfer stations into low-income, communities of color began in the late 1980's when Fresh Kills landfill tipping fees increased. Private carters then began to send the garbage out of town -- and out of state. Commercial carters scrambled to open up or expand transfer stations, where garbage is taken off a standard truck and put on bigger trucks for a long haul trip to a landfill. For the most part, the operations were established without the required environmental reviews or permits. Zoning has offered little protection in these communities.

According to the May 2000 Draft Solid Waste Management Plan prepared by the NYC Department of Sanitation, in 1999 private carters handled 2.2 million tons of mixed solid waste (7051 tons per day), 2.7 million tons of construction and demolition debris (8654 tons per day) and 3.6 million tons of fill material (11,538 tons per day) (1999 Projections, May 2000 Draft SWMP).

It is important to note, however, that accurate information about the amount of waste actually generated in NYC and handled at private transfer stations is not available. When tipping fees were raised at Fresh Kills, private carters were dumping 13,000 tons per day of mixed waste there, significantly more than the 7051 tons DOS says they handle today. The Department of Sanitation attempts to collect this information on a quarterly basis from the private station owners. However, given the enormous compliance problems connected with many of the facilities, the quality of the information must be questioned. From inspection reports, many facilities operate way over their permit limits. It is doubtful that an owner will report handling a waste amount in his quarterly report that clearly shows he has been operating over the permit limit.

More than half of the city's 85 private waste transfer stations are located in just four waterfront neighborhoods. There are 17 stations in the South Bronx (Community Boards 1 and 2), 20 in Greenpoint/Williamsburg, Brooklyn (CB1), 5 in Red Hook, Brooklyn (CB6) and 9 in Jamaica, Queens(CB12).

The problems of the transfer stations are numerous. The first is truck traffic -- hundreds of garbage trucks arriving and leaving daily, bringing in and taking out waste. A second is typically odor. A third is often loose waste and vermin, especially in poorly operated facilities. A fourth is dust escaping from windows and doors or just drifting over from open air operations.

Over a decade ago, a Mayoral Task Force under Mayor Ed Koch was set up to address the transfer station problem. An outgrowth of this effort was the passage in 1990 of Local Law 40, which called for siting regulations and for a number of operational standards. However, by 1996 the City still had not promulgated these regulations, prompting a lawsuit on behalf of community

residents by New York Lawyers for the Public Interest. Testimony by a Deputy Commissioner of the Department of Sanitation in the court proceedings makes it clear why the City failed to adopt the siting regulations: They "would have required the closure of non-complying transfer stations in five years, they had the potential to severely limit the location and number of available sites for existing and future transfer stations and lead to a serious shortage of transfer station capacity." (*Neighbors Against Garbage v. Doherty*, No. 10923, N.Y. Sup. Ct. March 16, 1997)

In 1997, seven years after the passage of Local Law 40 regulating transfer stations, community members won their suit; however, there was still considerable cause for concern. Fresh Kills was now closing, and private companies were receiving interim contracts to dispose of City waste. New transfer stations were popping up and waste volumes were increasing. Siting regulations were issued by the City in 1998, but they complied neither with the 1990 law nor with a judge's order requiring that they protect public health and the environment. For example, the regulators grandfathered existing transfer stations, including those with only applications for permits, and required a buffer of only 400 feet between new facilities and residential zones, less than the 500 feet required for a pornographic establishment.

The judge's 1997 order also rested on an understanding that the Administration had committed to working with the Borough Presidents and City Council to receive community input and accomplish borough-specific recommendations associated with Fresh Kills closure. At the time of the judge's order, there was no way to know that the City would subsequently have little or no substantive interactions with the boroughs related to solid waste planning or transfer station issues.

The final siting regulations were issued in October of 1998, but the Department of Sanitation has not adequately implemented them. The Department recently moved to approve a new application that amazingly actually violated even the weak siting regulations.

Brooklyn Crush Materials attempted to secure a permit for a fill material transfer facility in Red Hook for transfer of 5,000 cubic yards per day and storage of 20,000 cubic yards per day. The pile of fill could be as much as 40 ft. high, while the fence is only 10 feet high. The site was on the same site as Recycling Unlimited which operated an illegal facility and was ordered, by DOS, to shut down in 1996. The site has been vacant since then.

The applicant claimed, and DOS agreed, that the facility was a replacement facility, and that the initial application was filed before the siting regulations

went into effect; therefore it did not have to meet the requirement for a 400 foot buffer zone from parks, open spaces or residential areas. The facility is only 50 feet from a park and ballfields where hundreds of kids play.

New York Lawyers for the Public Interest brought a lawsuit on behalf of Red Hook Civic Association, Groups against Garbage Stations, Congressmember Nydia Velazquez, Councilmember Angel Rodriquez, and Jocelyn Philips, arguing that it did fall under new siting regulations issued in October of 1998. The judge agreed, ruling this facility was not a “replacement” facility and that the application was not complete until *after* the siting regulations went into effect because it was missing essential documents when filed. As a result, the City is enjoined from permitting this facility at this site. If the decision is upheld, no permit for any solid waste transfer station can ever be issued for this site under the siting regulations, because it is 50 ft from a park (Conversation with John McGettrick, Red Hook Civic Assn. and memo from NYLPI).

The City also failed to address these problems with waste transfer stations in the context of removing organized crime from the carting industry. In 1995, the City Council began hearings on proposed legislation to regulate the carting industry and make it more competitive. This legislation created the Trade Waste Commission to rid the industry of organized crime and to reduce waste hauling costs for businesses. However, no recognition was given to the connection of the carting industry and organized crime to improperly permitted and substandard waste transfer stations. Andy van Kleunen of Neighbors Against Garbage, noted, “No one is talking about what happens to New York City neighborhoods like mine that continue to be the dumping ground for that garbage once it is collected. That is where one finds the real crime in this city’s commercial carting industry.” (Press Release of Brooklyn Borough President Howard Golden, Dec. 12, 1995). The Mayor and the Trade Waste Commission in March announced plans to issue refunds to 16,000 businesses affected by the garbage cartel which ended in the mid-1990s, (Gynn, *Waste News*, March 6, 2000, p.1) but offered no compensation or remediation to the affected communities.

Prosecution of organized crime in the carting industry by District Attorney Robert Morgenthau resulted in the sale of assets—the transfer stations--to the major waste companies. However, because of the City’s grandfathering decision in 1998 associated with the issuance of siting regulations, illegally installed stations became legal.

The low-income waterfront communities that are host to most commercial waste transfer stations are generally zoned either “mixed use” or “industrial” even though they contain many residential buildings. Zoning and land use regulations are supposed to serve as a first line of public health protection by

separating industrial from residential uses. However, in NYC some industrial zones have been created where residential housing already existed, leaving the housing as a non-conforming use. In higher-income communities industrial zones have often been upgraded to commercial, leaving fewer industrial zones remaining. Performance standards for land use categories are by and large antiquated and unenforceable or just plain not enforced. Variances from existing standards are common for transfer stations, given by the Department of Buildings. Within remaining industrial zones, the City has an as-of-right policy—which means whatever you want to site on a piece of land you have a right to site. Environmental agencies may impose some restrictions, but there is a presumption that if the project is in the correct zone, there will be no unacceptable environmental impacts. In a densely populated city like New York and with mixed zoning, such a policy is extremely problematic.

Today there are reasonably comprehensive regulations for *design and operation*, as opposed to siting, of waste transfer stations at the state level, issued by the NYS Department of Environmental Conservation, and at the city level, by the NYC Department of Sanitation, with some notable exceptions. One serious problem is that there is no adequate standard for the amount of garbage that can be handled per square foot of transfer station. In addition, although permits establish operating capacity, DEC will allow a 49% increase in permit capacity with no opportunity for public comment, since these increases are considered “minor.”

However, enforcement of these operational regulations is also poor. Existing regulations do not seem well understood and implemented by agency personnel. For example, we have not seen any transfer station with the air filtration equipment required under DOS regulations. Finally penalties are minimal--whether it be facilities operating over their permit limits almost continuously, garbage processing occupying city streets, or sizeable rat populations, owners often get nothing more than a verbal warning. Verbal warnings or minor monetary penalties do little to change company practices.

Worker safety and health is also a serious problem at commercial waste transfer stations. In 1996, three workers were killed on separate occasions at Waste Management Inc.'s Brooklyn Varick Avenue facility, and the company has been slapped with \$100,000 in OSHA fines. In California, it received \$800,000 in OSHA fines. “This would be an appalling safety record for even a third world sweatshop” according to one reporter (Gonzalez, p.10).

One of the most serious problems associated with the commercial waste transfer stations is the truck traffic in and out, with its attendant traffic congestion and air pollution. “No more trucks!” is a common refrain in neighborhoods throughout

NYC. Communities currently suffering from concentrations of private waste transfer stations are also inordinately impacted by excess truck traffic on local city streets and on major thoroughfares that run nearby. In Greenpoint/Williamsburg, there is the Brooklyn-Queens Expressway, in Red Hook there is the Brooklyn Battery Tunnel and the Gowanus Expressway and in the South Bronx there is the Bruckner Expressway, the Major Deegan and the Tri-Boro Bridge.

More environmentally sound options for moving garbage are limited however by the lack of alternative transportation infrastructure in NYC. Rail transport is particularly inadequate in the NY Metro region east of the Hudson River. Rail freight transports one third of all goods in the nation, but only 2.7% of goods in NYC. (Dept of City Planning, p. 28) Almost all cargo that comes to New Jersey by rail and is destined for points in the Northeast now moves on truck. (NYC Dept of City Planning, p.15) Some 30,000 trucks enter the City each day. (Holtzman, p.1) Total costs imposed by vehicular traffic were estimated by Community Consulting Services to be \$25 billion in FY 1997 with 25% of those costs due to truck traffic. (Messinger, Manhattan Borough Waste Plan, p. 52)

The consequence of concentration and expansion of waste handling in a few communities is continued economic depression in those areas. Non-polluting businesses go elsewhere, and the land is not available for public sector uses, like parks and museums. In Red Hook plans for a major film studio and 400 jobs vanished after the announcement of a proposed huge waste handling facility (Conversation with John Mc Gettrick, Red Hook Civic Assn.). In the South Bronx, Waldbaum's moved elsewhere taking 150 jobs and leaving an empty warehouse after a new large transfer station was proposed at an immediately adjacent site. (Conversation with Brielle Epstein, The Point CDC). Expansion of the waste industry can lead to a downward spiral of increasing blight and pollution and decreasing economic and recreational opportunity.

Environmental Justice and Waste Transfer Stations.

Congressman Jose Serrano and a coalition of community organizations filed a letter with the EPA Office of Civil Rights in 1998 seeking an investigation into possible discriminatory practices of the City and the State in relation to the siting of waste facilities in the South Bronx, a predominantly low-income minority community. In March of 1999, the EPA agreed to conduct the investigation, which is still ongoing at this time.

The National Environmental Justice Advisory Council (NEJAC), which advises EPA on environmental justice issues, first heard about transfer station issues in December of 1997 in relation to the closure of Fresh Kills. The Waste and Facility

Siting Subcommittee of NEJAC developed and approved a resolution calling upon EPA to establish a Waste Transfer Station Working Group to look closely at waste transfer stations. Fact-finding tours and hearings over the course of two days were held in two cities—NYC, in November 1998 and Washington, DC, in February 1999. The Working Group made extensive recommendations to the NEJAC, which were approved and released in March of 2000. The recommendations called for EPA to:

- 1) Develop Federal criteria to be included in requirements for State Solid Waste Management Plans that address the safe and equitable siting and operation of waste transfer stations.
- 2) Proactively work with states and local governments on siting and permitting of waste transfer stations in low-income communities of color to structure improved environmental and cumulative impact reviews, to increase public participation in these decisions and to plan for substandard facilities to be phased out. Develop a transition plan and an advisory panel to address clustering of waste transfer stations.
- 3) Develop Best Management Practices for waste transfer stations, to be used by industry, local and state governments, and the public.
- 4) Reduce the total quantity of waste generated and increase recycling nationally.
- 5) Reduce air emissions from stationary and mobile source equipment associated with waste transfer stations including through use of alternative fuels.
- 6) Encourage increased state and local permit fees sufficient to fund adequate enforcement.
- 7) Ensure meaningful public participation in the implementation of these recommendations.

Waste News, a publication devoted to waste and recycling industries published an editorial on the NEJAC recommendations on March 27, 2000 saying, “A federal advisory council has finally stated what most have taken as fact for quite some time—waste management companies are clustering transfer stations in communities populated mostly by minorities and the poor.... But for the sake of good business and what’s right here’s hoping EPA will step in and right what has been so wrong for so long” (*Waste News*, March 27, 2000 p. 8).

CHAPTER III

THE MAYOR'S PLAN

On May 29, 1996, Mayor Rudolph Giuliani, Governor George Pataki and Borough President Guy Molinari announced that the Fresh Kills Landfill on Staten Island would close by the end of 2001. The state legislature subsequently enacted a law requiring closure, which had been moving through the legislature prior to the announcement. This decision, much needed given the fact that Fresh Kills had operated for almost 50 years without meeting even the most minimal environmental standards, changed the direction of solid waste management in New York.

Initial Proposals, 1996-1998

The Mayor and the Governor established a joint Task Force to develop a plan for closure. Released in November 1996, *The Fresh Kills Closure Task Force Report, A Plan to Phase-Out the Fresh Kills Landfill*:

- Established a Phase Down schedule for the Closure of Fresh Kills from its 1996 level of 13000 tons per day. Waste dumping would have to drop by 2000-3000 tons per day by the end of each year until it reached zero in December 31, 2001;
- Recommended waste reduction and recycling as preferred waste management alternatives;
- Recommended preserving and reusing the existing marine transfer station system for handling garbage on its way to final disposal;

- Cautioned that “it is important that the approach to exportation and the necessary contracts for the handling of this waste reflect both the environmental and economic concerns of the City administration, the affected communities within New York City, and the communities where the waste management facilities are located.” (FK Closure Task Force Report, p. 90).
- Expressed belief in the Charter-mandated principle of ‘fair share’ and its application to decisions regarding siting or expansion of transfer facilities;
- Advanced the idea of borough self-sufficiency in managing residential waste, believing in the unique opportunity for borough input in citywide waste management. As a result the Administration committed to working with all five boroughs and the City Council in the planning process.

The commitment to working with the Boroughs made sense given the magnitude of the task at hand and the legal framework for solid waste planning within the state, which calls for draft plans, public hearings and a public process. Under state law the City would have to develop a new draft Solid Waste Management Plan reflecting the new direction. However the City prepared a Request for Proposals for export services, releasing it in Spring 1997, without reviewing the Borough Waste Plans, which were due at that time. This process therefore failed to incorporate prior years of work by elected officials, non-profit organizations, and individual citizens, and was undertaken without any substantive collaboration with current Borough Presidents, City Council representatives, or the public. In general, from this point on, solid waste planning has not been undertaken with the inclusiveness and transparency that we should expect in a democratic society.

In April 1998, the Administration issued its formal Draft Solid Waste Management Plan (SWMP). This Draft Plan did not refer to the 1996 Task Force report’s recommendations. It also ignored the Borough plans and the City Council plan and all of the detailed, carefully crafted recommendations they contained.

The Draft Solid Waste Management plan covered only municipally collected waste despite the fact that the City was already contracting with private waste companies under the interim export plans, and that private commercial waste transfer facilities were creating enormous problems in the communities where they were concentrated. For several decades, residential and institutional garbage has been picked up by the Department of Sanitation (DOS) and taken by barge to Fresh Kills. Commercial waste has been picked up by private haulers, who take it to private waste transfer stations, many in Greenpoint/Williamsburg or the South Bronx, and then truck it out of the City to private landfills.

In December 1998, the Mayor released *2001 And Beyond: A Proposed Plan for Replacing the Fresh Kills Landfill*. This Plan proposed two huge transfer stations in New Jersey, and one in Red Hook, Brooklyn, again focusing on export of garbage to private landfills, prompting the Governor of New Jersey's reply, "Drop Dead!" This plan was not part of the formal solid waste planning process and did not claim to be a Final Solid Waste Management Plan. The City Administration's proposals through 1998 were heavily criticized by community groups, experts and other states. Critics cited the following serious drawbacks with the Administration's plans:

- They placed an inequitable and unjust burden on certain communities, and in particular on low-income, minority neighborhoods, for processing waste. The South Bronx, Greenpoint/Williamsburg and Red Hook in particular were targeted for large private transfer facilities for containerization of garbage.
- They failed to adequately use and develop City-owned infrastructure, particularly the City's Marine Transfer Stations, thereby leaving the City in an economically vulnerable situation. Instead of compacting and containerizing at these stations, the City proposed using the Marine Transfer Stations only as pass-throughs on the way to large private waste containerization facilities, which meant that the waste would be handled twice, at two separate facilities. Double handling raises the costs of the export program.
- They relied too exclusively on export, rather than advancing a diverse set of responsible, environmentally sound options including waste reduction, reuse, recycling and composting. The City has failed to propose any new city-owned recycling and composting infrastructure which could reduce the volume of waste and associated costs of export.
- They relied extensively on private companies despite recent waste industry consolidation and the possible impacts of limited competition. The large proposed containerization facilities would be built at City expense, but would be the property of the operating corporation. Once these facilities were built, the City would be at the mercy of the companies owning and operating them—it would be impossible to request bids from competing companies, because there would be no other companies with viable containerization facilities in or near the City. Long term this could put the City at the economic mercy of a few large multinational waste companies.
- Finally, they did nothing to address the desperate problems associated with the commercial waste stream, which is even larger than the residential waste stream. The commercial waste stream is already handled by private haulers, a number of whom have been bidding for the residential waste contracts.

They currently operate waste transfer facilities in the South Bronx, Greenpoint/Williamsburg and Red Hook, which frequently do not meet environmental standards, create enormous garbage truck traffic problems in surrounding neighborhoods, and have had unacceptable worker accident rates.

THE NEW MAY 2000 PLAN

In May 2000, the Administration released yet another new plan for export of the City's residential waste stream in the form of its Draft Solid Waste Management Plan (SWMP) for the City and Environmental Impact Statement. This plan has as its centerpiece a large garbage containerization facility to be built and operated in Linden, New Jersey by Browning Ferris Industries/Allied Waste Industries, Inc., which would process over half of the City's garbage and send it to an out-of-City landfill. However, the Plan also presents a diverse array of possible options, from which the City may select for future disposal. The City is not legally bound to any of these proposals, and could substitute other options. Until the New York City Council approves the Administration plan, it cannot be called a City Plan, nor can it be forwarded on to the New York State Department of Environmental Conservation for final approval.

The Administration's latest proposals, released in May 2000 are an improvement over previous plans. They address some of the worst social inequities in previous proposals. No borough would have to handle another borough's residential waste. Waste movement out of the City would be by rail or barge, rather than by polluting and congestion-generating trucks. However, they still fail to meet a number of important sustainability criteria.

According to the Administration, the Major Advantages of the Proposed Plan are the following:

- *“It is borough-based. Specifically, all Department generated waste generated within a borough will be delivered to a transfer facility or to transfer facilities within the borough.*
- *It will reuse a substantial portion of the MTS-based waste transfer station system that for over 50 years has enabled the Department to provide highly reliable and cost-effective waste collection, transfer and disposal services.*
- *It will enable all Department-managed waste to be exported to out-of-City disposal sites by barge or rail.*
- *The in-City facilities proposed will likely be or replace on the same site, existing solid waste management facilities.*

- *The proposed procurements may provide an economic incentive to the owners of existing truck based commercial waste transfer facilities to convert them into facilities that will include the ability to export waste by barge or rail.* “(Draft SWMP, May 2000,p.5) (The basis for this last statement is unclear since it is not discussed anywhere in the Solid Waste Plan or the Environmental Impact Statement.)

The essence of the Mayor's approach is to contract with private firms to receive waste within the City, package it, and transport it to distant landfills and incinerators.

Private companies would containerize a total of 10,400 tons per day (TPD) of waste:

- a) The City would sign a 20-year contract with BFI/Allied Waste to build and operate a 7000-10,000 TPD containerization facility in Linden, NJ and to dispose of the waste at a landfill. The Linden facility would receive a total of 6430 tons of NYC residential waste: 2390 tons of waste daily from Manhattan's three Marine Transfer Stations (MTSs), 1860 tons from Brooklyn's Hamilton Ave MTS, and 2180 tons from the Queens North Shore MTS. No modifications will be needed to the MTSs. Garbage will need to be handled twice, once at each MTS and once in Linden.
- b) An unspecified private company would build a 1080 TPD new truck-to-container-to-barge-or-rail facility in Queens near the shore line of Newtown Creek. The site is currently owned by Waste Management, Inc.
- c) The Greenpoint MTS would be modified to containerize 990 TPD, OR a new truck-to-container-to-barge-or-rail facility would be built nearby. It appears from the plan that the City will turn over operations and possibly ownership of the MTS to a private company.
- d) In the Bronx, 1900 TPD capacity would be contracted to an existing or new truck-to-container-to-barge-or-rail facility. Waste Management, Inc. and Republic both operate existing facilities which could handle this volume; AMR has applied for a permit to build a new facility.

City owned facilities would containerize 2100 TPD:

- a) A 1150 TPD new City-owned truck-to-container-to-truck-to-barge-or-rail facility would be built at the Fresh Kills landfill to handle Staten Island waste. The site currently lacks rail access but it is hoped that rail would be available in the future. The site is barge accessible.
- b) A 950 TPD City Marine Transfer Station in Southwest Brooklyn would be modified to containerize a portion of Brooklyn waste, to be exported by barge.

The May 2000 Plan proposes creating a total of 12, 500 tons per day of waste disposal capacity, although the City projects only 11, 441 TPD of residential waste output for 2000, and further declines in subsequent years.

Drawbacks of the May 2000 Plan

The May 2000 proposal unfortunately still does not meet many criteria of long-term environmental, social and economic sustainability. Despite the improvements over previous plans, the following remain as drawbacks of this proposal:

1. Exporting for disposal all mixed solid waste that is municipally collected and currently not being recycled.

Despite staggering export costs, the city is “putting all its eggs in the export basket.” Such reliance on export also leaves the City vulnerable to efforts in importing states and in Congress to restrict waste flows.

2. Developing no new programs to prevent waste or increase recycling as alternatives to export despite being out of compliance with existing state and city laws that mandate greater efforts. Increased recycling could reduce export costs and contribute to economic development that revitalizes communities.

The Administration plans for solid waste ignore and violate the requirements of two existing laws. The State Solid Waste Management Act of 1988 requires that solid waste management plans be prepared by municipalities to meet the goals of 10% waste reduction and 40% recycling by 1997 and that local laws be adopted. The City Recycling Law was adopted in 1989 to meet the requirements of the state law. The Administration is severely out of compliance with the City’s Recycling Law. The Administration is under a Court Order to produce a formal Recycling Plan by July of 1998 and progress reports; neither have been produced. The Court Order also requires the City to recycle 4,250 tons per day by July 14, 2001, approximately six months before Fresh Kills closes. To reach this mandate, recycling tonnage will have to almost double. However, the City avoided examining sound alternatives to export, claiming that all waste to be exported was “unrecyclable.”

3. Issuing private contracts to handle containerization and disposal for the majority of the City’s waste.

Private companies will handle a total of 10,400 tons per day of waste, building one huge containerization facility in Linden and one new facility in Queens. A private company will also process all of the residential Bronx waste at a new or existing facility. A private company would modify the Greenpoint MTS for

containerization or build a new facility at a nearby site, possibly in Williamsburg. Five city marine transfer stations -- three Manhattan MTSs, North Shore Queens MTS, and the Hamilton Ave., Brooklyn MTS--will continue to serve merely as pass-throughs for garbage going to the huge BFI/Allied waste processing facility in Linden. This excessive reliance on private companies leaves the City potentially at the economic mercy of these companies in the future, particularly in the face of recent considerable industry consolidation.

4. Developing little city-owned infrastructure for waste handling.

In contrast the City will build and operate only one new containerization facility on Staten Island, and will modify only one city marine transfer station to containerize waste in Southwest Brooklyn. These two will handle a total of 2100 tons per day of waste. The City has not pursued its own landfill capacity. The City had previously rejected all proposals for modifying or retrofitting the existing city-owned marine transfer stations for direct export, on the grounds that it was physically impossible to modify them in this way, although it now plans to do this at the Southwest Brooklyn MTS.

5. Dealing only with municipally collected waste, leaving commercial waste and associated transfer stations out of the planning process, missing a key opportunity to upgrade the substandard commercial system.

Chapter II describes in some detail the historical problems with private transfer stations and commercial waste handling. A study of commercial waste handling and private stations was actually required under two state laws related to Solid Waste Management Planning and State Environmental Quality Review, but has not been completed.

Detailed Discussion of Drawbacks of May 2000 Plan

A fuller discussion and analysis of the drawbacks of the May 2000 Plan is presented below.

1. Excessive reliance on waste export

Pennsylvania and Virginia, which already host landfills receiving a large portion of New York City's commercial waste, are leading the charge to limit the waste shipped to them from out of state. A study by the Congressional Research Service reports that the top three waste importing states are Pennsylvania, almost 7 million tons; Virginia, 3.7 million tons; and Michigan, 1.6 million tons. The top three exporting states are New York, 4.2 million tons; New Jersey, 2.9 million tons; and Illinois at 2.3 million tons. Nationally, imported waste nearly doubled in five years from 14.5 million tons in 1993 to 28.4 million tons in 1998.

According to *Waste News*, industry consolidation contributes to this trend because the top companies tend to send waste only to their own landfills, even if they have to cross state lines to get to them. (Duff, *Waste News*, Feb. 14, 2000)

The City's plan to export over 11,000 tons of residential waste per day, once Fresh Kills closes, engendered anger in these states not only because of the sheer scale of the proposed amount. Many also had the perception that instead of managing our own waste in an environmentally sound manner, New Yorkers have opted simply to dump it elsewhere. In 1996, Public Advocate Mark Green warned that NYC's failure to recycle would encourage legislation to restrict interstate export of waste. (Green, *Trashing Jobs And the Environment*, p. 19)

Communities in upstate New York are also responding to NYC's export plans. A proposal for a Newburgh marine-to-rail transfer station resulted in the ouster of some elected officials who were willing to just review the idea. In Wallkill, NY, a landfill proposal resulted in posters on telephone poles proclaiming the town as Wallkill, not Fresh Kills.

If our ability to export is seriously curtailed, NYC could be forced to keep Fresh Kills open, violating state law. Given our limited available land and existing environmental problems, NYC is not well situated to develop disposal facilities within the City.

Alienating public officials in other states hurts the long-term viability of a plan that relies primarily on export. Concrete actions by New York City officials to reduce the overall waste stream to be exported by pursuit of environmentally sound options would go far to demonstrate that the City is acting responsibly.

2. Failure to invest in and expand more sustainable waste management options.

NYC is missing a vital opportunity to diversify its waste management options and at the same time foster pollution reduction and community revitalization, as well as economic development. We are at a dangerous juncture because the huge annual expenditure necessary to export waste threatens to siphon funds from programs, still in their infancy, which offer the most potential for achieving a rational, sound and sustainable solid waste system. The City would be in a better position to adjust to escalating export and disposal costs if it had a recycling infrastructure and a management system that could expand prevention, recycling and composting programs as necessary.

If money invested in export were invested in recycling, it could generate a host of indirect economic development and job benefits in the City. In simple economic

terms, the choice is to invest with no potential for return on the money, or to invest where there is great potential for a multiplier effect of benefits for businesses, jobs and for the City.

The Administration plan has not adequately considered waste reduction and recycling, on the grounds that all waste to be exported was "unrecyclable." However this is clearly not the case.

The 1988 New York State Solid Waste Management Act required municipalities to adopt local ordinances requiring source separation of recyclables by September 1, 1992. "All residents and businesses must separate recyclables at the point of generation . . . the local law . . . must apply to both municipally and privately contracted garbage haulers." (Legislative Commission on Solid Waste Management, 1988, P.7) Solid waste shall be separated into recyclable, reusable or other components for which economic markets for alternate uses exist.

The City Council passed New York City's Recycling Law to meet the requirements of the State law. Its purpose was to "establish the most environmentally sound and economically desirable waste reduction, recycling and reuse programs possible and [to] be consistent with or surpass the reduction, recycling and reuse goals established by New York State."

Most familiar to the public is the Recycling Law's "25% goal" to recycle 4250 tons per day of DOS-collected waste materials by April 1994. As recently as December of 1999, DOS reported recycling 2200 tons per day, just over half of the required tonnage. (The law actually did not contain percentage figures, but tonnage figures, to enable better accounting for recycling.)

The public may be less familiar with how comprehensive the City recycling law is. It calls for detailed analysis and planning. It requires the City to do a waste composition analysis by district, to establish a plan for waste reduction, and to establish a recycling plan with annual updates. The recycling plan would include a five-year strategy for collecting, processing and marketing recyclables and a strategy for procuring recycled goods for the City ("buying recycled"). Under the law, the City was to open ten Recycling Centers, including a "buy-back" center in each borough, by January 1991. The City is supposed to work with different agencies, like the Metropolitan Transit Authority, and Port Authority, and with schools, hospitals and prisons, to foster recycling collection.

If the Administration had made a serious effort to comply with the City Recycling Law's major provisions, it would now have important alternatives to waste export already in place. However, few of the law's requirements have been fully met. A coalition of environmental groups, elected officials, Staten

Island residents and others in 1997 won a suit to force NYC to comply. After losing all of its appeals, the Administration was under Court Order to produce a Recycling Plan by July 14, 1998. However, it has submitted neither the Recycling Plan nor progress reports. The Court Order also requires the city to recycle 4,250 tons per day by July 14, 2001, approximately six months before Fresh Kills closes. The Administration plans to recycle only 3003 tons per day in FY 2002, according to the May 2000 Plan. Not diverting that mandated 1247 tons per day to recycling will cost the city more than \$37 million in export fees, not to mention the missed revenues from sale of the recyclables to a remanufacturer.

In 1999, Waste Management backed out of a NYC transit contract which required 40% diversion of the waste stream for recycling. The company had dismantled recycling equipment in its Brooklyn facility and therefore no longer found the contract profitable. (Brown, *Waste News*, June 28, 1999)

Since the removal of this large facility's recycling equipment, the amount of commercial waste recycling is down from 233,300 tons in 1998 to 77,500 tons in 1999. (Draft SWMP, May 2000, Table 2.1-1.) There are in fact, significant problems related to commercial recycling in the City. Those generating waste are forced by the Department of Sanitation to source separate. However, often waste haulers, against whom DOS rarely takes enforcement action, then proceed to mix it all back together again. Private carters are supposed to provide information about differential rates for recycling to their customers and assist them to reduce their hauling bill. However, the reality is that tenants in commercial buildings are generally provided with no information on recycling options. The Department of Sanitation claims enforcement against haulers is the responsibility of the Trade Waste Commission and the Commission has not as yet accepted the responsibility. The Department of Sanitation in the May 2000 Plan suggests amending the recycling rules for the commercial sector, but does not appear to be recommending applying the rules to private carters.

Under its current plan NYC will not realize important environmental and economic benefits of waste reduction and recycling. The White House Task Force on Recycling analyzed these benefits for the nation in 1996, and they are as follows:

- **Saved energy:** 408 trillion BTUs of energy were saved by recycling.
- **Conservation of raw materials:** The dollar value of materials recovered from solid waste was \$3.6 billion.
- **Reduced greenhouse gas emissions:** Recycling prevented the release of 33 million tons of carbon into the air, roughly the equivalent of 25 million cars.
- **Reduced need for polluting incinerators and landfills:** Recycling and composting diverted 130 million cubic yards of material, equivalent to 64

more landfills, each large enough to serve the combined populations of Dallas and Detroit. Composting organic wastes instead of landfilling avoids the creation of methane, a gas with more global warming potential than carbon dioxide.

- **Employment in remanufacturing** amounts to approximately 1 million jobs and over \$100 billion in revenues. (White House Task Force on Recycling, 1998).

NYC is also missing an opportunity to work with Congress on legislative efforts to reduce waste. One key area of potential legislation addresses the amount of waste generated in the production of consumer goods. Once these goods are purchased, the waste is shifted onto the public sector for collection, processing and disposal. Other nations, like Germany, have put the burden on the producers, making them responsible for cutting down on unnecessary waste in packaging, and for taking back products like refrigerators and computers for recycling (Fishbein, p. 43-55).

We also are missing an opportunity to work for national legislation to remove subsidies that favor virgin, extractive materials over recycled materials in the production process. A sustainable waste system cannot exist with economic supports that provide disincentives to more sustainable options while rewarding destructive ones.

3. Excessive reliance on a few very large waste management companies to handle containerization for the majority of the City's waste.

The Administration's May 2000 Plan proposes to build containerization facilities to accommodate export of approximately 12,500 TPD of residential waste, even though the City is currently not generating that much residential waste. The City projects a total of 11, 441 TPD for FY 2000 and by FY 2002, 10,841 TPD.

Under the May 2000 plan, private companies will handle or process under contract a total of 10,400 tons per day of waste out of 12,500, building one huge barge unloading and containerization facility in Linden, and one new containerization facility in Queens. Private companies will also process all the garbage from the Bronx, and from a portion of Brooklyn in Greenpoint/Williamsburg. Five City Marine Transfer Stations -- three Manhattan MTSs, North Shore Queens MTS, and the Hamilton Ave., Brooklyn MTS -- will continue to serve merely as pass-throughs for garbage going to the BFI/Allied facility in Linden, much as the MTSs were previously used to go to Fresh Kills.

This excessive reliance on private companies leaves the City economically vulnerable, particularly in the face of recent waste industry consolidation.

Recently, the waste industry has undergone major consolidation through mergers and acquisitions. A few companies have come to dominate the industry. In 1998 USA Waste acquired Waste Management. The new company, now known as Waste Management Inc., is the largest waste company in the U.S. Allied Waste Industries then acquired Browning Ferris Industries (BFI) to become the second largest waste company. Republic, the third largest in the nation, recently left the NYC market because of limited nearby landfill capacity; Republic is selling its transfer stations to Allied. The top four industry players account for 85% of total industry revenues according to a Congressional Research Service study. (*Waste News*, Feb. 14, 2000) New York City is now primarily negotiating with the top two industry giants—Waste Management Inc. and BFI/Allied Waste.

So far, the Administration appears unconcerned about the emerging duopoly in waste handling in NYC. In 1997 the Administration began privatizing its municipal waste system by awarding interim three-year contracts for waste disposal from the Bronx. In 1998 it awarded additional three-year contracts for parts of Brooklyn and Queens. Waste Management Inc. has received the majority of the contracts for interim export for a grand total of \$214.56 million over three years. The latest round, for Staten Island and Manhattan, awarded in 2000 gave Waste Management a grand total of \$286.56 million, or 67.44% of the \$424.9 million total awarded in interim three-year contracts. BFI and Republic also received some contracts. The Sanitation Department recently had to request an additional \$28 million from the City Council, as it had estimated the cost of export at \$55 per ton, when it is now costing \$62 per ton. (Lipton, *NY Times*, 2/21/00). The City is now suggesting a fourth and fifth round of interim contracts for the remainder of Brooklyn and Queens waste.

If New York is not worried about consolidation, other states are. Consolidation is being closely examined in Ohio after the closure of a recycling facility affected a district's ability to meet recycling goals. According to Todd Boyer of the Ohio Attorney Generals Office, "Any time there is a consolidation of competitors, there's always the potential to result in an adverse way for consumers." (Gynn, *Waste News*, Mar. 27, 2000). In addition, Connecticut towns have asked the Attorney General to investigate whether Waste Management is monopolizing the local trash hauling industry. According to the *New York Times* the company admitted that it raised prices too high after the merger (*New York Times*, 8/31/99).

According to reporter Juan Gonzalez, "Waste Management is a darling of the politicians and Wall Street financiers even though the firm has a rap sheet nearly

as long as the mobsters it replaced. Since 1980 the company has faced repeated federal and local criminal indictments including price fixing and bribery. Convictions of Waste Management subsidiaries and executives have occurred in Georgia, Florida, Ohio, Illinois, and California. During the same period, the firm has paid more than \$52 million in fines and settlements of lawsuits arising from its environmental practices.” (Gonzalez, p. 10).

The problems associated with consolidation are not limited to Waste Management. Attorney Generals in several states along with the Department of Justice are examining the potential for monopolies in certain areas as a result of the BFI/Allied Waste Industries Inc. deal last year. (Gynn, *Waste News*, Mar. 27, 2000). In 1990 Browning Ferris Industries, Inc. and Waste Management settled a civil class action suit brought by their customers that alleged a nationwide price fixing conspiracy for ten years. The customers received a total of \$50 million in penalties. (Lipsett, *Multinational Monitor*, Jan./Feb. 1991)

Since 1996, the Trade Waste Commission has worked to remove the influence of organized crime in the waste carting industry in NYC. As a result, the transfer stations operated by organized crime were sold. Waste Management and Browning Ferris (now owned by Allied) bought up most of these facilities, despite the fact that they were improperly permitted and incapable in most cases of being brought up to state and city standards. Waste companies with billions of dollars in assets are thus now operating some of the worst waste facilities in the nation. Since few standards exist and enforcement has been weak, these companies have been able to earn even higher profits. They have not offered communities any compensatory benefits, such as upgraded facilities and environmental controls, living wage jobs and a safe workplace, or less polluting trucks.

The Trade Waste Commission has regulated hauling fees for private carters but not tipping fees at transfer stations. After Waste Management raised their fees the Commission negotiated with them to limit their fees over the next three years, going from \$56 to \$60 per ton in the third year. The few remaining independent local haulers could be forced out of business if tipping fees increase and the fee they are allowed to charge for hauling is limited by the City. (Johnson, *Waste News* Oct. 12, 1998,p.3)

For the City to give contracts to Waste Management Inc. also raises questions about possible conflict of interest for the public. Dennis Vacco, former NYS Attorney General, joined the Waste Management team in February of 1999 shortly after reviewing the merger with USA Waste for potential antitrust issues and finding none. Although no laws were broken, this raised many concerns. He is now President of Waste Management’s New York State subsidiaries.

According to the *NY Times*, he said he would guide Waste Management through various regulations as it competes for a contract to export NYC residential waste. (*NY Times*, 7/29/00, B7).

The ultimate economic impact of making New York City dependent on an industry with little competition could be serious. Landfill fees have increased 300% on average nationally from 1986-1996, and they are expected to increase 7% per year in the future, more than double the rate of inflation. This estimate was made before the waste industry consolidation. (NRDC, Feb. 1997, p. 45).

As a result of the export contracts, the overall DOS budget is projected to increase to \$941 million in Fiscal Year(FY) 2004 from \$578 million in FY 1997. The NYS Financial Control Board believes that NYC is underestimating waste disposal costs by \$63 million in FY 2001 rising to \$126 million in FY 2004. (NYS Financial Control Board, Preparing for 2001, Mar. 21, 2000). This would mean that the DOS budget would top \$1 billion for an increase in the DOS budget of 84.6 % since FY1997.

Department of Sanitation spending is projected to grow at an average annual rate of 7% per year from 2000-2004, second only to city debt service in growth. (Independent Budget Office (IBO), NYC, p.18) In the face of estimated severe future budget deficits, the need for sounder fiscal choices is urgent.

4. Creation of little City-owned infrastructure for waste handling.

In contrast to the private sector, the City will own and operate only two containerization facilities, one new on Staten Island and one modified City Marine Transfer Station in Southwest Brooklyn, handling a total of 2100 tons per day of waste. Waste from both of these facilities will ultimately be disposed of in private landfills.

The City is proposing no other infrastructure investments either in reuse, recycling or composting or in modifying other City MTS facilities. This limited City-owned infrastructure will leave the city vulnerable to price gouging by the private sector because the City will have few options.

5. Dealing only with municipally collected waste, leaving commercial waste and transfer stations associated with it out of the planning process, misses a key opportunity to upgrade the substandard commercial system. As a result, communities overburdened by private facilities have continuing cause for concern.

As discussed in Chapter II, there are significant problems with the private sector commercial waste handling system. Two state laws actually mandate an examination of private sector waste handling. As a result the City should have included a detailed study of private transfer stations and the waste they handle in the May 2000 Draft Solid Waste Management Plan and Environmental Impact Statement. The first applicable law is the NY State Solid Waste Management Act, which requires solid waste planning for the entire waste stream, including commercial waste. The City first prepared a Solid Waste Plan in 1992. However, it was unable to complete a study of commercial waste handling. Consultants to the Department of Sanitation noted that due to the poor results of the survey they attempted, a "separate study will be necessary to accurately quantify the private sector's collection and transfer activities." (SWMP, 1992, Appendix 4.2) Such a study has not been completed to date.

The NY State Environmental Quality Review Act has similar requirements in that any proposed action requires a study of existing conditions into which a new project or plan will be placed. The City, however, arbitrarily refused to study private sector commercial waste handling as part of the May 2000 Solid Waste Plan Modification and Environmental Impact Statement claiming that they were only modifying how they handle DOS-collected residential and institutional waste. Yet, the May plan makes it quite clear that existing and proposed private commercial facilities will receive City garbage for waste export.

In the absence of a desperately needed comprehensive study and plan to upgrade private waste handling, the City alludes to some sort of partial remedy when the May 2000 Plan states, "The proposed procurements may provide an economic incentive to the owners of existing truck based commercial waste transfer facilities to convert them into facilities that will include the ability to export waste by barge or rail." (Draft SWMP Modification, May 2000). Unfortunately the plan gives us few clues regarding the meaning of this statement. The City appears to be suggesting that commercial facilities that receive contracts for residential waste will be more financially able to upgrade to barge or rail transport out of the City. However, even if this occurs for the facilities which receive residential waste contracts, there will be no change in the other transfer stations. Nor will there be fundamental change in the physical plant, equipment or environmental conditions under which all of the facilities operate.

Continuing concern for inequities related to garbage handling exist in Greenpoint/Williamsburg, Brooklyn and in the South Bronx. The May 2000 plan could result in worsening of the situation in these two communities.

In Greenpoint/Williamsburg, the City suggests that it may contract with a private company to retrofit the Municipal Marine Transfer Station so it can containerize waste, or to build a new facility somewhere nearby. If the City MTS is put in private hands, the company can use it to process commercial as well as residential waste. The potential exists to create another huge commercial waste processing facility in an already overburdened community.

In the South Bronx, the May 2000 proposal may lend support to development of another highly problematic proposed facility. American Marine Rail, LLC has proposed a barge-to-rail facility in the South Bronx, to containerize approximately 5200 tons per day of commercial waste. It would be built on 5.5 acres of property which would include tracks for the railcars. The NYS Department of Environmental Conservation in an astounding decision determined that an environmental impact statement was not needed for this facility because there would be no potential for negative impacts.

There are several serious problems with this proposal. We will highlight three of them. First the size of the site is very small for such a large operation. Second, rail service has been extremely unreliable east of the Hudson. This situation has continued unabated despite the fact that NYC is choking on truck traffic which would be relieved by improved rail freight. Despite existing rail service problems, AMR claims that it will be able to ship out 5200 tons of waste per day. It was only through an administrative hearing that people learned that AMR would be allowed to hold waste for 48 hours and CSX, the rail company, for an additional indeterminate amount of time thereafter at its adjacent rail yards. This could lead to odor problems.

Perhaps more importantly there is no apparent need for this facility. It would supposedly receive commercial waste by barge, but no commercial waste is picked up by barge in New York. All of the Bronx's existing residential waste is currently being processed and exported by truck through a Republic facility. Waste Management operates another large commercial facility nearby, at the Harlem River Yards.

The May 2000 Draft SWMP suggests giving a long term export contract for disposal of Bronx waste to an existing or proposed facility, which would leave the possibility open for AMR to receive a City contract. The City has also stated in administrative hearings on the facility that it would allow commercial waste to flow through its Marine Transfer Stations and this is how AMR might receive commercial waste by barge. However, this would involve a substantial change in the operation of City facilities and would necessitate a modification of the Solid Waste Management Plan. Since the City refused to study commercial

waste handling in this draft modification of the Plan, a new modification to the Plan would need to be prepared.

CHAPTER IV

OWN/CPI SUSTAINABLE WASTE MANAGEMENT PLAN

The Organization of Waterfront Neighborhoods (OWN), a citywide coalition formed in 1996, seeks to address the problems posed by waste transfer stations and to promote equitable, environmentally and economically sound waste management alternatives. The Consumer Policy Institute (CPI) of Consumers Union undertakes research and education in the consumer interest.

CPI and OWN envision a sustainable waste management plan for New York City. The OWN/CPI plan incorporates several key components: maximal use of waste prevention and recycling — so as to minimize the need for export; use of existing Municipal Marine Transfer Stations (MTS's) to compact and containerize garbage prior to its export; fostering of community-based economic development and job creation; and the equitable siting, upgrading and sound operation of commercial waste transfer stations.

Our work builds on a democratic planning process that has gone on for at least twenty years. Many volunteers, elected officials, business and non-profit groups have worked on developing environmentally sound waste solutions. Thanks to their efforts, a host of unique and wonderful ideas and excellent recommendations are already before the public, contained in a whole series of documents, like *Recycle First*, the City Council plan, *Without Fresh Kills: A Blueprint for Solid Waste Management*, and the Borough plans, Brooklyn's *Ensuring the Closure of the Fresh Kills Landfill While Protecting Every Borough's Interest*, The Bronx Solid Waste Management Plan, Manhattan's *Goodbye, Fresh Kills! or How*

the City Can Stop Worrying and Learn to Reduce, Reuse and Recycle, Queens' Closure of the Fresh Kills Staten Island Landfill, and Solid Waste Management Plan for the Borough of Staten Island Municipal Waste. These ideas and recommendations reveal a surprising consistency. Waste reduction, recycling, composting and economic development are very strong recurring themes in the recommendations put forth by Borough Presidents, City Council, environmental organizations and experts.

Our plan builds on the intent of local and state laws, including the 1989 NYC Recycling Law; Local Law 40 of 1990 regulating transfer stations; and the 1988 NYS Solid Waste Management Act. Our plan utilizes and invests in the skills and expertise of New Yorkers; it develops community partnerships to conduct education and outreach, run reuse and recycling centers, composting operations and to monitor compliance to ensure responsible waste handling.

KEY ELEMENTS OF THE OWN/CPI PLAN

The OWN/CPI plan includes the following elements:

I. RETROFIT MUNICIPAL MARINE TRANSFER STATIONS: Modify City-owned waste transfer stations used to barge waste to Fresh Kills, and containerize waste for direct export of waste by barge-to-rail.

II. ACHIEVE ENVIRONMENTALLY SOUND AND EQUITABLE HANDLING OF COMMERCIAL WASTE

III. REDUCE, REUSE AND RECYCLE: Shift fundamental focus/goals from waste disposal and export to waste diversion and recycling. Comply with its Recycling Law; then achieve the 50% waste prevention and recycling goals in the State Solid Waste Management Act;

IV. FOSTER ECONOMIC DEVELOPMENT in re-manufacturing and secondary materials.

V. MANAGE FINAL DISPOSAL IN AN ENVIRONMENTALLY SOUND MANNER

Each of these elements is discussed below.

I. MUNICIPAL MARINE TRANSFER: RETROFIT CITY OWNED STATIONS FOR DIRECT EXPORT OF WASTE BY BARGE TO RAIL OR SHIP TERMINAL

The eight City-owned marine transfer stations hold great potential for handling garbage that cannot be prevented, reused or recycled. For decades, these stations have received truck loads of residential and institutional waste. This waste has been directly dumped into large, deep barges and taken to Fresh Kills on Staten Island, where huge cranes lift it onto trucks that transport it to active dumping locations.

We recommend modification of NYC's eight Marine Transfer Stations and sites so that they can compact the garbage and put it into containers, and building of a new recycling and processing station at the Fresh Kills site on Staten Island. Garbage containers would then be put on flat barges and shipped to rail or ship terminals for transport to a landfill. New car technology using sealed airtight containers rather than boxcars makes rail shipment of waste more acceptable. We recommend compacting and containerizing waste at the City's Marine Transfer Stations and barging it to rail terminals in New Jersey or Howland Hook on Staten Island in order to access the nation's railway system. Because there are problems of rail service east of the Hudson River, we recommend planning around a combination of barge and rail transport. We support the needed improvements to NYC's rail infrastructure that have been identified by the NYC Planning Department to include: improved cross harbor rail routes via tunnel or improved float bridge service, intermodal and distribution facilities east of the Hudson, removal of numerous height clearance restrictions around the region that would allow double stacked cars to be moved, and open access or track rights to avoid transfers where rail ownership changes. (Dept of City Planning, Oct. 1999 p. 13-26). However, it could take many years to address the needed rail improvements.

In contrast to commercial or private transfer stations, the municipal Marine Transfer Stations have operated for decades with only minimal complaints; these are usually associated with the closure of one station for repairs and the subsequent routing of more trucks to other stations. The eight MTS's are fairly well-designed and equitably located in every borough except Staten Island, which was on the receiving end of the City's garbage. Garbage can leave by barge rather than by more polluting trucks.

These marine stations have far more capacity than is currently being utilized. An existing system that is working well should be looked to for upgrading and modernizing for our export needs. Since under the interim contracts trucks are currently transporting most waste out of the city, several of the MTSs are now inactive. Thus modification or reconstruction could be easily undertaken.

Supporting the contention that modification of the MTSs is a sound idea are the following:

-- The Mayor's Fresh Kills Closure Task Force Report claimed in 1996 that "the system of marine transfer stations has existed for many years and represents an opportunity to avoid the need for siting additional transfer stations." (p. 93)

--The Mayor's December 1998 plan, *2001 and Beyond: A Proposed Plan for Replacing The Fresh Kills Landfill*, lists the many benefits of the existing Marine Transfer Station system as including well-situated locations, simplicity of operation, minimal environmental impacts, adaptability to emergency conditions, efficiency and cost-effectiveness, and environmental benefits of barge transport. The 1998 plan states, "The MTS System is critical to the future reliability and efficiency of the City's waste management operations. It is an essential element of the proposed new export infrastructure and provides important environmental benefits for City Residents."

-- City Comptroller Alan Hevesi has identified a way to redesign sanitation trucks to carry containers that could be directly loaded onto barges at the MTSs and floated to rail or shipping facilities. (Hevesi, 1999)

-- A major company, a division of Allied Industries, made a submission to DOS indicating that MTSs could be retrofitted for containerization with only minimal modifications.

The Administration frequently claimed that retrofitting was prevented by space limitations. However, a new mega-transfer station proposed for the Bronx plans to handle 5200 tons per day on a site only 5.5 acres in size. Seven out of eight MTS sites and adjacent city-owned properties are larger than this.

The City is hard pressed to explain why the municipally owned transfer sites cannot be reused. After years of insisting that they cannot be retrofitted to containerize garbage, the May, 2000 plan proposes doing exactly that at two locations: Southwest Brooklyn and Greenpoint. Each of the eight MTSs is permitted to handle 4,800 tons per day, far in excess of tonnage handled there recently—(600 to 2200 TPD before the interim export contracts were issued). Prior to the increase in tipping fees at Fresh Kills in the late 1980s, the MTSs were handling all city municipal and commercial waste—27,000 tons per day.

The Department of Sanitation's Ten Year Adopted Capital Plan totaled more than \$1.7 billion and included \$475 million for projects to rehabilitate its marine transfer stations. Serious reconsideration of these capital expenditures should be undertaken including a full analysis of how the funds might be better allocated to retrofit or rebuild the marine transfer stations for direct export of garbage. (DOS Final SWMP, 1996, p.5-27.)

We also recommend that the City continue to own and operate all the Marine Transfer Stations in order to be in a position to request competitive bidding on contracts for disposal, and to be in a position to modify the facilities for increased handling of recyclables.

II. ACHIEVE ENVIRONMENTALLY SOUND AND EQUITABLE HANDLING OF COMMERCIAL WASTE

Currently there is more commercial waste to dispose of every day in the City than residential waste — more than 11,000 tons per day. A great deal of this waste is paper from offices but it includes everything from restaurant garbage to construction debris. All of it is currently picked up by private companies. Much is processed at waste transfer stations in Brooklyn and the Bronx and then exported to out-of-state landfills. Assuring sustainable waste management for commercial waste will require a substantial upgrade in waste facilities, equitable redistribution, improved equipment and operations, and stringent enforcement. The "externalities" of the private system — the social and environmental costs of its current waste handling practices — must be internalized. Companies themselves must pay the real costs of their operations. The government must ensure that waste is handled in a safe and sanitary way, without excessively burdening any communities within NYC. City and state elected officials must make a commitment to rectify the currently unacceptable situation.

1. Complete a study of commercial waste generation and processing as required by solid waste planning regulations.

As part of preparation of the 1992 Solid Waste Management Plan, engineers at SCS, a consulting firm, attempted a survey of commercial transfer stations. "The survey was very unsuccessful, as shown from the poor responses obtained. . . . Due to the poor results of the survey efforts, SCS has not attempted to estimate the total waste quantity handled by the private carters. A separate study will be necessary to accurately quantify the private sector's collection and transfer activities." (SWMP, 1992, Appendix 4.2)

This separate study has never been done and as late as December of 1999 DOS officials indicated they do not have information on NYC's waste generation required by their own regulations. (Meeting between DOS, EPA, DEC, OWN representatives, and the Brooklyn BP's office Dec.1999). However, Chapter 20 of the 1992 Solid Waste Plan requires that the plan be updated every two years and "report environmental data from the monitoring of newly developed and existing waste management facilities." This information concerning the commercial waste stream has not been included in previous SWMP updates. In

other words, the commercial waste stream has been and continues to be inadequately studied, quantified and characterized for solid waste planning purposes.

These inadequacies in meeting solid waste planning requirements are mirrored in addressing environmental review requirements. Environmental review should begin with an understanding of baseline or existing conditions for any new plans or project. Since the City's export plans call for new private facilities in some of the same communities hosting many other commercial waste facilities, it is essential that commercial waste handling be part of any environmental review.

It is critically important to have better monitoring and accountability for how commercial waste is handled in NYC.

2. Address the special problems posed by Manhattan's commercial waste

Based on estimates of commercial mixed waste generation for the 1992 SWMP, Manhattan contributes the lion's share of commercial mixed waste (Final SWMP, 1992). As Manhattan has little available land, its huge volumes of largely unsorted commercial waste are carted by truck to Brooklyn and the Bronx for processing, putting an inequitable burden on communities in these boroughs.

As the largest contributor to the commercial waste stream, Manhattan requires more detailed and possibly different planning considerations from the other boroughs. The City has thus far adopted a "head in the sand" approach toward this problem, satisfying no one and angering many.

We recommend that, in order to reduce the amount of unprocessed mixed waste going to other boroughs and to reduce polluting truck traffic within and between the boroughs, NYC develop a more extensive prevention and recycling plan for commercial waste in Manhattan. The plan should consider initiatives to:

- expand technical assistance to help businesses cut down on the volume of waste they generate and reduce their own waste hauling bills;
- enforce source separation requirements for generators *and* haulers. Require haulers to bill at a lower rate for recyclable materials and to inform their customers about this option, and not mix separated waste. As source separated materials are cleaner and require less processing, some could be treated in Manhattan, rather than trucked to Brooklyn and the Bronx.

- try out separate "green bin" collections for biodegradable waste, with the goal of keeping all recyclable materials cleaner and reducing the burden of "smelly" putrescible waste on neighborhoods outside of Manhattan.
- require businesses that are moving and remodeling to reuse or recycle furnishings and construction material.
- divert commercial paper through Manhattan's 59th Street MTS during the hours of 3PM- Midnight, when this MTS is not being used for municipal waste. Currently, municipal waste paper goes from 59th Street MTS by barge to Visy Paper on Staten Island, where it is remanufactured. Making this option available to the commercial sector would reduce truck traffic.
- put out competitive bids for commercial collection routes, so that multiple trucks are not travelling the same streets. Currently single establishments hire their own carters, leaving many trucks covering the same streets. This change also provides an opportunity for better monitoring and enforcement of the service.

3. Take actions to address problems of commercial waste transfer stations.

We recommend the following specific steps:

- Determine the total amount of waste being generated within NYC, including commercial waste, and any waste that may be coming from outside the City.
- Cap the total amount of waste that may be handled in any community district and require a certificate of need process through City Council for all proposed new waste facilities or expansions.
- Place a temporary moratorium on all permits for new transfer stations or expansions in Community Boards 1 and 6 in Brooklyn, Community Boards 1 and 2 in the Bronx and Community Board 12 in SE Queens until stringent siting and operational standards are implemented and enforced. Keep this moratorium in place until NYC or NYS law initiates a process bringing mandatory reforms to the existing commercial waste system. Siting regulations issued by DOS in 1999 did not meet the intent of Local Law 40.
- Set stringent physical and operational standards for all waste and recycling facilities. This will help ensure that NYC does not become a magnet for solid waste transfer stations. The waste industry will be forced to internalize social and environmental costs instead of shifting this burden onto the public.

- Close down facilities that due to physical constraints cannot properly handle waste.
- Consider combining the commercial and residential waste streams for management at municipally owned transfer stations, *but only* if it provides relief for those communities overburdened with waste facilities, and not if it increases waste processing capacity within a Community Board, or environmental impacts.
- Require existing facilities with access to rail or water transport to use these over truck transport.
- Require scheduled phase-in over ten years of alternative, less polluting fuels for all commercial and municipal garbage trucks.
- Prohibit economic development assistance or incentives for waste handling facilities, with the exception of recycling or composting plants that have incorporated community and environmental protection in their planning.
- Undertake a complete citywide environmental review of existing land use and zoning practices in order to determine the means to adequately protect public health and the environment.
- Enforce all existing rules and regulations and institute video surveillance of all waste handling facilities. Urban waste facilities situated next to schools and houses should be held to more stringent standards and more enforcement.
- Put more democracy in the system through borough-based management, increased community participation in decision-making on siting facilities, in recycling programs, and in oversight of DOS and the private sector.
- Require community mitigation/benefit packages to be allocated in proportion to waste handling capacity. Community benefit packages should be funded at a level of \$2/ton for all waste and recyclable handling facilities, to provide independent oversight and watchdog activities, as well as positive community benefits. Thus the \$2/ton mitigation fee would be internalized to the cost of doing business.
- Assemble and properly fund a package of municipal services for all industrially zoned areas. While bringing tax base to the City, these areas do not receive tax benefits in the form of an appropriate level of city services for the operations they house. Additional sewer cleaning, street maintenance and

paving, and environmental protection services are some of the services that must be focused on the industrially zoned areas of the City.

III. REDUCE, REUSE AND RECYCLE: Shift fundamental focus/goals from waste disposal and export to waste diversion and economic development.

The City must fundamentally shift the emphasis of its waste management system from disposal to diversion. **Waste Diversion** refers to removing as many elements as possible from the waste stream so that what must be disposed of is reduced to a minimum. In our plan, export would be undertaken last after a number of diversion programs have whittled away at the waste stream. The City's own Solid Waste Management Plan in 1992 offered one option, known as System B, which provided for 52.7 percent of the NYC waste stream to be prevented, recycled or composted.

We recommend, first of all, that New York City comply with its own comprehensive Recycling Law of 1989, which called for 25 percent recycling by 1994. In particular, the City should immediately implement this comprehensive law's mandate to produce a recycling plan with annual updates; a plan for waste reduction; a five year strategy for collecting, processing and marketing recyclables; and a comparison of the costs of recycling with the costs of other disposal and waste management strategies, including export.

Second, New York City should comply immediately with the goals of the State Solid Waste Management Act of 1988 to achieve 10 percent waste reduction and 40 percent recycling by 1997. The Act required municipalities to conduct comprehensive solid waste management planning and to adopt source separation rules for all recyclables, where economic markets exist.

There are really four kinds of waste diversion:

Waste Prevention/Reduction refers to waste not created in the first place. Prevention efforts, such as better packaging of consumer goods, automatically reduce waste materials for collection (the most expensive part of the system), transport and disposal. It should be given top priority.

Reuse involves reusing goods and materials as they are with minimal modification, *i.e.*, cleaning, refurbishing or repair -- and without remanufacturing and/or turning them into something else. An item to be reused is transferred to a household or institution that wants it from one where it is no longer wanted.

Recycling involves using waste as raw material, significantly modifying it or re-manufacturing it for new uses. It is more expensive, complex and environmentally stressful than prevention or reuse. Both reuse and recycling foster economic development by retrieving from the waste stream valuable materials that can be used again. Fifteen percent of the nation's waste stream consists of durable equipment -- appliances, furniture -- that is either reusable or recyclable. (EPA, Characterization of MSW: 1998 update, 1999)

Composting is actually a form of recycling because it returns organic materials, like food and yard waste, back into valuable soil components. Despite being the earth's oldest form of recycling, having occurred for millions of years without human intervention, composting is unfortunately too often not included in recycling considerations. However, cities and states across the country that have reached the maximum recycling rates with traditional materials are now reaching new higher goals simply by turning their attention to organic material.

In our plan, export would move to last place, after a number of diversion programs have whittled away at the waste stream. One goal is to achieve maximum diversion from export and disposal; the other goal is to maximize economic development opportunities and generate revenue. We would aim to market a greater percentage of material and receive higher prices, including from high quality compost. We recommend rewarding innovative personnel skilled at analyzing the waste stream and coming up with new strategies for diverting and marketing waste materials and attracting remanufacturing industries.

The Natural Resources Defense Council contracted with Zogby International in 1977 to assess New Yorkers support for recycling. When asked, "Do you support or oppose expanded recycling efforts in New York City?" more than 81.9% supported expansion. Extending across party lines, equal percentages of Republicans, Democrats and Independents supported it. While the young and women were more likely to support recycling, support was fairly consistent across racial lines—with the strongest support from African Americans at 83.3%. (NRDC, Waste Watch Report, 1997).

In the near future, NYC's current recycling rate should jump from 20 percent to the 40 - 50 percent being achieved by a number of U.S. cities.

A. The City should focus on the following key steps to maximize waste prevention, reuse and recycling:

1. Target more materials for reuse and recycling

When most people think of recycling, they tend to think of a particular subset of materials, like paper and metal, glass and plastic containers, but not food and yard waste, furniture, lumber, and textiles. One consequence of this thinking is that recycling rates seem to plateau and members of the public are told repeatedly that greater waste diversion cannot be achieved. The truth is that most recycling programs don't target enough material, making it impossible to reach higher goals. In our view, the entire waste stream should be targeted for diversion efforts.

Targeting more materials can significantly boost the overall recycling numbers. Simple math tells us the story. If we target 35% of the waste stream and 90% of the population recycles successfully 85% of the time, meaning that they get the right materials into the recycling bin, then we will achieve close to a 27% diversion rate ($.35 \times .90 \times .85 = 26.78\%$). On the other hand, if we target 80% of the waste stream, with a similar participation and success rate, we can achieve a 61% diversion rate ($.80 \times .90 \times .85 = 61\%$). Municipalities across the U.S. are breathing new life into their programs and increasing recycling rates, especially by targeting organic materials.

In NYC, there is significant potential for increasing waste diversion, especially in two areas -- organic waste and durable goods, which total 38% of the waste stream. Organic waste, which consists of food, yard and any other biodegradable materials, represents approximately 20% of the waste stream; yet little of it is diverted. Efforts have amounted only to limited collections of discarded Christmas trees in January and leaf collection in some districts in the fall. San Francisco found that 26% of their waste stream consisted of food waste and only 5% was yard waste. This led to the decision to add organics to their recycling program. They now have three collection bins -- one for trash, one for recyclables and one for organics. (Macy, p. 51). Separating organics from the rest of the waste stream provides an assortment of benefits. The organics are the wet, smelly portion of the waste stream, as well as the portion which attracts vermin: separating out this material from the rest means that there will be a smaller overall quantity of smelly waste material to handle, and it could be stored in well designed bins with locking covers. In contrast to piles of plastic bags attracting rodents on collection days, we would have a more sanitary system.

Fifteen percent of the nation's waste stream consists of durable bulk goods -- appliances, bicycles, furniture, etc., that are either reusable or recyclable. With no community-based reuse centers in NYC, most of this material is put out to the curb and ends up in the trash. Metal items are collected for recycling in the bulk metal program. Textiles represent another 3% of the waste stream. Although non-profit organizations, such as the Salvation Army, do clothing pick-ups in

certain areas, large sections of the City have no collection services for this material.

2. Require everyone to participate

Recycling rates in NYC, which were according to the Department of Sanitation around 20% in December of 1999, are in fact amazing, given the large categories with poor participation. Multifamily buildings, municipal agencies and many institutions that receive free collection have not effectively been brought into the program. Our plan would expand education and outreach, and enforce participation requirements.

City agencies and institutions should each be required to have waste audits and the budget would show the cost of collecting waste for each individually. Those making immediate and significant progress by preparing and implementing a waste diversion plan should not be charged for waste services. Those failing to do so should be charged within two years for their trash or mixed waste pick ups only, not for their recyclables.

3. Increase opportunities for prevention, reuse and recycling.

This involves reorienting the system so that it provides more opportunities for people to divert waste and fewer opportunities for materials to become trash.

a. Prevention: We recommend that the City take measures to increase prevention efforts in its own agencies and do education and outreach to promote waste prevention measures in households, institutions and businesses.

In 1996, the Mayor issued a Mayoral Directive on Waste Prevention for City Agencies in 1996 saying, "Conservation of City agency supplies and inventory, reduction and reuse of packaging waste, and other proactive measures that prevent waste can dramatically reduce purchasing, operating and waste management costs for the City. Waste Prevention is the most fiscally prudent, socially responsible, and environmentally sound strategy for managing the City's trash." Since then however, the program appears stalled. There have been no progress reports from the Mayor's office. If agency coordinators have been identified, that information has not been made available. A key consultant report with a prime focus on waste prevention in City agencies was prepared but has not been released by the Department of Sanitation. The lack of action in preventing City agency waste is particularly disturbing, not just because of the waste collection and disposal savings, but because of the huge savings that can be found on the purchasing side. Ignoring the potential for savings is simply not fiscally prudent.

The City needs to commit to a prevention program, as well as to encourage the private sector to take similar measures. For the commercial waste stream, the City should enter into partnerships with companies, promoting waste prevention through waste audits. When businesses learn they can realize significant savings by preventing waste, many will be anxious to obtain a waste audit. Waste prevention benefits are so extraordinary that for a small investment in waste audits, companies can save money over and above any costs in the first year.

Just two of many waste prevention examples for the business sector outside New York City: Baxter Health Care Corporation eliminated 6.5% or 11.6 million pounds of packaging, cutting costs in excess of \$5.9 million. Keebler Company has reduced packaging by 12.7 million pounds and saved \$2.6 million. (FK Task Force report, p. 48-49).

The strategies and educational materials are different for households. People can and do alter their habits when provided the information about what and how to do so. More education and outreach is needed. If people know that leaving grass clippings on the lawn or around their shrubs will fertilize the soil and improve its ability to hold water under drought conditions, most will want to reuse grass clippings.

b. Reuse: Opportunities for reuse must be expanded. We recommend expanding reuse opportunities by siting several centers throughout the City. These "flea markets" would sell goods, like furniture and appliances, unwanted by certain households but still having useful life. Materials for the Arts, a high visibility reuse program supported by City funds, has been very successful. Donations provide materials to art programs in the City and it will be soon providing services to schools in the City. However, it is only a "drop in the bucket" of what is possible in the reuse arena. In a Florida program textile recycling was given a boost through a partnership with local newspapers to distribute plastic bags with information about where textiles could be donated. This resulted in a 300% increase in donations to nineteen non-profits. (*Biocycle*, May 1997, p.22) Reuse centers should be part of a comprehensive package of City waste services.

Currently, bulk furniture, baby carriages, and a host of repairable items are regularly compacted for disposal by Department of Sanitation trucks. The collection system must accommodate a means of preserving quality durable goods, so that they can be reused.

c. Recycling: Recycling should be made easy for people moving around NYC. All public places and spaces—parks, agency buildings, transit facilities—should

have bins for recyclable materials and prominent messages about how to recycle. DOS has not implemented this program, despite committing to do so in the Fresh Kills Task Force report. In Toronto, a company was awarded a 10-year contract to provide, install and maintain recycling bins around the city for \$8.7 million. Since Toronto will receive a portion of the advertising revenues, the City expects to receive a profit over the extra costs of collecting recyclables. (Truini, *Waste News*, August, 16,1999).

We recommend that DOS direct all municipal agencies and institutions to analyze their waste and make the appropriate collection adjustments. Although most of them generate trash containing 80% recyclable material, trash collections still dwarf recycling collections.

We also recommend that DOS inspect all truckloads arriving for disposal at Transfer Stations to identify recyclable material, divert loads that contain 50 percent recyclable materials, and issue penalties to those who mix recyclables with garbage. Some NYC agencies bring their own garbage directly to the Transfer Stations without using DOS trucks. OWN members touring the Municipal Transfer Stations (MTS's) saw truckloads of cardboard and furniture, which should be reused or recycled, coming from NYC Housing Authority, and loads of recyclable dirt and rock, fill material, in DOS trucks. Now these same loads are being exported at a cost to the City of close to \$70 per ton under interim contracts.

B. Funding: The City Should Increase Investment in Waste Prevention, Reuse and Recycling

1. Build needed recycling infrastructure

NYC now has almost none of its own recycling infrastructure despite clear mandates in Local Law 19, the City Recycling Law, and commitments in previous solid waste plans. In the absence of a recycling infrastructure the City is operating only the most expensive part of an integrated recycling system—collection. By building its own infrastructure the City can realize revenues from the more profitable processing and marketing components of the system.

Borough plans have identified a number of capital budget priorities for recycling that we would also recommend. These include establishing facilities for sorting different kinds of recyclables, centers where bulk materials can be collected for repair and reuse, on-site small scale composting equipment for institutions, and a capital fund for equipment, like dishwashers in school cafeterias, to cut down on disposable trays and dishes.

The City should make some of its investments in homes -- for backyard composting bins and recycling pails. These kinds of investments are analogous to the City program to install low-flush toilets in order to reduce water use. This program successfully avoided having to spend billions on new sewage treatment facilities.

In previous waste management plans, the City proposed and even committed to a number of recycling projects. For example, the 1992 Solid Waste Management Plan (SWMP) indicated that publicly owned "material recovery facilities" would cost less than contracting out for recycling services with private firms. Yet, the City ignored or abandoned plans for these facilities-or contracted them out:

- FY 1993 plans to site material recovery facilities in Brooklyn, Queens, Manhattan, and the Bronx were cancelled. A plan to start construction on a materials recovery facility in Staten Island was cancelled. Instead, the City issued contracts to private transfer stations to process recyclables.
- A plan in FY 93 and 94 to site a buy-back center in each borough was cancelled.
- FY 96 Requests for Proposals for two composting facilities were also cancelled. (NYC DOS Comprehensive Solid Waste Management Plan Compliance Report, March 1,1995.)
- An Intermediate Processing Center, a material recovery facility, at 128 Street in East Harlem, has been vacant and unused since 1994. The City still owns the site, but has not invested in capital improvements.

The current Administration is now embarking on an export program estimated to cost \$6 billion over twenty years. We recommend that the City invest some of this money in building a recycling/reuse infrastructure. Without capital funding and a long term program to build such an infrastructure, recycling will continue to be subject to the budget whims of various Mayoral administrations, and taxpayers will pay the more expensive export bill because there will be no available alternatives.

2. Provide adequate annual funding to waste diversion programs.

NYC needs to make a long-term commitment to prevention and recycling programs by dedicating a percentage of the annual Sanitation Department expense budget to them. For the next five years at least, the City should fund waste diversion at 50% of the Sanitation waste collection and export budget, with 10% devoted to prevention and 40% to reuse, recycling and composting. In particular, the City should immediately invest in waste prevention and keep the

funding at a constant level from year to year. Spending on waste prevention is more equivalent to saving rather than spending; money spent in one year to implement a program will continue saving the city money year after year. By reducing both trash and recyclables generated, waste prevention will reduce collection costs.

Waste prevention should be the first priority, as the program with the most potential savings. The 1992 NYC Solid Waste Management Plan, prepared by DOS, estimated that the City could spend as much as \$71 per ton on waste prevention and still save money over the costs of collection and disposal. Over a 20-year period, the City could save \$710 million and prevent almost 10 million tons of waste. However, the FY 1997 budget allocated less than \$3 million for waste prevention – 0.5% of the DOS budget. All DOS budgets since the 1992 finding have devoted very little funding to the program.

Waste prevention audits conducted for business and government agencies have often found that savings in purchasing far exceed the savings for waste hauling/and disposal. As a consequence, City agencies, the Board of Education, and others could realize considerable savings by changing their purchasing habits. This involves analyzing what they are purchasing, what is in the waste stream, identifying what they do not need to be buying, and making purchases with waste prevention in mind. These savings can help support additional waste prevention activities.

As a new, add-on program, ancillary to the main function of the Sanitation Department, recycling has been at a disadvantage and more subject to the budget axe than other areas. DOS cuts the program back during budget cuts and expands it again when new money is added. As a result, NYC has had in effect a long-term program operating continuously in the start-up mode --always the most expensive part of any recycling program. This hinders the development of good program initiatives and causes some of the most talented and innovative staff to leave for better jobs.

In fact, as a fledgling program viewed as more expendable than core sanitation services, the recycling budget has taken heavier hits each year than any other part of the Sanitation budget. In FY 1996, budget constraints caused DOS to suspend leaf and yard waste collection, although collecting this material for composting could result in significant savings. A 1992 Regional Plan Association study estimated a \$32 per ton processing cost for composting compared with an export cost of between \$60 to \$70 per ton. (RPA, 1992)

Budget cuts put recycling on an every-other-week basis for most of the City, until the City Council restored funding for weekly recycling in 1999. But the Mayor

threatened to impound the already allocated funds. Finally in November 1999, both sides reached agreement to restore the weekly program. Since then recycling rates have improved dramatically. The recycling program in December of 1999 showed an overall recycling rate of 21.2%. As a result of introducing weekly recycling, the diversion rate was up 13.4% over the previous December. And nine community districts citywide had a diversion rate of over 30%. This illustrates clearly the value of a consistent and reliable recycling collection program. At the time of the December 1999 report most of the Bronx was still on alternate week collection and this likely contributes to the borough's overall lower diversion rate of only 16.6%.

3. Make recycling collections more efficient

We recommend using the standardized US EPA methodology for full cost accounting, so that NYC's waste management system can be compared to other cities and states. We also urge the City to include the total package -- all components of waste prevention and recycling -- in its cost analysis and comparison with the waste export program promoted by the Mayor. Past DOS analyses have distorted total recycling costs by analyzing only the more expensive aspects of recycling, like curbside collection. We are convinced on the basis of reliable evidence that the City will find the waste prevention and recycling more cost effective than the Mayor's plan -- particularly if the City's current recycling program is both expanded and made more efficient.

We would take a number of steps to make the collection system for recyclables more efficient:

a. Substitute recycling collections for trash collections to the greatest extent possible.

The current system has more trash than recycling collections per week despite the fact that the City has targeted 50% of waste materials as potentially recyclable. As a result, recyclables end up in the trash because people living in a dense urban area often do not have enough space to store them.

b. Analyze and expand containerized recycling collections -- those involving use of a dumpster. The 1992 DOS SWMP identified containerized collections as costing half the amount of curbside collections; however, the city has put no effort into expanding the number of containerized locations; for example, there are 900 institutional locations in Manhattan, but only 50 containerized sites with the rest being curbside. Containerized recycling tonnages represent only 4% of total recycling tonnages. Containerized recycling collections and increased frequency of pickup will address problems at schools and other institutions that generate large quantities of recyclables that the current collection system cannot accommodate.

c. *Increase the number of two-bin truck collections, which can collect different kinds of recyclables at the same time.* The current system runs two recycling trucks on the same route -- one for paper, and one for metal, glass, and plastic. A third truck picks up mixed trash. DOS pilots of two-bin recycling trucks, with one bin for paper and the other for metal, glass and plastic, showed a 28% increase in worker productivity (which is roughly equivalent to cost effectiveness). DOS should consider reducing the amount of compaction of metal, glass and plastic done in the truck, as other cities have done, to have a more marketable product.

d. *Add separate collections for organic materials.* Adding a service in order to be cost-effective may seem counterintuitive. However, yard waste composting costs only \$32 per ton, while export for disposal costs approximately \$70 per ton; therefore, immediately adding weekly collections for yard waste for eight months a year in Queens, Staten Island, Brooklyn, and most of the Bronx could save money. High grade compost could be sold – or the City could use it in its own landscaping applications. Yard waste collections can also give DOS a better handle on how much of this material is in the waste stream, hidden in black bags. The City could offer regularly scheduled woodchipping and shredding operations for bulky yard waste that is not easily composted without being reduced in size. Some people could choose just to drop off this material, while others might want also to bring home wood chips to use as mulch. Food waste and yard waste collections with dedicated “Green Bins” should be piloted in some community districts. Halifax, Nova Scotia has experienced success with this program. (Goldstein, *Biocycle*, April, 1999,p.38)

e. *Institute community-based monitoring to report on where deficiencies lie in public participation, to assist in distributing educational materials, and to report problems to DOS collection or enforcement program.*

We support restoring waste prevention/recycling community coordinators to each community district to develop programs most appropriate for each community district.

4. Investing in recycling is fiscally sound

In spite of its up front costs, we predict that investing in recycling will be far more cost effective than relying on disposal and export. Several studies and analyses support this view.

The Regional Plan Association, a tri-state body covering 31 counties in New York, New Jersey and Connecticut, conducted a study in 1992. A major finding of the study, which modeled a 25 year period, from 1990 to 2015, was that as recycling and composting programs are implemented across the region, overall

solid waste management costs decline significantly and are no more expensive than programs relying exclusively on landfilling and incineration. The study also found that the cost per ton of recycling and composting facilities was significantly less, so that as more tons move from landfills and export to recycling and composting, facility costs decline (RPA, 1992).

The study also found that if waste prevention or reduction goals were not met, the Tri-State region would be paying almost \$190 million more per year for solid waste management. This would amount to a total of \$4.24 billion dollars over 15 years, \$1.3 billion for NYC alone. Waste prevention goals were 10% for New York, 26% for New Jersey, and 22% for Connecticut. On the revenue side, market development activities for secondary materials (recyclables) were predicted to generate \$3 billion dollars over the same 15-year period. (RPA, 1992)

A recent study of municipal recycling performance in 158 cities compared recycling costs to solid waste collection and disposal costs and found that "the cost per ton declined as city size and the number of tons recycled increased." (Folz, 1999, p. 343) Such economy of scale clearly benefits NYC recycling programs.

"The data indicate that a persuasive economic case can be made that the investments communities made in their recycling programs were prudent ones compared to the costs they incurred for collecting and disposing of solid wastes either by landfilling or incineration." (Folz, 1999, p.343) Greater participation and greater quantities of recyclables collected led to lower overall recycling costs, with the mean net cost per ton for recycling \$85, compared to \$131 for waste collection and disposal. Moreover, "even if revenue from material sales was excluded from this cost analysis, recycling still costs less, on average, than traditional means of handling solid wastes for all cities except those in the smallest population group," (under 10,000 pop.) (Folz, 1999, p.343).

The dramatic average 36% increase in participation rates in the study over a seven-year period, from 1989-1996, points to the likelihood that NYC's program, if consistently maintained, could experience such increases and resultant economic efficiencies.

The study makes clear the importance of consistent and reliable performance information as a good defense against critics, who claim that recycling should somehow pay for itself. Rather, recycling is cheaper, and much more acceptable to the public, than landfills or incinerators. Recycling offers the potential for a municipality to be paid for some commodities it produces, whereas mixed garbage cannot be sold--a municipality must pay someone to take it away.

C. Restructure administration of the waste system.

In changing its waste management goals from disposal to diversion the Department of Sanitation needs to restructure its administration in some key ways:

1. Institute new high level positions to promote waste prevention and recycling.

The Department of Sanitation currently has five Deputy Commissioners—for Administration, Legal Affairs, Public Affairs, Support Operations and Solid Waste Management. We recommend a reorganization to provide for three new Deputy Commissioners for 1) Waste Prevention & Procurement, 2) Recycling & Composting, 3) Public Education, Outreach & Enforcement. The Waste Prevention and Procurement Deputy Commissioner would be charged with a major interagency responsibility to implement waste prevention in all City agencies and to reform procurement (purchasing) policies for the City, currently out of compliance with the Recycling Law and federal requirements. All recycling and composting collection, processing and marketing would be the responsibility of the second new Deputy Commissioner. Public Education, Outreach and Enforcement would be the charge of the third new Deputy Commissioner, who could improve education and outreach and build a strong, but different enforcement program, designed to teach, promote and require recycling compliance.

Budget allocations would be clearly allocated to each of the Deputy Commissioners' program areas so that what gets spent on waste prevention or education would be known to the public and thus more transparent accountable. This would stand in contrast to the current situation where recycling budget items lie buried within much larger budget categories.

2. Establish borough-based management for all existing diversion programs and for new areas for waste audits, research, waste prevention, recycling, composting, and public education.

We recommend that the Sanitation Department assign to each borough Assistant Commissioners, who would work with Borough Presidents, and Solid Waste Advisory Boards to implement waste diversion priorities developed in the borough itself. Borough Presidents would be allocated staff and authority to assist in the implementation of various programs. It is key to open access and information flow between DOS and these borough working groups.

Borough-based management of recycling and related diversion programs has many advantages. First of all, it would help break down the immense problem of instituting programs for all of NYC from one central office and would instead focus on ensuring the success of individual programs in smaller communities. Borough-based management can capitalize on existing expertise within a given borough to devise programs that are uniquely suited to that borough or a particular community within it, as well as programs that may be replicated elsewhere. It is also easier for people based in a community to identify suitable sites for reuse and recycling and composting facilities. Decentralized local solutions are also far more likely to be welcomed by community residents.

Information is essential to the success of borough based management of these programs. The Assistant Commissioner for each borough would provide relevant information, about topics ranging from collection routes to expense budget allocations, to the borough working groups so they can make informed decisions about programs.

D. Create partnerships with community-based non-profit organizations to achieve diversion objectives and fund worthwhile projects.

We recommend building partnerships between the City and community-based organizations. The City can capitalize on the natural enthusiasm that exists for recycling to help accomplish its objectives. Community-based organizations can play a valuable role in outreach and education, in being the "eyes and ears" of the community, and, in operating reuse and repair centers. DOS could, for example engage local youth groups in recycling outreach and education with residents in multifamily buildings. DOS can also get community groups to monitor for various kinds of implementation problems, which can then be addressed.

Moreover, successful projects in other parts of the country can serve as models for community-based diversion efforts here in NYC. For example, non-profit organizations in other cities run reuse and repair centers, providing an alternative source of goods like furniture, appliances, and bicycles to low-income communities. Deconstruction projects (carefully taking apart a building) retrieve construction materials for reuse and recycling and save on disposal costs.

Some examples are illustrative of the types of programs we envision for community-based economic development. In Hennepin County, Minnesota, a neighborhood, targeted for a transfer station, fought off the proposal and their efforts evolved into a non-profit deconstruction and reuse effort. The "Green Institute" aims to create jobs with livable wages and run reuse and deconstruction projects on a long term basis. The Minnesota Office of Environmental Assistance provided seed money for the effort. Job training is a

key part of the program. Within three years they paid off the initial cost of the Reuse Center and are building an Eco-Enterprise Center for environmental businesses, which is energy efficient and incorporates reused and recycled materials in construction (Greczyn, *Waste News*, Oct. 12, 1998 p. 15).

The Cuyahoga County Solid Waste District in Ohio provided a start up grant to St. Vincent de Paul of \$125,000 to reduce the flow of reusable appliances going to the landfill. Employees were trained to repair these appliances and the county helped by collecting and delivering appliances. The biggest challenge they experienced was working with the waste companies who wanted to take the appliances and just sell them for scrap metal (Clancy, *Waste News*, June 14, 1999 p. 17).

Massachusetts is working with Goodwill and the Salvation Army to collect and recycle TVs and computer monitors after a landfill ban (Peltier, *Waste News*, Jan. 31, 2000).

Federal agencies have been actively supporting deconstruction and reuse projects while partnering with community organizations. These projects have also proven to be cost-effective, and because they are labor intensive, they contribute to job development. Deconstruction activities, largely small operations, have increased since 1990 but there are still only a few of them. Beyond Waste, in Santa Rosa Calif, managed to beat a demolition bid for an Army base in San Francisco, by \$12,000 and with the money earned from the job bought milling and molding equipment to process the wood they recovered into flooring. (JMG, *Biocycle*, June 1999, p. 31).

In Massachusetts, the Chelsea Center sponsors a grant program to help communities explore ways of expanding their economic base while dealing with materials in the waste stream. It wants to bring communities together with recyclers, local businesses, and economic developers. (Gray, *Biocycle*, June 1999, p. 38-39).

The Sustainable Jobs Fund is a \$17 million community development fund with a focus on low income areas in the Eastern US and on building recycling, reuse and remanufacturing businesses and jobs. Banks are interested in funding this initiative partly because of the Community Reinvestment Act. (*Waste News*, May 8, 2000, p.6)

IV. FOSTER SUSTAINABLE ECONOMIC DEVELOPMENT IN REMANUFACTURING AND SECONDARY MATERIALS

A. Realizing the Potential for Economic Development

Although New York City ordinarily values economic development opportunities quite highly, it has not yet appreciated and adequately developed the potential in the current waste stream. It currently has one excellent example of how its waste can create new industrial jobs in NYC. The City receives \$10, as well as other job and tax benefits, for each ton of mixed waste paper it delivers to Visy Paper on Staten Island. Visy Paper operates the largest manufacturing operation constructed in the City in the last 50 years. It employs 115 workers and recycles mixed waste paper—received by barge from the City's 59th Street MTS—into new liner board. This mill currently processes more than 100,000 tons of waste paper a year—about 50% of all the paper the Department collects. Under the current contract Visy will receive as much as 150,000 tons per year. (Draft SWMP, 1998).

In 1996, the Mayor's *Fresh Kills Task Force Report* asserted: "Seizing economic development opportunities requires actions that will capture the value-added benefits that come from transforming materials into usable industrial feedstock and semi-finished and finished goods. New York City currently hosts 154 recycling based businesses. These are companies primarily involved in the collection and initial processing of materials—the lower end of the value-adding scale. These companies along with DOS's recycling program, form the foundation on which a scrap-based manufacturing industry may be built." (*Fresh Kills Task Force Report*, p. 68.)

Remanufacturing involves recovering used products, disassembling and reprocessing into reconditioned products as well as recovery of the raw materials to manufacture a new and different product. The remanufacturing industry in the United States currently includes an estimated 73,000 firms with annual sales of \$53 billion and directly employs 480,000 people (*Lund*, Jan.1996).

Remanufacturing helps close the loop by making consumer goods out of the material recovered in recycling programs. "With potential benefits to the environment, economy and society—the three pillars of sustainability—remanufacturing has emerged as a promising vehicle for moving both industries and communities toward sustainability." (Tellus Institute, July 1999). "New York City needs these jobs," according to Public Advocate Mark Green. Employment in the local industrial sector in NYC dropped by 29% from 1989 to 1995, a loss of 92,100 manufacturing jobs. (Green, 1996, p.11)

The Institute for Local Self Reliance (ILSR) "estimates that a city of one million people recycling at a 25% rate could sustain 90 manufacturing operations that would employ 5,940 individuals and generate about \$2.261 billion in gross

annual revenues. At a 25 % recovery rate, New York City could sustain a scrap-based manufacturing sector of roughly three times the one estimated by ILSR. . . . Currently the city is at approximately 10% of its capacity to host scrap-based manufacturing operations." (FK Task Force Report, p. 71)

New York State has been more proactive than the City. Over the past few years, it has made a considerable investment in recycling programs through the Empire State Development Agency's Environmental Management Investment Group (EMIG), formerly known as Office for Recycled Market Development (ORMD). Since its inception in 1994, the Recycling Investment Program has committed \$23.7 million to recycling projects, and New York State's recycling rate has almost tripled, from 15% to nearly 40%. According to Linda Jacobs of EMIG, these projects have or will create 1,075,440 tons per year of new recycling capacity, create or retain 1,798 jobs and provide \$32.8 million annually to 2,269 NY businesses in the form of solid waste management savings or revenue from the sale of recycled products. (Letter, from Linda Jacobs at EMIG, Aug 3, 1999)

EMIG has invested in a number of projects in NYC. These include: funding for processing approximately 100,000 tons per year of mixed glass cullet; three tire reclamation and recycling manufacturers; manufacturing of solid surfaces using recycled glass; a waste prevention project for universities; assistance to businesses to reduce their waste generation; several composting projects, a business materials exchange, several research and development projects, a carpet and rug recycling facility, and assistance to two paper mills, one in operation and one in development.

Markets for recycled materials extend beyond the borders of NYC to include New York State and the entire metropolitan region. The value of the material and the cost of transportation will determine the maximum distance for economically marketing the materials.

Much more could be done to attract manufacturers that use recycled materials and to assist small businesses in this field. Unlike Visy Paper, many remanufacturing businesses are small, some with great ideas that need to be tried on a small scale first. In order to effect the change we must change economic development assistance so that it assists small businesses. A dedicated, large funding package with personnel trained in attracting remanufacturing industries and providing technical and financial assistance is essential. An assortment of financial aids from outright grants to low-interest loans should be available. At home, a mission and a person in charge with a vision can help ensure the success of the program—that good remanufacturing businesses locate and grow here.

B. Foster Community-Directed Economic Development

We believe that the City should offer economic opportunities in recycling to communities currently bearing the brunt of NYC's solid waste problems -- including an overabundance of private transfer stations and other poorly sited, poorly operated, noisy and polluting waste processing facilities. We urge the government to work with businesses and community members to create new economic and job opportunities through environmentally sustainable recycling projects.

Communities should be intimately involved in directing and collaborating with government and business for solutions that achieve environmental, social, and economic sustainability.

Many of the waste transfer stations in NYC received financial assistance from NYC's Industrial Development Agency. IDAs have the power to buy and sell property and to issue debt for projects on behalf of private businesses. IDAs provide a variety of tax benefits to private firms in order to promote economic development. These tax benefits result in lost or foregone tax revenues for federal, state and local governments. The Fiscal Policy Institute conducted a detailed analysis of IDA activity between 1987 and 1991 and came to the conclusion that there were few if any verifiable economic benefits and yet state and local governments lost \$1.3 billion in tax revenues. (Fiscal Policy Institute, October, 1992). That study looked at economic outcomes, but communities in NYC can see other kinds of results when financial assistance actually encourages undesirable land uses to concentrate in certain neighborhoods. In the absence of a comprehensive view and dedication to overall community betterment, economic development activity can do more harm than good. Such misguided policies are easy, when public officials are in office for only a few years and the problems of one administration are left for another. However, local residents have a continuing interest in the welfare of the community.

We believe it is possible to promote economic development that sustains and restores communities and the City, but communities must be at the "economic development table." The current system of economic development seems to operate in isolation from community goals and desires. Economic assistance to new and existing businesses should not be a giveaway but a contract or trust with the community to provide good jobs, to preserve the environment and the quality of life.

Businesses that receive grants and subsidies should be required to operate within a set of basic principles or forfeit their financial assistance. Economic development should not operate outside of the democratic process. Community

members have more of a stake in positive improvements to their community than do economic development or government agencies. As a result, collaborative economic development, by working with community members, can have a more successful outcome.

V. MANAGE FINAL DISPOSAL IN AN ENVIRONMENTALLY AND ECONOMICALLY SOUND MANNER

A. Close Fresh Kills in an Environmentally Sound Manner

Fresh Kills has never had a permit to operate. Instead it has been operated under an enforcement order (Consent Order) with the State for almost 20 years. A new closure order, under negotiation between the City and the State for over three years, was released in May, 2000. This order, like previous ones, provides authority to continue operating until the closure date and guide the closure process. Unfortunately, there was no opportunity for public participation in the development of this consent order. A great deal of work is ongoing at Fresh Kills to correct the wrongs of many years. A legitimate, accountable process should be part of the remediation process and the public should not have to face closed doors. There are required public processes for remediation of hazardous waste sites as well as for permitting decisions. This is particularly important given that the long delayed environmental controls at this landfill will cost \$800 million and will now only be funded out of the City expense budget, which is often subject to budget cuts.

The City will be receiving revenues of approximately \$3.5 million from the private company collecting and processing gas at the landfill. City and State legislators should consider passing a law that provides some legitimate oversight over remediation and closure process. A portion of revenues from gas processing should be allocated to funding consultants for independent review and oversight of Fresh Kills closure.

B. Address Out of State Disposal Issues

The City should collaborate with federal and state officials to reduce hostility and develop satisfactory export solutions. The City has a responsibility to oversee an appropriate host community agreement that guarantees protections and benefits to those most impacted and should include and monitor these provisions in the contracts with the waste industry. The City should consider limiting the amount of waste that would go to any single community.

C. Commit to No Incineration

The City should not approve any long term contracts that have incineration as the method of final disposal. Incinerators have been shown to emit a host of toxic metals and other toxic substances including dioxin. They burn waste materials that can and should be recycled. Thus they are not a sustainable waste option.

D. Properly Structure Export Contracts

The city needs to analyze the extent to which it should privatize ownership and management of its waste management system. We believe that the City should continue to own and control at least part of the system, especially the physical infrastructure, and give no one company more than 25% of the waste stream for handling.

The private sector can also be held accountable for delivering the kind of waste handling the city desires. Gary Liss, a consultant and former solid waste manager in San Jose, believes that local governments fail to use existing tools to send the appropriate market signals. "When multinational solid waste companies say that recycling is not economical, the people who structure the contracts are responsible for that." Local governments can use contracts, permits, rate ordinances, zoning policies and programs to provide price signals to the marketplace. For example, San Jose wrote permit conditions for a private landfill that included compost for cover material, allocation of space for recycling, salvaging and composting, distribution of recycling information citywide, and assistance to the city in meeting the reduction of waste going to the landfill. As a result the landfill owner has diverted 94% of non-putrescible waste from the landfill. A disposal agreement with BFI required that the company build a recycling center, 7.5 acres in size, an investment of \$10 million. The agreement also allows the City to reduce its "put or pay" commitments by 25% in response to recycling and waste reduction. San Jose also instituted a disposal tax which is \$13/ton today. Such creative measures have contributed to San Jose's recycling rate of 47%. (*Biocycle*, Feb. 2000 p. 40).

We recommend that the City not sign any "put or pay" contracts which would require payment even if waste is not generated. It should consider purchasing a 20-year disposal capacity at a landfill. Then, if the City reduces waste generation, and recycles more, the disposal capacity could last longer.

CHAPTER V

RECOMMENDATIONS

NEW YORK CITY

New York City Council

Ideally, the City would adopt the OWN Alternative Plan for managing the City's waste. On the other hand, if the Administration's May 2000 plan is to be adopted-- with the BFI/Allied facility in Linden, New Jersey as its centerpiece, processing more than half of all City waste--the City Council must modify it in order to meet basic standards of equity, environmental soundness and economic sustainability. If not modified, the City Council should veto the Solid Waste Management Plan and any Budget for long term export. The City Council should vote only on a specific final plan, not the current version, which actually offers a menu of options and alternatives. The Department of Sanitation must be held accountable in this process.

The City Council should require the following in the Final Solid Waste Management Plan:

- 1) A commitment to borough-based equity;
- 2) A commitment to compliance with the City's Recycling Law with a phase-down schedule for export as recycling is expanded, including:
 - a) building of needed state-of-the-art recycling infrastructure
 - b) a long term commitment of funding for waste prevention and recycling in the expense budget – at a level of 50% of the waste collection and

- disposal budget (divided 10% for waste prevention programs and 40% for recycling programs)-- while simultaneously making the programs more cost-effective. These budget allocations, while aggressive, are needed largely because these programs have been underfunded for too long.
- c) restructuring the Department of Sanitation to reflect waste diversion goals and borough based management of waste diversion programs.
 - d) partnerships with community based organizations to develop projects and achieve diversion objectives.
- 3) A commitment to a comprehensive study over the next year of commercial waste handling and private transfer stations and the development of a plan for comprehensive reform. The Plan should specify that no commercial waste can be moved through City Marine Transfer Stations until the above study is completed and plans for commercial waste handling reform are adopted.
 - 4) Protective contract provisions for the City, ie., do not allow "put or pay" contracts whereby the City would have to pay for an amount of waste disposal, whether or not we generate it. The City might be better served by purchasing a total disposal capacity, which we could make last longer by increasing waste prevention and recycling programs. Given the limited ability of the Council to exercise authority over the contracting process, the Council should utilize the Solid Waste Management Plan approval process to the fullest extent possible to provide the necessary protections.
 - 5) Inclusion of a Back-up Export Plan for the City, based on retrofit of the eight existing Marine Transfer Stations(MTSs) so that they can containerize waste for direct export, and construction of a small Staten Island recycling station. The City should prepare this in case the Linden facility proposal does not come to fruition for any of a variety of reasons. City Council should also require the City to more fully analyze the reconstruction of these facilities in conjunction with nearby city-owned property in the Final Environmental Impact Statement.
 - 6) A prohibition on building new or expanding existing private waste transfer facilities in the most overburdened neighborhoods-- the South Bronx, Greenpoint/Williamsburg and Red Hook, including facilities with pending permit applications.
 - 7) In Brooklyn, retention of the Greenpoint MTS under city ownership and modification for direct export of waste by barge-to-rail. The incinerator stack and equipment should be removed.
 - 8) In Queens, City ownership of a proposed new waste facility and inclusion of recycling infrastructure, rather than private ownership.
 - 9) Use of barge transport rather than rail for export of Brooklyn and Queens waste. Rail transport east of the Hudson is extraordinarily limited at this time and what is available should be used to meet existing needs.

- 10) In the South Bronx, existing facilities should process the borough's residential waste for direct export by rail. No new facilities in this impacted community.
- 11) On Staten Island, construction of a City-owned and operated recycling processing center (as planned several years ago), rather than invest \$30 million in an 1150 ton per day containerization station, which would provide much more capacity than SI needs for its waste. The plan should provide for barging of SI mixed waste for export across to Linden. SI would need to send only one barge load per day, 575 tons, the amount of residential waste it was generating as of July 1999. The construction of a ramp allowing trucks to dump in a barge is all the infrastructure that would be needed. The City on the other hand needs recycling infrastructure. Rail service is not currently available to this site.
- 12) For Manhattan, require a more comprehensive analysis of MTS Retrofit/Reconstruction in the Final Environmental Impact Statement. All of the MTSs are capable of being retrofitted for direct export of waste if all available DOS or city owned property is utilized. DOS has unacceptably rejected the retrofit of the 59th St. MTS. The Final Environmental Impact Statement should reexamine the Retrofit of the 59th St. MTS in conjunction with the adjacent garage facility, currently slated to be torn down and rebuilt. The garage facility should be reconstructed for receipt of garbage, compaction and containerization. These containers could then be driven across the street at night to a reconstructed MTS for direct export of containers by flat bed barge. While there is limited available land at the 91st Street MTS, the City has not explored building several stories up at this location.
- 13) Require City Council approval of any future amendments to the final plan.

The City Council should pass laws that address the following:

- 1) Capping community district waste facility capacity and development of a certificate-of-need process for transfer station capacity.
- 2) Mandatory reforms to the existing commercial waste system and transfer stations including codifying strict siting restrictions, which the Department of Sanitation has proven unwilling to issue in accordance with Local Law 40. Placing a temporary moratorium on all permits for new transfer stations or expansions in Community Districts 1 and 6 in Brooklyn, Community Districts 1 and 2 in the South Bronx and Community District 12 in SE Queens until the process begins which will bring mandatory reforms to the existing commercial waste system.
- 3) Community mitigation/benefit packages for community districts, to be allocated in proportion to waste handling capacity, financed by a \$2/ton

fee levied on all waste and recycling processing facilities. The fee would finance independent oversight and watchdog activities as well as positive community benefits.

- 4) A package of necessary municipal services for all industrially zoned areas must be assembled and properly funded. While bringing tax base to the City these areas do not receive tax benefits returned in an appropriate level of city services for the operations housed there. Additional sewer cleaning, street maintenance and paving, and environmental protection services are some of the services that must be focused on the industrial zoned areas of the city. (It should be noted that the City actually has a water and sewer agency with a small budget, only 5% of the total, for environmental protection, not an environmental protection agency.)
- 5) A comprehensive city waste prevention and procurement bill (Intro. 482)
- 6) Proper closure of Fresh Kills with City Council and public input.

The Department of Sanitation must take actions to address problems in community districts overburdened with waste transfer stations including addressing the special problem posed by Manhattan's large quantity of commercial waste including:

- a. Determining the total amount of waste being generated within NYC, including the commercial waste stream, to determine capacity needs for facilities.
- b. Instituting real Environmental Protection and Enforcement with regular inspections and steep penalties including the loss of permits to operate. Video surveillance of all waste handling facilities should be instituted immediately and should be considered equivalent to continuous monitoring of emissions in the regulatory framework.

All City agencies should take long term actions to build a sanitary, environmentally sound and sustainable infrastructure for all waste handling. The City Administration should consider:

- a. Setting stringent physical and operational standards for all waste and recyclable handling facilities. This will help ensure that NYC does not become a magnet for solid waste transfer stations. Industry will also tend to locate where they can operate at the least cost. The waste industry will be forced to internalize social and environmental costs instead of shifting this burden onto the public.
- b. Combining the commercial and residential waste streams for management at municipally owned transfer stations, but only in conjunction with principles of fairness and equity to provide relief for communities overburdened with waste facilities.

- c. Requiring existing facilities with access to rail or water transport, to use these means of waste transport to reduce reliance on air polluting trucks.
- d. Requiring the scheduled phase in over 10 years of alternative, less polluting fuels for all commercial and municipal garbage trucks traveling on local routes.
- e. Prohibiting economic development assistance or incentives for waste handling facilities, other than recycling or composting facilities which have incorporated community and environmental protections in their planning.
- f. Completing a citywide environmental review of current land use and zoning practices to determine means to adequately protect public health and the environment and to avoid civil rights violations.
- g. Increasing roles for community participation in siting of facilities and oversight of DOS and the private sector. More democracy needs to be in the system.

Executive authority for contracting must be limited in the future, if necessary by City Charter, to require a more democratic process for major decisions.

The Comptroller's Office

The Comptroller should refuse to register any long-term contracts for export unless the City's plan complies with the City Recycling Law and the City Council has approved the Solid Waste Management Plan. The Comptroller should also ensure that provisions in the contract ensure community protection, and that contracts allow for growth in recycling and waste prevention without penalties to the city.

The City Council and the Comptroller have a role to play in ensuring that competition is maintained by diversifying waste management options and limiting the contracts given to any one company. Contracts should not be given to companies with a history of violations of environmental or competition laws or regulations.

NEW YORK STATE

The Governor has championed sustainable waste options through his representatives on the Fresh Kills Closure Task Force from the State Department of Environmental Conservation. NYC's waste problems are creating havoc in our relations with other states. Fresh Kills closure may ultimately be jeopardized and NYC may have to find waste facilities within the state.

The Governor should act through his Department of Environmental Conservation to require that NYC's Solid Waste Management Plan meets the requirements of state and city law, the NYS Solid Waste Management Act and the NYC Recycling Law. No solid waste plan that is in open violation of these laws should be approved.

The State has also over many years funded NYC for solid waste planning, waste reduction and recycling programs as well as economic development by supporting NYC businesses engaged in remanufacturing of recycled materials. The Governor and State must hold the City accountable for these investments by ensuring that solid waste planning reflects these investments. It does little good to send these businesses such mixed signals.

The Attorney General has a similar role to play as that of the US Dept. of Justice. At the state level he can ensure that legal and fair business practices are operating in the state and that the public is not harmed by uncompetitive or irresponsible practices.

The State Legislature should pass legislation to strengthen the Solid Waste Management Act of 1988 so that the plans be enforceable by DEC, with severe penalties for non-compliance. Permitting of new waste facilities, transfer stations or disposal facilities, should not occur in the absence of comprehensive solid waste plans that cover the commercial and municipal waste streams.

The State Legislature should pass legislation to address the numerous problems of waste transfer stations in NYC.

The State Legislature should pass a bill that codifies a list of actions and projects for which a full environmental impact statement is required. Allowing state and city agencies to have discretion in this area has led to completely arbitrary and illogical decisions, and to exempting projects that are virtually certain to have significant environmental impacts from having to complete an environmental impact statement.

The State Legislature should also pass the Environmentally Sound Packaging Act and require an advanced disposal fee for tires and batteries.

The State Legislature should support the two recycling bills the Attorney General introduced this year to expand bottle bill deposits to other types of beverages and to mandate the recycling of certain materials.

FEDERAL GOVERNMENT

Congress should remove billions of dollars in subsidies for virgin materials that hurt the competitiveness of secondary (recycled) materials. All disincentives for the use of recycled materials must be removed. Recycled materials must be able to compete on a level playing field with virgin raw materials.

Congress should act to pass meaningful national waste reduction legislation. European nations have focused efforts on making producers more responsible for waste generation.

EPA has been a leader in setting waste prevention and recycling goals, advancing composting, conducting research on sustainable waste solutions and preparing a host of excellent reports. These efforts must be continued.

The Environmental Protection Agency despite a very limited budget for solid waste, nevertheless has authority under the Resource Conservation and Recovery Act to regulate solid waste management and planning, which does not have to be tied solely to state grants. EPA should review New York State's solid waste plan in accordance with RCRA and the consistency of NYC's plan with the state plan, and require appropriate modifications.

In New York City's case more effort is required of EPA. Other states and communities will be impacted by NYC's export plans; and EPA participated in the Fresh Kills Closure Task Force, which prepared recommendations for closing this unpermitted landfill.

The EPA should promulgate regulations for various kinds of waste transfer stations as called for by the National Environmental Justice Advisory Council, after completing a study of these facilities. Voluntary "best management practices" guidance for multinational companies will do little for those communities with the least political power--environmental justice communities--and in situations with the most negligent and unresponsive local government agencies. Transfer stations located in urban areas in close proximity to housing and public spaces need more stringent environmental controls.

EPA has funded New York State and City for research, solid waste planning, waste reduction and recycling programs as well as economic development, by supporting Jobs thru Recycling. EPA must hold the city accountable by ensuring that solid waste planning reflects these investments.

EPA should use all enforcement opportunities with NYC to guide it toward sustainable and environmentally sound solid waste management. For example, EPA is currently engaged in a \$30 million suit against NYC for violating provisions of the Clean Air Act, which require the recovery and recycling of

ozone depleting substances from refrigerators. As we have documented in this report and EPA has documented extensively previously, the environmental benefits of waste reduction and recycling include significant reductions in air pollution and greenhouse gas emissions. We recommend that EPA only settle this suit by connecting the City's failures in solid waste handling to these air quality violations. Any settlement of the suit must incorporate waste prevention, recycling and composting requirements as alternatives to export and disposal plans which will generate more air pollution and greenhouse gas emissions. At the same time EPA should address the inequitable burdens of waste handling in NYC communities.

EPA should also encourage government and private sector to move toward alternative fuels for heavy duty vehicles, that are less polluting.

The Department of Justice has allowed significant industry consolidation in a field and with companies already known for anti-competitive practices. The Department of Justice must ensure competition and fair business practices and protect the public from potential harm resulting from the consolidation.

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APPENDIX A

Essential Components of Sustainable Communities, From a National Conference on Defining Sustainable Communities as it appeared in Environmental Defense's Sustainability Kit. In this report we deal primarily with the sustainability - environmentally, economically and socially--of NYC's waste management. However, of necessity in dealing with social sustainability we talk about communities and their viability and the need for more democratic participation in waste management and economic development.

- **Environmental Quality**

Living within ecological limits
Protecting natural resources
Responsible consumption patterns: re-use, recycling
Measurable carrying capacity indicators: water quality, air quality, species diversity, etc.

- **Quality of Life**

Connection to place
Diversity
Cooperation
Health
Education
Efficient, affordable, accessible mass transportation Systems
Communication
Linking jobs to housing and communities
Intergenerational equity
Pluralism and tolerance
Honoring of culture
Compassion

- **Economic Security**

Local, regional economic viability
Opportunities for employment
Economic justice, economic equity
Reduce the gap between rich and poor
Economic security
Appropriate technology and economics
Long-term view, not short-term gain: decisions made with seven generations in mind

- **Democratic Participation**

Power from within the community
Belief in the possibility of change
Democracy
Accountability
Responsibility
Communication, education, information and collaboration
Training in the "skills of democracy"
All stakeholders represented and involved
Grassroots organizations

APPENDIX B

Council on the Environment: Waste Prevention Experience: Data on Savings Achieved Through Waste Prevention at Eight Organizations

<i>Organization</i>	<i>Annual Savings</i>
BT Office Products (260 employees)	\$97,600 purchasing - \$20,200 waste disposal - \$77,400
Columbia University (offices, classrooms, dorms, food services in 6 buildings)	\$341,230 purchasing - \$341,230 waste disposal - (receive free city service)
Con Edison (2800 employees - I site)	\$94,100 purchasing - \$92,500 waste disposal - \$1,600
HBO (850 employees)	\$145,100 purchasing - \$136,500 waste disposal - \$8,600
Kinney Shoe Corp. (620 employees)	\$247,900 purchasing - \$242,400 waste disposal - \$5,500
Lincoln Center for the Performing Arts (825 employees)	\$153,900 purchasing - \$147,900 waste disposal - \$6,000
United Nations (In vessel composting feasibility study, employee population N/A)	\$73,000 purchasing - N/A waste disposal - \$73,000
U.S. Post MCC (706 employees - I site)	\$297,500 purchasing - \$47,500 (1 site) waste disposal - \$250,000 (actual for all NY stations)

* indicates estimated savings

APPENDIX C

New York City Waste Prevention Coalition: Proposal for NYC Department of Sanitation FY 2001 Budget

NYC WASTE PREVENTION COALITION BUDGET PROPOSAL SUMMARY

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 New York City Waste Prevention Coalition (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 have been 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 proposals the Coalition puts forth are as follows:

Community Based Waste Prevention (p. 1)

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 (p. 3)

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
Total: \$16.38 million	

Composting and Organic Waste Prevention (p. 10)

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 (p. 12)

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 (p. 14)

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..... \$55.755 million

Phase in of Waste Prevention Programs

	2001	2002	2003	2004
Community Based Waste Prevention	5,300,000	10,600,000	15,700,000	16,100,000
a. Community-Based Coordinators	3,100,000	6,200,000	9,100,000	9,100,000
b. Community-Based Projects	2,200,000	4,400,000	6,600,000	7,000,000
Waste Prevention in City Agencies and Institutions	2,425,000	4,775,000	9,075,000	12,075,000
a. Waste Prevention in DCAS	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
c. Revolving Capital Funds		1,000,000	4,000,000	7,000,000
d. Waste Prevention in HHC	725,000	725,000	725,000	725,000
e. Waste Prevention in Schools			1,300,000	1,300,000
Composting and Organic Waste Prevention	2,200,000	3,900,000	5,600,000	8,100,000
a. Backyard Composting and Organic Waste Prev	1,700,000	2,900,000	4,100,000	4,100,000
b. Institutional In-Vessel Composting	500,000	1,000,000	1,500,000	4,000,000
Waste Prevention in the Private Sector	1,200,000	2,700,000	6,200,000	10,200,000
a. Technical Assistance to Businesses	1,000,000	1,500,000	3,000,000	5,000,000
b. Assistance to Reuse/Remanufacturing Businesses	200,000	1,200,000	3,200,000	5,200,000
Waste Prevention Measurement, Evaluation & Research	1,325,000	1,325,000	1,325,000	1,325,000
a. Residential Quantity Based User Fee (QBUF) Pilot	825,000	825,000	825,000	825,000
b. Measurement, Evaluation and Proposal of Programs	500,000	500,000	500,000	500,000
Total	\$ 12,450,000	\$ 23,300,000	\$ 37,900,000	\$ 47,800,000

APPENDIX D

New York State Empire Development EMIG Recycling Investment Program: Funded Projects for NYC 1994-August, 1999

American Soil, Inc. Award Amount: \$24,640; Total Project Cost: \$30,800. RD&D project to develop a merchant, open-air windrow composting facility in the Capital District. The facility will be sized to compost up to 50,000 tons per year of yard waste, food waste and soiled paper (primarily from supermarkets).

Banana Kelly Community Improvement Association. Award Amount: \$732,870; Total Project Cost: \$2,110,647. To complete the pre-construction development work necessary for the Bronx Community Paper Company pulp mill, to be built in the South Bronx.

Banana Kelly Community Improvement Association. Award Amount: \$90,000; Total Project Cost: \$225,000. Continuation of pre-development work associated with the Bronx Community Paper Company to finalize implementation plans and contracts associated with wastepaper sourcing and sorting, marketing clay fiber by-product, and pulp off-take.

Boro Recycling, Inc. Award Amount: \$100,000; Total Project Cost: \$171,327. RD&D project to determine the composition of a contaminant identified in processed, recovered glass and the best way to remove it. The project will also assess markets for micronized glass. Success of this project could result in a 100,000 ton per year glass processing and manufacturing operation in the New York Metropolitan Region.

Boro, Recycling, Inc. Award Amount: \$100,000; Total Project Cost: \$204,014. RD&D project to design a facility capable of processing recovered, mixed cullet to be used in high-value applications. Success of this project could result in a marketplace for more than 100,000 tons of glass per year and creation of 25-30 jobs.

Bronx Overall Economic Development Corporation. Award Amount: \$75,000; Total Project Cost: \$129,763. This is an RD&D project to determine the feasibility of organizing the Bronx's recycling-based companies into a recycling industrial park.

Bronx Overall Economic Development Corporation. Award Amount: \$500,000; Total Project Cost: \$10,047,000. Capital project to assist RB Rubber Products, Inc. set up a tire reclamation and rubber product manufacturing facility in the Bronx. This project will result in the employment of 150 persons and the utilization of four million tires per year.

Brooklyn Economic Development Corporation. Award Amount: \$308,000; Total Project Cost: \$878,000. Capital project to help Great Harbor Design Center establish a manufacturing facility in southwest Brooklyn to make S102crete, a newly invented solid-surface construction material made from 83% recycled glass and concrete. Success of this project will result in a new manufacturing plant in a designated Economic Development Zone that will create 47 new jobs in 2 years (63 full-time employees by the end of year 3) and use at least 2,300 tons of recovered glass.

City Green, Inc. Award Amount: \$84,000; Total Project Cost: \$253,191. RD&D project to test a Bedminster Bioconversion in-vessel composting system on Staten Island for its ability to process a variety of food-waste inputs and produce a quality finished compost. The costs and logistics of source-separated collection, waste hauling, and development of a full-scale facility will also be evaluated. Success of this project could result in development of a commercial scale 500 ton per day composting facility for City wastes. The RD&D project will process 240 tons of food waste.

Columbia University. Award Amount: \$73,813; Total Project Cost: \$192,667. RD&D project to assist Columbia University to determine the technical and economic feasibility of manufacturing products made from glass and portland cement. Success of this study could result in 60,000 to 100,000 tons per year of recycled glass.

Council on the Environment for New York City. Award Amount: \$24,970; Total Project Cost: \$49,941. Develop and conduct a waste prevention conference directed at colleges and universities. Successful waste prevention models would be used to teach other universities how to implement successful programs at their sites.

db USA, Inc. Award Amount: \$100,000; Total Project Cost: \$1,450,000. RD&D project to assist db USA, Inc. develop process control software for its agitated bed, in-vessel composting system. Success of the project would result in the development of a large-scale commercial composting facility in Onondaga County capable of composting 100+ ton per day.

East Williamsburg Valley Industrial Development Corporation. Award Amount: \$75,000; Total Project Cost: \$150,000. Technical assistance project to expand an existing Recycling Investment Program project that provides waste reduction consulting services to manufacturers throughout Brooklyn, NY. Client firms learn how to reuse, exchange, and recycle discarded items and materials, as well as purchase rebuilt pallets, use recycled feedstocks, and lower waste hauling expenses. Success of this project will result in 375 tons of waste materials diverted to reuse or recycling, resulting in \$100,000 in cost savings for client firms.

East Williamsburg Valley Industrial Development Corporation (EWVIDCO). Award Amount: \$105,376; Total Project Cost: \$210,858. The project will expand EWVIDCO's current Industrial Waste Assessment and Reduction Program. Through the program, a total savings of \$171,000 annually is anticipated in avoided disposal costs.

East Williamsburg Valley Industrial Development Corporation. Award Amount: \$39,180; Total Project Cost: \$67,580. Technical assistance investment to implement a business waste prevention and recycling program in an industrial zone in Brooklyn. The project would produce 15 waste assessments and establish a waste exchange that would be interactive with Long Island City's program.

Great Forest, Inc. Award Amount: \$25,500; Total Project Cost: \$32,075. The project will research the economic feasibility of recovering commercial food waste for on-site or off-site processing in New York City. It is anticipated that 300 tons will be composted during the project.

Greater Jamaica Development Corporation. Award Amount: \$5,500; Total Project Cost: \$11,000. Capital project to permanently install an on-site, in-vessel composting system at Jamaica Food Court. Success of this project will result in the creation of 25 tons per year of new food residuals compost capacity at the Food Court, producing approximately 15 tons of finished compost that will be utilized by local community gardens and other Corporation properties.

Institute for Community Living, Inc. Award Amount: \$57,360; Total Project Cost: \$114,720.

Technical assistance project to assist the Institute for Community Living, Inc. provide comprehensive recycling training to businesses and institutions in Brooklyn. The success of this project could result in a savings of more than \$86,000 in annual waste disposal costs, and creation of 12-20 new jobs for disabled individuals.

Jamaica Economic Growth Corporation. Award Amount: \$250,000; Total Project Cost:

\$945,000. Capital project to assist Tire Disposal Services install machinery and equipment for the purpose of producing fine mesh ground tire rubber. Funding of this project could result in 1.2 million tires recycled per year and a creation of 18 new jobs.

Long Island City Business Development Corporation. Award Amount: \$51,300; Total Project Cost: \$67,670.

RD&D project to assist Long Island City Business Development Corporation research cost effective strategies for increasing the amount of wood waste that is diverted from disposal for reuse or recycling. Success of this project could divert wood waste from 200-250 generators, resulting in an annual avoided disposal cost of \$12,000 for each generator.

Long Island City Business Development Corporation. Award Amount \$128,800; Total Project Cost:

\$377,550. Two-year technical assistance project to provide hands-on waste assessment and materials exchange services to businesses through the Industrial Waste Recycling and Prevention (INWRAP) Program. Success of this project will result in 1,800 tons of materials exchanged or diverted from disposal, saving business \$300,000 in disposal and purchasing costs.

Long Island City Business Development Corporation (LICBDC). Award Amount: \$85,000; Total Project

Cost: \$316,500. Support for continuation of the INWRAP (industrial Waste Recycling and Prevention Program) to provide firms in the greater Long Island City and Greenpoint areas with assistance in reducing their solid waste management costs, through custom technical assistance and operation of a materials exchange.

McNelly Group (The). Award Amount: \$65,000; Total Project Cost: \$81,250. RD&D project to determine the

technical and economic feasibility of developing a commercial composting facility utilizing inter-modal shipping containers at an industrial property on the waterfront in NYC. Success of this project could result in the creation of 50,000 tons per year of new food residuals compost capacity in NYC, which would be the largest facility in NYS.

Metropolitan Transfer Station, Inc. Award Amount: \$94,650; Total Project Cost: \$167,650. An RD&D

project which will examine the technical and economic feasibility of establishing an in-vessel composting system at Metropolitan Transfer Station, Inc.'s (MTS) solid waste transfer station in the South Bronx.

National Audubon Society. Award Amount: \$19,650; Total Project Cost: \$39,769. The outcome of the project

will be an inventory of potential, suitable sites for development of privately-operated composting facilities in New York City.

New York City Industrial Development Agency. Award Amount: \$300,000; Total Project Cost: \$1,746,000.

This project will assist Visy Paper on Staten Island with the purchase and installation of an overhead crane/grab system to off-load loose paper from barges and to fill the pulper. With this system, 275,000 tons per year of old corrugated containers and mixed residential wastepaper will be converted into 250,000 tons of linerboard.

New York Hospital Medical Center of Queens. Award Amount: \$23,000; Total Project Cost: \$62,669. RD&D project to ascertain the economic costs/benefits of on-site composting. As part of the project, 70 tons per year of food waste will be composted.

Open Road of New York, Inc. Award Amount: \$21,725; Total Project Cost: \$61,225. RD&D project to evaluate on-site composting using two small-scale in-vessel composters. Success of this project could result in 25 tons per year of food waste composted in New York City.

Outstanding Renewal Enterprises, Inc. Award Amount: \$50,000; Total Project Cost: \$64,895. RD&D project to assist Outstanding Renewal Enterprises, Inc. . (ORE) field test a cellulose lined kraft paper bag for collection of source separated organic wastes. As a licensed hauler of commercial waste, ORE wants to determine the economic feasibility of expanding its collection services through a focus on small food establishments in the East Village of New York City.

Outstanding Renewal Enterprises, Inc. (ORE). Award Amount: \$74,700; Total Project Cost: \$311,300. This project will research the feasibility of expanding ORE's current vermicomposting operation. The project will expand its current vermicomposting operation from 1,000 pounds per week to 12,000 pounds per week.

Polyblends, Inc. Award Amount: \$95,200; Total Project Cost: \$151,850. RD&D project to assist Polyblends, Inc. determine the configuration of a production facility that would economically produce densified ground rubber. Success of this project could result in a full commercialization of this business and a market potential of 95 million lbs. of rubber.

Polyblends, Inc. Award Amount: \$30,000; Total Project Cost: \$53,823. RD&D project to determine the feasibility of utilizing tire derived crumb rubber in rubber compounding applications.

South Bronx 2000 Local Development Corporation. Award Amount: \$28,051; Total Project Cost: \$51,960. The project will investigate the adaptability of a composite manufacturing technology to waste wood and post-consumer plastic feedstocks.

South Bronx 2000 Local Development Corporation (Bronx 2000) Empire State Center for Recycling Enterprise Development (ESCRED). Award Amount \$50,000; Total Project Cost: \$403,121. This project will assist Bronx 2000 in testing the logistical and economic feasibility of commercializing carpet and rug recycling facilities. The project anticipates a reduction of 1.5 million pounds of carpet waste during the pilot period, and an estimated 50 million pounds if a full scale facility is implemented.

St. Barnabas Hospital. Award Amount: \$61,250; Total Project Cost: \$122,500. This project, with the purchase of an in-vessel composting system, will expand on-site capacity to process 527 tons per year of food waste, avoiding \$25,000/year in disposal costs.

United Talmudical Academy. Award Amount: \$200,000; Total Project Cost: \$1,354,000. This capital project will enable United Talmudical Academy to purchase equipment on behalf of R.AW Tires, contributing to its \$1.3 million plan to expand its business of remanufacturing truck tires. Success of this project will result in additional remanufacturing capacity of 58,500 tires per year (3,510 tons per year), leading to the creation of 26 new jobs.

Upper West Side Recycling Center, Inc. Award Amount: \$25,800; Total Project Cost: \$51,700. Technical assistance project to assist Upper West Side Recycling Center, Inc. to set up commercial routes for collecting source separated organics from a number of hotels in Manhattan. Success of this project could result in the diversion of 6,000 tons per year of source separated food waste to beneficial use facilities in the Metropolitan New York area.

USA Waste of New York City. Award Amount: \$99,281; Total Project Cost: \$265,688. RD&D project to assist USA Waste of New York City to determine the technical and economic feasibility of de-watering ICI food waste from generators in New York City. Success of this project could result in the development of an additional 100 tons per day of capacity to process source separated food waste which could be transported to beneficial use facilities in New York City.

Visy Paper, Inc. Award Amount: \$50,000; Total Project Cost: \$98,900, Funding is for the support of Visy's Staten Island mill expansion project to assess the economic and technical feasibility of at least four different mill residual beneficial use technology options.