

2.0 WASTE PREVENTION AND RECYCLING

2.1 Introduction

This section provides recent background on the recycling program and describes the Proposed Actions for Recycling, identifying the new facilities and services that would be developed as well as existing facilities that would continue to provide service. It also describes the New Initiatives that would be undertaken under Existing Programs and refers the reader to Attachment VI, which provides more detailed information on Existing Programs for recycling.

2.2 Background

The City's waste prevention and recycling programs have evolved dramatically from their inception in the 1980s. Recycling had its origins in fledgling voluntary programs that initially served only a small portion of City residents, and was transformed into a comprehensive and rapidly maturing enterprise. Over the years, DSNY established an array of programs to promote reduction, reuse and recycling of wastes generated by residents, businesses, government agencies, schools and institutions.

Through the first half of 2002, DSNY collected and recycled metal, glass and plastic (MGP) and Paper materials sufficient to divert 20% of the City's residential and institutional (curbside/containerized) waste stream from disposal. The program flourished in many respects, and compared favorably with other major cities throughout the United States. (See Appendix A for "New York City Recycling in Context.")

On July 1, 2002, the City's recycling program incurred budget cuts in the aftermath of the events of September 11 and the subsequent economic recession. This resulted in the temporary suspension of glass and plastic recycling, and as a result diversion rates suffered. However, plastic and glass recycling were restored in Fiscal Year (FY) 2003 and FY 2004, respectively, and funding for composting and other services was restored in FY 2005.

Moving forward, cost-effective waste prevention and recycling programs are now an even greater priority. To reflect this priority, this Draft New SWMP outlines a series of actions and initiatives that

will redouble the City's commitment to its current recycling program and set ambitious new goals to keep the City moving on a path towards even greater diversion in the future. Specifically, based on new waste composition data, DSNY recommends that the City set a 70% diversion goal for the combined Commercial and DSNY-managed Waste stream to be achieved by 2015.

As a foundation upon which to build the programs that will achieve this goal, the City will commit to a 20-year contract for processing MGP. This long-term commitment will facilitate the development of state-of-the-art processing infrastructure in the City, which in turn will generate the consistent streams of materials necessary to foster reliable secondary materials markets. The 20-year contract also ushers in a new era of waterborne transportation of Recyclable materials, mirroring the transportation goals of this Draft New SWMP as a whole.

This section begins by describing the Proposed Actions, or actual facility development that will occur over the planning period with regards to recycling. It then goes on to present New Initiatives under development or being planned to maintain and enhance the City's prominence as a national leader in waste prevention, recycling and composting. It also provides an update of activities in these areas that have occurred subsequent to issuance of the November 2000 SWMP modification. For a description of the background and current status of these programs, please refer to Attachment VI.

2.3 Proposed Actions – Recycling

To address the City's specific goals and priorities for increased diversion, cost stability, expanded markets and private sector involvement in its Recycling Program, as articulated above, the Proposed Actions for recycling are:

- Develop a materials processing facility at the 30th Street Pier (in Brooklyn Community District 7) through a public-private partnership involving a 20-year service agreement with a private recyclables processor; and
- Develop a Recyclables acceptance facility in Manhattan.

2.3.1 Recyclables Processing Facility

The City plans to enter into an agreement with the Hugo Neu Corporation (HNC) for the acceptance, processing and marketing of the MGP and a portion of the mixed paper¹ (Curbside Recyclables) collected by DSNY. (This contract is further described in 2.4.3.) As part of the agreement, HNC will finance the development of a materials processing facility on City-owned land at the 30th Street Pier in the South Brooklyn Marine Terminal (SBMT).

In addition, HNC will use its existing regional network of waterfront acceptance facilities and its own fleet of barges to transport material to the new facility at SBMT. Recyclable material will arrive at the new materials processing facility as follows:

- DSNY trucks collecting Curbside Recyclables in the Bronx will tip this material at HNC's existing acceptance facility in the Bronx, where HNC will transfer material to barge for transport to SBMT.
- DSNY trucks collecting Curbside Recyclables in Staten Island CDs will tip this material either at the new Staten Island Transfer Station for consolidation into transfer trailers that would drive to SBMT, or at HNC's existing acceptance facility in Jersey City, where HNC would transfer material to barge for transport to SBMT.
- DSNY trucks collecting Curbside Recyclables in northern Brooklyn and Queens CDs will tip this material at HNC's existing acceptance facility in Long Island City, where HNC will transfer material to barge for transport to SBMT.
- DSNY trucks collecting Curbside Recyclables in Manhattan CDs will tip this material at a Manhattan acceptance facility. Until the new acceptance facility is on line trucks from southern Manhattan would tip at HNC's existing acceptance facility in Jersey City; trucks from northern Manhattan would tip at HNC's existing facility in the Bronx where HNC will transfer this material to barge for transport to the 30th Street Pier at SBMT.
- DSNY trucks collecting Curbside Recyclables in southern Brooklyn CDs would drive to SBMT and tip directly at the materials processing facility.

2.3.2 Manhattan Recyclables Acceptance Facility

¹ This is the portion that is not already committed to Visy Paper (NY), Inc. (Visy), for processing in its recycled paper mill on Staten Island.

DSNY proposes to develop a Recyclables acceptance facility in Manhattan. The West 59th Street MTS is currently the transfer site for the mixed paper, which DSNY collects in Manhattan CDs and Visy barges to its recycled paper mill on Staten Island.

As described in Section 4.2.1.1, DSNY is proposing to reserve the West 59th Street MTS to facilitate the export of a portion of Manhattan's Commercial Waste by barge. In order to maximize the throughput capacity required for this proposal, the truck-to-barge operation for mixed paper would need to be relocated. In order to facilitate this relocation, as well as to reduce the number of vehicle miles traveled by DSNY trucks, DSNY proposes to develop a Recyclables acceptance facility in lower Manhattan. This proposal would also fulfill the goal of this New Draft SWMP to distribute waste management facilities more equitably in all five boroughs.

The most promising location for this Manhattan Recyclables acceptance facility is the former site of DSNY's Gansevoort MTS on Pier 52 in Manhattan Community District 2. The Gansevoort MTS has not been used by DSNY since 1991. For this proposed project to move forward, several issues must be resolved, such as acceptable integration of the facility design (including an environmental education center) and operation into the plans for the Hudson River Park, and amendment of the Hudson River Park Act.

Table 2.3-1 lists all of the facilities that would be elements of the Recycling program in the New SWMP, as well as facilities serving the current program.

**Table 2.3-1
Recycling Facilities**

Facility Type	Operator/Owner, Facility Name, and Address	Community District
Proposed Action Facilities		
Recyclables Processing/Acceptance	Hugo Neu Corporation 30 th Street Pier at the South Brooklyn Marine Terminal, Brooklyn	Brooklyn 7
Recyclables Acceptance	DSNY, Former site of Gansevoort MTS, Pier 52, Manhattan	Manhattan 2
Existing Program Facilities		
Recyclables Processing ⁽¹⁾	Visy Paper, Inc. 4435 Victory Boulevard, Staten Island	Staten Island 2
Recyclables Acceptance/Processing ^{(1) (2)}	Hugo Neu Corporation 850 Edgewater Rd, Bronx	Bronx 2
Recyclables Acceptance/Processing ^{(1) (2)}	Hugo Neu Corporation Claremont Terminal 1 Jersey City, New Jersey	N/A
Recyclables Acceptance/Processing ^{(1) (2)}	Hugo Neu Corporation 30-27 Greenpoint Avenue Long Island City, Queens	Queens 2
Recyclables Acceptance/Processing ⁽¹⁾	A & R Lobosco 31-33 Farrington Street Flushing, Queens	Queens 7
Recyclables Acceptance ⁽¹⁾	Metropolitan Paper (Potential's Alternate Acceptance Facility) 854 Shepherd Avenue, Brooklyn	Brooklyn 5
Recyclables Acceptance/Processing ⁽¹⁾	Triboro/Cellmark 891-899 East 135 th Street, Bronx	Bronx 1
Recyclables Acceptance/Processing Facility ⁽¹⁾	Paper Fibres 960 Bronx River Avenue, Bronx	Bronx 2
Recyclables Acceptance/Processing ⁽¹⁾	Potential Industries 2 North 5 th Street, Brooklyn	Brooklyn 1
Recyclables Acceptance/Processing ⁽¹⁾	Rapid Processing 860 Humboldt Street, Brooklyn	Brooklyn 1

Notes:

- ⁽¹⁾ These are existing processing facilities which accept Paper and/or MGP from the Curbside Program and produce marketable end products. As such, they are not subject to environmental review and are listed here to indicate that they are facilities included in the New SWMP.
- ⁽²⁾ These are existing facilities that currently receive truck deliveries of DSNY Curbside Recyclables for transfer to a processing facility. As such, they are not subject to environmental review and are listed here to indicate that they are facilities included in the New SWMP.

2.3.3 Advantages of Proposed Action

2.3.3.1 *Recyclables Processing Facility*

The major advantages of the Proposed Action to develop a materials processing facility are:

- Commits the City to maintain its Curbside MGP Program over the next 20-years.
- Creates a relationship in which the processor has economic incentives to expand product markets and thereby increase the net recovery rate for MGP. Historically, DSNY has had considerable difficulty in establishing stable and cost-effective relationships with the contractors that have processed its Curbside MGP, in part due to the practice of contracting for a five-year term with a short-notice cancellation clause. This created economic uncertainty for the contractor and discouraged investments in facility upgrades to improve recovery rates. The 20-year term of the service agreement removes these disincentives and will create a relationship in which the processor has economic incentives to expand product markets and thereby increase the net recovery rate for MGP processed.
- Enhances the opportunity to produce and market new products by recovering materials that are now marginal. The City's Curbside MGP collections have high proportions by weight of glass, particularly mixed-color, broken glass, a material which does not have economic markets. Better technology to be used in the materials processing facility, in addition to aggressive research and development – both afforded by a long-term contract – will address this situation.
- Secures competitive price terms for the City and stabilizes costs over the long term.
- Creates a waterborne transportation network that is consistent with the City's goal of reducing truck traffic. An estimated 85% of the recyclable materials will be delivered to the new Recyclables processing facility via barge, and 75% will leave post-processing via barge. This is move that will help reduce truck traffic on City streets and improve the environment.
- Creates significant local employment opportunities through an estimated 160 construction jobs and 100 permanent jobs when facility operations commence.

2.3.3.2 *Manhattan Recyclables Acceptance Facility*

The major advantages of the Proposed Action to develop a Recyclables acceptance facility in Manhattan are:

- Eliminates the need to run Recyclables collection vehicles from Manhattan to acceptance or processing facilities in other boroughs or New Jersey.
- Facilitates the relocation of the recycled paper barge operation now based at the West 59th Street MTS to Gansevoort, which will enable the West 59th Street MTS site to be potentially developed for export of Commercial Waste.
- Results in a more equitable distribution of transfer facilities among the City's boroughs.

2.4 **New Initiatives**

2.4.1 Propose Percentage-Based Diversion Goals

As the document that charts the course the City will follow for the next 20 years with regards to solid waste management, it is important that this SWMP set specific diversion goals for recycling, as well as outline the programs that will help achieve those goals. While the advocates of "Zero Waste" are to be lauded for setting the diversion bar high, the City must be realistic and recognize that many decisions regarding what individuals and businesses do with their waste are beyond the City's direct or indirect control.

Realistic goals do not mean unambitious goals. DSNY recommends that the City set a 70% diversion goal for the combined Commercial and DSNY-managed Waste streams to be achieved by 2015. In the near term, the City should meet a 25% diversion goal for the curbside and containerized waste generated by residents and institutions, and a 35% diversion goal for the total DSNY-managed Waste stream, both to be achieved by 2007.²

² For definition of these streams and tabulated projections of diversion rates over the course of the 20-year SWMP planning period, see Attachment II, "DSNY-Managed Waste Quantities and Projections for Plan Period".

These goals are aggressive but reasonable, and are substantiated by the preliminary data from the 2004 Waste Characterization Study (WCS), described in Section 2.4.2. This study reveals preliminary findings of the baseline quantities of designated paper, metal, plastic, glass and other potentially recoverable materials in the waste stream. These goals also are consistent with those required in other states, as well as the goals voluntarily adopted by municipalities in cities throughout the United States. The achievement of these goals will enable the City to maintain its standing as a national leader in recycling, avoid costly litigation for failing to meet legally-mandated, tonnage-based diversion rates and hopefully advance the City's efforts to attract recycling industries to locate and invest in the City.

By proposing these percentage-based diversion goals, DSNY is also proposing revising the tonnage-based diversion mandates in LL19. The full rationale and supporting data for this proposal can be found in Attachment VII. Agreement on all aspects of this proposal will require the participation of many stakeholders, including the City Council and the advocacy community. DSNY looks forward to working with these groups and sets forth a proposed schedule for facilitating this dialogue in the Waste Prevention and Recycling Milestones section of this SWMP (Section 2.5).

2.4.2 Perform a Waste Characterization Study (WCS)

DSNY is currently performing a four-season Citywide WCS,³ involving the sorting of both residential refuse and recyclable streams. This study, a continuation of the WCS first undertaken in 1989-1990, will provide essential data to solid waste planners, especially in the recycling field. The full, four-season WCS is described in Attachment III, "Waste Characterization Activities." The sampling and sorting methodology can be found in Appendix D, "Preliminary Waste Characterization Report."

The first Recyclables and refuse sorts were conducted in May and June of 2004 (Spring Sorts) and the preliminary data is available (see Appendix D). This section analyzes the preliminary data with a focus on implications for the Recycling Program. The data informs the ambitious yet attainable, diversion goals outlined in Section 2.3.1, as well as the choice of programs necessary to reach these goals over the course of this new SWMP planning period.

³ Among the requirements of a SWMP are to "characterize the solid waste stream to be managed in the planning period." (New York State Environmental Conservation Law, Section 27-0107, Subsection 1.b.i.).

2.4.2.1 Metal, Glass and Plastic (MGP) Composition

Figure 2.4-1, MGP Composition: Spring Sort Data, shows the composition of the MGP Recyclables stream. Two numbers are important to highlight from the data are the percentage of the MGP stream that is comprised of mixed color, broken glass and non-designated materials. Table 2.4-1, MGP Composition: Processor Versus 2004 Spring Sort Data, compares the Spring Sort data with the MGP composition data reported by the four vendors that processed the City's MGP under short-term contracts from 1994 to 2002.

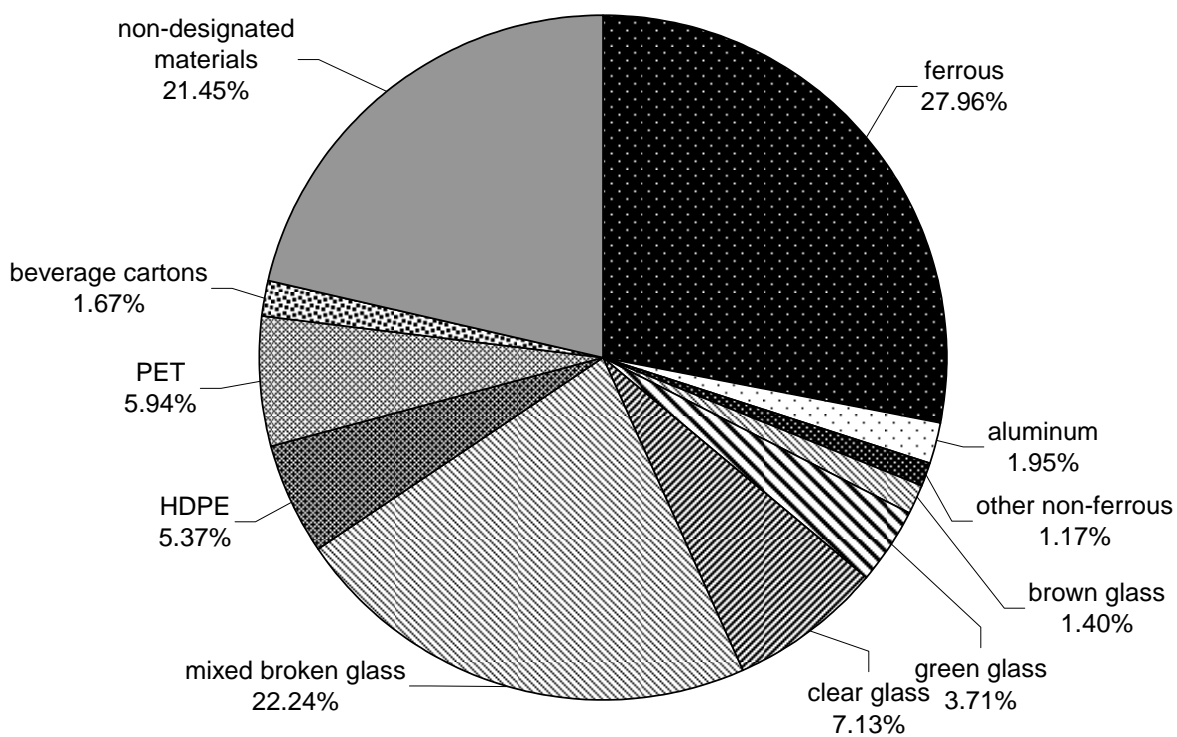
2.4.2.1.1 Glass

According to the Spring Sorts, roughly 35% of the MGP stream consists of glass. This accounts for glass that is intact, defined as glass pieces greater than 3 inches by 3 inches in diameter and therefore more readily sorted by color, as well as smaller pieces of broken glass not readily separated by color ("mixed broken glass").

The four vendors that processed the City's MGP on average reported the percentage of mixed broken glass as 33% of the incoming material. The results of the Spring Sorts reveal a lower percentage of this material – only around 22%. This is significant because lack of markets for mixed broken glass, in particular, was one of the factors that led to increased processing prices and contributed to the suspension of the program in 2002. (Whether these lower glass percentages are based on the fact that, during the Spring Sorts, glass had only recently been reintroduced to the MGP stream, will become clearer from the other three seasons' data moving forward.⁴)

⁴ On average, DSNY collected nearly 72,000 tons of waste (refuse plus recycling) each week during May and June, and an average of almost 4,900 tons of MGP during this same period. Applying the glass percentages listed above to these tonnage numbers results in a capture rate of 54%. This means that residents were setting out over half of the glass known to be in the waste stream, which is a favorable rate, suggesting that these lower percentages are not a result of confusion over the newly restored program.

**FIGURE 2.4-1
MGP COMPOSITION: 2004 SPRING SORT DATA**



**Table 2.4-1
MGP Composition: Processor Versus 2004 Spring Sort Data**

Data Source	Spring Sorts 2004	MGP COMPOSITION AS REPORTED BY PROCESSORS UNDER PRIOR CONTRACTS FOR MGP ACCEPTANCE, PROCESSING, MARKETING				
		Average of Four Processors	Processor 1	Processor 2	Processor 3	Processor 4
MGP Composition						
ferrous	27.96%	25.48%	20.43%	30.42%	28.18%	22.87%
aluminum	1.95%	0.76%	0.60%	0.41%	1.07%	0.96%
other nonferrous	1.17%	0.00%	0.00%	0.00%	0.00%	0.00%
METAL	31.08%	26.23%	21.03%	30.84%	29.25%	23.83%
brown glass	1.40%	0.19%	0.00%	0.75%	0.00%	0.00%
green glass	3.71%	0.51%	0.00%	2.04%	0.00%	0.00%
clear glass	7.13%	1.92%	0.00%	3.26%	0.00%	4.42%
mixed broken glass	22.24%	35.40%	48.99%	13.24%	30.33%	49.03%
GLASS	34.49%	38.02%	48.99%	19.29%	30.33%	53.46%
HDPE	5.37%	3.87%	3.06%	4.94%	3.56%	3.91%
PET	5.94%	2.00%	1.45%	2.41%	2.23%	1.93%
PLASTIC	11.31%	5.87%	4.50%	7.35%	5.80%	5.84%
beverage cartons	1.67%					
Total MGP	78.55%		74.52%	57.47%	65.38%	83.12%
Non-Designated Materials						
non-designated plastics	6.49%	0.39%	0.28%	0.67%	0.44%	0.18%
other	14.96%	29.48%	25.19%	41.86%	34.18%	16.69%
TOTAL	21.45%	29.88%	25.48%	42.53%	34.62%	16.88%

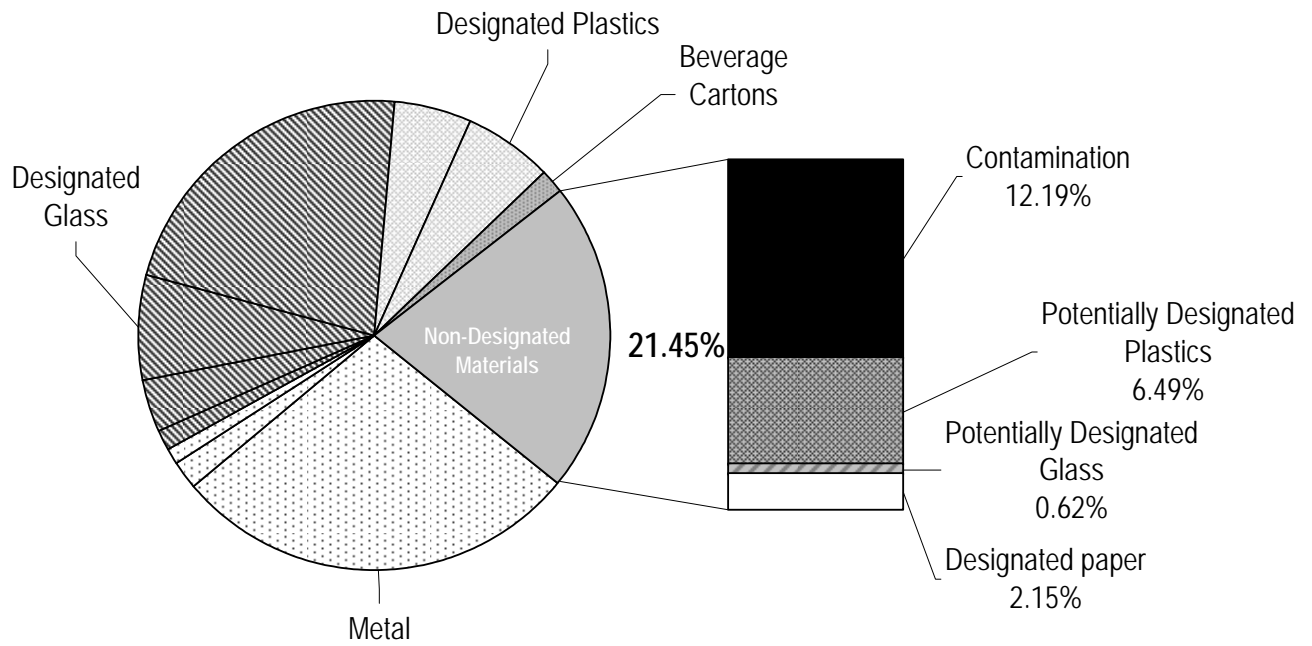
Even if mixed broken glass comprises a lower fraction of the MGP stream than previous processors maintained, it still represents one of the largest single material categories. Therefore, it will be essential for the City to work with the HNC under its new 20-year processing contract (described in Section 2.4.3) to help identify and facilitate markets for this material. HNC is already experimenting with creating a soil blend with ground glass, pursuing outlets for mixed broken glass as an aggregate material, and having conversations with secondary processors that use glass as a feedstock.

2.4.2.1.2 Non-Designated Materials

The Spring Sorts found that 21% of the MGP stream consisted of non-designated materials. (This figure is not as high as previous processors asserted: on average, the four processors reported non-designated materials to comprise 30% of the incoming MGP stream.) Nevertheless, one of the major goals of the Recycling Program over this 20-year SWMP planning period must be to reduce this rate as much as possible. This can be accomplished through the sustained public education and enforcement efforts described later in this section.

Figure 2.4-2, 2004 Spring Sort Data: Sources of Non-Designated Materials in the MGP Stream, presents the sub-composition of this sort category. While 12.2% of the non-designated material category consists of refuse thrown into the recycling bin, the next largest category (6.5%) consists of plastic containers that are not currently designated for recycling collection. DSNY currently asks residents to separate #1 and #2 plastics in the form of narrow-neck bottles; previous vendors relied largely on manual sortation of plastics and it was easier for sorters to recognize a shape than read a number on the bottom of a container. However, HNC has expressed interest in testing more sophisticated sortation technologies that may facilitate the addition of other plastic types (#3 to #7) in the future. This move would increase diversion and reduce the non-designated material rates.

**Figure 2.4-2
2004 Spring Sort Data:
Sources of Non-Designated Materials in the MGP Stream**



2.4.2.2 Yard Waste

The Spring Sorts took place in May and June and therefore reflect a higher percentage of yard waste, including leaves, grass and prunings, than will probably be found in the other three seasonal sorts to follow. What is noteworthy, however, is that the percentage of yard waste in the total spring waste stream (7.7%) is substantially higher than in the Spring Sort of the 1989-1990 Study (4.1%).

The organic fraction of the waste stream will play an important role in meeting the diversion goals of this SWMP. To keep yard waste out of the waste stream, DSNY is restoring funding to its backyard composting and “Leave in on the Lawn” education programs and its subsidized compost bin promotional programs. In addition, DSNY will continue to promote its compost facility to residential landscapers.

2.4.2.3 Electronics

Appliances and electronics, a category not assessed in 1990, comprised a very small fraction of the overall waste stream in the Spring Sorts – 0.92%. Nevertheless, electronics are a growing and potentially toxic fraction of the City’s waste stream. To deal with this issue, DSNY is developing an electronics-recycling initiative (see Section 2.4.5).

2.4.3 Enter 20-Year Processing Contract for MGP

In September 2004, the Mayor announced an agreement with HNC, one of the nation’s largest scrap metal processors, that will secure a long-term, economically viable outlet for the City’s Recyclables and dramatically reduce truck traffic on City streets. The agreement calls for the company to build a modern recycling facility in the City in return for a commitment from the City to deliver all of the MGP, and a portion of the mixed Paper, that DSNY currently collects for the next 20 years. This long-term contract allows HNC to make the capital investment necessary to develop better markets for the City’s Recyclables materials and to provide a waterborne network for movement of recycled materials. Preliminary estimates indicate that a total of 85% of the Recyclable materials will be delivered to the new processing facility via barge from HNC’s acceptance facilities listed in Table

2.2-1 and, after processing, 75% will leave the processing facility via barge. By relying on waterborne transport, the facility will reduce regional truck traffic by approximately 55,000 vehicle miles per year.

Construction of the \$25 million facility will create an estimated 160 construction jobs and 100 permanent jobs. Construction is expected to begin in early 2006 and be completed by late 2007 and will be financed by HNC. The new facility will be located on a pier in the SBMT, and will be part of a larger development launched by the New York City Economic Development Corporation (NYCEDC) for this waterfront site. Because HNC will export containerized recycling materials, the new facility will support a stevedoring operation, which is also envisioned for the site. These activities collectively represent a major development for a working Brooklyn waterfront.

The long-term contract will lower the City's cost for processing MGP recycling to approximately \$48 per ton, \$59 less per ton than the \$107 that the City was facing before the program was suspended two years ago. The contract will cost the City approximately \$16 million per year, saving nearly \$20 million per year over what it would have paid prior to the Recycling Program's suspension.

To further advance the goal of reduced truck traffic, this Draft New SWMP proposes identifying a transfer point in Manhattan to transport Manhattan Recyclables as well.

2.4.4 New Waste Prevention Initiatives

2.4.4.1 Develop NYC Stuff Exchange Website

DSNY developed the NYC Stuff Exchange telephone system to promote reuse outlets throughout the City. During the development stages of the NYC Stuff Exchange (1-877-NYCSTUF), many New Yorkers did not have access to the Internet. Since then, access to the Internet has dramatically increased. In an effort to reach additional segments of the City population, DSNY plans to establish an NYC Stuff Exchange website as a companion service to the phone-based system.

2.4.4.2 Expand the NY Wa\$teMatch Program

Since 1997, NY Wa\$teMatch, a DSNY-sponsored industrial materials exchange program, has linked companies looking to get rid of materials with those who have a use for them. In addition to servicing the manufacturing sector, NY Wa\$teMatch intends to expand to serve other business sectors such as the hospitality, healthcare and property management sectors. NY Wa\$teMatch also will continue to pursue opportunities to assist local manufacturers to meet the demand for locally manufactured green building products.

2.4.4.3 Reduce Junk Mail

To reduce junk mail, a Citywide notification to promote the Mail Preference Service of the Direct Marketing Association is scheduled for 2004/2005. The Mail Preference Service allows residents to remove their addresses from most national mailing lists. Information will also continue to be posted on DSNY's website and DSNY's NYC WasteLe\$\$ website, and will continue to be distributed by DSNY staff members at local recycling and waste prevention-related events.

2.4.5 Develop an Electronics Recycling Initiative

Over the course of the 20-year SWMP planning period, the growth of electronic waste will undoubtedly be one of the biggest changes to the waste stream. (This is already evidenced by the preliminary data from the WCS [see Section 2.3.2.3].) Although electronics – and in particular computers – have been part of daily life for at least ten years, analysts predict that the full impact to the waste stream has yet to be seen, as stockpiling of these materials is common practice. (Computers, monitors and printers have cathode ray tubes, circuit boards or other electronic components that contain hazardous materials, such as lead, mercury and cadmium, making safe disposal a priority.) Municipalities across the country are just beginning to address this issue, with the States of California and Maine taking a lead role by banning electronic waste from disposal. The State of New York has considered, but not passed, such legislation.

The City supports federal Extended Producer Responsibility legislation that would require manufacturers of electronic goods and computers to provide for the return and safe disposal of these items. On a more local level, DSNY received a grant from Dell Inc. and Lexmark to conduct a series of electronics recycling events during the autumn of 2004. These drop-off collections, which target CPUs, monitors, printers and computer peripherals, will be held throughout the City with the assistance of numerous local community organizations. DSNY is sending out a mailer to all City households in autumn of 2004 to publicize these events and provide information about alternative computer reuse and recycling opportunities.

2.4.6 Add Household Hazardous Waste (HHW) Collection

Household Hazardous Waste (HHW) is defined as household wastes that are flammable, corrosive, poisonous or otherwise potentially dangerous, including solvents, pesticides, hobby chemicals and other household items that would be regulated as hazardous wastes if generated by businesses or government agencies. These wastes are not accepted at DSNY's Special Waste sites due to New York State Department of Environmental Conservation (NYSDEC) permit restrictions.

To provide an outlet for these materials, DSNY will seek to re-institute an annual HHW collection day in each borough, issuing a Request for Proposals (RFP) for collection services.

2.4.7 New Public Education and Advertising Initiatives

2.4.7.1 *Conduct New Market Research*

DSNY has not conducted extensive market research to assess what New Yorkers know and think about waste prevention, recycling, composting and related topics for over five years. (The results of this original market research are available on line at http://www.nyc.gov/html/dos/pdf/pubnrpts/recyrpts/recy_mktg.pdf.) In order to develop educational

materials and advertising campaigns effective in the current environment (post-cessation and resumption of MGP collection), it is important for DSNY to conduct new market research regarding public attitudes and awareness of waste prevention, composting and recycling. This new data is expected to take into account the changing demographics within the City.

DSNY plans to contract the services of a professional market research firm to conduct focus groups and surveys needed to update DSNY's knowledge base and to develop effective education and advertising campaigns. It is anticipated that DSNY will conduct further market research, as needed, during the course of implementation of this 20-year SWMP.

2.4.7.2 Produce an Electronic Newsletter

An annual or semi-annual electronic newsletter will be launched in FY 2005 to keep New Yorkers up-to-date on DSNY's recycling, waste prevention and composting efforts. This will save on printing and mailing costs and will be easier to update, prepare and archive than a printed publication. It will cover topics relevant to recycling, such as new developments in the City's recycling program, seasonal recycling programs, how to order recycling materials, frequently asked questions, and practical waste prevention tips. The newsletter will be distributed via NYC.gov to users who signed up to receive this service, and also will be posted on DSNY's website.

2.4.7.3 Enhance the "Golden Apple" School Recycling Award Program

The Golden Apple Awards program encourages waste prevention, recycling and neighborhood cleanup efforts in City schools by providing cash awards and recognition of achievements. The monetary awards serve as an incentive for schools to develop and report on new initiatives. Further, the program helps students appreciate how they can make the City a cleaner and greener place to live.

To help schools initiate Golden Apple projects, DSNY will test the feasibility of providing schools with Golden Apple "Seed Money" that will encourage schools to pursue innovative ideas. By providing upfront funding for worthwhile projects, DSNY may inspire schools to undertake even

more ambitious, creative, exciting and effective efforts. It is expected that funds will be used for equipment, materials, supplies or services intended to implement waste prevention, recycling or cleanup projects.

2.4.7.4 Produce New Publications

DSNY will produce: (i) a mailer to promote the FY 2005 computer recycling events partnered by DSNY and Dell Computers; (ii) new HHW publication for Citywide distribution that focuses on reduction, reuse, recycling and proper disposal of HHW, Special Waste and products that contain hazardous components (e.g., electronics); (iii) new materials to promote fall leaf collections; and (iv) a campaign to promote the NYC Stuff Exchange website.

Many other public education and advertising initiatives are expected to be undertaken during implementation of this 20-year SWMP. The specific efforts will reflect the results of market research, WCSs, legislative and policy developments, and the continued evolution of the waste prevention, recycling and composting program in the City.

2.4.7.5 Conduct Commercial Recycling Education

DSNY will work with the Business Integrity Commission (BIC) to distribute commercial recycling information to all private carters, helping them understand their responsibilities under Local Law 87 (LL87). DSNY also will work with BIC to ensure it is standard practice for private carters to inform their clients of the requirements of LL87.

2.4.8 New Composting Initiatives

2.4.8.1 Require Set-Out in Paper Bags

DSNY seeks revisions to the recycling regulations to require residents to set out leaves in paper bags. DSNY's leaf collection program currently requires residents to use clear plastic bags for setting out leaves for curbside collection, but the composting program will be enhanced by switching to set out of leaves in paper bags, available in most home supply "box stores" throughout the City. (Paper bags have been used successfully for many years in various communities, including Westchester County.)

DSNY implemented a small pilot project during the last leaf collection season in 2001 and found that paper bags are highly effective; the bags themselves are compostable, while plastic bags are a serious contaminant and must therefore be opened and screened out of the compostable material. Switching to paper bag set-out has the potential to substantially reduce composting operating costs and increase the overall effectiveness of the program.

2.4.8.2 Conduct On-Site Composting Feasibility Study

DSNY will work with the NYCEDC to conduct a study to thoroughly investigate the feasibility of an on-site, food-waste composting facility at the Hunts Point Food Distribution Center (Food Center) in the Bronx.

Tenants at the Food Center, especially members of the Produce Cooperative, generate large quantities of degradable waste everyday (produce, broken wooden pallets and soiled cardboard). The idea is to recycle this material on site in an enclosed, odor-controlled composting facility. Locating a recycling facility in close proximity to feedstock generators is an important factor in its economic viability.

The study will commence in autumn 2004, with a final report scheduled for release some time in early 2005. If the study determines that it is possible to recycle degradable waste at the Food Center in a nuisance-free and economical manner that does not adversely impact the local community, then the results of the study will be used to shape an RFP for commercial development of such a facility.

2.5 Milestones

Table 2.5-1 presents implementation milestones related to the Proposed Actions and New Initiatives.

**Table 2.5-1
Draft New SWMP Milestones – Recycling**

PROGRAM Milestone	Scheduled Fiscal Year	New SWMP Section
PROPOSED ACTION – RECYCLING FACILITIES AND SERVICES		
MATERIALS PROCESSING FACILITY, 30TH STREET PIER AT SBMT		
City and HNC execute 20-year agreement	2006	
HNC’s South Brooklyn processing facility to begin receiving paper in addition to MGP	2011	
MANHATTAN ACCEPTANCE FACILITY		
Finalize site selection	2006	
Complete design and permitting	2008	
Complete construction and begin facility operation	2011	
NEW INITIATIVES – RECYCLING		
Propose amendments to LL19, including to replace mandatory tonnage diversion with percentage goals	2005	See Draft New SWMP Section
Begin development of Stuff Exchange Website	2005	See Draft New SWMP Section
Launch and promote Stuff Exchange Website	2006	See Draft New SWMP Section
Wa\$teMatch marketing campaign to add focus on hospitality, healthcare and property management industries	2008 -10	See Draft New SWMP Section
New Citywide publication/campaign to promote junk mail reduction	2004 - 06	See Draft New SWMP Section
New HHW reduction publication	2005	See Draft New SWMP Section
Electronics recycling Citywide mailing	2004	See Draft New SWMP Section
<u>WCS:</u>		
▪ Conduct fall sampling and sorting	2005	See Draft New SWMP Section
▪ Conduct winter sampling and sorting	2005	
▪ Conduct spring sampling and sorting	2005	
▪ Conduct summer sampling and sorting	2006	
▪ Final Report	2007	
Public education market research	2006 2011 2016 2021	See Draft New SWMP Section
DSNY electronic newsletter	2005	See Draft New SWMP Section

Table 2.5-1 (Continued)
Draft New SWMP Milestones – Recycling

PROGRAM Milestone	Scheduled Fiscal Year	New SWMP Section
NEW INITIATIVES – RECYCLING		
Begin recycling re-education of City Agencies and institutions	2005	See Draft New SWMP Section
Various new public education materials	On-Going	See Draft New SWMP Section
BWPRR staff outreach to promote restoration of recycling services	2005 and ongoing	See Draft New SWMP Section
Resume seasonal leaf, yard waste and Christmas tree collection for composting	2005	See Draft New SWMP Section
Resume compost education and give-back programs in cooperation with the City's four Botanical Gardens	2005	See Draft New SWMP Section
Seek revision to recycling regulations in order to require residents to set out leaves in paper bags	2005	See Draft New SWMP Section
Issue RFP for HHW collection days	2006	See Draft New SWMP Section

2.6 Status of Existing Programs

Attachment VI provides an extensive discussion of the status of the Existing Recycling Programs.