LEAD AGENCY FINDINGS STATEMENT

FOR

THE NEW YORK CITY

COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

NEW YORK CITY DEPARTMENT OF SANITATION

CEQR No: 03-DOS-004Y

February 2006

www.nyc.gov/sanitation
February 13, 2006

Re: Findings Statement for New Comprehensive Solid Waste Management Plan
CEQR #: 03-DOS-004Y

Dear Involved Agency/Interested Party:

Pursuant to the State Environmental Quality Review Act (SEQRA), Article 8 of the Environmental Conservation Law, and the Rules of Procedure for City Environmental Quality Review (CEQR), I am pleased to transmit to you the enclosed Findings Statement. The City of New York Department of Sanitation (DSNY) prepared this Statement to complete the environmental review conducted for the proposed New Comprehensive Solid Waste Management Plan (Draft New SWMP) for the next 20-year planning period. DSNY filed and circulated a Final Environmental Impact Statement concerning this proposed Plan on April 1, 2005, following a lengthy public review process.

The Plan would continue programs designed to reduce, reuse, prevent, recycle and compost solid waste. In addition, a key initiative of the Plan is the development of state-of-the-art Marine Transfer Stations (Converted MTSs) constructed at four of DSNY’s existing MTS sites. These new facilities would receive and containerize DSNY-managed waste for transport by barge from the MTSs. The Converted MTSs and proposed long-term contracts with up to five existing private solid waste transfer stations utilizing rail or barge, together with the Staten Island Transfer Station, would replace the interim waste export contracts the City entered into to close the Fresh Kills landfill pending development of a long-term solution. The Converted MTSs and other facilities will serve the communities in which they are located, accommodate on-site truck queuing and, through containerization, position the City to maximize transport and disposal options and to control costs. The Plan also includes initiatives to reduce truck traffic associated with commercial waste management in the City and to promote the use of barge and rail transport instead. Another Plan initiative is a public-private partnership to develop and operate a central recyclables processing facility at the South Brooklyn Marine Terminal.

The FEIS and related documents are available for public inspection at 22 Public Document Repositories listed in the Findings Statement. In addition, further information is available on DSNY’s website: www.nyc.gov/sanitation. Thank you for your interest and participation in this important initiative.

Sincerely,

John J. Doherty
Commissioner
LEAD AGENCY FINDINGS STATEMENT FOR NEW YORK CITY’S COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

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1.0 PROPOSED ACTION: NEW COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

Introduction

This document is a Findings Statement prepared for the adoption of New York City’s proposed New Comprehensive Solid Waste Management Plan ("draft New SWMP" or "Plan") and related approvals in accordance with the New York State Environmental Quality Review Act (Article 8 of the New York State Environmental Conservation Law) and its implementing regulations (6 NYCRR Part 617)(collectively, SEQRA) and the Rules and Procedures for City Environmental Quality Review, Title 62 Chapter 5 and Title 43 Chapter 6 of the Rules of the City of New York (CEQR). The New York City Department of Sanitation (DSNY) acts under its authority as lead agency in accordance with SEQRA/CEQR. This Findings Statement relies upon facts and conclusions contained in the Final Environmental Impact Statement (FEIS) approved by DSNY and filed on April 1, 2005, in cooperation with other involved agencies, as well as comments thereon and related documents and submissions.

DSNY prepared the FEIS to provide a means for DSNY, other involved agencies and the public to systematically consider potentially significant adverse environmental impacts, alternatives, and mitigation and facilitate the weighing of social, economic and environmental factors early in the planning and decision-making process before taking final action on the proposed draft New SWMP and its related approvals. The three-volume FEIS document prepared for the draft New SWMP consists of an Executive Summary, Description of the Proposed Action, Description of Facility Sites, an Overview of the Study Methodology for Site-Specific Analyses, separate chapters presenting the environmental review conducted for each of the facility sites Alternatives, and a Responsiveness Summary containing public comments received on the DEIS and DSNY’s responses. Fourteen technical appendices supplied in CD-ROM format provide additional materials as part of the FEIS.

This Findings Statement provides background on the development of the draft New SWMP and alternatives considered, considers the relevant environmental impacts, facts and conclusions disclosed in the FEIS, weighs and balances the relevant impacts with other considerations, provides a rationale for DSNY’s decision to act on the draft New SWMP and related approvals, and certifies that the requirements of SEQRA/CEQR have been met. Adoption of this Findings Statement is DSNY’s final step as lead agency in the SEQRA/CEQR process for the Draft New SWMP.

Section 1.1 below discusses the purpose and need for the Plan, while Section 1.2 provides background on the development of the Plan. Section 1.3 summarizes statistics concerning the types and quantities of waste generated in the City and current facilities utilized for this purpose. Sections 1.4 through 1.6 discuss the elements and initiatives of the proposed Plan. Sections 1.7 lists the permits and approvals required to implement the Plan, while Section 1.8 describes the public review process undertaken for consideration of the Plan and the Environmental Impact Statement prepared for it. Section 2 discusses the environmental impacts of the Plan. Section 3 discusses alternatives DSNY considered to the Plan. DSNY’s Conclusion, Findings and Certification appear in Section 4.

SEQR/CEQR Classification: Type 1

Contact for Additional Information:

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1.1 Purpose and Need

The Draft New SWMP was prepared pursuant to New York State’s Solid Waste Management Act of 1988 (New York State Environmental Conservation Law Section 27-0107) (the Act) and its implementing regulations (6 New York Code Rules and Regulations §360-15 et seq.). The Act requires municipalities or “planning units” to undertake comprehensive long term planning for the management of their solid waste. The first Solid Waste Management Plan prepared by New York City (City) was approved in 1992. Subsequent Modifications to the 1992 Plan were approved in 1996 (the 1996 Plan Modification) and 2000 (the 2000 Plan Modification). As the planning period of an approved Plan comes to an end, the New York State Department of Environmental Conservation (NYSDEC) requires a new SWMP to be submitted for its review and approval. The new Plan must also be adopted by the City Council. The planning period for the 1992 SWMP as modified has ended, so DSNY has proposed a new draft Plan in October 2004.

The period from 1992 to the publication of the Draft New SWMP witnessed enormous changes and evolution in the City’s integrated solid waste management system. As further discussed below, the draft New SWMP would continue much of that system, while proposing new initiatives concerning recycling facilities used for the City’s curbside program; facilities used for transfer, transport and disposal of post-recycling municipal solid waste; and facilities used for transfer and transport for disposal of commercial waste.

The draft New SWMP also provides current and relevant socioeconomic, demographic and institutional data for the City; projects residential and commercial waste quantities for the Plan period; provides data on the composition of New York City’s wastestream; discusses current Recycling programs, including public education activities, waste prevention coordinator initiatives and special waste management programs, and provides the rationale for DSNY’s proposal to amend the City’s Recycling Law; describes the City’s commercial waste management system; discusses management of certain solid wastes (dredge spoils, biosolids, medical waste) that are managed separately from municipal solid waste (MSW); and describes DSNY’s closure construction and end use program for the closed Fresh Kills sanitary landfill.

The draft New SWMP Appendices include the following documents:

A. New York City Recycling in Context: A Comprehensive Analysis of Recycling in Major U.S. Cities (DSNY August 2001);

B. Processing and Marketing of Recyclables in New York City: Rethinking Economic, Historical and Comparative Assumptions. (DSNY May 2004);
   - Appendix: A Comprehensive Solid Waste Management Plan for New York City and
   - Final Generic Environmental Impact Statement (DSNY August 1992 – on CD ROM);


D. Preliminary Waste Characterization Report (DSNY September 2004); and certain DSNY reports:

1 NYSDEC Policy DSHM-SW-03-15 (October 8, 2003).
- Backyard Composting in New York City: A Comprehensive Program Evaluation (DSNY 1999)
- Composting in New York City: A Complete Program History (DSNY August 2001)
- Mixed Waste Processing in New York City: A Pilot Test Evaluation (DSNY October 1999)
- NYC Recycles: More than a Decade of Outreach Activities by the NYC Department of Sanitation FY1986-1999 (DSNY Fall 1999);

E. Commercial Waste Management Study (DSNY March 2004):
- Vol. 1 Private Transfer Station Evaluations - Four Study Areas with Transfer Stations in Proximity Engineering and Operations Survey of Selected Transfer Stations Effectiveness of Enforcement
- Vol. 2 Commercial Waste Generation and Projections
- Vol. 3 Converted Marine Transfer Stations: Commercial Waste Processing and Analysis of Potential Impacts; Appendix A: MTS Environmental Evaluation;
- Vol. 4 Evaluation of Waste Disposal Capacity Potentially Available to New York City
- Vol. 5 Manhattan Transfer Station Siting Study
- Vol. 6 Waste Vehicle Technology Assessment

F. Evaluation of New and Emerging Solid Waste Management Technologies (DSNY September 2004)

1.2 Background to the Draft New SWMP

1.2.1 1992 SWMP

DSNY received NYSDEC approval for its initial SWMP on October 28, 1992 (the 1992 SWMP). The 1992 SWMP, which was for a 10-year planning period, identified certain policy objectives and called for the City to minimize waste, recycle where feasible, recover energy from waste that is incinerated, and utilize the Fresh Kills landfill. The 1992 SWMP considered in a generic way four different integrated waste management plan systems (each studied with and without commercial waste): System A, System

2 Although the 1992 SWMP was prepared for a 20-year planning period, as a result of negotiations with the City Council this period was reduced to 10 years.

3 The policy objectives were to meet the City’s capacity needs and the State’s solid waste management policy hierarchy, and to “minimize environmental and economic costs to the greatest extent possible given the range of potentially feasible alternatives (or conversely, to maximize environmental and economic benefits).” 1992 SWMP at 5-8. The system was to be safe and reliable, with flexibility and redundancy in the elements of the system. Id.

4 System A (with commercial waste) included 6 public materials processing facilities for recyclables and 4,500 tpd of private processing facilities, two leaf and yard waste composting facilities, three in-vessel composting facilities and source
B, the No Burn system, and the Maximum Burn system. The 1992 SWMP deferred certain facility siting decisions to a later date. The Final Generic Environmental Impact Statement prepared for the SWMP evaluated the potential impacts under each of the four systems. The “near-term” implementation plan set forth the programs and facilities scheduled for actual implementation by the City for the next five years that were to be fully operational over the next ten years. The full-implementation phase was expected to develop out of the near-term implementation plan in the direction of the SWMP A or SWMP B templates – or a hybrid encompassing some elements of both. As the City gained experience with recycling, composting and waste reduction and related costs and as the regulatory environment evolved, it was contemplated that a second set of decisions for the SWMP would be required in FY 1997.

The near-term component of the 1992 SWMP included as principle elements a recycling program pursuant to the New York City Recycling Law, Local Law 19 of 1989 and New York State General Municipal Law 120-aa, closure of the approximately 700 remaining apartment house incinerators by 1994 pursuant to local law, upgrading of one or two of the City’s incinerators, and contracting for a new 3000 tpd Brooklyn Navy Yard Resource Recovery Facility (a waste-to-energy incinerator) to be built within the former Brooklyn Navy Yard. The 1992 SWMP recognized that local landfill disposal capacity was limited, as five of the City’s six remaining landfills had closed from 1979 to 1991, leaving only Fresh Kills as a local landfill option, and so relied on waste prevention and recycling to limit the amount of waste that must be disposed of.

By September 1993, all three million City households received curbside collection of newspapers, magazines, corrugated cardboard, telephone books, plastic (PET and HDPE), metal (ferrous and aluminum), glass containers and foil. The New York State Legislature passed the Clean Air Compliance Act in 1993, which amended the Environmental Conservation Law §19-0321 to require that the City demonstrate its ability to offset nitrogen oxide and volatile organic compound emissions from the separation of organic waste for selected commercial and institutional sectors, seven waste-to-energy incinerator facilities, and the Fresh Kills landfill through the Fresh Kills landfill and ashfill.

System B (with commercial waste) included 6 public materials processing facilities, 4,500 tpd of private processing facilities, a residential organic waste collection and composting program, four in-vessel organic waste composting facilities, seven waste-to-energy facilities (with 1,500 tpd less combined capacity than under System A), and the Fresh Kills landfill and ashfill.

The No-Burn System (with commercial waste) included 6 public materials processing facilities, 4,500 tpd of private processing facilities, six mixed waste processing facilities, four in-vessel composting facilities, and the Fresh Kills landfill.

The Maximum Burn System (with commercial waste) included no public materials processing facilities and 4500 tpd of private processing facilities, nine waste-to-energy facilities, plus the Fresh Kills landfill and ashfill.

1992 SWMP at 16-2. The plan framework was intended to give the City the “maximum degree of flexibility in making future waste-management program choices that will best meet its public-policy objectives” under “ever-changing circumstances.” Id.

NYC Admin. Code §16-301 et seq. This law declared the City’s policy “to reduce environmental pollution and dangers to health, to decrease the demand for scarce landfill space, to minimize the size and cost of the proposed resource recovery program, and to encourage the conservation of valuable natural resources and energy.” The policy included strong support for recycling. Id., §16-302.

NY GML 120-aa provides that municipalities must “adopt a local law or ordinance to require that solid waste which has been left for collection or which is delivered by the generator of such waste to a solid waste management facility, shall be separated into recyclable, reusable or other components for which economic markets for alternative uses exist.” The law defines an “economic market” to exist when “the full avoided costs of proper collection, transportation and disposal of source-separated materials are equal to or greater than the cost of collection, transportation and sale of said materials less the amount received from the sale of said material.”
Southwest Brooklyn incinerator through reductions in the emissions from other sources before it could obtain permits to construct these projects. The City permanently closed the Betts Avenue, Greenpoint and Southwest Brooklyn incinerators by 1994; other incinerators had closed prior to the 1992 SWMP adoption.

1.2.2 1996 SWMP Modification

The 1992 SWMP was subsequently updated and modified with final DEC approval given on February 15, 1996. This Modification provided for the cessation of operations at the dilapidated South Bronx MTS in favor of a contract with a private transfer station to receive and export DSNY-managed Bronx waste by truck and rail to out-of-City disposal sites for at least three years, to reduce the City’s sole reliance on Fresh Kills. The 1996 SWMP Update and Modification evaluated the incremental cost of the City curbside Recycling program and proposed certain Recycling plan changes. The 1996 SWMP Update and Modification also delayed plans for the waste-to-energy incineration disposal facilities, modified the milestones for a composting program and eliminated plans for residential food waste recycling collection.

1.2.3 Closure of Fresh Kills Landfill

The Fresh Kills landfill was sited and built prior to the modern era of landfill regulation and lacked a liner. It had been operating pursuant to a Consent Order as it lacked a permit from NYSDEC, and was the source of numerous community complaints over the years. On May 29, 1996, Mayor Giuliani and Governor Pataki announced that the Fresh Kills landfill would close by December 31, 2001. Mayor Giuliani added that no new landfills or incinerators would be developed within the City. Fresh Kills was required to close pursuant to the enactment of Chapter 170 of the Laws of the State of New York in June 1996, which also precluded the NYSDEC from issuing permits for the Brooklyn Navy Yard Resource Recovery Facility.

The Mayor and Governor subsequently created a Fresh Kills Task Force with members from City, State and Federal government, elected officials and environmentalists, to recommend short-term and long-term strategies for dealing with the disposal of waste that had been going to Fresh Kills. The Task Force recommended the establishment of borough-based working groups, in cooperation with the Mayor’s Office of Operations, DSNY, Borough Presidents and the City Council, to develop plans for the management and disposal of solid waste from each individual borough. DSNY assisted in the creation of such borough working groups and responded to their information requests. Both the Task Force Report of November 1996 and the borough working groups (except for Manhattan) recommended a “borough-based approach” such that a borough’s post-recycling waste would not be trucked to a facility in another borough for transfer and export. The borough-based working group plans, which were issued in 1997, all noted the need to export waste to out-of-city facilities and recommended that waste be

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11 The recycling program goals of adding all “high quality” recyclable materials (i.e., certain items thought more easily recycled into new products) and bulk metal (such as stoves) were changed, due to economic reasons, to milestones for adding mixed paper and bulk metal.

12 As noted, the City has a composting program for yard waste and a pilot program for institutional food waste and promotes backyard composting. However, based on residential pilot programs conducted from 1991 to 1997 in Park Slope, Brooklyn (a medium-density neighborhood) and in 1993 in Starrett City, Brooklyn (a high-rise apartment complex) involving weekly curbside collection, DSNY determined that a centralized food waste composting program involving separate collection with dedicated trucks would be too costly, due to high collection costs and relatively low capture rates. DSNY, Composting in New York City: A Complete Program History (2001), in appendix to draft New SWMP.
exported by rail or barge and not by truck. The working group plans for Brooklyn, Manhattan and Queens recommended the Marine Transfer Stations (MTSs) within their borders be used for long-term export.

Also in 1996, DSNY issued a Request for Expressions of Interest (RFEI) inviting qualified respondents to submit conceptual plans defining the services they would be interested in providing for managing some portion or all of the waste going to Fresh Kills. DSNY reviewed the 34 responses to the RFEI in formulating its long term export plan.

### 1.2.4 Interim Waste Export Contracts

Meanwhile, as noted above, for the period before a new long term waste export plan could be developed and approved, DSNY entered into a series of short-term contracts for the export of DSNY-managed post-recycling waste, starting with Bronx waste starting in July 1997, followed by contracts for a portion of Brooklyn waste (October 1998), contracts for Manhattan and Staten Island waste (November 1999), and the remainder of Brooklyn waste and Queens waste in September 2000 and February 2001, respectively. These contracts allowed for the orderly phased reduction and ultimate cessation of landfilling at Fresh Kills ahead of schedule on March 22, 2001. Contractors taking City waste were required to demonstrate the existence of a Host Community Agreement or local approval that ensures that the community with the ultimate disposal facility for City waste has agreed to the existence of the facility, and may be receiving a benefit for hosting it. DSNY conducted environmental reviews for each of the Borough interim export procurements, and found they would result in no significant adverse environmental impacts. The City subsequently successfully defended itself against lawsuits challenging the adequacy of the environmental review performed for certain of these interim export contracts.

### 1.2.5 2000 SWMP Modification

In June of 1997, DSNY issue a Request for Proposals (RFP) to provide -- for at least 20 years -- all of the barges, facilities, equipment, labor and other services necessary to receive some or all of the solid waste transferred into barges at one or more MTSs and to dispose of the solid waste proposed to be received at an out-of-City facility. An extended proposal evaluation and draft SWMP development process considered siting and development of multiple Enclosed Barge Unloading (EBUF) projects both within and outside the City. This process eventually led to the selection of the Linden, New Jersey facility proposed by BFI as the preferred waste containerization and intermodal rail transfer site for long term export of waste delivered from five of the City’s eight MTSs. DSNY submitted a revised draft SWMP Modification to the City Council in December 1998. This plan outlined DSNY’s intent to rely upon marine and rail-based facilities to transfer and transport for disposal the post-recycling waste that had been going to the Fresh Kills landfill. The Linden EBUF was to be built on a peninsula in Linden, New Jersey across the Arthur Kill waterway from Staten Island, and would take an average of approximately 6,430 tpd of loose DSNY-managed Waste delivered by barge from the City’s MTSs at Hamilton Avenue, Brooklyn; North Shore Queens; and the East 91st Street, West 59th Street and West 135th Street in Manhattan. Waste delivered in hopper barges would be unloaded and containerized at the EBUF, transferred onto railcars at on-site rail sidings, and transported to a remote disposal facility. The Draft SWMP Modification also proposed: (i) the procurement of 20-year Service Agreements for export of DSNY-managed Waste by rail or barge from private transfer stations in the Bronx, Queens and Brooklyn, and, as an alternative to export from private transfer stations in Queens and Brooklyn, the conversion of the Brooklyn Greenpoint MTS to a containerization facility to export waste by barge; (ii) converting the

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13 Neither the Fresh Kills Task Force nor the borough working groups recommended reactivating local incinerators or constructing new waste-to-energy facilities within the City.
Southwest Brooklyn MTS site to a facility that would containerize waste for transport by barges to an intermodal facility; and (iii) a new municipal transfer station to be built at the Fresh Kills landfill where waste would be containerized and exported by rail, once the Travis Branch of the Staten Island Railroad was reactivated and interconnections with the Chemical Coast Line in New Jersey completed. The 2000 SWMP Modification formally eliminated plans for incineration construction or upgrading from the City’s SWMP.

The proposed 2000 SWMP Modification was presented to the City Council in May 2000, together with a Draft Environmental Impact Statement for hearings and public comment. The DEIS included a site-specific review of the impacts of waste export operations at 14 potential sites, encompassing 24 facility options, including six in-city EBUF sites considered as alternatives to the Linden EBUF site. DSNY filed a Final Environmental Impact Statement on October 16, 2000, and, after further hearings, the City Council overwhelmingly approved the 2000 SWMP Modification on November 29, 2000. NYSDEC approval followed in March 2001.

The 2000 SWMP Modification included certain new milestones for waste prevention, including a pilot program for community-based coordinators targeted to the City’s low diversion community districts, the Board of Education and New York City Housing Authority developments. In addition, the City planned to create an Environmental Purchasing Unit in the Department of Citywide Administrative Services to increase the City’s purchase of recycled-content products and other environmentally preferential goods and services, and review product specifications related to products and packaging to facilitate waste prevention. The City planned to purchase printing and writing paper with minimum 30% post consumer content, and develop curriculum and train Procurement Training Institute trainers to conduct periodic training of City agency procurement staff regarding waste prevention procurement practices.

1.2.6 Commercial Waste Management Study

While the 2000 SWMP Modification included a new plan for DSNY-managed Waste that had been going to Fresh Kills, it left in place the existing system of private carters and transfer stations that handle commercial waste in the city. As the commercial waste system continued to be the subject of significant public concern, concurrent with approving the 2000 SWMP Modification the City Council passed and Mayor Giuliani signed Local Law 74 of 2000. This law required DSNY to undertake a comprehensive study of the management of commercial waste in the City to assist City authorities in the preparation of the next SWMP, which was expected to be in place by the end of the initial SWMP’s 10-year planning period in October 2002. In particular, Local Law 74/2000 required that DSNY study the feasibility and potential environmental impacts of allowing commercial waste to be transferred at the City’s MTSs, in addition to DSNY-managed Waste. This Commercial Waste Management Study resulted in issuance of a Preliminary Report in July 2002, a Draft Report in January 2004 and a final six-volume report in March 2004.

1.2.7 Development of the New SWMP

Unfortunately, during 2001 the City’s plan for contracting with the private EBUF to be built in Linden, N.J. encountered problems that proved insurmountable. Added to this setback were the disruptions

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14 The six in-City EBUF sites studied in the 2000 FEIS were Harlem River Yard, 132nd Street and Lincoln Avenue, Bronx; American Marine Rail, 500 Oak Point Avenue, Bronx; Waste Management, Erie Basin, Beard and Halleck Streets, Brooklyn; BFI, 65th Street and upper New York Bay, Brooklyn; Republic Services, Inc., 920 E. 132nd Street, Bronx; and Port Ivory Recycling and Transfer Alliance, on Arthur Kill along Richmond Terrace and Western Avenue, near Port Ivory, Staten Island.
caused by the terrorist attacks upon New York City on September 11, 2001. In July 2002 Mayor Bloomberg announced a modified proposed plan for managing the City’s waste that would not require the use of an EBUF, but would convert the City’s eight existing marine transfer stations to containerize waste on site for loading onto barges. As evaluation and public review of this new plan could not be complete by the end of the existing SWMP planning period on October 28, 2002, the City obtained NYSDEC authorization for an interim SWMP pursuant to 6 NYCRR §360-15.11(c) while the City pursued development of the New SWMP and associated public review and approvals.

Mayor Bloomberg constituted a Waste Solutions Task Force consisting of staff from DSNY, the Office of the Mayor, New York City Economic Development Corporation (NYCEDC), and the New York City Law Department to help formulate the details of the Mayor’s plan. The Task Force was also charged with exploring an array of alternatives to the Converted MTSs that might reduce the cost and/or accelerate the Program’s implementation. In order to identify such alternatives to converting the Greenpoint and South Bronx MTSs, DSNY developed and issued in December 2003 (1) a Request for Proposals to Receive, Transfer, Transport and Dispose of Department of Sanitation-managed Waste from Brooklyn Formerly Delivered to the Greenpoint MTS; (2) a Request for Proposals to Receive, Transfer, Transport and Dispose of Department of Sanitation Waste from Queens Formerly Delivered to the Greenpoint MTS; and (3) a Request for Proposals to Receive, Transfer, Transport and Dispose of Department of Sanitation-managed Waste from the Bronx. DSNY and other Task Force members also initiated discussions with the Port Authority of New York and New Jersey concerning a long-term government-to-government agreement for the continued utilization of the excess disposal capacity available at the Essex County Resource Recovery Facility, a waste-to-energy incinerator in Newark, New Jersey. DSNY also prepared and on August 27, 2003 issued a Request for Proposals to Accept, Process and Market Recyclables, which was designed to solicit proposals for entering into a contract for recycling DSNY deliveries of source-separated metal, glass, plastic and paper for at least 20 years.

DSNY proceeded with the development of plans to convert up to eight of the Converted MTSs into containerization facilities and preparation of draft applications for land use approvals and regulatory permits for the Converted MTSs. DSNY also: (1) issued a Request for Proposals to Transport and Dispose of Containerized Waste from One or More Marine Transfer Stations (December 22, 2003); (2) proceeded with the construction of the DSNY Staten Island truck-to-container-to-rail transfer station; and (3) issued a Request for Proposals (August 28, 2003) for a vendor to enter into a 20-year service agreement to receive, transport and dispose of the solid waste to be containerized at the DSNY Staten Island transfer station (Request for Proposals for Staten Island Transfer Station Facility and/or Facility Rail yard Operations and Maintenance, Waste Transportation and Waste Disposal Services).

DSNY also issued a Request for Expressions of Interest (February 17, 2004) to investigate the availability of New York State disposal capacity for DSNY-managed Waste such as landfill or waste-to-energy disposal capacity on a long-term basis. In addition, as part of an effort to consider the potential role of new and emerging technologies for the management of the City’s waste, DSNY and NYCEDC prepared and issued a Request for Information on April 21, 2004 to gather consistent information from companies offering new and emerging solid waste management technologies, and engaged a consultant to evaluate the responses received by the deadline of May 24, 2004.

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15 Pursuant to emergency authorization, DSNY obtained temporary state approval to remove material from the destroyed World Trade Center complex to the closed Fresh Kills landfill for processing, further recovery efforts and disposal of post-recycling debris.

16 DSNY subsequently continued its policy of removing inactive and obsolete incinerators and entered into contracts to demolish the former Greenpoint, Hamilton Avenue, and Southwest Brooklyn incinerator buildings in Brooklyn.
The environmental evaluation\textsuperscript{17} of processing both DSNY-managed and Commercial Waste, reported in Volume III of the Commercial Waste Management Study, concluded that certain quantities of commercial putrescible waste could be accommodated at the City’s eight Converted MTSs at times when excess capacity existed without causing unmitigable significant adverse environmental impacts. This evaluation was refined and the results reconfirmed in the FEIS published in April 2005.

DSNY’s evaluation of the responses received to the RFP issued for long term contracts for waste transfer and disposal concluded that private procurements for transfer and/or disposal services utilizing truck-to-container-to-rail or truck-to-container-to-barge transfer stations would have significant advantages over the time and expense associated with building new facilities for the South Bronx MTS, the West 135\textsuperscript{th} Street MTS in Manhattan, and the Greenpoint MTS in Brooklyn. Likewise, the option emerged of continuing to send much of Manhattan’s waste on a long-term basis to the Essex County Resource Recovery Facility in Newark for incineration, as is being done under interim export. This would eliminate the need for converting the West 135\textsuperscript{th} and West 59\textsuperscript{th} MTSs into containerization facilities.

As further described below, DSNY developed a draft Scope of Work for the draft New SWMP Draft Environmental Impact Statement (DEIS) required for review of the Plan, held ten public meetings on it in June and July, 2004, and adopted a Final Scope and filed and circulated the DEIS for public comment on October 22, 2004.

1.3 Solid Waste in New York City

The draft New SWMP and related submissions provide statistics on solid waste in New York City. The City’s 8.1 million residents, businesses and 1.3 million daily commuters and visitors generate approximately 50,000 tons per day (tpd) of solid waste, including approximately 20,000 tpd of residential and commercial waste commonly called “garbage” that contains organic materials that can cause odors (putrescible waste), as well as designated recyclable items, mixed construction and demolition debris, and dirt, rock and masonry wastes. This waste is managed through a combination of public and private sector efforts, as further discussed below.

1.3.1 DSNY-Managed Waste and Recyclables

DSNY collects waste from all of the City’s approximately 3 million residential households and from approximately 5000 other locations consisting of other City and state agencies, not-for-profit institutions receiving City funding and not-for-profit, non-residential facilities that are exempt from real estate taxes. DSNY also collects waste from special DSNY operations such as street and lot-cleaning operations and arranges for disposal of waste collected by other City and governmental agencies. This post-recycling municipal refuse is collectively referred to in this document as “DSNY-managed Waste” and totaled approximately 3.7 million tons -- averaging 12,489 tpd tons per day (tpd) for the 302 DSNY workdays per year -- for the 12 months ending June 30, 2004 (the City’s Fiscal Year (FY) 2004).\textsuperscript{18} The facilities under contract with DSNY during FY2005 to receive DSNY-managed Waste are shown in Figure 1 – DSNY Interim Refuse Export System.

\textsuperscript{17}While not formally a CEQR environmental review, this study contained a CEQR-level evaluation of the conceptual design level information available at the time for the eight Converted MTSs.

\textsuperscript{18}These figures reflected the temporary suspension of glass recycling, which resumed in April 2004. For FY2005, the figures were 3.6 million tons (11,881 tpd).
DSNY projects increased waste generation over time due to population growth, and decreases in waste disposed due to increased recycling and waste prevention. The projected recycling rate for DSNY curbside and containerized collections is 33.6% in 2024, resulting in approximately 3.07 million tons (10,179 tpd) of DSNY-managed Waste disposed and 1,435,388 million tons (4,753 tpd) recycled. DSNY currently has approximately 2,230 collection trucks and EZ-Pak mechanized trucks and 450 street sweepers to service the City’s 6,375 street miles. The City’s 2,217 census districts include 636 high density districts (defined for waste planning purposes as districts where at least 2/3 of the residential buildings have 10 or more units), 592 low density districts (where at least 2/3 of the residential buildings have 2 or fewer units), and 989 medium density districts (all those tracts that do not meet either the high density or low density criteria).

1.3.2 Waste Reduction, Reuse and Recycling

New York City has by far the nation’s largest mandatory recycling program. Items currently designated by regulation for source-separation and weekly recycling collection are: newspapers, magazines, corrugated cardboard, high grade office paper, catalogs, phone books, and mixed paper (collectively referred to as designated recyclable “Paper”); and metal cans, metal items, aluminum foil, aluminum foil products, glass containers, plastic bottles and jugs (mainly high density polyethylene “HDPE” and polyethylene terephthalate “PET”), and beverage cartons, collectively referred to as designated recyclable metal, glass and plastic, or “MGP”.

The Paper and MGP recycling items together are referred to in this document as Recyclables. The DSNY’s Bureau of Waste Reduction, Reuse and Recycling coordinates DSNY’s various planning and outreach efforts in this area, while the Bureau of Cleaning and Collection implements DSNY’s curbside and containerized recycling collections and takes the Recyclables to processing facilities for further sorting and marketing.

DSNY trucks currently deliver Paper Recyclables from Manhattan to the West 59th Street Marine Transfer Station for transfer to barge and delivery to the Pratt Industries (formerly Visy Paper of NY) paper mill at 4435 Victory Boulevard on Staten Island, while DSNY trucks deliver paper from Staten Island and part of Brooklyn directly to the Pratt Industries/Visy mill. Paper from the remaining Brooklyn districts goes to Rapid Recycling at 860 Humboldt Street in Brooklyn and Metropolitan Paper Recycling at 854 Shepherd Avenue in Brooklyn. DSNY trucks deliver paper from part of the Bronx to the Triboro Fibers facility at 891-899 East 135th Street, Bronx, and the rest of the Bronx to the Paper Fibers facility at 960 Bronx River Avenue in the Bronx. For Queens paper, DSNY trucks deliver to A&R Lobosco at 31-33 Farrington Street in Queens; Rapid Recycling Paper Corp. in Brooklyn, Triboro Fibers in the Bronx, and to the Metropolitan Paper Recycling facility in Brooklyn. DSNY deliveries of MGP are as follows: a portion of Manhattan districts deliver to the Sims Hugo Neu Corporation (SHNC) facility in at 1 Linden Avenue in Jersey City; while the rest of Manhattan, a portion of Queens and all of the Bronx deliver to the SHNC facility at 850 Edgewater Road in the Bronx. Most of Brooklyn and part of Queens send MGP to the SHNC facility at 30-27 Greenpoint Avenue in Long Island City, Queens, while the rest of Brooklyn and Staten Island deliver to the HNSE facility in Jersey City. DSNY’s Recycling Network is depicted in Figure 2.

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19 This figure does not reflect the total projected recycling of solid waste by the public and private sectors in the City.

20 DSNY 2004 Annual Report at 8, 11.

21 16 RCNY §1-18(a)

22 July 2005 DSNY Collection Operations; locations are primary vendors.

23 Sims Hugo Neu Corporation (SHNC) reflects a corporate name change; the FEIS references Hugo Neu Schnitzer East.
1.3.3 Recycling Statistics

In FY2004, DSNY’s Curbside/Containerized Recycling program, together with certain other City agency recycling efforts, managed recycling of 1,834 tpd on average, of which the Paper and MGP recycling programs contribute 1,262 tpd and 531 tpd, respectively, with the remainder (41 tpd) consisting of tonnage from other DSNY and other agency recycling/reuse efforts. DSNY collects leaves and yard waste seasonally for composting at two City facilities, mulches Christmas trees, recovers chlorofluorocarbon (CFC) refrigerant from discarded refrigerators and other appliances, manages weekly “Special Waste” drop-off sites for residents in each borough for recycling certain hazardous or problem household waste items, and assists with other City agency recycling efforts such as food waste composting at Riker’s Island under the Department of Corrections. DSNY also oversees other various waste reduction and reuse efforts, detailed in the draft New SWMP.

In addition, Other Recycled Wastes (i.e., other DSNY and City-managed wastes that are recycled or reused, such as derelict vehicles, auto tires, lot cleaning bulk metal, asphalt and asphalt millings from road resurfacing, interagency clean fill and road material reuse, etc.) amounted to approximately 3,118 tpd in FY2004, yielding a City Total Recycling, Composting and Reuse figure of 4,953 tpd. This represented 28.4% of the total amount of refuse and recyclables managed by DSNY (and NYCDOT for asphalt recycling), but excludes biosolid wastes recycled from the City’s sewage treatment plants, the reuse of dredge spoils, and certain other recycling activity within the City, such as the private redemption of beverage containers for deposits pursuant to the New York State Bottle Bill (yielding an estimated 1.4 billion containers in the City in 2001), and also excludes recycling by the commercial sector.

Prior to the temporary partial suspension of recycling in 2003 and 2004 (fully restored in FY2005), in FY2002 DSNY-managed Waste for export totaled 3.36 million tons, while the curbside/containerized recycling program totaled 771,555 tons and Other Recycled Wastes totaled 1.63 million tons, for a grand total of 5 million tons of (City-managed) solid waste, averaging 16,518 tpd. Excluding “Other Recycled Wastes”, the Diversion rate for the Curbside/Containerized program alone was 2,555/12,735 or 20.1%.

1.3.4 Other Solid Waste Recycling/Reuse

Other solid waste generated in the City but not managed by DSNY includes medical waste, dredge spoils, and biosolids from water pollution control plants (a solid organic matter recovered from the sewage

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24 Reflects the suspension of glass collection during 9 months of FY 2004.

25 In FY2002, prior to the partial suspension of glass and plastic recycling in 2003 and 2004, DSNY’s Curbside/Containerized Recycling program, together with certain other City agency recycling efforts, managed for recycling 2,555 tpd on average, of which 2,441 tpd represents the Paper and MGP recycling programs (1,347 tpd and 1,094 tpd, respectively), with the remainder (114 tpd) consisting of tonnage from other DSNY and other agency recycling/reuse efforts.


27 Items accepted are motor oil and oil filters, latex paint, fluorescent tubes, mercury thermostats, automotive batteries and household batteries, transmission fluid, and passenger car tires.

28 Other Recycled Wastes amounted to approximately 2,840 tpd in FY2002, yielding a City Total Recycling, Composting and Reuse figure of 5,395 tpd. This represented 32.7% of the total amount of refuse and recyclables managed by DSNY (and NYCDOT for asphalt recycling).

29 Recycling figures do not include metals and energy recovered from DSNY-managed Waste sent to resource recovery waste-to-energy incinerator facilities, which was approximately 14% of DSNY-managed post-recycling waste in FY2005.
treatment process - 615,000 tons in 2003). Biosolids are processed for beneficial use and result in products that fertilize crops and improve soil conditions for plant growth, with approximately 37% transported by railroad to Colorado and Virginia for land application, 42% dried into pellets and sold across the country, 13% composted in a facility in Pennsylvania for use as mulch or soil conditioner, and 8% treated and mixed with lime to form an agricultural liming agent. Processed dredge spoils are currently used in the final grading and closure of the former Fresh Kills landfill on Staten Island, as well as in other landfill closure and land reclamation and brownfield remediation projects in the region, while certain rock spoils from harbor channel deepening projects is being used for fish habitat enhancement and development.

Recycling and waste disposal figures for the City that DSNY reports annually to the NYSDEC also include available information on private sector waste generation and recycling, from reports submitted to DSNY and from certain of the paper recyclers in the City. Such figures for Calendar 2002 (reflecting a mid-year suspension of glass and plastic recycling, now restored) included 6.22 million tons of municipal solid waste (MSW), 9.42 million tons of construction and demolition debris, and 615,000 tons of sewage sludge, for a total 16.3 million ton waste stream from the City disposed and recycled. Counting these materials, the recycling rate for the City-managed waste stream was 34%, while with the addition of commercial C&D recycling, the overall public and private diversion rate was 57%. For Calendar 2004, the total solid waste stream reported to the NYSDEC was 16.98 million tons (consisting of 6.1 million tons of MSW, 10.26 million tons of C&D debris, and 607,100 tons of sewage sludge), of which 11.63 million tons were recycled, yielding a combined public and private sector recycling rate of 69%.  

1.3.5 Components of DSNY-Managed Waste

The Draft New SWMP reports on DSNY’s Preliminary Waste Characterization Studies, conducted in May and June of 2004. This continuing study of the City’s residential and institutional waste stream will inform DSNY decisions on designating additional Recyclable materials and more efficiently targeting program resources to achieve increases in the diversion rate.

1.3.6 Current Commercial Waste System

Commercial carters collect waste generated by the private sector, such as refuse and source-separated recyclables from business establishments, commercial construction and demolition debris (C&D debris), and soil and rock from excavations and masonry waste such as bricks and concrete (clean fill) (collectively, “Commercial Waste”). The total quantity of Commercial Waste generated in the City in 2003, inclusive of Commercial Putrescible Waste, C&D Debris and Clean Fill was estimated to be 11,725,000 tpy (37,584 tpd). C&D Debris and Clean Fill volumes tend to vary according to season and to the level of construction activity in the City.

1.3.7 Commercial Waste Recycling

New York City law requires recycling of certain designated materials in private-carter collected waste. Source-separation is required for certain items that the DSNY Commissioner has declared to have

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30 Figures in NYSDEC report do not include commercial waste from NYC carted directly to transfer stations or disposal facilities outside of NYC, or certain recyclables of NYC origin carted directly to facilities outside of NYC.

31 The report on the first full quarter of the DSNY Waste Characterization Study (Fall 2004) was published in April 2005 and is available on DSNY’s website. When the full year study is complete later this year it will likewise be made available on the website and become an appendix to the SWMP.
economic markets, i.e., where the net cost of collecting and selling the separated materials is less than the cost of managing it as ordinary waste for disposal. The following items are the minimum designated Recyclables for private-carter-collected waste: high grade office paper, newspaper, magazines, catalogs, phone books and corrugated cardboard, metal components of bulk waste, construction waste (excluding plaster, wall coverings, drywall, roofing shingles, wood and lumber, and glass window panes); and textiles generated by establishments whose solid waste is routinely comprised of at least 10% textiles. Food and beverage establishments must recycle glass or metal containers, bottles and jugs of PET and HDPE (#1 and #2), aluminum foil and foil products, cardboard, metal components of bulk waste, and construction waste, with the same exclusions as noted above, and must undertake certain source-separation to do so. Generators of private-carter-collected waste must source-separate the paper, cardboard, textiles and metal components of bulk waste from the construction waste. Operators of putrescible and non-putrescible transfer stations also have certain responsibilities with respect to recyclables. Construction and Demolition debris processing facilities sort items for recycling as a matter of course, while fill material transfer stations are able to process and/or reuse virtually all of the clean fill they receive.

There are 13 private Recyclables Handling and Recovery Facilities registered with the New York State Department of Conservation in the City, including five that accept only paper, one that accepts only glass, and seven that accept paper with other items such as metal, plastic and/or glass. These facilities take a variety of materials, including newsprint and old corrugated cardboard, various grades of paper, scrap metal, glass containers, plastic containers, and metal containers.

1.3.8 Commercial Waste Statistics

DSNY estimates the commercial waste generated in the City in 2003 included 7,248 tpd (2,261,355 tpy) of putrescible waste and 2,641 tpd (758,079 tpy) of Recyclables resulted in a recycling rate of 27% for the putrescible/recyclables waste stream of 9,889 tpd (3,085,000 tpy) collected routinely from commercial locations. Approximately 42% of this waste is generated in Manhattan, 19% in Brooklyn, 13% in the Bronx, 20% in Queens and 5% in Staten Island. Other commercial waste generated in 2003 was mixed C&D debris (2,691,390 tons) -- substantial amounts of which are recycled -- and Clean Fill Material (5,949,450 tons), almost all of which is stockpiled at permitted Clean Fill transfer stations and reused.

1.3.9 Commercial Waste Transfer Station Capacity

Commercial waste that is not carted directly to disposal facilities such as resource recovery facilities or landfills is delivered to area “transfer stations”, where it is tipped onto a floor and, after any sorting, is loaded onto tractor trailer trucks, each bearing from 22 to 25 tons, or rail cars, for further transport to disposal facilities. DSNY regulates the 55 private solid waste transfer station facilities in the City. These facilities collectively hold 62 permits from DSNY, including 4 facilities with dual permits for putrescible waste and C&D waste, one dual permit C&D/Fill material facility and one facility with two non-putrescible permits and a putrescible permit. The combined putrescible facility capacity for the 18

33 16 RCNY §1-10.
34 Reported mixed C&D recycling in the City typically averages between approximately 40% and 45%. This does not included further sorting and recycling that takes place off site, such as from a facility that in 2005 began sending C&D residue by barge to a remote facility that reportedly achieves a recycling rate of 90% for incoming material, and excludes recycling by fill material transfer stations.
35 Number as of January 2006, reflecting a decline since publication of the FEIS and Commercial Waste Study.
permits that DSNY regulates is 19,759 tpd. The combined capacity to process C&D debris for recycling and disposal for the 23 C&D facility permits is 23,145 tpd (average daily throughput of mixed C&D in 2003 was 8,626 tons). DSNY regulates 21 permits for private clean fill material transfer station facilities that stockpile material and process it for reuse (813,812 cy of total storage capacity; estimated average daily input in 2003 was 19,069 tons). As waste can accumulate after holidays and weekends, peak day putrescible waste flows (Commercial and DSNY-managed) can exceed the 20,000 tpd daily average figure cited above by up to 50%. As a result, the New York City putrescible waste stream currently exceeds the current in-City private transfer system capacity, and consequently some of this waste must be delivered directly to out-of-City facilities for transfer or disposal.

1.4 Plan Objectives and Overview

1.4.1 Objectives of New SWMP

The Draft New SWMP would provide for the management of all solid waste generated in New York City for at least the next 20-year planning period. The New SWMP incorporates certain elements of the previous SWMP and proposes changes to the City’s Long Term Export Program for DSNY-managed Waste, to the City’s Recycling Program, and to management of commercial waste in the City, as further described below. Preparation of the Plan was generally guided by the overall goal of providing for the management of the City’s residential and commercial solid waste streams in an efficient, environmentally responsible and equitable manner. Principles and objectives guiding the Plan’s development included the following:

- **Recognize the environmental issues surrounding waste:** This Plan aims to dramatically reduce the number of truck trips and truck miles involved in waste export and to address the traffic, air and noise issues that result from the current truck-based system.

- **Treat each borough fairly:** This Plan recognizes that-for both commercial waste and DSNY-managed waste-responsibility for the City's waste management system should be allocated equitably throughout the City, in each of the five boroughs.

- **Rely on sound business principles to increase efficiency and reduce cost:** This Plan uses commercial competition, long-term contracts and containerization technology to control costs, leverage private investment and ensure efficiency for the system as a whole.

- **Be realistic and be able to be implemented quickly:** This Plan recognizes the need to move swiftly beyond the status quo. To do so, this Plan takes advantage of existing public and private infrastructure where possible.

- **Look forward, allowing for future innovation:** Although committed to a plan that can be implemented today, the City recognizes that future developments in technology could significantly enhance the management of solid waste. Toward this end, the Plan outlines a number of studies and pilot projects that will provide the analytical foundation to modify or improve upon its component parts over the next two decades.

- **Be reliable:** The management of waste is critical to the City's physical health and economy. The system needs the flexibility to deal with day-to-day and seasonal changes in waste composition and volume, and must have the required redundancy should one or more of the system's components fail.

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36 Facility capacities from DSNY (January 2006); updated from Commercial Waste Study.
- **Be built collaboratively**: This Plan has benefited from input from community groups, elected officials, environmental advocates and the private sector; and it anticipates that they will continue to participate in its implementation.

- **Maintain service standards**: DSNY provides a high level of service to the City's residents. This Plan must enable DSNY to maintain or improve current service levels.

- **Continue waste prevention, reuse and recycling** of waste and enhance these programs through increased diversion, cost stability, expanded markets and private sector involvement.

- **Avoid causing significant adverse environmental impacts** by adopting the Plan, according to standard review methodologies.

- **Take advantage of rail and barge**: Reduce the City’s dependence on transport by transfer trailer to disposal sites to reduce local impacts from trucks, stabilize costs, and access remote disposal capacity more economically via rail and/or barge transport.

- **Site and/or select facilities appropriately**: Ensure that facilities used for City waste are sited or selected with due consideration given to operational efficiency and equity and in accordance with applicable land use policies.

- **Take advantage of disposal capacity at regional waste-to-energy (WTE) facilities**, which achieve an approximately 75% reduction in the volume of waste that must be disposed of in landfills (ash residue and non-processible waste), generate energy that is renewable in part (from biomass), recover metals, and can reduce the need for long distance transport for disposal.

- **Minimize potential impacts from the commercial waste system** upon residents, businesses and the environment.

The New SWMP for an integrated solid waste management system thus includes elements concerning 1) Long Term Export, i.e., the transfer, transport and disposal of post-recycling DSNY-managed Waste; 2) Recycling, including waste prevention and reuse, and 3) Commercial Waste.

### 1.4.2 Principal Initiatives of New SWMP-Overview

The Draft New SWMP would continue and improve the recycling, composting and waste prevention programs that are already part of the City’s integrated waste management system. In addition, in the near term, the Draft New SWMP proposes a public-private partnership for the creation of a new central materials-processing and marketing facility for all of the metal, glass and plastic and a portion of the paper collected by DSNY. DSNY would enter into a long-term contract to deliver recyclables to a facility operated by a private vendor and built with City assistance. The Draft New SWMP also includes a Manhattan recyclables acceptance facility to be developed by the City for Manhattan Recyclables delivered by truck for further transport by barge.

For the disposal of DSNY-managed post-recycling Waste, the Draft New SWMP proposes a program to containerize and export from the City by barge or rail for disposal all of the post-recycling fraction of DSNY-managed Waste by: (i) developing four new Converted Marine Transfer Stations (Converted MTSs) at existing MTS sites to containerize waste from these wastesheds, and contracting with private companies for transport and disposal services for containerized waste from the Converted MTSs; (ii) contracting with up to five waste management companies for waste containerization and export from

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37 For example, DSNY plans to continue using its permitted yard waste composting facilities at Soundview Park and at Fresh Kills, its fill material transfer and processing facility at Fresh Kills, and obtain a permit for its proposed Spring Creek yard waste composting facility.
certain private transfer stations in the City; and (iii) contracting with the Port Authority of New York and New Jersey for disposal at the Essex County Resource Recovery Facility of waste delivered in DSNY collection vehicles from the former West 59th Street and West 135th Street MTS wastesheds in Manhattan - with each of these enumerated arrangements serving a defined wasteshed for DSNY-managed Waste.

For Commercial Waste, the Draft New SWMP proposes measures to encourage or cause a larger fraction of the City’s Commercial Waste to be transported from the City by barge and/or rail. These elements are further discussed below.

1.5 Proposed Plan for Long Term Export and Disposal of DSNY-Managed Waste

The part of the draft New SWMP relating to the transfer, transport and disposal of post-recycled DSNY-managed Waste (Proposed Action for Long Term Export) has the following specific elements (see Figure 3: Long Term Export Facilities and Wastesheds Served):

- For the entire Bronx wasteshed, approximately 2100 tpd on average, enter into a long-term contract with one or two private waste companies for truck-to-container-to-rail transfer, transport and disposal of DSNY-managed Waste from existing transfer stations in the Bronx. The two candidate facilities are Harlem River Yard Transfer Station, 98 Lincoln Avenue; and the 132nd Street Transfer Station, with draying of containers 2.5 miles to the Oak Point Rail Yard, Oak Point Avenue and Barry Street. These two transfer stations currently receive all of the DSNY-managed Waste from the Bronx.

- For the Brooklyn wasteshed formerly served by the Greenpoint MTS (Brooklyn CD’s 1, 3, 4 and 5), approximately 950 tpd on average, enter into a long-term contract with one or two private waste companies for truck-to-container-to-rail or truck-to-container-to-barge transfer, transport and disposal of DSNY-managed Waste from existing transfer stations in Brooklyn. The two candidate facilities are a modified truck-to-rail transfer station at 215 Varick Avenue\(^{38}\) (which currently receives and exports DSNY waste by truck); and a proposed new truck-to-rail facility at 72 Scott Avenue/598 Scholes Street.

- For the Brooklyn wasteshed formerly served by the Hamilton Avenue MTS, (CD’s 2, 6, 7, 8, 9, 10, 14, 16, 17 and 18), approximately 1,900 tpd on average, develop a City-owned Converted MTS on the same site, Hamilton Avenue at the Gowanus Canal, where DSNY-managed Waste will be received and loaded into intermodal containers for further transport by barge.

- For the Brooklyn wasteshed formerly served by the Southwest Brooklyn MTS (CD’s 11, 12, 13 and 15), approximately 950 tpd on average, develop a City-owned Converted MTS on the adjacent site of the former Southwest Brooklyn Incinerator, Shore Parkway at Bay 41st Street, where DSNY-managed Waste will be received and loaded into intermodal containers for further transport by barge.

- For the Manhattan wasteshed formerly served by the West 135th Street and West 59th Street MTSs (CD’s 1, 2, 3, 4, 7, 9, 10 and 12), approximately 1,680 tpd on average, enter into a long-term service agreement with the Port Authority of New York and New Jersey for the use of the Essex County Resource Recovery Facility (Essex County RRF) in Newark, New Jersey to receive and process DSNY-managed Waste delivered in City collection vehicles, with

\(^{38}\) The 215 Varick Avenue facility has been proposed as a substitute for the 485 Scott Avenue facility originally proposed. It would be modified to provide for rail export. This site was not evaluated in the FEIS and any award of a Long Term Export contract would be conditioned on environmental review of that action.
energy recovered from combustion of the waste, metals recovered from the slag, and the ash landfilled at out-of-City locations.

- For the Manhattan wasteshed formerly served by the East 91st Street MTS (CD’s 5, 6, 8 and 11), approximately 720 tpd on average, develop a City-owned Converted MTS on the same site, where DSNY-managed Waste will be received and loaded into intermodal containers for further transport by barge.

- For the Queens wasteshed formerly served by the Greenpoint MTS (Queens CD’s 1 through 6), approximately 1200 tpd on average, enter into a long-term contract for delivery to an existing private transfer station at 38-50 Review Avenue in Queens that would be expanded to receive waste from the above referenced Queens CD’s, for truck-to-container-to-rail transfer, transport and disposal of the DSNY-managed Waste. This facility currently receives DSNY waste. Containers would be drayed by truck to the intermodal yard at the Maspeth Rail Yard, Maspeth Avenue and Rust Street, Queens.

- For the Queens wasteshed formerly served by the North Shore MTS (CD’s 7 through 14), approximately 2200 tpd on average, develop a City-owned Converted MTS on the same site, 31st Avenue and 122nd Street, where DSNY-managed Waste will be received and loaded into intermodal containers for further transport by barge.

- For the four wastesheds served by Converted MTSs, enter into 20-year service agreements with one or more waste management companies for transport of containerized waste by barge directly from an MTS to disposal facilities or to intermodal facilities for transloading to railcars or a larger barge, and for disposal at an appropriately permitted out-of-City facility.

- Although the ultimate disposal facilities to be supplied by vendors are subject to contract negotiations and may change over the 20-year time horizon of the New SWMP, all disposal facilities are expected to be in the United States and subject to U.S. Environmental Protection Agency, state and local regulations.

- Rail export from the Bronx, Brooklyn and Queens would involve transportation within New York State to disposal locations west and south via the railroad bridge over the Hudson River at Selkirk, New York near Albany. Containers moved by barge from Manhattan, Queens and Brooklyn would travel directly to disposal facilities or to intermodal facilities in the New York - New Jersey Harbor or along the Hudson River for transloading to rail or ocean-going barge for transport to an ultimate disposal destination.

### 1.5.1 Proposed Converted MTS Sites

Descriptions of the four existing sites proposed to be developed as Converted MTS truck-to-barge export facilities are provided below.

**Hamilton Avenue Converted MTS**

The site contains the existing Hamilton Avenue MTS and is located off of Hamilton Avenue, at the mouth of the Gowanus Canal in Brooklyn, in CD 7. It is bounded by the elevated Gowanus Expressway to the north and east, 17th Street to the south and the Gowanus Canal to the west. It is located within Tax Block 625 and Lot 2, and has a gross acreage of 7.4 acres. The site contains the decommissioned Hamilton Avenue municipal incinerator, now being demolished. The site is within an M3-1 zoning district, which allows for heavy industrial uses. An active NYCDOT asphalt plant and storage yard borders the site to the northeast. A large, two-story parking lot/garage associated with Home Depot borders the site on the south side. The existing MTS on site would replaced.
Southwest Brooklyn Converted MTS

The site is located at Bay 41st Street and the service road of the Shore (Belt) Parkway in the Bensonhurst section of Brooklyn in Community District 11. The site is bounded to the north by 25th Avenue (extended), to the south by Bay 41st Street (extended), to the east by the DSNY District 11 garage facility, and to the west by Gravesend Bay. The site is located within Tax Block 6943, Lot 30 and comprises 6.4 acres of the total 23.5-acre DSNY-owned lot. The site formerly contained the decommissioned Southwest Brooklyn municipal incinerator (now demolished). The site contains the existing Southwest Brooklyn MTS, which is inactive but would be retained. The remainder of the DSNY lot contains two salt storage facilities and a self-help site. The site is at the southern end of an M3-1 zoning district that extends about ½ mile along the waterfront; south of the site is a small M1-1 district.

East 91st Street Converted MTS

The site contains the existing East 91st MTS and is located in the Upper East Side of Manhattan in Community District 8. The site is bounded by the East River to the north and east, Carl Schurz Park to the south and the Franklin D. Roosevelt (FDR) Drive to the west. The site is within Tax Block 1587, Lot 27 and is 3.07 acres. The site is within a small M1-4 (light industrial) zoning district, which extends from East 90th Street to East 93rd Streets along the shoreline, between the FDR drive and the East River waterfront. The M1-4 district continues west of the site to York Avenue between East 90th and East 92nd Streets to encompass most of the Asphalt Green Recreational Center. Beyond the site are high-density residential zoning districts that allow for high rise residential development. Carl Schurz Park, the setting of Gracie Mansion, the Mayor’s formal residence, lies immediately to the south of the site and provides a buffer to residential uses adjacent to it on East End Avenue. A waterfront promenade crosses beneath the existing MTS access ramp. A commuter ferry pier is located just south of the existing MTS at East 90th Street. The Asphalt Green open space and sports and training complex is within ¼ mile of the site. Access to the existing MTS site is provided by an unmapped drive that crosses through the Asphalt Green complex from the intersection of East 91st Street and York Avenue. The existing MTS would be replaced.

North Shore Converted MTS, Queens

The site contains the existing North Shore MTS and is located in the College Point section of Queens in Community District 7. It is bounded by 30th Avenue to the north, 31st Avenue and 120th Street to the east and Flushing Bay to the west. It is located within Tax Block 4346 and Lot 75. The gross acreage of the DSNY-owned lot is approximately 12.5 acres, of which approximately 7.5 acres are upland. DSNY’s District 7 Garage occupies the majority of this acreage. The site is on the western edge of a heavy industrial M3-1 zoning district along Flushing Bay. Beyond this district, an M1-1 district buffers residentially zoned areas north of the site. North of the DSNY Garage is a coffee roasting plant; east is a large Con Edison facility; south and adjacent is a building materials company and storage yard. A Home Depot is east of this company site. The existing MTS would be replaced.

1.5.2 Private Transfer Station Facilities for Long Term Export

Pursuant to the terms of three separate Requests for Proposal procurements that DSNY is undertaking, DSNY may contract with up to five private transfer stations for long term export (20 years) of DSNY-managed Waste from the Bronx and the portions of the Brooklyn and Queens wastesheds formerly served by the Greenpoint MTS. All of these facilities would containerize waste and export by rail. If any additional environmental review, beyond that provided in the FEIS is required, it will be provided to
support required permitting actions. The rail loading and unloading operations would occur on site at three of these facilities. Two transfer stations would dray containers to existing intermodal rail yards that are in the same wasteshed served by the facility. No discretionary permits are required for these intermodal Railyard operations.

All of these private transfer stations are existing, permitted sites. With the exception of the Harlem River Yard Truck-to-Rail Transfer Station in the Bronx, these transfer stations would require varying types of modifications. These modifications may involve both expansion of existing permitted capacities and physical changes to the site and facilities to enable containerization and barge or rail export. The candidate private transfer station facilities and sites are described below.

**Harlem River Yard Truck to Rail Transfer Station, Bronx**

The Harlem River Yard (HRY) Site is an existing permitted transfer station located at 98 Lincoln Avenue in the Bronx. The site is located in the southwestern portion of the Harlem River Yard Intermodal Transportation and Distribution Center property in the south Bronx. The entrance to the site is at Lincoln Avenue. The gross acreage of the lot is approximately 18 acres. The site is bounded on the northeast by a primary branch of the through-track rail line to the Oak Point Link, and on the west, south and southeast by the Harlem River. The site is located in a heavily industrialized area that is zoned M3-1. Across 132nd Street to the northeast is a light manufacturing zone which was rezoned to a mixed zone in 2005, while beyond the Major Deegan Expressway is a residential zone more than ½ mile from the site. Access to the site is via designated truck routes, including Bruckner Boulevard between Third Avenue and Willis Avenue, Bruckner Boulevard north of East 138th street, East 138th Street, East 149th Street, Third Avenue, and Willis Avenue. The site consists of an enclosed 69,600-square-foot steel-framed transfer building that includes an extension for lidding operations, maintenance and utility buildings, access roads and ramps, weigh station and scales, and employee and visitor parking lots. The HRY Truck to Rail Transfer Station is permitted for 4,000 tpd. No capacity increase or major facility modification would be required. The facility is currently contracted to accept up to 1,800 tpd of Bronx DSNY-managed Waste under an interim export contract.39

**East 132nd Street Truck-to-Rail Transfer Station, Bronx**

The East 132nd Street Transfer Station is an existing permitted facility in the Port Morris section of the South Bronx in CD 1, which is in the extreme southeastern corner of the Bronx on an industrial waterfront parcel in an M3 (heavy industry) district. It is bounded on the north by 132nd Street, on the east by the East River, on the south by the Bronx Kills and on the west by the Harlem River Yard. The site consists of Lots 30 and 62 in Block 2538 and Lot 650 in Block 2538. The site and immediate surrounding area is zoned M3-1 for heavy industry. There are no residentially zoned districts, schools or parks within 2000 feet of the site. East 132nd Street serves as the access road to the site. Out of service rail tracks traverse the site but cannot be used to export waste from this site. The processing building is approximately 450 feet long and provides approximately 67,500 square feet of space. There are eight truck bays for unloading. Conveyors feed two baling units or compactors for the waste. Waste that is hauled by truck is compacted into bales and placed on flatbed tractor trailers and covered, or loaded into walking floor or tipping transfer trailers that deliver to a disposal destination. Waste that is placed into containers is drayed to the Oak Point Rail Yard. The facility is permitted for 2,999 tpd and is currently

39 DSNY delivered approximately 1577 tpd to the facility on an average day in FY2005.
under contract to accept up to 1500 tpd of Bronx DSNY-managed Waste. DSNY delivered to the facility approximately 1033 tpd in 2003.40

Oak Point Rail Yard, Bronx

This active intermodal facility is located about 2.5 miles from the East 132nd Street Transfer Station, and is boarded by the East River to the south, another industrial parcel and Barry Street to the East, the Bruckner Expressway and Bruckner Boulevard to the north, and another industrial parcel to the west followed by East 149th Street.

72 Scott Avenue/598 Scholes Street Truck-to-Rail Transfer Station, Brooklyn

The 72 Scott Avenue/598 Scholes Street site, under private ownership, is located in the East Williamsburg In-Place Industrial Park near the Brooklyn/Queens Border in Brooklyn CD 1. It is generally surrounded by English Kills on the west, Newtown Creek on the east, and Long Island Rail Road tracks to the east and south. The area has abundant parking lots and garage facilities. It is within Tax Block 2990, Lot 1 and Tax Block 2979, Lot 5, within a large M3-1 zoning district. South of the site are several private waste transfer stations, including Waste Management facilities on Stewart Avenue and Varick Avenue, as well as a new DSNY Districts 1 and 4 Garage under construction on Varick Avenue. Currently, the site contains a processing facility for commingled recyclables, putrescible waste processing area, and wastepaper baling plant. It does not have rail service currently. The LIRR tracks are active with freight trains. North and south of the existing site are scrap metal yards and plastic manufacturing facilities, window and door manufacturing, lumber yards and hydraulic equipment leasing companies. It is currently permitted to handle 1,450 tpd of source-separated recyclables and 220 tpd of putrescible waste. The facility is currently contracted to accept up to 220 tpd of DSNY-managed Waste under Interim Export and received an average of 143 tpd in FY2003. The facility would be modified by consolidating operations at this location by shifting capacity from a putrescible transfer station at 115 Thames Street in the same community district and converting C&D capacity from 594 Scholes Street and adding rail capability.

Review Avenue Truck-to-Rail or Truck-to-Barge Transfer Station, Queens

The Review Avenue Transfer Station, privately owned, is located at 38-50 Review Avenue, a local truck route, adjacent to Newtown Creek. The site is in the West Maspeth section of Queens in Community District 2 in a heavily industrialized area across Newtown Creek from the Greenpoint section of Brooklyn. It is bounded by the Montauk branch of the LIRR on the north by Newtown Creek to the south. Industrial and warehouse buildings are on the site’s eastern and western borders. Laurel Hill Boulevard is farther to the east and Greenpoint Avenue is farther to the west. The facility is currently permitted as a Truck-to-Truck putrescible Transfer Station at 958 tpd. Calvary Cemetery is approximately 520 feet to the north of the site. The site is comprised of four upland acres and is all or portions of Lots 300, 308, 309, and 1366 within Block 312. The site is within an area zoned M3-1 for industrial/heavy manufacturing use. The existing facility has a processing building, access roads, inbound and outbound scales, on-site queuing for up to 25 vehicles, and employee and visitor parking areas. Waste is placed into transfer trailers for out-of-City disposal. Transfer trailers departing the facility take Queens designated through truck routes to out-of-City disposal sites. The facility is currently under

40 DSNY delivered approximately 495 tpd to the facility on an average day in FY2005.

41 Transfer trailers from the facility may not lawfully cross into Greenpoint, Brooklyn via a local truck route to access the Brooklyn Queens Expressway for this purpose.
contract to accept up to 958 tpd of DSNY-managed waste from Queens. Facility modifications would be required to increase capacity by 242 tpd, add containerization operations, and a lidding operation. If selected by DSNY, the operator may replace and/or expand the processing building. Waste would be drayed to the Maspeth Rail Yard for transloading to rail cars.

*Maspeth Rail Yard, Queens*

The Maspeth Rail Yard is approximately 1½ miles from the Review Avenue Transfer Station site in Queens Community District 2, and is accessed via Maspeth Avenue via Rust Street. It is in an area zoned for industry.

*Essex County Resource Recovery Facility*

This waste-to-energy facility operated by American Ref-Fuel and owned by the Port Authority of New York and New Jersey is located on Raymond Boulevard in Newark, off the New Jersey Turnpike South. It is permitted with a capacity of approximately 2,800 tpd of waste; currently DSNY-managed waste from Manhattan is disposed there under Interim Export contracts. No facility modification is proposed.

*215 Varick Avenue Transfer Station*

The 215 Varick Avenue Transfer Station is an existing permitted facility in the East Williamsburg section of Brooklyn, in Brooklyn Community District 1 near the intersection of Metropolitan Avenue. This site could potentially be selected by DSNY for Long Term Export by rail of DSNY-managed Waste from the former Brooklyn portion of the Greenpoint MTS wasteshed, Brooklyn CD’s 1, 3, 4 and 5. The facility currently receives DSNY-managed Waste under Interim Export from Brooklyn CD’s 4, 8, 15, 17 and 18, which is exported via transfer trailer to out-of-City disposal facilities. The facility has been proposed as a substitute for the 485 Scott Avenue facility, in response to DSNY’s request for a Best and Final Offer (February 2005).

The 215 Varick Avenue Transfer Station is currently permitted to handle 4,250 tpd of putrescible solid waste as a truck-to-truck transfer facility. The related nearby transfer station for C&D debris at 123 Varick Avenue (C&D permit for 5,249 tpd) processes approximately 1,100 tpd of C&D debris (2004 figures) and exports the residue C&D debris (80-90% of C&D processed) by rail from the site to a landfill for disposal. Under the proposed operation, the facility would operate as a truck-to-container-to-rail facility, where precrushed and/or compacted waste would be loaded into containers. The containers would be transported by tractors with flatbed chassis from the transfer building on private property along English Kills to an existing expanded on-site rail yard at 123 Varick Avenue, less than one quarter of a mile away and contiguous to 215 Varick Avenue. There, the containers would be transloaded onto railcars and transported on the Bushwick Branch Line to the New York and Atlantic Railroad’s Metropolitan Yard for transport via the Selkirk Hudson River Bridge to one of the private owner’s disposal facilities.

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42 DSNY delivered an average of 945 tpd in FY2005.
43 DSNY delivered approximately 1350 tpd of waste in FY2005. Facility permit limit is annual, not daily.
44 DSNY delivered approximately 1362 tpd of waste in FY2005.
485 Scott Avenue Truck to Barge Transfer Station, Brooklyn

This site was reviewed in the FEIS as a proposed site for long term export of DSNY-managed Waste from Brooklyn CD’s 1, 3, 4 and 5. As noted, the 215 Varick Avenue facility has now been proposed instead as a rail export facility to service this wasteshed. As a result DSNY is not actively considering the 485 Scott Avenue site.

1.5.3 Converted MTS Capacity and Proposed Permit Limits

The anticipated average daily amounts of DSNY-managed waste, together with peak day amounts, capacity requirements, the capacities analyzed in the FEIS, and DSNY’s proposed NYSDEC permit limits (including contingency amounts for emergencies) for each of the four Converted MTSs proposed for the Plan are presented below in Tables 1, 2 and 3, with explanatory notes. By way of comparison, the existing MTSs have been permitted for up to 4800 tpd, although their respective wastesheds generated levels well below this limit.

Table 1
Converted MTSs
DSNY and Commercial Waste Anticipated Capacity Requirements and Capacities Evaluated in the New SWMP FEIS

<table>
<thead>
<tr>
<th>Converted MTS Location</th>
<th>(1) DSNY Average TPD</th>
<th>(2) Average Peak Day TPD</th>
<th>(3) DSNY Holiday Week Peak TPD</th>
<th>(4) Potential Commercial Waste (Noise Constrained) TPD</th>
<th>(5) Maximum Daily Waste Evaluated in FEIS for Off-Site Impacts (TPD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamilton Avenue</td>
<td>1,900</td>
<td>2,280</td>
<td>2,850</td>
<td>1,242</td>
<td>3,522</td>
</tr>
<tr>
<td>Southwest Brooklyn</td>
<td>950</td>
<td>1,140</td>
<td>1,425</td>
<td>718</td>
<td>2,106</td>
</tr>
<tr>
<td>East 91st Street</td>
<td>720</td>
<td>864</td>
<td>1,080</td>
<td>780</td>
<td>1,873</td>
</tr>
<tr>
<td>North Shore</td>
<td>2,200</td>
<td>2,640</td>
<td>3,300</td>
<td>1,000</td>
<td>3,672</td>
</tr>
</tbody>
</table>

TPD = tons per day

Table 1 Notes:
1. The DSNY average ton per day (tpd) values are based upon an analysis of the historical volumes of DSNY-managed Waste generated annually averaged over 302 days per year in the respective MTS wastesheds.
2. The Average Peak Day (tpd) in column 2 is approximately 20% higher than the Average Day and reflects the daily and seasonal variability in DSNY’s weekly collections as well as the potential growth waste generated over time, as a function of future population growth.
3. DSNY experiences a holiday week collection peak day, column 3, when a scheduled holiday reduces six days of collection activity to five days. Post-holiday day peak day collections can be approximately 50% above the annual average day.
4. Column 4 is the quantity of Commercial Waste that could be processed during the 8:00 p.m. to 8:00 a.m. period without causing off-site noise impacts. This 8:00 PM to 8:00 AM period is the period when commercial carters collect waste in the City and DSNY collection operations are at their lowest volume.

5. The Maximum Daily Tonnage Evaluated in the FEIS for Off-Site Impacts, Column 5, is the sum of data derived from the following sources and methods: (i) a calculated value from a sample of available, historical 1998 data for the Average Peak Day for DSNY-managed Waste in the Converted MTS wastesheds plus a 20% contingency allowance that reflects variations in the waste stream and a margin of conservatism in the analysis of the potential for significant adverse off-site impacts related to traffic, air quality, and noise (essentially DSNY collection vehicle traffic to and from the Converted MTS); and (ii) the Commercial Waste Tonnage identified in column 4. Note that the historical 1998 data for the Average Peak Day for DSNY-managed Waste evaluated in the FEIS exceeds the value listed in Column 2 for the Average Peak Day.

Table 2
Converted MTSs
DSNY-Proposed Weekly and Daily Permit Limits

<table>
<thead>
<tr>
<th>Proposed Permit Limit</th>
<th>(1) Weekly Limit – over 6 days Tons per Week</th>
<th>(2) Maximum Peak Day TPD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamilton Avenue</td>
<td>21,132</td>
<td>3,522</td>
</tr>
<tr>
<td>Southwest Brooklyn</td>
<td>11,148</td>
<td>2,106</td>
</tr>
<tr>
<td>East 91st Street</td>
<td>9,864</td>
<td>1,860</td>
</tr>
<tr>
<td>North Shore</td>
<td>21,840</td>
<td>3,672</td>
</tr>
</tbody>
</table>

Table 2 Notes:

1. The Weekly Limit (column 1) proposed is the sum of: (i) the DSNY Average TPD amount shown in Column 1 of Table 1 multiplied by 6 days per week and increased by a 20% contingency factor to allow for seasonal variability, growth in waste generation and system redundancy; and (ii) the Maximum Commercial Waste in Column 4 of Table 1 multiplied by 6 days per week. This limit would not be exceeded in any calendar week, except for an Emergency Condition.

2. The Maximum Peak Day TPD limit (column 2) is proposed as level sufficient to enable DSNY to process holiday-week peak day tonnage which, based on DSNY historical data, is often 150% of average TPD throughput. This limit is calculated as the lesser of: (i) the sum of 150% of the Average TPD for DSNY-managed Waste plus the Commercial Waste from column 4 of Table 1; or (ii) in the case of Hamilton Avenue, Southwest Brooklyn and North Shore Converted MTSs, the maximum capacity evaluated in the FEIS (from Column 5 of Table 1) for off-site impacts and shown to have no significant adverse impacts.
Table 3
Converted MTSs
DSNY-Proposed Emergency Permit Limits

<table>
<thead>
<tr>
<th>Proposed Permit Limit</th>
<th>(1) Upset Condition Limit (Time Limited TPD)</th>
<th>(2) Emergency Condition limit (Time Limited TPD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamilton Avenue</td>
<td>4,290</td>
<td>5,280</td>
</tr>
<tr>
<td>Southwest Brooklyn</td>
<td>4,290</td>
<td>5,280</td>
</tr>
<tr>
<td>East 91st Street</td>
<td>4,290</td>
<td>5,280</td>
</tr>
<tr>
<td>North Shore</td>
<td>4,290</td>
<td>5,280</td>
</tr>
</tbody>
</table>

Table 3 Notes:

1. An Upset Condition would be defined as an infrequent, short-term event causing a reduction in the processing capacity of an element of the DSNY waste management system, such as a fire or equipment outages, requiring a temporary re-allocation over a period of few days duration, during which some or all of the tonnage normally delivered to the affected element of the system cannot be processed at that facility. This tonnage would be temporarily diverted to other unaffected elements of the system, in a pattern that would be consistent with maintaining the reliability of collection services in the affected wasteshed and in amounts that would not exceed the proposed Upset Condition Limit at any destination facility. The proposed Upset Condition Limit is the nominal capacity of the Converted MTSs, as documented in the Basis of Design discussion in the permit application, which is 4,290 tpd for all the Converted MTSs.

The basis of design for the proposed MTS considered hourly and daily peak arrival rates for DSNY collection vehicles and tons of DSNY-managed Waste. The hourly throughput rate was established to ensure that the MTS could process anticipated peak hour deliveries of DSNY-managed Waste. This peak arrival rate for DSNY collection vehicles occurs during the second shift, typically for one hour between the hours of 8:00 a.m. to 12:00 p.m. Given on-floor storage capacity, the number of tipping bays and on-site truck queuing space on the ramps, this arrival can be accommodated without any off-site queuing. Daily capacity is a function of the number of operating shifts and shift hours during the day.

1. The MTS would operate for three shifts to accommodate anticipated deliveries of DSNY-managed Waste over a 24-hour period. Given these parameters for receiving and containerizing DSNY-managed Waste, there is also the potential for deliveries of Commercial Waste to the MTSs during nighttime periods between 8:00 p.m. and 8:00 a.m. when deliveries of DSNY-managed Waste are substantially less than the facility’s available capacity. Hourly throughput and daily design capacity are based on the following assumptions: The MTS would process 10 containers per hour using three loading slots with the fourth maintained in a spare mode. The loader level would be kept as clear of waste as possible during processing hours by loading all waste received into containers as soon as possible and keeping stockpiles at a minimum. Each container would be loaded with approximately 20 to 22 tons of waste. Each barge would be loaded with 48 containers of waste. Barge switches would not interrupt waste processing operations. Employees would effectively work 6.5 hours out of an 8-hour shift due to shift changes and break time during the shift, resulting in 19.5 operating hours per 24-hour day. Using these parameters, hourly throughput approximates 220 tons and the average design capacity is 4,290 tpd (220 tons per hour x 19.5 hours per day) for the four Converted MTSs.

2. The Emergency Condition Limit would be a rare, public emergency event affecting the entire or a large part of the waste management system. An emergency event would allow DSNY, acting on the basis of protecting the public health, to use of the maximum design capacity at all facilities to remove accumulated refuse from the streets as quickly as possible. The classic example of this Emergency Condition is refuse collections after an extended snow emergency, when refuse has accumulated on the streets. The maximum design capacity at the four Converted MTSs is 5,280 tpd as documented in the Basis of Design discussion.
in the permit application, assuming the facility is staffed for an emergency to operate with three full shifts and no break time, i.e., 24 hours a day.

1.5.4 Converted MTS Design, Construction and Operation

DSNY collection trucks would deliver waste to the Converted MTSs, where all waste processing operations would occur within an enclosed building, equipped with advanced ventilation, odor control and dust control systems (see Figure 4). The four Converted MTSs would have a common three-level processing building design. Collection vehicles would enter a tipping floor at the uppermost level and tip loads of waste onto the second-level loading floor approximately 12 feet below. On the loading floor, waste would be sorted and pushed by front end loaders through slots in the floor slab located directly over intermodal containers, located on the first level inside the processing building. A tamper device working from the loading floor would even and densify the waste in the containers, which would then be lidded with leak-proof gasketed covers and moved by trolley to the external pier level of the facility. A gantry crane on the pier would load/unload full/empty containers on/off of a flatbed barge moored to the pier. Tug boats would move full/empty barges directly to/from an out-of-City disposal site or between the Converted MTS and an intermodal transload facility where they would be loaded onto railcars or a larger barge for transport to a disposal facility.

The intermodal containers would be approximately 20 feet long, 12 feet high and 8½ feet wide and would be capable of holding approximately 62 cubic yards of refuse. The density of the waste entering the container is approximately 450 pounds per cubic yard. Tamping of the waste in the container is expected to compact the waste to approximately 700 pounds per cubic yard. On average, it is estimated that each container would contain approximately 22 tons of waste.

Each Converted MTS would have four loading slots for containers. Typically, two slots would be active during periods of average waste delivery and three slots active during peak waste deliveries. One loading slot would be maintained as a spare for flexibility and redundancy within the system. Under peak operating conditions, the Converted MTS design would enable ten containers to be filled within an hour using three out of four loading slots, equating to an hourly throughput rate of 220 tons.

Subject to the outcome of negotiations between DSNY and the proposers selected pursuant to the MTS Containerization RFP, containerized waste will be transported by barge from the Converted MTSs directly to: (i) a disposal site; or (ii) intermodal terminals in the New York harbor region, where the containers will be transloaded to railcars or a larger barge for transport to an out-of-City disposal facility. The intermodal yards would be either existing facilities or a modified or new facility.

The proposed Converted MTSs are subject to applicable zoning performance standards, solid waste management facility permit standards under 6 NYCRR part 360, and local Air and Noise Code standards. The facilities are designed with an odor control system (neutralizing agent misting system injected into the exhaust duct work system) and are equipped with sufficient ventilation to maintain negative air pressure to prevent the escape of untreated air from building openings. Odor control systems can remove between 90% and 99% of odorous compounds. Rapid roll up facility doors would remain closed except for trucks entering or leaving the facility, to maintain effective odor control. Sufficient on-site queuing areas and tipping bays would be provided at all proposed Converted MTS facilities to prevent the queuing of DSNY collection vehicles on public streets.
1.5.5 Staten Island Transfer Station

The Draft New SWMP leaves unchanged the action, approved in the 2000 SWMP, to construct a truck-to-rail transfer station at 310 West Service Road for DSNY-managed Waste generated in Staten Island. This facility is permitted and construction is nearly complete. Upon completion of the facility and the associated rail connections, it will replace the interim export contracts for disposing of DSNY-managed Waste from Staten Island, and transport approximately 900 tpd of DSNY-managed Waste from Staten Island in containers by rail to permitted disposal facilities out of the City.
1.5.6 Need for Long Term Export Initiatives

The long term export elements of the Plan would replace the interim export contracts that were never intended to serve as a long term solution to the City’s waste management needs. Approximately 48% of DSNY-managed Waste is currently moved to out-of-City disposal sites by transfer trailers, and 93% of this truck-transferred waste goes to landfills. Most of the landfills under contract are within a radius of 400 miles of the City. A combination of factors is causing the depletion of this capacity and an increase in disposal price. For example, the recent rebidding of Queens Interim Export contracts that rely on truck transport to landfills has reflected an average increase of 23% over the contract prices of one year earlier. The Plan offers a way to provide cost stability over time by economically accessing lower-priced remote disposal facilities, while substantially reducing truck traffic associated with waste export. The costs and benefits of the proposed export plan and certain alternatives are considered below.

Evaluation and Economic Analysis of Export Plan and Alternatives

DSNY analyzed the respective costs of the proposed Plan and alternatives for the transfer and transport of post-recycled waste (Long Term Export). DSNY compared the total annual costs, expressed in constant FY 2005 dollars, using the same time period, and assumed the total DSNY-managed Waste would be 3,811,240 tons tpy, or 12,620 tpd. The cost estimates assume all facilities are fully developed and operational, i.e., it is a steady-state assessment. The costs considered in the analysis include the costs of waste transfer, transport and disposal. It excludes the costs of collection and recycling, and other solid waste management costs not related to the Long Term Export Program.

DSNY analyzed three scenarios:

1. **Proposed Action**: Conversion of four MTSs (North Shore, Hamilton Avenue, Southwest Brooklyn and East 91st Street) and delivery of waste to three truck-to-rail or truck-to-barge transfer stations (one each located in the Bronx, Queens and Brooklyn). In addition, waste generated in Manhattan (excluding the wastesheds served by the East 91st Street MTS) is direct hauled to a nearby waste-to-energy (WTE) facility.

2. **Conversion of Eight-MTSs**: In addition to the four MTSs listed in the Proposed Action this alternative assumes the West 135th Street MTS and West 59th Street MTS in Manhattan; South Bronx MTS in Hunts Point, Bronx; and the Greenpoint MTS in Brooklyn are also converted.

3. **No Action – (Interim Export)**: This option assumes the continuation of the Interim Export program, with the exception that the Staten Island Intermodal Transfer Station, currently under construction, becomes operational.

For all three scenarios, Staten Island waste is assumed to be delivered to the Staten Island Truck to Rail Transfer Station that is nearing completion of construction. The cost analysis assumed the tonnage allocation to various facilities for the Proposed Action and the Eight MTS Conversion options shown in Table 4, below.

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45 Refers to contracts commencing February 2006.
Table 4
Tonnage Allocation for Long-Term Export Options

<table>
<thead>
<tr>
<th>Facility</th>
<th>Proposed Action</th>
<th>8-MTS Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Bronx Converted MTS</td>
<td>2,100</td>
<td></td>
</tr>
<tr>
<td>Southwest Brooklyn Converted MTS</td>
<td>950</td>
<td>950</td>
</tr>
<tr>
<td>Greenpoint Converted MTS</td>
<td>2,150</td>
<td></td>
</tr>
<tr>
<td>Hamilton Avenue Converted MTS</td>
<td>1,900</td>
<td>1,900</td>
</tr>
<tr>
<td>West 135th Street Converted MTS</td>
<td>960</td>
<td></td>
</tr>
<tr>
<td>West 59th Street Converted MTS</td>
<td>720</td>
<td></td>
</tr>
<tr>
<td>East 91st Street Converted MTS</td>
<td>720</td>
<td>720</td>
</tr>
<tr>
<td>North Shore Converted MTS</td>
<td>2,200</td>
<td>2,200</td>
</tr>
<tr>
<td>Bronx Truck to Rail</td>
<td>2,100</td>
<td></td>
</tr>
<tr>
<td>Brooklyn Truck to Rail/Barge</td>
<td>900</td>
<td></td>
</tr>
<tr>
<td>Queens Truck to Rail/Barge</td>
<td>1,250</td>
<td></td>
</tr>
<tr>
<td>Staten Island Truck to Rail</td>
<td>920</td>
<td>920</td>
</tr>
<tr>
<td>Direct Haul to WTE Facility</td>
<td>1,680</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12,620</strong></td>
<td><strong>12,620</strong></td>
</tr>
</tbody>
</table>

The alternative waste transfer, transport and disposal system costs are comprised of three basic economic components:

- The capital, and operating and maintenance, expense of various types of MSW transfer facilities;
- The cost of alternative transportation modes for exporting waste from the appropriate type of transfer facility by rail or barge or via direct haul to out-of-City disposal facilities; and
- The tip fees incurred in disposing waste at disposal facilities.

DSNY and private solid waste management companies are in the process of forming public/private partnerships to provide the services as contemplated under the Draft New SWMP. Under the proposed plan for Long Term Export, DSNY will provide certain portions of the transfer services, including construction and certain operational elements related to the four MTSs. Thus, determining the costs associated with the proposed Plan requires examining both the activities to be performed by DSNY and by private companies.

Historically, DSNY has used engineering cost estimates to examine the relative economics of various system alternatives. More recently, DSNY has supplemented these engineering estimates with pricing data from proposals received in response to five Requests for Proposals issued for the Long Term Export program. These proposals represent proposed pricing of various service components of the proposed Long Term Export Program that would be provided by private companies. These are active procurements that are still subject to negotiations and are subject to change. To preserve the integrity of these procurements, the analysis presents cost estimates on a City-wide basis only. These costs include the estimated City supplied capital and operating and maintenance costs, as well as the estimated private company transfer, haul and disposal service costs.
Table 5 details the estimated costs of the proposed Long Term Export Program (Proposed Action) and two Alternatives: Conversion of Eight MTSs and the No Action Alternative. While these estimates are intended to convey the relative cost of the Plan and the Alternatives, they should not be interpreted as reflecting the actual costs that may be realized under the Long Term Export Program as actually implemented.

### Table 5
**Estimated Annual Costs for Waste Transfer, Transportation and Disposal**

<table>
<thead>
<tr>
<th>Description</th>
<th>Annual Tons</th>
<th>Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Annual</td>
<td>Per Ton</td>
</tr>
<tr>
<td>Proposed Action</td>
<td>3,811,240</td>
<td>$408,960,000</td>
</tr>
<tr>
<td>Convert 8 MTSs</td>
<td>3,811,240</td>
<td>$508,080,000</td>
</tr>
<tr>
<td>No Action</td>
<td>3,811,240</td>
<td>$291,270,000</td>
</tr>
</tbody>
</table>

**Notes:**
1. This cost estimate is based on preliminary price information, which is subject to change.
2. These estimates have been updated to reflect new information and differ from those presented in the draft SWMP.
3. The proposed plan is projected to save upwards of $5 million (FY 2005 dollars) in reduced collection costs due to savings in labor and maintenance costs from shorter trips to dump for DSNY vehicles from portions of the City; this savings is not reflected here.

As indicated in Table 5, the FY 2005 $409 million estimated annual cost of the Long Term Export Program is less expensive than $508 million estimated annual cost of the Conversion of 8 MTS option. Although, in the near term, the Proposed Action is more expensive than No Action (Interim Program) alternative, every re-bid of the interim transfer and disposal services has resulted in significant cost increases. In part these increases can be attributed to nearby landfill capacity being depleted and limited competition. The No Action Costs are based on actual costs incurred by DSNY during FY 2005. This is a blended cost estimate, reflecting contracts with all interim export contractors for different boroughs with varying termination dates. The FY 2005 costs do not reflect the impact of the City’s most recent bid for interim export of Queens waste. The Queens bid represented a 23% cost increase over the prior year, rising to approximately $90 per ton, which is not reflected in the above No Action cost estimate. Accordingly, No Action costs, which predominantly reflect truck transport to regional landfills with diminishing capacity, is likely to significantly understate potential future costs. If the price increases associated with the Interim Program continue, then the annual cost of the Interim Program is projected to become more expensive than the Long Term Export Program. In addition, there are other beneficial aspects of the Long Term Export program that are not reflected in the estimated costs, including a more equitable distribution of transfer facilities and a reduction in the amount of truck traffic in the region that favor the Proposed Action.

**Reductions in Truck Traffic**

Under the Proposed Action for Long Term Export rail or barge transport of DSNY-managed Waste to modern sanitary landfills would eliminate at least 257 tractor trailer loads generating about 515 truck trips per day to and from private transfer stations in the City. The plan would eliminate approximately 2.8 million vehicle miles traveled (VMT) annually by DSNY trucks and even more by transfer trailers.

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46 Under the plan DSNY truck trips currently delivering Manhattan and Queens waste directly to facilities in New Jersey via Hudson River crossings, notably the George Washington Bridge, would also be reduced.
(approximately 2.8 million VMT within New York City and approximately 55 million VMT overall to disposal destinations). Furthermore, the Proposed Action for Commercial Waste would require the private transfer stations contracting to accept DSNY-managed waste to also export by rail or barge any commercial waste that these facilities process.

Summary

The proposed Long Term Export Program is a comprehensive plan that balances the City’s need to export waste over the long term in a comprehensive manner with the environmental benefit of significantly reducing the transfer trailer traffic associated with Interim Export. Its major advantages include the following:

- DSNY-managed Waste delivered to private transfer facilities in the Bronx, Brooklyn and Queens will be exported by barge or rail and the Commercial Waste processed at these facilities is also expected to be exported by barge or rail.
- The in-City facilities proposed will be developed on existing sites at either MTSs or private transfer stations.
- The proposed combination of facilities provides the City with redundancy in the DSNY-managed Waste system that accommodates future increases in waste generated in the City as a function of population growth. Occasional conditions that may affect certain components of the system will not disrupt future waste export.
- Use of existing private transfer station and Essex County RRF capacity: (i) allows some components to be implemented on a faster timetable; and (ii) minimizes City investment in new capital projects.
- The Converted MTSs will provide capacity that can be available to containerize Commercial Waste for barge/rail export. (This advantage is addressed in more detail in Section 1.7.)

1.6 Recycling Initiatives

The Plan includes a number of Recycling initiatives, including certain proposed facility development.

1.6.1 Recyclables Recovery and Processing Facility at 30th Street Pier in the South Brooklyn Marine Terminal

The draft New SWMP proposes to commit the City to help finance the construction of a new central recyclables acceptance and processing facility for processing source-separated metal, glass and plastic (MGP) and paper at the 30th Street Pier in the South Brooklyn Marine Terminal (SBMT) in Brooklyn CD 7. DSNY would enter into a 20-year contract with a private vendor Sims Hugo Neu Corporation (SHNC), which would lease the parcel from the Department of Small Business Services and privately finance construction of the facility with NYC Industrial Development Agency assistance, while the City would contribute capital funds (approximately $25 million) for pier construction at the site. This long-term commitment will facilitate the development of state-of-the-art processing infrastructure in the City.

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47 Figures from DSNY Operations Management Division and Waste Disposal Export Office; VMT’s for FY2005.
which, in turn, will generate the consistent streams of materials necessary to foster reliable secondary materials markets and facilitate higher recycling rates and lower per ton costs.48

The 30th Street Pier at SBMT is a complex of facilities along Gowanus Bay that would be designed to receive and process DSNY-collected Recyclables. This facility is in Tax Block 662, Lot 1, and is bounded by Second Avenue to the east and the U.S. Pierhead Line to the west. The 29th Street Pier and the 31st Street Pier abut the site to the north and south, respectively. The site is zoned in part M3 and in part M2. This facility would require the removal of piling remnants, dredging of 40,000 cubic feet of material, and the construction of two 400-foot long by 60-foot wide docks on piles, a fendering system and sheetpiling. It would include a 50,000 square foot (sf) enclosed receiving building for unloading two barges with an overhead crane and receiving truckloads of recyclables, a 60,000 sf processing area for mixed recyclables, a 50,000 sf area for baling and storage of MGP (non-ferrous metals) and residue, an area for metals processing and a 76,000 sf glass processing area, a 32,000 sf loading area for outbound barges for metal and glass, container storage, load out docks, two truck scales, a 3-story 20,000 sf administration building/visitor’s center with parking, and fencing (numbers approximate). Approximately 85% of the recyclables would be delivered by barge to this facility, and approximately 75% (principally glass and ferrous metals) will leave post-processing via barge, with the remainder leaving by truck.

DSNY trucks collecting curbside recyclables in the Bronx would tip this material at the existing SHNC facility in the Bronx from which it would be transported by barge to the SBMT facility. DSNY trucks collecting curbside recyclables in northern Brooklyn and Queens would tip this material at SHNC’s facility in Long Island City, from which it would be transported by barge to the SBMT facility. DSNY trucks collecting curbside recyclables from southern Brooklyn would tip their material directly at the SBMT facility.

NYSDEC generally regulates recycling facilities by registration. The proposed waterfront construction requires U.S. Army Corps of Engineers Sections 10 and 404 permits and the NYSDEC Articles 15 and 25 permits that are subject to environmental review. Although the FEIS included certain preliminary environmental review information about this facility49, environmental review of this facility is being conducted by the lead agency, the Department of Small Business Services, which is responsible for waterfront leases of City property.

1.6.2 Gansevoort Recyclables Acceptance Facility

In addition, DSNY proposes to construct and operate a Recyclables Acceptance Facility (Recyclables Handling and Recovery Facility under 6 NYCRR §360-12) at the former DSNY MTS facility on Pier 52 at Gansevoort Street in the Hudson River Park or at another location to be determined on the Manhattan waterfront, at which MGP from Manhattan CD’s 1 through 12 would be transferred to barge for transport to the SHNC facility at the SBMT in Brooklyn for processing. The Gansevoort Street/Pier 52 site is on Block 651 and is zoned M3-2, Use Group 18. The former MTS closed in July 1991 but remains on site. Recyclable paper currently being transferred to barge at the West 59th Street MTS in Manhattan would instead be brought to the new Manhattan recyclables acceptance facility for further transport by barge. A recycling education center is also proposed at this facility.

48 Under DSNY’s contract to deliver metal and plastic to its vendor in 2002, the City received $5.12 per ton in revenue. When DSNY added glass back to the recycling program in 2004, the contract required DSNY to pay the vendor $51 in processing fees per ton of MGP delivered, reflecting the challenge of marketing mixed glass cullet.

49 The FEIS evaluated the off-site traffic, air quality and noise impacts of delivery by truck of DSNY Recyclables from certain Brooklyn CDs to the SBMT site. Because design details of the proposed facility were not fully developed an environmental review of potential on-site impacts was deferred to a later date.
This recyclables acceptance facility would likely require amendment of the Hudson River Park Act. The timetable for designing, permitting and constructing the Manhattan Recyclables Acceptance facility is approximately seven years. A limited environmental review was conducted for this facility for off-site air, traffic and noise impacts.

1.6.3 Existing Recycling Facilities

Under the draft New SWMP, DSNY would continue to deliver Bronx-origin MGP to the SHNC Bronx Recyclables Acceptance Facility located at 85 Edgewater Road in the Bronx in CD 2. Likewise, DSNY would continue to deliver Queens-origin MGP to the SHNC Queens/Brooklyn Recyclables Acceptance Facility at 30-27 Greenpoint Avenue in Long Island City, Queens (CD 2).

1.6.4 Other Recycling Initiatives

The Draft New SWMP also discusses new initiatives in waste reduction, composting, reuse and recycling. These include, among other things, conducting a comprehensive waste characterization study, undertaking a voluntary electronics recycling effort, adding a website for the NYC Stuff Exchange, expanding the NY Wa$teMatch industrial materials exchange program, undertaking a Household Hazardous Waste collection effort, and enhancing education and outreach efforts via new market research. DSNY also proposes to amend New York City’s Recycling Law to set non-binding recycling targets of 25% diversion for the curbside recycling program and 35% diversion for the entire stream of DSNY-managed Waste and Recyclables generated in the City, both to be achieved by 2007, and a non-binding recycling target of 70% diversion for the combined municipal and commercial solid waste streams by 2015.

1.6.5 Need for Recycling Initiatives

DSNY’s recycling program since 1994 has relied on short-term contracts (five years plus extensions of one or more years) with MGP recycling processors with provisions allowing cancellation by the City on short notice. The relatively short term combined with the cancellation provisions of these contracts has resulted in little incentive for the processors to make capital investments to take advantage of the latest technology in recyclables processing, especially as the market demand for portions of the City’s recyclables waste stream are weak or actually negative (plastics and mixed-color glass cullet). The proposed long-term contract with SHNC will ensure a steady supply of MGP (and paper starting in 2011) over sufficient time to encourage the processor’s investment in capital intensive sorting technology that would render the sorted output more marketable than at present. The shift to barge transport for much of the MGP Recyclables will also result in less truck traffic on regional roadways (an estimated 55,000 fewer vehicle miles traveled annually).

1.7 Commercial Waste Initiatives

The elements of the Proposed Action for Commercial Waste are intended to achieve a more balanced distribution and reduce impacts from Commercial Waste transfer operations in those Community Districts that currently have the greatest number of transfer stations. These actions are:

- Make the existing Manhattan West 59th Street MTS site available to private waste management companies to use for the transfer of Commercial Waste collected by private carters in Manhattan. The facility could be: (i) refurbished and used in conjunction with an EBUF; or (ii) redeveloped as a containerization facility.
Design measures to encourage private carters to deliver Commercial Waste during the 8:00 p.m. to 8:00 a.m. time period to the four proposed Converted MTSs that are elements of the Proposed Action for Long Term Export (Hamilton Avenue and Southwest Brooklyn, Brooklyn; East 91st Street, Manhattan; and North Shore, Queens).

Negotiate arrangements with the owners/operators of the selected private transfer stations in the Bronx, Brooklyn and Queens that submitted proposals in response to the Brooklyn, Queens and Bronx RFPs and Brooklyn request for a Best And Final Offer that are potential elements of the Proposed Action to require Commercial Waste (in addition to DSNY-managed Waste) processed at these facilities to be containerized and exported from the project service area by barge and/or rail.

1.7.1 Developing the West 59th Street MTS Site for Commercial Waste Export

Manhattan has no private putrescible transfer stations, despite the fact that over 40% of the City’s putrescible commercial waste is generated in Manhattan. As a result, although some waste is driven directly out of the City, much of Manhattan’s putrescible and non-putrescible commercial waste is driven to another borough before it is exported from the City. DSNY proposes to make the West 59th Street MTS site available for transfer station use by the private carter industry, as it is located conveniently for a wasteshed that generates significant volumes of Commercial Waste. DSNY will undertake a procurement process to select a private waste management company to develop a transfer station to export a portion of Manhattan’s commercial putrescible waste from this site by barge. Once DSNY has a specific proposal from a company for Commercial Waste export from this site, it would be subject to further environmental review.

1.7.2 Commercial Waste Export from the Four Proposed Converted MTSs

As noted above, Local Law 74/2000 required that DSNY evaluate the use of the MTSs for Commercial Waste receipt, transfer and export. An analysis of this was reported in Volume III of the Commercial Waste Management Study. This analysis was refined and updated in the FEIS and demonstrated that certain quantities of Commercial Waste could be transferred and containerized at the four Converted MTSs between the hours of 8:00 PM and 8:00 AM without causing potentially unmitigable significant adverse impacts. The need to avoid nighttime noise impacts at sensitive receptors located on approach roads to these four sites and at site property boundaries is the constraining factor on the commercial waste quantities that can be processed. The maximum quantities of Commercial Waste that would be processed at the respective Converted MTSs are given in Table 1, above, and total 3740 tpd.

1.7.3 Containerization and Rail Export from Private Transfer Stations

Only two of the City’s 18 private putrescible transfer stations export waste by means other than transfer trailer, and therefore the export of waste—not just its collection—creates truck traffic. DSNY will be contracting with up to five private transfer stations in the Bronx, Brooklyn and Queens as it implements its Proposed Action for Long Term Export of DSNY-managed Waste. In the RFP’s issued by DSNY to procure these export contracts, DSNY indicated it will negotiate with the selected proposers arrangements to also require export by barge and/or rail of any Commercial Waste processed at these facilities. These arrangements would have the effect of further reducing transfer trailer traffic in the neighborhoods where these facilities are located.

1.7.4 Other Commercial Waste Initiatives

DSNY has recently revised its Transfer Station regulations with respect to restrictions on siting of new facilities and expansions of existing facilities. In effect, the rules prohibit new net transfer station
capacity in Brooklyn CD 1 and in Bronx CD 2, and allow no new transfer stations in Queens CD 12. Larger buffer distances from residential districts, schools and parks are required for new transfer stations in community districts with relatively higher numbers of transfer stations. In addition, DSNY has adopted more stringent operating restrictions on private transfer stations, notably with respect to odor, dust and air pollution control measures. DSNY has undertaken additional training of its transfer station inspectors to issue air pollution violations and proposes to increase annual transfer station renewal fees to cover the cost of additional trained DSNY inspection personnel (such as an industrial hygienist) and help support information technology improvements for DSNY’s inspection staff. DSNY is also conducting a study to evaluate alternate routing options for transfer station truck traffic to reduce effects on communities. DSNY will work to reduce the daily permitted capacity of transfer stations in the two or three communities with the greatest concentration of transfer stations.

1.7.5 Need for Commercial Waste Initiatives

Equity concerns have been raised with respect to the relative concentration of commercial waste transfer stations in the Bronx, Brooklyn and Queens. As determined, in part, by the City’s zoning districts and transportation routes, such facilities have tended to concentrate in certain areas of the city, such as the Significant Industrial and Maritime Areas designated for portions of the South Bronx and East Williamsburg, Brooklyn. (M-3 districts such as those found in these areas have lower performance standards and these districts allow waste transfer activities as of right. Waste transfer activities may also locate in M2 and M1 districts, so long as the higher performance standards of those zones are met.) Brooklyn has eight private putrescible transfer stations, Queens has six, the Bronx has four; Manhattan and Staten Island have none.

Tallied by Community District (CD), Brooklyn CD1 has 13 waste transfer facilities, with five putrescible stations and a combined daily capacity of 7,030 tpd; six C&D facilities with a combined daily capacity of 13,538 tpd, including capacity at a combined putrescible/C&D facility; and two fill material transfer stations. Bronx CD2 has two putrescible stations with a combined capacity of 1,225 tpd, five C&D facilities with a combined capacity of 3,735 tpd, and one fill material station. Bronx CD1 has two putrescible transfer stations with a combined capacity of 6,999 tpd and three fill material transfer stations. Queens CD12 has two putrescible/C&D transfer stations with a combined capacity of 578 tpd putrescible and 1016 tpd C&D, and one C&D/fill transfer station with a capacity of 375 tpd and fill storage of 1,500 cy. Forty-one community districts have no transfer stations.50

Of the commercial putrescible waste generated and sent for disposal, DSNY estimates that in 2003 Manhattan generated approximately 2970 tpd, Bronx 1349 tpd, Brooklyn, 1019 tpd, Queens 1419 tpd, and Staten Island 436 tpd.51 The boroughs receiving commercial putrescible waste generated in the City (including any generated from the same borough) were Brooklyn with an estimated 2341 tpd, Bronx (2467 tpd), and Queens (896 tpd), while Manhattan and Staten Island received no commercial putrescible waste.

The City’s tipping price hikes to private carters for the use of City disposal facilities in the 1980’s and the ultimate closure of most City landfills and City incinerators created a new demand for private transfer stations of various kinds by 1990, with 153 facilities recorded in 1990. Through a series of enforcement and permitting measures taken under the regulatory authority of the DSNY and NYSDEC the facilities improved their design and operation or were closed. In addition, certain facilities were closed pursuant to

50 DSNY Permit and Inspection Unit (January 2006).
51 Several different methodologies were utilized in the Commercial Waste Management Study to derive an estimate
regulatory review and recommendations by the Trade Waste Commission (now Business Integrity Commission), leaving 55 transfer station facilities as of January 2006, as noted above.

Despite such measures, litigation was brought by community groups and elected officials over whether DSNY’s rule-making and enforcement efforts (supplementing similar efforts by NYSDEC) satisfied the requirements of Local Law 40 of 1990. This law required that DSNY promulgate “requirements appropriate for protection of public health and the environment concerning the siting” of putrescible and non-putrescible waste transfer stations “in relation to other such facilities, residential premises and/or other premises for which such requirements may be appropriate.” 52 The litigation resulted in an appellate judicial opinion that Local Law 40/1990 required DSNY to address transfer station clustering in the City.

DSNY promulgated siting rules in 2004 capping capacity in community districts with 12% or more of the City’s transfer stations and in districts that already have at least three transfer stations within M1 districts, which typically border residential areas. 53 In addition, DSNY has required buffer distances from new transfer stations to sensitive land uses such as residence districts, parks, schools, hospitals, and to other transfer stations; buffer restrictions also apply to expansions for existing facilities. DSNY in 2004 also adopted more stringent design and operating standards for transfer stations, in response to the Commercial Waste Management Study findings.

1.8 Permits and Required Approvals

Implementing the draft New SWMP will or may require the following regulatory agency notifications, actions, permits and/or approvals:

**New York City**

*New York City Council*

- Approval of New SWMP

*New York City Planning Commission*

- Approval of Uniform Land Use Review Procedure (ULURP) applications for East 91st St. Converted MTS, Hamilton Avenue Converted MTS, North Shore Converted MTS, Southwest Brooklyn Converted MTS.
- Coastal Zone Consistency Review

*Department of Sanitation*

- Implementation of New SWMP and funding of construction of MTSs
- Approval of long term contracts for transport and disposal of DSNY-managed Waste
- Approval of long-term contract for receipt and marketing of metal, glass and plastic recyclables and paper
- Funding of proposed construction of a pier at the SHNC SBMT Recyclables Acceptance facility.

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- Issuance of permit modifications for private transfer stations to utilize rail and/or barge.

**Department of Small Business Services**
- Waterfront lease for SHNC SBMT Recyclables Acceptance facility.

**New York City Industrial Development Agency**
- Tax Exempt Bond Financing for SHNC SBMT Recyclables Acceptance Facility Pier Development

**Federal**

**U.S. Army Corps of Engineers:**
- Section 10 (River and Harbors Act) for structures and work in navigable waters of the United States;
- Section 103 of the Marine Protection Research and Sanctuaries Act;
- Section 404 (Clean Water Act) for discharging of dredged or fill material in waters of the United States; and
- Section 401 (Clean Water Act) Water Quality Certification.

**New York State**

**New York State Department of Environmental Conservation**
- Approval of Solid Waste Management Plan, 6 NYCRR §360-15.
- Article 27, Title 7 of the Environmental Conservation Law (ECL) Permit to construct and operate a solid waste management facility; applicable to Converted MTS and any required permit modifications for private transfer stations to utilize rail or barge and/or increase capacity.
- Article 15, Title 5 (Protection of Waters) Permit for excavation in or fill of navigable waters; Article 15, Title 5 ECL (Protection of Waters) Section 401 Water Quality Certification;
- Article 25 ECL (Tidal Wetlands);
- Article 36 ECL (Flood Plain Management) approval for construction in a floodplain;
- Article 17 ECL (State Pollutant Discharge Elimination System (SPDES) General Permit (Section 402 of Clean Water Act) for stormwater discharges from construction activity;
- Coastal Zone Consistency Certification (19 NYCRR §600).
- State Facility Air Permits

**New York State Department of State**
- Article 42 of the State Executive Law (Waterfront Revitalization of Coastal Areas and Inland Waterways);
- Consistency with the Federal Coastal Zone Management Act (15 CFR Part 930);
- New York State Office of Parks, Recreation and Historic Preservation
- Review under Section 106 (National Historic Preservation Act) and New York State Historic Preservation Act Section 14.09.

**New York State Office of General Services**
Approval of the transfer to the City of certain underwater land for the East 91st Street Converted MTS.

Certain other approvals may also be required, as summarized in Sections 1.7 and 2.5 of the FEIS.

1.9 Public Review Process

The public review processes undertaken for the draft New SWMP environmental review and certain related applications has been one of the most extensive and inclusive efforts in City history.

1.9.1 Environmental Review of Draft New SWMP

DSNY declared itself lead agency for the environmental review of the New SWMP pursuant to SEQRA/CEQR on April 29, 2004 and issued a notice on May 3, 2004 that a Draft Environmental Impact Statement (DEIS) would be prepared. A draft Scope for the New SWMP DEIS was prepared, put on DSNY’s website and circulated for public comment on May 17, 2004. DSNY published Notices of Public Scoping in the Environmental Notice Bulletin and the City Record on May 17, 2004 and similar notices were published in local newspapers. DSNY held ten public meetings on the draft Scope from June 15 to July 1, 2004. DSNY presented the draft New SWMP to the City Council on October 22, 2004 together with the DEIS and final Scope. Approximately 550 individuals or representatives of organizations submitted oral and/or written comments during the extended public comment period (from October 22, 2004 through January 24, 2005). These submissions yielded approximately 995 discrete comments in addition to approximately 113 comments from involved agencies or organizations. Comments from the involved agencies and Community Board Uniform Land Use Review Procedure (ULURP) hearings were addressed individually, with the comments and responses included in the FEIS. DSNY condensed and distilled substantive comments and provided responses to these 364 comments in the FEIS, organized into major categories including major topics covered in the EIS, as well as site-specific or borough specific comments. DSNY provided as Appendix G to the FEIS a verbatim compendium of all comments received in the form of transcripts of testimony at the public hearings and written comments submitted. DSNY filed and circulated the FEIS on April 1, 2005, published a Notice of Completion in the Environmental Notice Bulletin on April 6, 2005 and circulated the Notice of Completion to Involved Agencies and interested parties, indicating that the FEIS could be reviewed on DSNY’s website and in the designated public repositories.

1.9.2 Environmental Justice Policy

The New York State Department of Environmental Conservation (NYSDEC) issued a guidance on Environmental Justice and Permitting in March 2003 (EJ Policy). The EJ Policy applies to certain NYSDEC permitting actions and environmental reviews for which NYSDEC is the lead agency. DSNY elected to undertake an enhanced public participation program consistent with NYSDEC’s EJ Policy. DSNY implemented the Enhanced Public Participation program during the public processes for the environmental review of the Draft New SWMP, including both the public scoping meetings for the supporting DEIS, the public hearings on the DEIS and the preparation of the FEIS. Public hearings held in connection with the City’s ULURP process were also used as opportunities to convey information on the NYSDEC permit process. DSNY identified stakeholders, met with community district managers, coordinated logistics and support for each meeting, and prepared reader-friendly outreach materials.

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The Converted MTSs require Solid Waste Management Facility Permits under 6 NYCRR Part 360, Article 15/25 permits and State Facility Air Permits. Draft applications for these permits have been filed with NYSDEC. Consequently, the Enhanced
DSNY developed stakeholder lists, with the assistance of District Managers, which included community-based organizations, civic groups, religious groups, neighborhood housing agencies, and schools, among others. The stakeholder lists were continuously updated through phone requests, attendee lists from public information meetings/hearings, and other sources. DSNY mailed public information flyers mailed to stakeholders in advance of the Public Scoping Meetings, and provided Welcome handout and fact sheets, Comment sheets and large display boards at the meetings, and interpretation services. DSNY established Public Document Repositories in each project area, where all project-related material, including draft and final permit applications for the MTSs, the Scoping Document, the DEIS, Public Notices or permit–related Notices, was made available for review by the public. In addition, documents were made available upon request from DSNY and for review at community liaison offices within pertinent state and federal agencies, borough halls, and legislative offices.

DSNY sent mailings to approximately 2,200 stakeholders in advance of meetings to maximize attendance. DSNY established a toll-free hotline in May 2004 (1-888-NYC-SWMP) and provided the number on all outreach materials to receive comments and answer questions related to the project. Messages received via hotline were documented, substantive comments considered by DSNY, and Frequently Asked Questions (FAQ’s) answered. The hotline also received and processed requests for translation/interpretation services, special needs of residents within a particular project area, and additions to the stakeholder lists. The hotline voice message and operator offered information in English and Spanish.

The Final DEIS Scope contained a summary of substantive comments received with DSNY’s responses. It was also placed on the DSNY web site at www.nyc.gov/sanitation.

1.9.3 DEIS Publication Phase

After determining that the DEIS was complete and adequate for public review, DSNY filed and circulated a Public Notice announcing the issuance and availability of the DEIS and published it in the Environmental Notice Bulletin and the City Record. DSNY placed display advertisements for the DEIS and Part 360 permit hearings in two mainstream newspapers in the EJ project areas, the New York Post and El Diario (Spanish publication), and in the Staten Island Advance. DSNY updated stakeholder lists with the addresses of individuals who attended the Public Scoping meetings or submitted comments; and sent trifold mailings about the DEIS availability to over 3,000 stakeholders. In addition, the Public Notice flyer was translated into Spanish and sent to Spanish-speaking stakeholders identified by active community liaisons or groups.

Outreach documents continued to be distributed widely through various mailings and at the DEIS Public Hearings held within the project areas for the Proposed Action facilities. Eight DEIS Hearings were held between Wednesday, December 1st and Monday, December 20th, 2004. The DEIS Public Hearing format was similar to the format used for the Scoping Meetings.

1.9.4 Public Outreach for ULURP Process, and Fair Share

The proposed use of four existing MTS sites – East 91st Street in Manhattan, Southwest Brooklyn and Hamilton Avenue in Brooklyn, and North Shore in Queens – would continue the long-standing marine transfer station use at these sites, which use the City Council reaffirmed in the 2000 SWMP Modification.
Nevertheless, for the draft New SWMP plan to construct Converted MTSs, DSNY submitted these sites to the public site selection process under City Charter §197-c for capital projects. DSNY submitted applications for the four MTSs to the City Planning Commission pursuant to ULURP on November 9, 2004, and included a “Fair Share” analysis (City Criteria for the Location of City Facilities) for each site pursuant to 6 RCNY Title 62, Appendix A, explaining how the applications conformed to the City’s Fair Share criteria. The applications were certified as complete on November 15, 2004. DSNY also made presentations and distributed outreach materials at four Public Hearings/Informational Meetings held by Community Boards on the Converted MTSs’ ULURP applications, followed by a question and answer session.

Public notices and display ads about the ULURP informational meetings held on January 10, 12, and 13 (two), 2005 were placed in local newspapers during the last week of December 2004. In addition, DSNY mailed out flyers to community stakeholders. Stakeholder lists continued to be updated throughout the DEIS public comment period to include those who provided comments or attended the DEIS Public Hearings and the Permit Review Process Informational Meetings/ULURP Hearings.

The Community Boards for the districts containing the sites for the proposed Southwest Brooklyn Converted MTS, the North Shore Converted MTS, and the Hamilton Avenue Converted MTS voted in favor of the respective ULURP applications, while Manhattan Community Board 8 voted against the proposed East 91st Street Converted MTS. Manhattan Borough President Virginia Fields recommended disapproval of the East 91st Street Converted MTS application on January 27, 2005. The City Planning Commission approved all four applications, and issued reports and findings on the applications on April 13, 2005. The City Council process resulting in approval of these applications was completed June 14, 2005.

1.9.5 Public Outreach – Converted MTS Permitting by NYSDEC

Among other approvals, the Converted MTSs require New York State Department of Environmental Conservation (NYSDEC) solid waste management facility permits pursuant to 6 NYCRR §360 et seq. DSNY submitted applications to NYSDEC for solid waste transfer station permits for the four Converted MTS facilities on April 13, 2005, with supplemental submissions on May 24, 2005. The revised applications are available for public review at the designated public repositories. DSNY’s enhanced public outreach includes efforts related to NYSDEC permit processes for approvals required to implement the draft New SWMP.

The private transfer stations that require NYSDEC permit modifications to receive DSNY-managed Waste for export by rail (the 920 East 132nd Street Transfer Station in the Bronx; the 38-50 Review Avenue Transfer Station, the 215 Varick Avenue Transfer Station, and 598 Scholes Street Transfer Station) have submitted or will be submitting applications to the NYSDEC which may undergo additional public outreach measures pursuant to NYSDEC’s EJ Policy. These applications may be supported in whole or in part by the FEIS conducted for the draft New SWMP and related approvals.

1.9.6 Hearings Before the City Council on the Draft New SWMP

DSNY staff, NYCEDC staff on the Mayor’s Waste Solutions Taskforce, and DSNY’s consultants testified at a number of public hearings before the City Council Committee on Sanitation and Solid Waste to discuss the draft New SWMP and related technical and environmental reviews. These included the following hearings and topics:

June 21, 2004 Commercial Waste Management Study
DSNY also testified on the draft New SWMP ULURP applications for the four proposed Converted MTS sites before the City Council’s Subcommittee on Landmarks, Public Siting and Maritime Uses (May 16 2005). The Land Use Committee of the Council met and voted on the applications on June 8, 2005.

1.9.7 Public Document Repositories

Public repositories for the Draft New SWMP, the FEIS and NYSDEC Permit Applications appear below.

<table>
<thead>
<tr>
<th>Repository Location</th>
<th>Repository Address</th>
<th>Days/Hours of Operation</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manhattan Community Bd 8</td>
<td>505 Park Avenue</td>
<td>M thru F; 9-5</td>
<td>(212) 758-4340</td>
</tr>
<tr>
<td>96th St. Regional Public Library</td>
<td>112 East 96th Street</td>
<td>M/Th 12-8; Tu/F 1-6; W 10-4; Sa 10-5; closed Sun</td>
<td>(212) 289-0908</td>
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<tr>
<td>Manhattan Community Bd 9</td>
<td>565 West 125th Street</td>
<td>M thru F; 9-5</td>
<td>(212) 864-6200</td>
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<tr>
<td>George Bruce Public Library</td>
<td>518 West 125th Street</td>
<td>M 10-6; W 12-8; Th 11-6; F 1-6; Sa 10-5; closed Tu/Sun</td>
<td>(212) 662-9727</td>
</tr>
<tr>
<td>Manhattan Community Bd 4</td>
<td>330 West 42nd Street, 26th Fl</td>
<td>M thru F; 9-5</td>
<td>(212) 736-4536</td>
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<tr>
<td>Riverside Public Library</td>
<td>127 Amsterdam Avenue</td>
<td>M 10-6; W 12-8; Th 1-8; F 1-6; Sa 10-5; Closed Tu/Sun</td>
<td>(212) 870-1810</td>
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<tr>
<td>Brooklyn Community Bd 7</td>
<td>4201 4th Avenue</td>
<td>M thru F; 9-5</td>
<td>(718) 854-0003</td>
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<tr>
<td>Sunset Park Public Library</td>
<td>5108 4th Avenue at 51st</td>
<td>M 1-8; T, Th/F 1-6; W 10-6; Sa 10-5; closed Sun</td>
<td>(718) 567-2806</td>
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<tr>
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<td>2214 Bath Avenue</td>
<td>M thru F; 9-5</td>
<td>(718) 266-8800</td>
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<tr>
<td>New Utrecht Public Library</td>
<td>1743 86th Street at Bay 17th Street</td>
<td>M/Th 1-6; Tu 1-8; W/F 10-6; Sa 10-5;</td>
<td>(718) 236-4086</td>
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<tr>
<td>Brooklyn Community Bd 1</td>
<td>435 Graham Avenue</td>
<td>M thru F; 9-5</td>
<td>(718) 389-0009</td>
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<tr>
<td>Leonard Public Library</td>
<td>81 Devoe Street at Leonard Street</td>
<td>M 1-8; Tu/Th/F 1-6; W 10-6; closed wkend</td>
<td>(718) 486-3365</td>
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<tr>
<td>Queens Community Bd 2</td>
<td>43-22 50th Street, Woodside</td>
<td>M thru F; 9-5</td>
<td>(718) 533-8773</td>
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<tr>
<td>Court Square Public Library</td>
<td>25-01 Jackson Avenue, Long Island City</td>
<td>M 12-7; Tu 1-6; W 10-6; Th/F 12-6; closed wkend</td>
<td>(718) 937-2790</td>
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<tr>
<td>Queens Community Bd 7</td>
<td>45-35 Kissena Blvd., Flushing</td>
<td>M thru F; 9-5</td>
<td>(718) 359-2800</td>
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<td>Mitchell-Linden Public Library</td>
<td>29-42 Union Street, Flushing</td>
<td>M/Th 1-8, Tu 1-6, W/F 10-6; closed wkend</td>
<td>(718) 539-2330</td>
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<td>Bronx Community Bd 2</td>
<td>1029 East 163rd Street</td>
<td>M thru F; 9-5</td>
<td>(718) 328-9125</td>
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<tr>
<td>Library / Office</td>
<td>Address / Suite Information</td>
<td>Hours / Contact Information</td>
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<td>Hunts Point Regional Library</td>
<td>877 Southern Boulevard at Tiffany Street</td>
<td>M 12-7; Tu/Th 10-6; W/F 1-6; Sa 10-5; closed Sun (718) 617-0338</td>
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<tr>
<td>Bronx Community Bd 1</td>
<td>384 East 149th Street, Rm 320</td>
<td>M thru F; 9-5 (718) 585-7117</td>
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<tr>
<td>Woodstock Public Library</td>
<td>761 East 160th Street</td>
<td>M/Tu 10-6; W 11-6; Th 12-7; F 1-6; closed wkend (718) 665-6255</td>
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<tr>
<td>St. George Library Center</td>
<td>5 Central Avenue, Staten I.</td>
<td>M/Th 12-8; T/W 10-6; F 12-6; Sa 10-5; Sun 1-5 (718) 442-8560</td>
<td></td>
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<tr>
<td>Office of the Borough President of Staten Island</td>
<td>Borough Hall, Room 120, Staten Island</td>
<td>M thru F; 9-5 (718) 816-2200</td>
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</table>
2.0 ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION

2.1 Methodology

The methodology used in conducting the environmental review of the draft New SWMP and its proposed facility sites and Alternatives relied on the City Environmental Quality Review Technical Manual (2001) for accepted methodologies. The Build Year used is 2006. Data collection for the analysis began in January 2003. Much of the existing DSNY and commercial waste collection systems will continue as at present, although certain transfer destinations will change. The review examined the impacts only of proposed changes to the existing City integrated waste management system. The analysis for the four proposed Converted MTSs and Alternatives conservatively used 2003/2004 Existing Conditions (with the existing MTSs not accepting waste, except for West 59th Street MTS Alternative which accepts Recyclables) as the baseline against which to compare future conditions, rather than comparing Future Build conditions with the MTS sites when these facilities were operating. The waste handling capacities analyzed at the Converted MTSs and Alternatives are described in Section 1.5, above.

The proposed Plan facilities and Alternatives would receive waste 24 hours per day, six days per week (Monday through Saturday), with a peak day each week (typically Monday or Tuesday), when the tonnage is, on average, higher than the annual average tons per day. This average peak day tonnage represents reasonable worst case conditions in terms of DSNY collection vehicle deliveries. The distribution of waste deliveries to the Converted MTSs over the day was based on actual scale data from 1998 operations at the existing MTSs (except the South Bronx MTS, which used FY1997 data). The total number of net loads (Average Peak Day) of DSNY collection vehicles for the proposed Converted MTSs used in the analysis are as follows: Hamilton Avenue (267); Southwest Brooklyn (166); East 91st Street (130); and North Shore (329). For the candidate private transfer stations, the number of net loads of DSNY collection vehicles was as follows: East 132nd Street (374, including dray trips); Scott Avenue/Scholes Street (125); Review Avenue Truck-to-Rail (225, including dray trips). To be conservative, peak hour collection truck trips for the average peak day were increased by approximately 20% to account for daily and seasonal variations. The number of Peak Hour DSNY Collection Vehicles Inbound analyzed for each proposed Plan facility’s “facility peak hour” (when the most DSNY collection vehicle trips are generated by the facility) ranged from 10 deliveries (Review Avenue Truck-to-Barge facility) to 45 deliveries (East 132nd Street Truck-to-Rail, including dray trucks).

Several of the proposed facilities for receipt of DSNY-managed Waste are existing permitted facilities that require no modifications or permit approvals for exporting DSNY-managed Waste by barge or rail, while others require only minor modifications not requiring environmental review, and still others would require discretionary permits or major modifications requiring environmental review. As such, the level of environmental review conducted for these facilities varied.

For the analysis of the potential for significant adverse impacts on-site related to air quality, odor and noise at the proposed Converted MTS facilities, DSNY conservatively assumed each facility operated at its design capacity of 4,290 tpd. The analysis accounts for air, odor and noise emissions related to all on-site indoor and outdoor equipment. Indoor equipment modeled in the air and noise analysis generally included tip floor wheel loaders, mini-loader, tamping cranes, spreader crane/hoist, skid steer loader, vacuum sweeper, exhaust fans, and moving and queuing collection vehicles. Outdoor equipment modeled in the noise analysis generally included container shuttle cars, gantry cranes, harbor tug boats, exhaust fans, inbound moving/queuing DSNY collection vehicles; inbound moving/queuing commercial waste collection vehicles, and outbound moving/queuing commercial collection vehicles. The on-site air quality...
analysis also included on-site space heaters and a boiler. In addition to emissions from diesel equipment and motor vehicles, the on-site air analysis included fugitive dust emissions from waste handling operations indoors, re-entrained dust from collection vehicles on paved roads inside and outside the processing building, and heating plant and/or space heater emissions released from stacks on the processing buildings.

Noise sensitive receptors considered for potential impacts were: parks/playgrounds; schools and educational facilities; residences; churches and other places of worship; outdoor performance facilities; indoor performance facilities with windows; healthcare facilities; and libraries and community centers.

Both the on-site and off-site air analyses were designed to determine whether the proposed facility and Alternative operations, as applicable, would cause or exacerbate violations of applicable ambient air quality standards and/or exceed appropriate air quality guideline values or impact thresholds. National and state ambient air quality standards were used for carbon monoxide, nitrogen dioxide, particulate matter (PM) less than 2.5 microns in diameter (PM$_{2.5}$) and less than 10 microns in diameter (PM$_{10}$), and sulfur dioxide. Hydrocarbons (also referred to as volatile organic compounds), which can act as a precursor to the formation of ozone, were also evaluated for the purpose of assessing human health risks due to the applicable individual toxic air pollutants, for which no national ambient air quality standard exists. Interim significance thresholds established by NYSDEC and New York City Department of Environmental Protection (NYCDEP) were used to analyze PM$_{2.5}$. Detailed mobile source PM$_{2.5}$ analyses were conducted for intersections near each proposed Plan facility and Alternative facility that would experience a facility-related increase of 21 trucks per hour or more for the peak demand hour, in accordance with NYCDEP guidance. The air analysis also considered the potential health impacts associated with certain compounds found in diesel exhaust.

DSNY conducted an analysis of odor impacts utilizing a methodology for solid waste odors reasonably adapted to urban areas such as New York City. The odor analysis methodology used background air samples to establish an impact significance threshold at sensitive receptors of five times the laboratory detection threshold. Emission rates for dispersion model inputs were based on laboratory analysis of air samples obtained from the MTs when they were operating and from several commercial waste transfer stations in the City. For purposes of modeling odor dispersion using USEPA-approved models, a 90% reduction of odorous emissions was conservatively assumed for the Converted MT odor control systems, which can eliminate from 90% to 99% of odorous compounds.

2.1.1 Scope of Environmental Review for Private Sites

The scope of the environmental review presented in the FEIS of certain private sites that are elements of Proposed Action was more limited than the review of the Converted MT sites as these existing private facilities have undergone previous environmental reviews that provided the basis for the current approved permits under which these facilities operate. The environmental review of these facilities in the FEIS was limited to incremental changes in the design and or operation of these facilities that would result from the Proposed Action, which would involve additional permitting actions. Additional environmental review may be necessary for these facilities depending on pending decisions on contract awards for export of DSNY-managed Waste from those sites.
Table 7
Private Transfer Station Capacities

<table>
<thead>
<tr>
<th>Facility</th>
<th>Community District Location/ Wasteshed Served</th>
<th>Current Permitted Capacity (TPD)</th>
<th>Proposed Expansion Increment (TPD)</th>
<th>Other Permit Modifications</th>
<th>Avg Peak Day DSNY Waste Evaluated (TPD)</th>
<th>Commercial Waste Processed (Yes/No)</th>
<th>Capacity Analyzed for On-Site Impacts (TPD)</th>
<th>Capacity Analyzed for Off-Site Impacts (TPD)</th>
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<tbody>
<tr>
<td>Harlem River Yard, Truck-to-Rail TS, Bronx</td>
<td>Bronx 1/ Bronx CD’s 1 through 12</td>
<td>4,000</td>
<td>None</td>
<td>None</td>
<td>2,337</td>
<td>Yes</td>
<td>Not Required&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>1,147&lt;sup&gt;(2)&lt;/sup&gt;</td>
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<tr>
<td>East 132&lt;sup&gt;nd&lt;/sup&gt; Street, Truck-to-Rail TS, Bronx</td>
<td>Bronx 1/ Bronx CD’s 1 through 12</td>
<td>2,999</td>
<td>None</td>
<td>Minor addition of lidding facility</td>
<td>2,337</td>
<td>Yes</td>
<td>Not Required&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>1,565</td>
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<tr>
<td>485 Scott Avenue, (4) Truck-to-Barge TS, Brooklyn</td>
<td>Brooklyn 1/ Brooklyn CD’s 1, 3, 4 and 5</td>
<td>1,500</td>
<td>None</td>
<td>Containerization Floor Plan, Lidding Area and Bulkhead and Platform for loadout of Containers onto Barges</td>
<td>1,114</td>
<td>Yes</td>
<td>Not Required</td>
<td>Not Required&lt;sup&gt;(5)&lt;/sup&gt;</td>
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<td>72 Scott-598 Scholes, Truck-to-Rail TS, Brooklyn</td>
<td>Brooklyn 1/ Brooklyn CD’s 1, 3, 4 and 5</td>
<td>220</td>
<td>948</td>
<td>Consolidation of operations among three separate facilities, Rail Improvements</td>
<td>1,114</td>
<td>Yes</td>
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<tr>
<td>30-58 Review Avenue, Truck-to-Rail TS, Queens</td>
<td>Queens 2/ Queens CD’s 1 through 6</td>
<td>958</td>
<td>242</td>
<td>Containerization Floor Plan, Lidding Area</td>
<td>1,464</td>
<td>Yes</td>
<td>1,200&lt;sup&gt;(6)&lt;/sup&gt;</td>
<td>530&lt;sup&gt;(7)&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

Table 7 Notes:

1. The currently permitted capacity of Harlem River Yard (4000 tpd) was supported by prior environmental reviews that considered the on-site effects of processing DSNY-managed Waste.

2. This is the potential tpd increment between the average of what is currently exported from the Harlem River Yard and, pending the outcome of contract negotiations between DSNY and the company, the potential to export all Bronx waste from this site.

3. The currently permitted capacity at East 132nd Street (2999 tpd) was supported by prior environmental reviews that considered the on-site effects of processing DSNY-managed Waste.

4. The private operator proposes to substitute 215 Varick Avenue for this facility.
5. 485 Scott Avenue currently provides Interim Export service to DSNY for the same wasteshed, based on a Negative Declaration in a prior EAS review. If utilized for Long Term Export in truck-to-barge mode, the number of outbound truck trips would be less than at present, reducing the potential impacts. Therefore, no additional review is required.

6. The 38-50 Review Avenue Transfer Station currently provides Interim Export service for a portion of the same Queens wasteshed that would be served by Long Term Export, which includes an additional Community District. However, the increment in proposed permitted capacity was considered in the FEIS.

7. This is the potential tpd increment between the average of what is currently exported from the Review Avenue Transfer Station and, pending the outcome of contract negotiations between DSNY and the company, the potential to export Queens waste from CD’s 1 through 6 from this site.

2.1.2. Transport of DSNY-Managed Waste to Essex County Resource Recovery Facility

The Essex County Resource Recovery Facility is a permitted and operating waste-to-energy facility in New Jersey and, as such, is not subject to environmental review. The Proposed Action, to contract with DSNY to receive up to 1,680 tpd of DSNY-managed waste from the former West 135th Street and West 59th Street MTS wastesheds would be an increase over the approximately 1,364 tpd of DSNY-managed Waste (FY2005), currently delivered to this facility. The impact of sending the increment in tonnage in DSNY collection vehicles through portals in the City was evaluated in the FEIS. A screening performed for potential traffic, air and noise impacts assumed a 20% increment for analytical purposes and found the proposal did not exceed thresholds requiring detailed environmental review. Accordingly, the proposal to send 1,680 tpd of such waste under a long-term intergovernmental contract did not require further environmental review.

2.1.3 Harlem River Yard Truck-to-Rail Transfer Station, Bronx

This private facility at 98 Lincoln Avenue in the Bronx is currently permitted for up to 4,000 tpd pursuant to previous environmental reviews and is under contract with DSNY to receive up to 1,800 tpd of DSNY-managed Waste from the Bronx; an environmental review has previously been conducted for this amount for interim export contracts. It is proposed to receive all of Bronx DSNY-managed Waste, up to an average peak day of 2,337 tons. A 1993 FEIS supported permit approvals for the original 3,000 tpd capacity, while a 2003 Environmental Assessment Statement found that an increase in capacity to 4,000 tpd with no construction would not cause significant adverse impacts; PM$_{2.5}$ impacts were analyzed for this increment. As the proposed waste from the Bronx could be accommodated at this facility without an increase in capacity and with only minor equipment additions, no further environmental review was required.

2.1.4 East 132nd Street Truck-to-Rail Transfer Station and Oak Point Rail Yard, Bronx

The private East 132nd Street facility in the Bronx is permitted for up to 2,999 tpd of waste for receipt and processing into outbound transfer trailers, and up to 800 tpd of this amount currently may be drayed to the Oak Point Rail Yard for further transport by rail. The facility is currently under contract to receive up to 1,500 tpd of DSNY-managed Waste and in 2003 received 1,033 tpd on an average peak day. DSNY is negotiating to send all or a portion of DSNY Bronx waste to this facility. The FEIS evaluated impacts assuming all of DSNY-managed Waste from the Bronx was delivered to the facility (up to 2,337 tons on an average peak day). Minor modifications to the facility would be required such as the addition of a lidding facility for the containers. The potential off-site impacts from draying of containers to the Oak Point Rail Yard for transloading to rail cars was evaluated in the FEIS, assuming all of its permitted capacity was exported by rail. The facility was the subject of an EAS in 1997 for interim export that
evaluated the receipt of all Bronx DSNY-managed Waste. The 2000 SWMP FEIS evaluated on-site, but not off-site, impacts related to delivery of all Bronx waste to this site under a variety of different export scenarios, e.g., EBUF, truck-to-barge, truck-to-rail. The EAS for Interim Export, updated in 2001, evaluated sending only a portion of the Bronx waste (24 collection vehicles during the peak hour between 11:00 a.m. to 12:00 p.m.) to the East 132nd Street Truck to Rail Transfer Station because that EAS focused more on analyzing all of the Bronx waste to Harlem River Yard. Traffic analyses were completed at multiple locations, and PM$_{10}$ analyses were completed at two intersections. PM$_{2.5}$ was analyzed, and CO and mobile noise analyses screened out. The increment of waste analyzed for off-site impacts in the 2005 draft New SWMP FEIS was 1,565 tpd (2,337 tpd minus 1,033 tpd plus 20% contingency); traffic, air and noise (also on-site) were considered. The FEIS references the 2000 SWMP Modification FEIS for other CEQR analytical categories.

The trucking of containers of DSNY-managed Waste from the East 132nd Street Truck to Rail Transfer Station to the Oak Point Rail Yard was analyzed in the FEIS, since, at present, only a portion of DSNY waste that is delivered to the 132nd Street Truck to Rail Transfer Station is drayed to the Oak Point Rail Yard for further transport by rail. The FEIS review was limited to off-site impacts of draying to the Oak Point Rail Yard. The Oak Point Rail Yard is currently a registered intermodal facility, and therefore the proposed increase in transloading sealed containers to rail cars on site does not require environmental review.

2.1.5 72 Scott Avenue/598 Scholes Street Truck-to-Rail Transfer Station, Brooklyn

This private facility is currently under contract with DSNY for up to 220 tpd of DSNY-managed Waste and was receiving 143 tons on an average peak day. It was analyzed in the FEIS concerning potential on-site and off-site impacts associated with consolidating operations of adjacent parcels and increasing the permitted putrescible capacity from 220 tpd to 1,368 tpd. The applicant’s current, revised proposal would be for an increase to 1,168 tpd, which is less than the capacity analyzed in the FEIS. The consolidation would involve converting non-putrescible capacity to putrescible capacity and moving permitted capacity to the site by closing another putrescible facility in the area at 115 Thames Street. The FEIS analysis considered an incremental shift in tonnage of 637 tpd (1,368 tpd proposed permitted capacity minus 143 tpd existing average peak day deliveries, 388 tpd of offsets for C&D material from 594 Scholes Street, and 200 tpd of glass/tire/yard waste material from 598 Scholes Street).

2.1.6 30-58 Review Avenue Truck-to-Rail Transfer Station, Queens

This private facility is permitted for receipt and processing of 958 tpd of waste into outbound transfer trailers, and currently receives 934 tpd of DSNY-managed Waste on an average peak day. The draft New SWMP proposes an increase in capacity to 1,200 tpd. The facility would be substantially modified to process higher average and peak volumes of waste and to enable lidding of containers. The 2005 FEIS references the 2000 SWMP FEIS analysis of (1) a truck-to-rail design for this site at a capacity of 2,300 tpd, which included off-site air quality (PM$_{10}$ and CO), traffic, and noise analyses, assuming 56 collection vehicles during the peak hour, and (2) a truck-to-barge facility for up to 1,200 tpd (37 collection vehicles during the peak hour). The 56 collection vehicles assumption is equivalent to operating at 1,200 tpd and draying containers to the Maspeth Rail Yard. The 2000 SWMP FEIS found no significant unmitigated impacts with either rail or barge operation. Impacts associated with PM$_{2.5}$ were not considered in the 2000 SMWP FEIS and so were analyzed in the 2005 FEIS, together with traffic, noise and odor impacts.

The off-site review for this facility in Truck-to-Rail proposed operating mode considered only off-site impacts of draying to the Maspeth Rail Yard, since the Maspeth Rail Yard is currently registered with DSNY as an intermodal yard. Therefore, off-site traffic and noise impact analyses were performed for the equivalent of 1,200 tpd in round-trip truck traffic.
2.1.7  *Intermodal Support Facilities for Transloading Containerized Waste from the Converted MTSs*

The sealed containers of DSNY-managed Waste transported from the proposed Converted MTS facilities by barge will either go directly to disposal facilities, or will require unloading and transfer to other transport modes such as rail or ocean-going barge in the general New York Harbor area. The intermodal movement of such waste containers would not differ materially from the movement of standard containers carrying other kinds of freight, and would not require construction or other facility modifications at the transload site merely to accommodate containers of waste. Likewise, no discretionary approval would be required for the mere transloading of such containerized waste at existing facilities constructed for intermodal freight movements. Moreover, federal law provides that state or local authorities may not impose local approvals or environmental review requirements for the use of transporter-owned intermodal rail facilities, but limits jurisdiction over such matters to the federal Surface Transportation Board. Therefore no environmental review was required for such intermodal movements of containerized waste.

2.1.8  *215 Varick Avenue Transfer Station, Brooklyn – Alternative*

This facility was not evaluated in the FEIS, as it has only recently been proposed as a potential site for truck to rail transfer of DSNY-managed Waste. Because it has not been evaluated in the FEIS, any future decision by DSNY to contract for the use of this site on a long-term basis would require environmental review.

2.1.9  *South Brooklyn Marine Terminal Recyclables Processing Facility*

As noted above, design details for this proposed Recyclables Processing Facility were not developed to a level that would support an environment review of potentially significant impacts associated with on-site operations. When more detailed design information is developed, this facility will be subject to further environmental review. The FEIS considered potential natural resource impacts, water quality and consistency with the City’s Waterfront Revitalization Program related to the proposed waterfront construction, and evaluated the potential for significant off-site traffic, air quality and noise impacts associated with limited truck deliveries of Recyclables to this facility from Brooklyn CD’s 9, 14 and 15. No significant impacts were identified. It assumed that the districts trucking Recyclables to the SBMT will generate approximately 29 inbound and 29 outbound truck trips over a 24-hour period on an average peak day. Peak hour traffic generation for this facility is expected to be 17 Passenger Car Equivalents, or PCEs (which includes 11 employee trips (11 PCEs) and 4 DSNY Collection Vehicles (6 PCEs)), which falls below the CEQR screening threshold for potentially significant traffic impacts of 50 trip ends generated in the peak hour. Therefore, no additional traffic analysis is required at this site.

2.1.10  *Manhattan Recyclables Acceptance Facility – Gansevoort*

Design details for this proposed Recyclables Acceptance Facility were not developed to a level that would support an environment review of potentially significant impacts associated with on-site operations. When more detailed design information is developed, this facility will be subject to further environmental review. A preliminary analysis of the potential for significant off-site traffic, air quality and noise impacts associated with truck deliveries of recyclables to this facility was provided in the FEIS and no significant impacts were identified. It assumed that the Gansevoort Recyclables Acceptance Facility will generate approximately 107 inbound and 107 outbound truck trips over a 24-hour period on an average peak day. Peak hour traffic generation for this facility is expected to be 32 passenger car equivalents (PCE’s), which includes 11 employee trips (11 PCEs) and 14 DSNY Collection Vehicles (21 PCEs), which falls below the CEQR significance screening threshold of 50 PCE trip ends generated in the peak hour.
hour. As the increase is below the significance threshold, the impact to traffic would not be significant and no additional traffic analysis is required at this site.

2.1.11 West 59th Street MTS

As noted above, DSNY proposes to make the West 59th Street MTS site in Manhattan available for the truck-to-barge transfer of commercial putrescible waste. However, the design of this facility, as may be proposed by a private applicant, is not yet available as a basis for an environmental review of potentially significant impacts. When more detailed design information is developed through a procurement to be conducted by DSNY, this facility will be subject to an appropriate environmental review.

2.2 Environmental Impacts of Long Term Export Program for DSNY-managed Waste

The environmental impacts of the proposed Plan for the transfer and export of DSNY-managed Waste from the Converted MTS sites are summarized below, with proposed mitigation. (Impacts are discussed with respect to the existing private transfer station sites proposed for long-term DSNY contracts only where the analysis of the Plan found a potentially significant impact requiring mitigation, e.g., for traffic impacts.)

2.2.1 Land Use, Zoning and Public Policy

East 91st Street Converted MTS The MTS site is located within a small irregularly shaped MI-4 (light industrial) zoning district, which extends from East 90th to East 93rd Streets along the shoreline, between the FDR Drive and the East River waterfront. It continues west of the site to York Avenue between East 90th and East 92nd Streets to encompass most of the Asphalt Green complex. Beyond the site on all sides are high-density residential zoning districts that allow for dense apartment buildings. An area covering the interiors of three blocks south of East 92nd Street between York and First Avenues, where warehouses and auto-related uses are located west of the site, is zoned C8-4. The remainder of the study area is zoned for high-density residential development with the exception of a strip of C2-8 zoning lining First Avenue.

The East 91st Street Converted MTS would occupy the same location as the existing facility, but with a larger footprint over the water. The entrance ramp would follow the same footprint as the existing ramp. The facility would be consistent with zoning for the site and with historic use of the site. Although marine transfer stations are Use Group 18 uses considered appropriate under the City’s Zoning Resolution for M3 (heavy manufacturing) districts with low zoning performance standards, they are permitted in M1 districts if they meet the higher performance standards of such districts. DSNY finds, based on the technical analyses of odor, air emissions and other parameters presented in the FEIS, that operation of the East 91st MTS with its associated environmental controls will meet the performance standards for the site.

The reactivation of waste transfer activities on the site in a Converted MTS with significantly upgraded environmental control systems and increased space for on-site queuing of collection vehicles would have no significant impact on land uses nearby. Neither the reactivation of waste transfer activities on the

55 As explained in the FEIS, a noise analysis predicted a theoretical exceedance of the zoning district performance standard for noise at a point on the promenade (which has nominal residential zoning) between the FDR Drive and the East River north of the MTS entrance ramp. However such standard is already far exceeded by background noise at this location from the busy FDR Drive, and so the noise increment from the facility would not be perceptible; the closest actual residence is over 400 feet away from the MTS building, on York Avenue.
site nor the volume of truck traffic would encourage similar types of land uses or discourage other
types of land use such as those already present in the study areas. The proposed acceptance of
Commercial Waste at night with restrictions on the quantity of waste delivered at certain hours between
8:00 p.m. and 8:00 a.m. would not exceed applicable zoning standards or applicable environmental
impact criteria. Therefore, DSNY finds no significant adverse impacts to land use or zoning would result.

**Hamilton Avenue Converted MTS** The site and immediate vicinity are zoned primarily for manufacturing:
M3-1, M1-2 and M2-1 zoning districts are southeast of Gowanus Bay and Gowanus Canal and M3-1 and
M1-1 districts are to the west. A small portion of the larger R5 residential zoning district in Red Hook is
just beyond these manufacturing districts. A small portion of a larger R6 district lies east of Third
Avenue. The Converted MTS would replace the existing MTS, further inland partly where the old
incinerator stands. The reactivation of waste transfer activities on the site in a Converted MTS with a
significantly upgraded environmental control systems and increased space for on-site queuing of
collection vehicles would have no significant impact on land uses nearby. The proposed acceptance of
Commercial Waste at night with restrictions on the quantity of waste delivered at certain hours between
8:00 p.m. and 8:00 a.m. would not exceed applicable zoning standards or applicable environmental
impact criteria. Therefore, DSNY finds that no significant adverse impacts to land use, zoning or public
policy would result.

**Southwest Brooklyn Converted MTS** The site and most of the immediate area are within an M3-1 heavy
manufacturing zoning district, on Gravesend Bay. The site is surrounded by a relatively mixed land use
pattern. The waterfront recreation areas are a mix of M1-1, M3-1, C3 districts. A small portion of a
larger R6 zoning district lies northeast of Leif Ericson Drive. The Converted MTS would be situated
within the portion of the site where the incinerator, which has been demolished, was located. The existing
deactivated MTS will remain. DSNY finds that the reactivation of waste transfer activities on the site in a
Converted MTS with a significantly upgraded environmental control systems and increased space for on-
site queuing of collection vehicles would have no significant impact on land uses nearby. The proposed
acceptance of Commercial Waste at night with restrictions on the quantity of waste delivered at certain
hours between 8:00 p.m. and 8:00 a.m. would not exceed applicable zoning standards or applicable
environmental impact criteria. Therefore, DSNY finds no significant adverse impacts to land use, zoning
or public policy would result.

**North Shore Converted MTS** The site is within an M3-1 zoning district for heavy manufacturing. The site
is located on the southeast side of Flushing Bay within the mixed use College Point peninsula and across
from LaGuardia Airport. Bordering the M3-1 zone to the north is an M1-1 zone that extends from the bay
to beyond the eastern edge of the secondary study area. North of this M1-1 zoning district are portions of
larger R4, R5B and R4-1 zoning districts. The new North Shore Converted MTS would replace the
existing, closed MTS in approximately the same location.

The reactivation of waste transfer activities on the site in a Converted MTS with a significantly upgraded
environmental control systems and increased space for on-site queuing of collection vehicles would have
no significant impact on land uses nearby. The proposed acceptance of Commercial Waste at night with
restrictions on the quantity of waste delivered at certain hours between 8:00 p.m. and 8:00 a.m., would not
exceed applicable zoning standards or applicable environmental impact criteria. Therefore, DSNY finds
that no significant adverse impacts to land use, zoning public policy would result.

### 2.2.2 Socioeconomic Conditions

**East 91st Street MTS Converted MTS** The population density in the vicinity of the proposed facility is
greater than that of the other proposed Converted MTS sites, the candidate private transfer facilities
proposed for the draft New SWMP or the various Alternatives, as noted in Table 8 below, with 13,417
persons in the adjacent census districts, of whom 74% are non-Hispanic White, 12% Hispanic, 6% non-Hispanic Black and 7% Asian. (The City-wide figures are 35%, 27%, 24%, and 10%, respectively, for these categories). The land use patterns have not changed dramatically since this MTS suspended its operations in 1998 pending approval of the 2000 SWMP Modification. Technical analyses indicate that no significant traffic, air, odor, noise or other impacts would result from the operation of the East 91st Street Converted MTS. No direct or indirect residential, business or institutional displacement would occur as a result of the East 91st Street Converted MTS, and land use and neighborhood character analyses predict no adverse impacts.

The Asphalt Green recreation complex was constructed around the coexisting MTS entrance drive and ramp when the MTS was in full use. The complex (building and field) is surrounded by protective fencing and landscaping to physically buffer it from the existing MTS ramp that bisects the property. With the East 91st Street Converted MTS, visual buffering between the ramp and adjacent property would be accomplished with a visual screen constructed for this purpose. Given this design and the fact that no operable windows open onto the entrance drive or face the MTS on FDR Drive, reactivation of the MTS would have minimal effects on the recreation center's function. DSNY finds that the Converted MTS would not result in significant adverse socioeconomic impacts.

Hamilton Avenue Converted MTS The Converted MTS would not result in socioeconomic changes in the vicinity. The analysis found 4,328 persons within the census districts of the vicinity study area (including a tract that is mainly outside a quarter-mile radius of the proposed facility), of whom 22% were non-Hispanic White, 53% Hispanic, 14% non-Hispanic Black, and 6% Asian. No direct or indirect displacement of residential, business or institutional uses would occur as a result of the Hamilton Avenue Converted MTS and land use and neighborhood character analyses predict no adverse impacts. The Hamilton Avenue Converted MTS would not affect the adjacent and nearby businesses, which are industrial uses congruent with MTS operations. DSNY finds that the Converted MTS would not result in significant adverse socioeconomic impacts.

Southwest Brooklyn Converted MTS The Converted MTS would not result in socioeconomic changes in the vicinity. The analysis found 60 persons within the study area, of whom 100% were non-Hispanic White. No direct or indirect displacement of residential, business or institutional uses would occur as a result of the Southwest Brooklyn Converted MTS and land use and neighborhood character analyses predict no adverse impacts. The Converted MTS would not significantly affect the marina located south of the site which previously co-existed with the MTS at this site; DSNY proposes a king pile wall to be built to ensure that wakes from facility tug and barge operations would not affect the marina. DSNY finds that the Converted MTS would not result in significant adverse socioeconomic impacts.

North Shore Converted MTS The Converted MTS would not result in socioeconomic changes in the vicinity. The analysis found 1243 persons within the census districts of the vicinity study area (including a tract that is largely outside a quarter-mile radius of the site), of whom 50% non-Hispanic White, 25% Hispanic, 0% non-Hispanic Black, and 20% Asian. No direct or indirect displacement of residential, business or institutional uses would occur as a result of the Converted MTS and land use and neighborhood character analyses predict no significant adverse impacts. The Converted MTS would not significantly affect the adjacent and nearby businesses, which are industrial, automotive, office or storage related uses. DSNY finds that the Converted MTS would not result in significant adverse socioeconomic impacts.
Table 8
Proposed Transfer Facility Area Population and Race/Ethnicity
with City and Borough totals

|                | est. % of land use within 1/4 mile that is residential | Population | Non-Hisp. White | Hispanic | Non-Hisp Non-Hisp. 2 or more Am Ind/ races Asian | Haw. | % of total pop. | % of total pop. | % of total pop. | % of total pop. | % of total pop. | % of total pop. | % of total pop. | % of total pop. | % of total pop. | % of total pop. | % of total pop. |
|----------------|-------------------------------------------------------|------------|----------------|----------|------------------------------------------------|------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| NYC            | --                                                    | 8,008,728  | 2,801,995      | 2,161,530| 1,952,653                                      | 781,736| 23,4186        | 16,022         | 57,145          | 2829           | --             | --             | --             | --             | --             | --             | --             | --             |
| Brooklyn       | --                                                    | 2,465,326  | 854,653        | 488,163  | 844,568                                        | 184,498| 72,249         | 4230           | 16,067          | 803            | --             | --             | --             | --             | --             | --             | --             | --             |
| Queens         | --                                                    | 2,229,379  | 732,968        | 556,876  | 419,032                                        | 59,207 | 95,027         | 5606           | 26,427          | 861            | --             | --             | --             | --             | --             | --             | --             | --             |
| Manhattan      | --                                                    | 1,537,195  | 703,462        | 418,005  | 233,383                                        | 143,028| 30,906         | 2319           | 5738            | 572            | --             | --             | --             | --             | --             | --             | --             | --             |
| Bronx          | --                                                    | 1,332,650  | 194,312        | 645,222  | 415,381                                        | 37,868 | 28,073         | 3330           | 8041            | 474            | --             | --             | --             | --             | --             | --             | --             | --             |
| Staten Island  | --                                                    | 443,728    | 316,316        | 53,550   | 39,704                                         | 24,786 | 7797           | 599            | 857             | 119            | --             | --             | --             | --             | --             | --             | --             | --             |

<table>
<thead>
<tr>
<th>PROPOSED TRANSFER STATIONS AND ALTERNATIVES: STUDY AREAS</th>
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<tr>
<td>East 91st Street MTS</td>
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<tr>
<td>West 59th St MTS</td>
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<td>Southwest Brooklyn MTS</td>
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<td>Staten Island TS</td>
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<td>North Shore MTS</td>
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<td>Hamilton Ave MTS</td>
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<td>Review Ave TS</td>
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<td>Scott Ave/Scholes TS</td>
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<td>Harlem River Yard TS</td>
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<td>132nd St TS Bronx alt</td>
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<td>West 135th St MTS alt</td>
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<td>South Bronx MTS</td>
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<td>Greenpoint MTS alt</td>
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February 2006
% of study area pop | 30% | 59% | 2% | 5% | 2% | 0% | 1% | 0%
---|---|---|---|---|---|---|---|---
Meserole St TS Bklyn alt | 1% | 55 | 36 | 27 | 2 | 0 | 0 | 17 | 0
% of study area pop | 65% | 49% | 4% | 0% | 0% | 0% | 31% | 0%

Notes: Includes tracts containing facility, tracts within 1/4 mile of facility, and tracts with at least 50% of area lying within 1/4 mile radius of facility if that portion contains residential areas that share connectivity with site (i.e., transportation and pedestrian access).

Hamilton Ave. study area includes tract 0018; about 3/4 is outside of 1/4 mile radius.
Scott Ave/Scholes study area includes tract 0455; about 80% is outside the 1/4 mile radius.
Southwest Brooklyn study area excludes tracts across Shore Parkway as they are do not meet criteria of 50% or more within 1/4 mile.
North Shore study area includes tract 0907; about 3/4 is outside the 1/4 mile radius.
Review Avenue study area figures are updated with 2000 census figures; excludes tract 0589 across Newtown Creek.
Staten Island TS study area includes tract 0291.02; over 90% is outside the 1/4 mile radius.
South Bronx MTS study area includes tract 0097; about 75% land area is outside 1/4 mile radius.
West 135th St. MTS study area includes tract 0313; over 80% is outside 1/4 mile radius.
Meserole Street population breakdown reflects errors in census figures.
East 132nd Street, Bronx figures from 2000 Census; 2000 FEIS showed 6 persons total population from 1990 Census.
Staten Island TS study area figures are updated with 2000 Census figures; 1990 figures were used in 2000 FEIS.
Harlem River Yard study area figures have been updated from 2000 FEIS using 2000 census data.
Land use percentages include open water within the 1/4 mile radius of the facility.

2.2.3 Community Facilities and Services

*East 91st Street Converted MTS* The Converted MTS would not create any significant new demand on services and community facilities and would not displace facilities or disrupt services. No significant adverse impacts to service delivery would occur.

*Hamilton Avenue Converted MTS* The Converted MTS would not create any significant new demand on services and community facilities and would not displace facilities or disrupt services. No significant adverse impacts to service delivery would occur.

*Southwest Brooklyn Converted MTS* The Converted MTS would not create any significant new demand on services and community facilities and would not displace facilities or disrupt services. No significant adverse impacts to service delivery would occur.

*North Shore Converted MTS* The Converted MTS would not create any significant new demand on services and community facilities and would not displace facilities or disrupt services. No significant adverse impacts to service delivery would occur.

2.2.4 Open Space

*East 91st Street Converted MTS* There are 11 public parks and open spaces within one quarter mile of the site and three slightly further to the north. The closest such facilities are Asphalt Green, Carl Schurz Park, the East River Esplanade that runs along the water adjacent to the MTS and DeKovats Park (a landscaped traffic island). Asphalt Green is a 4.35 acre open space (but not mapped parkland) with a non-profit community facility that contains a variety of indoor and outdoor recreational opportunities, including an aquatics center, private rooftop center, and playground north of the existing MTS ramp (between East 91st and 92nd Streets) and a gym, track and theater in the old municipal asphalt plant and
an outdoor field and track on the parcel between East 90th and 91st Streets, south of the ramp approximately 100 feet west of the MTS site.

The East River Esplanade follows the river and extends over three miles from just north of the Queensboro Bridge (East 63rd Street) north to the Triborough Bridge (East 126th Street). The Esplanade includes over 14 acres of pedestrian/biking space and passive recreation benches. The northern portion of the Esplanade near the MTS site is accessible via a ramp from Carl Schurz Park at East 88th Street, and the southern portion is accessible via stairs at Gracie Square. The paved esplanade is planted with trees and offers riverside views, but the park experience is greatly affected by its location beside the heavily-traveled FDR Drive, which carries approximately 150,000 vehicles per day (NYCDOT figures).

The Converted MTS would not introduce a new population to the study area and, therefore, the utilization of the nearby open spaces would not be increased. No parkland would be taken, and access between areas north and south of the drive would not change. Trucks associated with the site would likely queue on the ramp that currently bisects the Asphalt Green complex and passes over the East River Esplanade. The results of the odor analysis indicate that there would be no significant odor impacts at the site boundary, along the esplanade, within Carl Schurz Park, or within the Asphalt Green property. Other potential impacts analyzed such as air, noise and shadows likewise were below applicable significance thresholds. DSNY finds that no significant adverse impacts to open space would result from the Converted MTS.

**Hamilton Avenue Converted MTS** There are 14 public parks and open spaces within the study area, including one large regional facility. DSNY finds that the Hamilton Avenue Converted MTS would have no effect on any open space resources within the half-mile radius of the facility studied, nor would it physically change, diminish or eliminate any open space or reduce its use or aesthetic value, nor would it introduce a substantial new user population that might create or exacerbate over-utilization of open space resources. The Brooklyn Greenway Initiative (BGI) and the Regional Plan Association (RPA) have published “Brooklyn Waterfront Greenway: A Plan for Community Boards 2 and 6 (DRAFT),” February 2005. The draft plan delineates a route for the greenway extending along the waterfront of the two Community Districts. West of the Hamilton Avenue Converted MTS site (which is in CD 7), the proposed route runs along the Red Hook waterfront northwest of the Gowanus Canal. A primary access point is designated at Smith Street and Hamilton Avenue, which is 1,000 feet north of the site on the opposite side of the canal. East of the site, the route would run inland to the south along Hamilton Avenue. As noted in the draft plan, the Brooklyn Waterfront has historically been a place of maritime and industrial uses, and the greenway would provide New Yorkers an opportunity to gain access to the working waterfront. Traffic, air, odor, and noise studies predicted no significant adverse impacts at the site boundary or on the streets surrounding the proposed facility. DSNY finds that no adverse environmental impacts would occur to the proposed interim greenway or other open spaces from theConverted MTS.

**Southwest Brooklyn Converted MTS** There are ten public parks and open spaces within one half-mile radius of the site, two of which are regional facilities. DSNY finds that the Converted MTS would have no effect on any open space resources, nor would it physically change, diminish or eliminate any open space or reduce its use or aesthetic value, nor would it introduce a substantial new user population that might create or exacerbate over-utilization of open space resources. DSNY finds that no significant impact on open space or parklands would occur from the Converted MTS.

**North Shore Converted MTS** A small portion of Flushing Meadows Corona Park, a large regional open space resource, is located within a half-mile of the site. DSNY finds that the Converted MTS would have no effect on any open space resources, nor would it physically change, diminish or eliminate any open space or reduce its use or aesthetic value, or introduce a substantial new user population that might create
or exacerbate over-utilization of open space resources. The Converted MTS would not affect views from the Flushing Bay Promenade because its appearance and placement would be similar to those of the existing MTS.

2.2.5 Cultural Resources

**East 91st Street Converted MTS** The Converted MTS would have no impact upon cultural resources in, or eligible for inclusion in, the State Register of Historic Properties (SRHP) and National Register (NR), and the City Landmarks Preservation Commission (LPC) has stated that the site contains no architectural or archeological significance. Therefore, DSNY finds that the East 91st Street Converted MTS would not result in significant adverse impacts to cultural resources.

**Hamilton Avenue Converted MTS** The Converted MTS would have no impact upon cultural resources in, or eligible for inclusion in, the SRHP and NR, and the site contains no architectural or archeological significance. Therefore, the Converted MTS would not result in significant adverse impacts to cultural resources and no mitigation measures would be warranted.

**Southwest Brooklyn Converted MTS** There are no state, national or City designated landmarks or historic districts within the site or vicinity. The Converted MTS would have no impact upon cultural resources in, or eligible for inclusion in, the SRHP and NR, and the site contains no architectural or archeological significance. Therefore, DSNY finds that the Southwest Brooklyn Converted MTS would not result in significant adverse impacts to cultural resources.

**North Shore Converted MTS** There are no state, national or City designated landmarks or historic districts within the site or vicinity. The Converted MTS would have no impact upon cultural resources in, or eligible for inclusion in, the State and National Registers of Historic Places and NR, and the site contains no architectural or archeological significance. Therefore, DSNY finds that the North Shore Converted MTS would not result in significant adverse impacts to cultural resources.

2.2.6 Urban Design, Visual Resources and Shadows

**East 91st Street Converted MTS** The existing inactive MTS on the site is a 56-foot-tall prefabricated steel shed-like building accessible via a drive/ramp that bisects the Asphalt Green complex to the west. The ramp crosses above the FDR Drive and the East River Esplanade, entering an elevated platform over the water. As shown in the renderings in Figures 2.2.3-3 and 6.7-7 of the FEIS, the East 91st Street Converted MTS would resemble the existing MTS it would replace in terms of its building typology, massing and position and elevated access, as well as adjacency to the esplanade. However, it would stand nearly double in height (approximately 100 feet tall). Associated cranes used to transfer containerized waste to waiting barges are expected to be approximately 80 feet at their highest point. Additionally, the ramp will include 12- to 14-foot walls constructed along the edges, designed to visually screen queuing trucks on the ramp from users of the Asphalt Green complex, as shown on Figure 2.2.3-7 of the FEIS. These walls will make the crossing over the FDR and esplanade more visually prominent, without blocking significant views. The nearly 50-foot increase in height over the existing MTS is not expected to affect inland views toward the waterfront since these views are largely screened by trees within Carl Schurz Park, which is set approximately 20 to 25 feet above the MTS site elevation. The MTS site is visible from the East 88th Street ramp to the esplanade, and from a vantage point further south on the Carl Schurz Park promenade. The closest possible views of the MTS - at the northern edge of the park near Gracie Mansion - are no longer open to the public. Views from nearer the waterfront, such as from the promenade, are already obstructed to some extent by the existing facility. The overall scale and appearance of the new facility would not likely contribute to a substantial change of views toward the
waterfront from upper-story residential uses along East End Avenue. DSNY finds that the proposed Converted MTS would be more visually appealing than the current prefabricated shed-like MTS building.

The landscaping of the walkway near the existing MTS would be retained or replaced, and the esplanade and water area below the entrance around the facility would be properly maintained when the new facility is constructed and operating. As with the previous MTS operations, the barges would be located on the northern side of the facility, which is less visible from the park and buffered from inland street-level views. Therefore, DSNY finds that the new facility and reactivation of the former ramp would result in no significant adverse impact to the visual quality of the area, and the urban design of the area would remain virtually unchanged. A shadow impact analysis was conducted. Due to the affected area's small size and the negligible impact on activities, DSNY finds that the Converted MTS would not cause a significant adverse shadow impact at this resource.

**Hamilton Avenue Converted MTS** The Converted MTS would be compatible with the existing urban design context and visual conditions of this portion of the industrial Gowanus Bay waterfront. It would entail removing the existing MTS and replacing it with a similar, though larger, facility further upland that would include containerization functions. The Hamilton Avenue Converted MTS, therefore, would not result in significant adverse impacts on the urban design and visual quality of the study area. Based on a shadow impact survey, no significant impact would result.

**Southwest Brooklyn Converted MTS** The Southwest Brooklyn MTS is visible because it extends out over the water and because the buildings in this area are generally not densely arranged or tall enough to hide the facility from view. There are views to the site and environs from waterside recreational areas such as Dreier-Offerman Park, Coney Island Creek Park, and the Excelsior Yacht Club, and from the residential areas east of Shore Parkway, specifically the Regina Pacis Residence for Senior Citizens, and Bensonhurst Park.

The site has been developed in the manner that is now inconsistent with the visual character of adjacent properties and the overall urban design of the study area. However, the new construction would be limited to the site on which previously existed an incinerator building that has since been demolished and near the existing Southwest Brooklyn MTS extending over the water which previously was used for waste transfer operations. The Southwest Brooklyn Converted MTS, therefore, would not result in significant adverse impacts on urban design nor significantly alter the industrial visual quality of the site. Based on a shadow impact survey no significant impact would result.

**North Shore Converted MTS** The site has been developed in the manner that is consistent with adjacent properties and the overall urban design of the overall study area. There are no sensitive view corridors, publicly accessible open areas or points of waterfront access that might be affected by development of the North Shore Converted MTS. Based on a shadow impact survey no significant impact would result.

**2.2.7 Neighborhood Character**

**East 91st Street Converted MTS** The site is within close proximity to both residential and open space resources, which are the two major factors contributing to the neighborhood character of the area. It is, however, somewhat separated from inland residential neighborhoods by the busy six-lane limited access FDR Drive, which carries approximately 150,000 vehicles per day, as noted above. Though the site is approximately 100 feet from the Asphalt Green complex and 200 feet from Carl Schurz Park, where Gracie Mansion is located, these park areas separate the residential areas from the site. The points of public access nearest the site are the East River Esplanade that runs outboard of the FDR Drive, and Asphalt Green. These two open space areas and Carl Schurz Park are included in the neighborhood
character study area, which is defined by East 96th Street to the north, East 87th Street to the south, Second Avenue to the west and the East River shore to the east.

The visual quality of the area is pleasant, with well-maintained apartment blocks lining the streets, sidewalk trees and well appointed parks and recreational facilities. As with much of the Upper East Side, this area is conducive to pedestrians, though the nearest "convenience" stores (groceries, delis, etc.) tend to be located further west, along York Avenue and the busier First and Second Avenues, rather than East End Avenue. Lacking such commercial activity and given the 11-block length of East End Avenue, which is almost exclusively residential in the study area and not a major through street, the streets in that portion of the study area nearest the site are relatively quiet.

A few small warehouses and auto-related uses are intermingled with the residential uses in the interiors of three blocks south of East 92nd Street between York and First Avenues. Their presence, however, does not detract from the otherwise solidly residential nature of the area, either in appearance or in relatively limited activity, given that streets running through residential areas in Manhattan generally have more through traffic than many residential areas in other boroughs.

DSNY finds that the Converted MTS would not result in significant adverse impacts to neighborhood character and notes that it would be a reactivation of waste transfer facilities on a site formerly used for that purpose, although the re-introduction of trucks into the neighborhood would be noticeable. DSNY notes that DSNY collection trucks will have far cleaner emissions due to clean diesel technology, cleaner fuels and retrofit technology that were not employed on such trucks when the site previously operated. DSNY and other collection agency vehicles would utilize York Avenue south of East 91st Street, also a busy thoroughfare that accesses FDR Drive, in addition to East 90th Street and East 91st Street, and First and Second Avenues north of East 91st Street. No unmitigatible significant adverse traffic, air quality, odor or noise impacts are predicted, and no significant impacts to pedestrians would occur.

The proposed Converted MTS site (in addition to its proximity to dense residential uses) would involve trucks on a drive that bisects an open space and passes over a completed waterfront esplanade. Detailed odor analyses that analyzed potential impacts on these sensitive receptors predict no significant impacts, however. Likewise, no significant impacts to air quality and no unmitigatable impacts resulting from noise are predicted. DSNY finds this facility would not cause a significant adverse impact to neighborhood character.

**Hamilton Avenue Converted MTS** The immediate vicinity is characterized by warehouses, large-scale, industrial uses on large lots and noisy, truck-dominated streets in a neighborhood named for the canal – Gowanus or South Brooklyn. The site, the adjacent active NYCDOT asphalt plant and the adjacent Home Depot store are of a larger scale than any of the uses located east of the expressway. Hamilton Avenue and the elevated Gowanus Expressway separate the industrial and commercial uses along the Gowanus Bay from the mixed industrial, commercial and residential uses to the east, outside the study area. No change to industrial neighborhood character would be expected. No unmitigatable traffic impacts are predicted, and technical analyses predicted no significant adverse air quality, odor or unmitigatable noise impacts. DSNY finds this facility would not cause a significant adverse impact to neighborhood character.

**Southwest Brooklyn Converted MTS** The site is on Gravesend Bay in Bensonhurst, a large mixed-use community in Southwest Brooklyn featuring mostly residential uses and water-related recreational activities. The site and other waterside uses are physically separated from the primary residential area inland by Shore Parkway, a six-lane arterial. Because Shore Parkway essentially buffers the residential
neighborhood to the east, the study area considered for this assessment is defined by the mix of uses along the waterfront and includes Bensonhurst Park to the north, Dreier-Offerman Park to the south and Shore Parkway to the east.

No change to the mixed neighborhood character would be expected, though the Southwest Brooklyn Converted MTS would reactivate MTS activities formerly accommodated on the site and add containerization functions, because the operation and appearance of the Southwest Brooklyn Converted MTS would resemble those of the existing MTS and DSNY and other collection agency vehicles would follow the same routes as before. Analyses predicted no unmitigable traffic, air quality, odor or noise impacts. DSNY finds this facility would not cause a significant adverse impact to neighborhood character.

**North Shore Converted MTS** The site is located on the industrial portion of the Flushing Bay waterfront in the College Point neighborhood. The study area is defined by predominantly industrial activities and related visual quality. No change to the industrial neighborhood character would be expected. The fairly isolated neighborhood, characterized by industrial uses-- including the current DSNY garage (and related activities) that would continue under Future No-Build Conditions-- would not be affected by the Converted MTS. Analyses predicted no unmitigable traffic, air quality, odor or noise impacts. DSNY finds this facility would not cause a significant adverse impact to neighborhood character.

### 2.2.8 Natural Resources

**Cumulative Shading Impacts** The principal operational impacts to marine natural resources of the Converted MTSs will be to increase the footprint of the structures over water at the Converted MTS sites by a net 1.36 acres (cumulative), compared to existing conditions. The coverage will block sunlight and may hinder primary production. The existing Southwest Brooklyn MTS will remain in place and will be unaffected by the Proposed Action; the Proposed Converted MTS at this site will be constructed entirely on upland area with no increase in over-water platform coverage. The 29,450 square feet (sf) in platform coverage at the current Hamilton Avenue MTS will be eliminated and not replaced. The East 91st Street MTS with 35,203 sf in platform coverage at present will see a net increase by 42,612 sf, while the North Shore MTS with 40,124 sf of coverage at present would see a net increase of 46,159 sf in platform coverage. Thus the net cumulative increase in over-water shading from the three Converted MTS projects will be 59,321 sf.

It is unlikely that the reconstruction or enlargement of the present platforms will materially alter the benthic (bottom dwelling) meiofauna communities over the long term. Benthic communities that may have experienced toxicity due to leachate from treated lumber used to build the piers would quickly be rebuilt as the leaching decreases, and the pollution tolerant organisms that had dominated the benthic communities before construction started would return. Those communities displaced by construction would begin reclaiming the sediment soon after construction was completed.

The long-term impact to epibenthic communities will be beneficial. The planned enlargement of the East 91st Street and North Shore Converted MTS platforms will provide significantly more hard surface for macrofauna and the finfish that use them as a food source. Southwest Brooklyn Converted MTS will also have more surface area for epibenthic growth with the addition of the king pile wall. The increase in epibenthic colonizers should lead to an increase in finfish species that feed on these organisms (e.g., cunner and tautog).

Construction of the larger platforms may cause population declines and shifts in finfish species composition underneath these platforms. Conversely, the proposed Hamilton Avenue Converted MTS that has a reduction in pier coverage may see a small shift in local finfish communities. DSNY finds that
this net loss of resources due to 1.36 acres of increased water platform coverage would not be significant, but that mitigation would be undertaken for this loss as may be required by regulatory authorities. DSNY finds that there is no reasonable alternative that would accomplish the objective of creating a barge- and rail-based transfer and transportation system for the East 91st Street and North Shore wastesheds meeting other Plan objectives that would cause fewer impacts to marine resources than the proposed Converted MTSs for these areas. A discussion of the DSNY’s findings with respect to other potential natural resource impacts at the individual Converted MTS sites follows.

**East 91st Street Converted MTS**  Existing conditions include stressed aquatic and terrestrial communities that are typical of this area of Manhattan. The waters surrounding the study area are dominated by the East River, and aquatic resources are typical of the eastern sections of the East River. The terrestrial ecology of the upland portion of the study area is limited because the site is mostly developed and covered by structures and hard surfaces. The East 91st Street Converted MTS would be a pile-supported structure and would result in a net gain of 42,612 square feet (approximately one acre) of pier over the water. The principal natural resources impact is the larger footprint of the pier over water. This will result in increased shading that will block sunlight and hinder primary production. The enlarged platform, however, will not significantly adversely impact the ichthyoplankton, benthic, epibenthic or adult finfish communities. Epibenthic communities will have a larger surface area to colonize, and finfish should return to the area with the return of food sources. This increase in shading over water will possibly lead to a slight shift in the finfish community with the addition of over-water pier coverage. If required by regulatory authorities, mitigation would be undertaken in consultation with such authorities for the minor loss of marine resources associated with the proposed increased shading. The East 91st Street Converted MTS would not have any significant impact on the few areas of vegetation present on the site. DSNY finds that the proposed Converted MTS would not result in significant adverse impacts to natural resources.

**Hamilton Avenue Converted MTS**  Existing conditions include stressed aquatic and terrestrial communities that are typical of this area of Brooklyn. The Converted MTS would involve removal of the existing MTS and construction of a new facility on land; the existing platform would be removed. Dredging may be necessary to accommodate the barges. The Converted MTS would result in an increase of ecologically productive open water space and pose no adverse ecological impacts, other than the temporary loss of benthic organisms from dredging activities. Dredging would follow standard protocols to be protective of the environment and would not result in any significant adverse impact. Construction of the new upland facility would not have any significant impact on the few areas of vegetation present on the site, which is almost completely developed and/or paved. The adjacent creek is heavily contaminated. Temporary shading due to barge dockage would not cause significant impacts. DSNY finds that the Converted MTS would not result in significant adverse impacts to natural resources.

**Southwest Brooklyn Converted MTS**  Existing conditions include moderately stressed aquatic and terrestrial communities that are typical of this area of Brooklyn. The Converted MTS would involve construction of a new facility on the site of the demolished DSNY Southwest Brooklyn incinerator. The facility would be completely upland. There will be construction of king pile wall, a barrier to protect the neighboring marina from wave action. Dredging would be necessary to accommodate the barges. The amount of re-suspended sediments is expected to be low and the impacts, if any, are highly localized. Dredging and construction of king pile wall in accordance with applicable federal and state permits and regulations will result in temporary loss in benthic organisms. However, the plan to use the existing platform will prove beneficial to epibenthic organisms. The epibenthic community will also colonize the new king pile wall. Dredging activity to accommodate the barges and tugboats would remove layers of sediments deposited over time would not result in any significant impact. Construction would not have any significant impact on the few areas of vegetation present on the fully paved and/or developed site. There will be no change in the platform footprint. Temporary shading due to barge dockage would not be
significant. DSNY finds that the Converted MTS would not result in significant adverse impacts to natural resources.

**North Shore Converted MTS** Existing conditions include stressed aquatic and terrestrial communities typical of this area of Queens. Dredging would be necessary to accommodate the barges and tugboats, but would not result in any significant impact. The removal of the existing platform will also remove the existing epibenthic community, but the new expanded platform will result in more surface area for epibenthic communities to colonize the site, which would be beneficial. The Converted MTS would cause an increase in 46,159 square feet of pier, approximately one acre more than at present, causing increased shading, but will not significantly adversely impact the ichthyoplankton, benthic, epibenthic or adult finfish communities. As required by regulatory authorities, appropriate mitigation for the increased shading, which is unavoidable, would be undertaken in consultation with such authorities.

The Converted MTS would not have any significant impact on the few areas of vegetation present on the site. There would be a slight loss (approximately 0.051 acres, or 2,237.8 square feet) of tidal wetland vegetation from the site. This includes approximately 224 square feet of the invasive common reed and approximately 2,015 square feet of sparsely vegetated intertidal marsh patches covered by smooth cordgrass. This loss would be fully mitigated by additional plantings of intertidal marsh and high marsh vegetation to the north of the MTS ramp or off-site. DSNY finds that the Converted MTS would not result in significant adverse impacts to natural resources, and impacts will be fully mitigated.

2.2.9 Hazardous Materials

**East 91st Street Converted MTS** Existing conditions associated with the presence of hazardous materials in soil, groundwater and building components/equipment were investigated via a Phase I Environmental Site Assessment, including a historical land use review, regulatory agency database review, reconnaissance of the study area and surrounding area, and surface and subsurface drainage evaluation. The site assessment identified no specific areas of concern. No additional testing, other than an asbestos inspection prior to building demolition or modification, would be required. If any areas of concern were identified during the demolition or construction phase, an analysis would be made to determine what, if any, mitigation measures should be applied. DSNY finds that the Converted MTS would not result in significant adverse impacts from hazardous or contaminated materials.

**Hamilton Avenue Converted MTS** The areas of concern at the subject site include probability of asbestos-containing materials (ACMs) and lead-based paint in the incinerator building; the incinerator’s listing as a CERCLIS site (i.e., a Comprehensive Environmental Remediation, Cleanup and Liability Information System listing of possible hazardous waste disposal sites, for which insufficient information existed to make a determination as to possible public hazard); an “active” spill report of 200 gallons of possibly transformer oil spilled into the water in early 1998; and a stain of oil near the fill port of the existing MTSs 5,000-gallon fuel oil tank. A field program to investigate the potential impacts to the soil and groundwater from the historic use of the property as an incinerator found low concentrations of volatile organic compounds (VOC’s) in the soil and groundwater samples collected from this site. Elevated concentrations of semivolatile organic compounds (SVOC’s) (above recommended levels for cleanup known as NYSDEC Technical Advisory Guidance Memorandum (TAGM) 4046 Guidelines) were detected in some of the soil and groundwater samples collected. Elevated concentrations of several regulated priority pollutant metals (pursuant to the federal Resource Conservation and Recovery Act, or RCRA) were detected in all soil samples collected, indicative of typical ash fill materials used in this area. Resampling and analysis of the soil samples for total and Toxic Characteristic Leaching Potential (TCLP) for lead was completed in all five borings where total lead was found to be above TAGM guidelines. Three soil samples showed elevated TCLP concentrations of lead. Historical soil and groundwater
contamination present at the site should not prevent development of the site. Any residual contaminated soil would require disposal in a manner consistent with the level of contamination found during the demolition/construction phase. The necessary and appropriate health and safety measures would be used to mitigate and minimize any exposure risk to workers and the general public. DSNY finds that the Hamilton Avenue Converted MTS would not result in significant adverse impacts from hazardous or contaminated materials.

**Southwest Brooklyn Converted MTS** The areas of concern at the subject site include: probability of groundwater contamination migrating beneath the site from the adjacent DSNY Garage and Borough Command Facility; potential subsurface contamination associated with Underground Storage Tanks (USTs) of the closed Incinerator building; and four “active” oil spill reports at the facility. ACMs and lead-based paint identified in the incinerator building are being removed prior to demolition, which is underway, in a manner consistent with City building codes and practices. A field program to investigate the potential impacts to the soil and groundwater from the historic use of the property as an incinerator and MTS found low-level soil and groundwater contamination consistent with such use. Contamination may exist on the subject site from suspected on-site USTs; however, DSNY has plans to close all USTs in accordance with New York State regulations (6 NYCRR 613.9). DSNY finds that development of the site as a Converted MTS in accordance with applicable federal and state regulations would not result in significant adverse impacts from hazardous or contaminated materials.

**North Shore Converted MTS** The only area of concern noted was the groundwater remedial system in the parking lot that serves the adjacent DSNY garage. The remedial system was operational as of February 2003 and was likely associated with NYSDEC Spill No. 9508111 when the discovery in 1995 of free petroleum product beneath the DSNY garage led to the installation of a ground water recovery system. Implementation of the North Shore Converted MTS may interfere with the ground water recovery system. If so, the system would require modification under NYSDEC oversight. This should not preclude development of the site as a Converted MTS. In the event that contaminated soils are encountered during construction, the soil would be excavated and disposed of in a manner consistent with the levels of contamination as specified in New York State regulations. The necessary and appropriate health and safety measures would be employed during construction to mitigate and minimize any exposure risk to workers or the general public related to the possible subsurface contamination. DSNY finds that the development of the site as a Converted MTS would not result in significant adverse impacts from hazardous or contaminated materials.

2.2.10 Water Quality

**East 91st Street Converted MTS** All solid waste processing at the East 91st Street Converted MTS would occur within structures on the site. All process wastewater, such as washdown water, would be routed to an on-site pretreatment system (e.g., oil/water separation) before being discharged to the municipal sewer system and, ultimately, to the Ward's Island Water Pollution Control Plant. Waste would be placed into gasketed, closed containers before being loaded onto barges. The Converted MTS may require dredging to refurbish the waterfront structures and improve existing water depths in the immediate vicinity. All dredging activities would be conducted in compliance with applicable federal, state and local regulations, and required permits would be acquired before such activities commenced. Applicable and appropriate measures (e.g., closed clamshell buckets, silt curtains, etc.) would be implemented during any and all dredging activities to minimize and/or eliminate any short-term impacts to local water quality. Short-term impacts could include an increase in turbidity during active dredging operations; however, DSNY finds that MTS operations and construction and maintenance dredging would not result in any significant long-term impacts to water quality.
Hamilton Avenue Converted MTS: All solid waste processing at the Hamilton Avenue Converted MTS would occur within the structures on the site. Waste would be placed into gasketed, closed containers before being loaded onto barges. All process wastewater, such as washdown water, would be routed to an on-site pretreatment system (e.g., oil/water separation) then discharged to the municipal sewer system and, ultimately, to the Owl’s Head Water Pollution Control Plant. Operation of the Converted MTS may also require dredging activities to construct the waterfront structures and to improve existing water depths in the immediate vicinity. All dredging activities would be conducted in compliance with applicable federal, state, and local regulations and required permits would be acquired before any such activities commenced, utilizing applicable and appropriate protection measures to minimize and/or eliminate any short-term impacts to local water quality. DSNY finds that MTS operations and construction and maintenance dredging would not result in any significant adverse long-term impacts to water quality.

Southwest Brooklyn Converted MTS: All solid waste processing at the Southwest Brooklyn Converted MTS would occur within the structures on the site. Waste would be placed into gasketed, closed containers before being loaded onto barges. All process wastewater, such as washdown water, would be routed to an on-site pretreatment system (e.g., oil/water separation) then discharged to the municipal sewer system and, ultimately, to the Owl’s Head Water Pollution Control Plant. Operation of the Converted MTS may also require dredging activities to construct the waterfront structures and to improve existing water depths in the immediate vicinity. All dredging activities would be conducted in compliance with applicable federal, state, and local regulations and required permits would be acquired before any such activities commenced, utilizing applicable and appropriate protection measures. DSNY finds that MTS operations and construction and maintenance dredging would not result in any significant adverse long-term impacts to water quality.

North Shore Converted MTS: All solid waste processing would occur within structures on the site. Waste would be placed into gasketed, closed containers before being loaded onto barges. All process wastewater, such as washdown water, would be routed to an on-site pretreatment system (e.g., oil/water separation) then discharged to the municipal sewer system and, ultimately, to the Tallman Island Water Pollution Control Plant. The Converted MTS may also require dredging activities to construct the waterfront structures and improve existing water depths in the immediate vicinity. All dredging activities would be conducted in compliance with applicable federal, state, and local regulations and required permits would be acquired prior to any proposed dredging activities. DSNY finds that MTS operations and construction and maintenance dredging would not result in any significant adverse long-term impacts to water quality.

2.2.11 Waterfront Revitalization Program

East 91st Street Converted MTS: The Federal Coastal Zone Management Act of 1972 established coastal zone management programs to preserve, protect develop and restore the coastal zone of the U.S. Due to its proximity to the waterfront of the East River, the East 91st Street Converted MTS would be within the City's coastal zone boundary. According to the City’s New Waterfront Revitalization Program, the East 91st Street Converted MTS would be classified as a water-dependent industrial use. It would be located within Reach I/The East Side as indicated within the "New York City Comprehensive Waterfront Plan-Reclaiming the City's Edge" and the "Plan for the Manhattan Waterfront." It is, therefore, subject to review under the 10 primary policies and the 32 sub-policies identified within "The New Waterfront Revitalization Program" that address the waterfront's important natural, recreational, industrial, commercial, ecological, cultural, aesthetic and energy resources. The East 91st Street Converted MTS was reviewed to determine its general consistency with each of these policies and sub policies. Based on the discussion in the FEIS, incorporated herein, DSNY finds that the facility would be consistent with the City’s New Waterfront Revitalization Program.
**Hamilton Avenue Converted MTS** Due to its proximity to the waterfront of Gowanus Canal and Gowanus Bay, the Hamilton Avenue Converted MTS would be within the City’s coastal zone boundary and would be classified as a water-dependent, industrial use under the City’s New Waterfront Revitalization Program. It would be located within the City Planning-designated Sunset Park Special Maritime Industrial Area (SMIA), within Reach 14 East River/Upper Bay as indicated within the “New York City Comprehensive Waterfront Plan” and the “Plan for the Brooklyn Waterfront.” It is, therefore, subject to review under the 10 primary policies and the 32 sub policies identified within “The New Waterfront Revitalization Program.” Based on the discussion in the FEIS, incorporated herein, DSNY finds that the facility would be consistent with the City’s New Waterfront Revitalization Program.

**Southwest Brooklyn Converted MTS** Due to its proximity to the waterfront of Gravesend Bay, the Southwest Brooklyn Converted MTS likewise would be within the City’s coastal zone boundary and would be classified as a water-dependent, industrial use under the City’s New Waterfront Revitalization Program. It would be located within Reach 15 Brooklyn/Lower Bay as indicated within the “New York City Comprehensive Waterfront Plan” and the “Plan for the Brooklyn Waterfront.” It is, therefore, subject to review under the 10 primary policies and the 32 sub policies identified within the “New Waterfront Revitalization Program.” The Southwest Brooklyn Converted MTS was reviewed to determine its general consistency with each of these policies and sub policies. Based on the discussion in the FEIS, incorporated herein, DSNY finds that the facility would be consistent with the City’s New Waterfront Revitalization Program.

**North Shore Converted MTS** Due to its proximity to the waterfront of Flushing Bay, the North Shore Converted MTS would be within the City’s coastal zone boundary and classified as a water-dependent, industrial use under the City’s New Waterfront Revitalization Program. It would be located within Reach 10 Queens North Shore as indicated within the “New York City Comprehensive Waterfront Plan - Reclaiming the City’s Edge” and the “Plan for the Queens Waterfront.” The North Shore Converted MTS is subject to review under the 10 primary policies and the 32 sub policies identified within the New Waterfront Revitalization Program. Based on the discussion in the FEIS, incorporated herein, DSNY finds that the facility would be consistent with the City’s New Waterfront Revitalization Program.

**2.2.12 Infrastructure, Solid Waste and Sanitation Services, and Energy**

**East 91st Street Converted MTS** The Converted MTS would require 3,300 gallons per day (gpd) of potable water for employee use, washdown, and dust control, an insignificant demand on the water supply system. Energy usage (gas and electric), waste generation, and sewage flow from the facility would not result in significant impacts to the City’s infrastructure. DSNY collection vehicles from the Upper East Site will be able to tip their loads locally once again, eliminating the need to drive farther to facilities in New Jersey, thus saving fuel and energy. Moreover, as barge and/or rail transport is considerably more fuel efficient per ton-mile than truck transport, fuel use associated with waste transport to disposal locations will be less with this facility than under existing conditions. DSNY finds that replacing the current inactive MTS building with the proposed Converted MTS with its associated environmental controls, containerization capability and sufficient on-site queuing space for collection trucks will constitute a significant improvement to the city’s solid waste management infrastructure.

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Hamilton Avenue Converted MTS The Converted MTS would require 3,300 gpd of potable water, an insignificant demand on the water supply system. Energy usage (gas and electric), waste generation and sewage flow from the facility would not result in significant impacts to the City’s infrastructure. As barge and/or rail transport is considerably more fuel efficient per ton-mile than truck transport, fuel use associated with waste transport to disposal locations will be less with this facility than under existing conditions. DSNY finds that replacing the current inactive MTS building with the proposed Converted MTS with its associated environmental controls, containerization capability and sufficient on-site queuing area for collection trucks will constitute a significant improvement to the city’s solid waste management infrastructure.

Southwest Brooklyn Converted MTS The Converted MTS would require 3,300 gpd of potable water, an insignificant demand on the water supply system. Energy usage (gas and electric), waste generation and sewage flow from the facility would not result in significant impacts to the City’s infrastructure. As barge and/or rail transport is considerably more fuel efficient per ton-mile than truck transport, fuel use associated with waste transport to disposal locations will be less with this facility than under existing conditions. DSNY finds that the proposed Converted MTS with its associated environmental controls, containerization capability and sufficient on-site queuing area for collection trucks will constitute a significant improvement to the city’s solid waste management infrastructure.

North Shore Converted MTS The Converted MTS would require 3,300 gpd of potable water, an insignificant demand on the water supply system. Energy usage (gas and electric), waste generation and sewage flow by the facility would not result in significant impacts to the City’s infrastructure. DSNY collection vehicles from the facility’s Queens districts will be able to tip their loads locally once again, eliminating the need to drive farther to facilities in New Jersey or Hempstead, New York, thus saving fuel and energy. Moreover, as barge and/or rail transport is considerably more fuel efficient per ton-mile than truck transport, fuel use associated with waste transport to disposal locations will be less with this facility than under existing conditions. DSNY finds that the proposed Converted MTS with its associated environmental controls, containerization capability and sufficient on-site queuing area for collection trucks will constitute a significant improvement to the city’s solid waste management infrastructure.

2.2.13 Traffic, Parking, Transit and Pedestrians

East 91st Street Converted MTS Potential traffic impacts were analyzed for the increase in DSNY and other agency collection vehicle trips to and from the site during all peak hours. The facility would receive an estimated 130 truckloads of DSNY-managed Waste on an average peak day. The highest number of such vehicle arrivals (in-bound) per hour would be 28 trucks and would occur between 9:00 and 10:00 AM (the facility peak hour). No DSNY-managed Waste would be delivered between approximately 4:30 PM and 1:00 AM. This level of usage is comparable to historic use of this MTS site. First Avenue and Third Avenue are principal arterials that provide northbound access from lower Manhattan (East Village/Lower East Side) to East Harlem. Second Avenue is a principal arterial that provides southbound access from East Harlem to lower Manhattan. York Avenue and East 86th Street are minor arterials that provide access for local and commercial traffic. East 86th Street is designated as a truck route from First Avenue to Fifth Avenue. Both East 90th Street and East 91st Street are local streets. Existing daily traffic volumes along York Avenue between East 90th Street and East 91st Street average 20,674 vehicles during the week and 14,433 on weekends. The existing traffic volumes for AM, Facility, and PM peaks at the intersections analyzed were measured. The AM peak generally occurred between 7:30 a.m. and 8:30 a.m. and the PM peak between 4:00 p.m. and 5:00 p.m. The volume to capacity (v/c) ratio, delay and Level of Service (LOS) for the four intersections during the AM, Facility, and PM peaks was determined.
In the Build Condition (with the Converted MTS), the number of collection-vehicle trips generated by the facility will vary from 0 to 15 truck trips per hour in the late evening/early morning, 5 to 56 truck trips per hour in the mid-morning/early afternoon, and 0 truck trips per hour in the late afternoon/early evening. As noted, the peak hourly number of collection vehicles truck trips (56, with 28 inbound and 28 outbound trucks) will occur at about 9:00 AM.

Two intersections --York Avenue and East 86th Street, and York Avenue and East 91st Street -- may experience impacts great enough to be considered significant (without mitigation) during one of the peak times analyzed, but such impacts would be fully mitigated by minor traffic signal adjustments to be implemented in coordination with the NYC Department of Transportation. DSNY finds that the 91st Street Converted MTS would not significantly affect parking, pedestrian or public transit conditions.

Commercial Waste vehicles that could be accommodated at the facility without causing significant adverse impacts (due to noise, not traffic) would be a total of 71 commercial carting vehicles and 780 tpd, assuming an average of 11 tons per truck, over the 12 hour period from 8:00 pm to 8:00 AM. This is less than the available capacity projected at the facility during this time, as measures would be imposed to limit the commercial vehicle deliveries during certain hours of the night to avoid causing noise impacts. The addition of commercial waste vehicles to DSNY-managed Waste vehicles during the 8:00 pm to 8:00 am shift would not exceed 16 vehicles during the commercial peak hour, which would be less than for DSNY-managed Waste alone during the peak facility hour (28), when background traffic levels are higher. Therefore, DSNY finds that the deliveries of commercial waste to the Converted East 91st Street MTS with the limits proposed would not result in significant adverse traffic impacts.

Southwest Brooklyn Converted MTS DSNY-managed Waste would require approximately 166 collection trucks on an average peak day, an amount generally consistent with historic DSNY use of this MTS site. The greatest number of such deliveries would occur at approximately 10 AM, with approximately 21 collection trucks arriving during the hour. Daily traffic volumes along the Bay Parkway currently average 49,605 vehicles during the week and 48,773 vehicles on weekends. Three intersections – Cropsey Avenue and Bay Parkway, Cropsey Avenue and 26th Avenue, and Shore Road (southbound) and Bay Parkway -- may experience impacts from facility traffic great enough to be considered significant during one of the peak times analyzed. DSNY finds that all such impacts would be fully mitigated with minor traffic signal adjustments at the intersections and with the addition of certain new movements to two of the signal phases at Cropsey Avenue and Bay Parkway, all as discussed in the FEIS. At Cropsey Avenue/Bay Parkway, compared to Future No-Build Conditions, with the proposed mitigation eastbound approach delay times would remain approximately the same, westbound and northbound approach delay times would increase between two and four seconds, which would be insignificant, and southbound approach times would decrease by over 25 seconds.

Up to 66 Commercial Waste vehicles (718 tpd of such waste) could be accommodated at the facility without causing significant adverse impacts (due to noise, not traffic), assuming an average of 11 tons per truck, over the 12 hour period from 8:00 pm to 8:00 AM. This is less than the available capacity projected at the facility during this time, as measures would be imposed to limit the commercial vehicle deliveries during certain hours of the night to avoid causing noise impacts. The addition of commercial waste vehicles to DSNY-managed Waste vehicles during the 8:00 pm to 8:00 am shift would not exceed 28 vehicles during the peak hour. The peak hour with commercial waste vehicles, during which up to 22 vehicles would arrive at the facility, occurs early in the morning. Therefore, DSNY finds that the deliveries of commercial waste to the Southwest Brooklyn Converted MTS with the limits proposed would not result in significant adverse traffic impacts. Likewise, an alternate routing for vehicles exiting the facility was found to result in impacts (Cropsey Avenue and Bay Parkway, and Shore Road (southbound) and Bay Parkway) that could be fully mitigated, as discussed in the FEIS.
Hamilton Avenue Converted MTS  Deliveries of DSNY-managed Waste would require approximately 267 collection trucks on an average peak day, an amount generally consistent with historic DSNY use of this MTS site. The greatest number of such deliveries would occur at approximately 9:00 AM, with approximately 32 collection trucks arriving during the hour. Daily traffic volumes along the Hamilton Avenue currently average 59,819 vehicles during the week and 37,339 vehicles on weekends. Two intersections – Hamilton Avenue and Hamilton Place/14th Street, and Prospect Avenue and Third Avenue -- may experience impacts from facility traffic great enough to be considered significant during one of the peak times analyzed. DSNY finds that all such impacts can be fully mitigated with proposed minor traffic signal adjustments, as discussed in the FEIS.

Up to 124 Commercial Waste vehicles (1,242 tpd) could be accommodated at the facility without causing significant adverse impacts (due to noise, not traffic) over the 12 hour period from 8:00 pm to 8:00 AM. This is less than the available capacity projected at the facility during this time, as measures would be imposed to limit the commercial vehicle deliveries during certain hours of the night to avoid causing noise impacts. The addition of commercial waste vehicles to DSNY-managed Waste vehicles during the 8:00 pm to 8:00 am shift would not exceed 23 vehicles during the peak hour, which would be less than for DSNY-managed Waste alone during the peak facility hour (32), when background traffic levels are higher. Therefore, DSNY finds that the deliveries of commercial waste to the Hamilton Avenue Converted MTS with the limits proposed would not result in significant adverse traffic impacts.

North Shore Converted MTS  Deliveries of DSNY-managed Waste would require approximately 329 collection trucks on an average peak day, an amount generally consistent with historic DSNY use of this MTS site. The greatest number of such deliveries would occur at approximately 10 AM, with approximately 39 collection trucks arriving during the hour. Daily traffic volumes along College Point Boulevard currently average 20,661 vehicles during the week and 13,306 vehicles on weekends. DSNY finds that two intersections – College Point Avenue and 31st Avenue, and College Point Boulevard and Booth Memorial Avenue--may experience impacts in Level of Service (LOS) from facility traffic great enough to be considered significant during one of the peak times analyzed, but that the proposed minor traffic signal timing adjustments at these locations would fully mitigate all such predicted impacts, as discussed in the FEIS.

Vehicles from one DSNY service district would travel north on the Van Wyck Expressway to the Linden Place exit. These vehicles exit onto the Whitestone Expressway Service Road (northbound) and turn northwest on Linden Place. From Linden Place, the vehicles turn onto the Whitestone Expressway Service Road (southbound) and then turn west on 31st Avenue. Although this exit is located closer to the facility, the NYCDOT has requested that limited traffic be routed through the intersection of Linden Place and the Whitestone Expressway Service Roads due to exiting congestion at this intersection. DSNY will implement this request.

Up to 95 Commercial Waste vehicles (1000 tpd) could be accommodated at the facility without causing significant adverse impacts (due to noise, not traffic) over the 12 hour period from 8:00 pm to 8:00 AM. This is less than the available capacity projected at the facility during this time, and so measures would be imposed to limit the commercial vehicle deliveries during certain hours of the night to avoid causing noise impacts. The addition of commercial waste vehicles to DSNY-managed Waste vehicles during the 8:00 pm to 8:00 am shift would not exceed 35 vehicles during the commercial peak hour, which would be less than for DSNY-managed Waste alone during the peak facility hour, when background traffic levels are higher. Therefore, DSNY finds that the deliveries of commercial waste to the North Shore Converted MTS with the limits proposed would not result in significant adverse traffic impacts.
East 132nd Street Transfer Station, Bronx  The East 132nd Street Site could potentially receive waste from up to all twelve CD’s in the Bronx (if this were the sole facility under contract with DSNY for the Bronx), approximately 2337 tpd on an average peak day, in approximately 458 DSNY and other agency collection vehicles, plus vehicles to dray containers of waste from the facility, as all DSNY-managed Waste and any commercial waste processed at the East 132nd Street Truck to Rail Transfer Station would be drayed to the Oak Point Rail Yard. As the facility is currently under contract to receive DSNY-managed Waste, deliveries of DSNY-managed Waste under the proposed long-term contract would represent an increase in 38 collection truck deliveries (approximately 75 truck trips) during the facility peak hour, between 11:00 AM and 12:00 noon, over the 2003 existing condition, with lesser or no net increases over existing conditions during the rest of the day. The volume of daily dray trips to Oak Point Rail Yard would average 8 trips in and 8 trips out per hour over the 24-hour period.

Daily traffic volumes along Bruckner Boulevard between Tiffany Street and Barretto Street currently average 20,464 vehicles during the week and 12,841 vehicles on weekends; the intersection of Bruckner Boulevard and East 138th Street registers over 1,000 vehicles during the PM peak hour. DSNY finds that one intersection – Bruckner Boulevard and East 138th Street -- may experience impacts great enough from facility traffic to be considered significant during two of the peak times analyzed. DSNY finds that all such impacts would be mitigated with certain proposed minor traffic adjustments, as discussed in the FEIS, plus a limit on the total DSNY collection vehicle trips through this intersection during the Facility peak hour of 47 inbound plus 47 outbound, a total of 94 trip ends (a reduction of 17 vehicles departing), and a limit during the AM peak hour to 44 inbound plus 38 outbound, a total of 82 trip ends (a reduction of nine vehicles).

72 Scott Avenue/598 Scholes Street Truck-to-Rail Transfer Station, Brooklyn  The Scott Avenue/Scholes Street Truck-to-Rail Transfer Station is currently under contract to receive up to 220 tpd of DSNY-managed Waste under interim export contracts and in 2003 received approximately 143 tons of such waste on an average peak day in approximately 14 collection vehicles. The proposed Plan to send up to 1,168 tpd of DSNY-managed waste to a facility that would be designed and constructed to consolidate operations of existing related facilities would result in fewer than the approximately 125 net additional in-bound collection vehicles with approximately 1,225 tpd of DSNY-managed Waste on weekdays than was assumed in the FEIS analysis. Daily traffic volumes along Metropolitan Avenue between Gardner and Stewart Avenue near the facility currently average 10,691 vehicles during the week and 8,715 vehicles on weekends. Deliveries of DSNY-managed Waste under the proposed long-term contract were assumed to represent an increase in 19 collection truck deliveries (approximately 37 truck trips) in-bound over the 2003 existing condition during the facility peak hour from 10 AM to 11 AM, with lesser or no net increases over existing conditions during the rest of the day. The maximum net increase in traffic at any intersection from the proposed action was conservatively assumed to be 28 trucks (more than one direction). DSNY finds that only one intersection – Gardener Avenue and Metropolitan Avenue -- may experience impacts great enough from facility traffic to be considered significant during one of the peak times analyzed. All such impacts would be fully mitigated by minor traffic signal adjustments at this intersection, as discussed in the FEIS.

2.2.14 Air Quality

DSNY considered potential on-site and off-site impacts to air quality from the proposed Plan facility operations. DSNY notes that, due to recent federal mandates, new heavy duty on-road truck diesel engines by 2007 will produce less than 10 percent of the particulate matter (PM) and NOx emissions of 2001 models of heavy duty diesel engines, and will produce levels of PM and NOx that are less than 2%
of the PM and NOx levels of 1988 engines. Such new diesel engines will have emissions levels similar to or lower than those from natural gas fueled vehicles. New off-road diesel equipment such as front loaders will likewise have dramatically lower exhaust emissions as required under federal rules that require reductions in fuel sulfur levels and in combustion-related pollutants (PM and NO\textsubscript{x}). Pollutant emission standards for new non-road diesel engines have decreased by more than 50% in the last 10 years, and will decrease by another 90% or more from current standards in the next few years. Moreover, Local Law 40 of 2005, which was enacted after the FEIS was completed, mandates that all diesel powered vehicles engaged in City solid waste or recycling contracts that operate primarily within New York City be powered by ultra low sulfur fuel (15 ppm) and be equipped with best available retrofit technology, such as oxidation catalysts, particulate filters, and/or other technology.

**East 91st Street Converted MTS:** The existing air pollutant levels for carbon monoxide, nitrogen oxide, particulates (PM\textsubscript{10}) and sulfur dioxide at the monitoring station(s) nearest to the site do not exceed national and state ambient air quality standards. The on-site emission sources of air pollutants from the facility would include at a maximum: (within the processing building) 2 Wheel Loaders, 1 Mini Loader, 1 tamping crane, 1 mini-sweeper, 1 Vacuum Sweeper, 46 moving/queuing Collection Vehicles, 6 space heaters, and 1 boiler; and outside the processing building: 46 moving Collection Vehicles; 16 in-bound queuing Collection Vehicles and 1 outbound queuing Collection vehicle, and 1 Ocean-going Tugboat. DSNY finds that the highest estimated pollutant concentration modeled from such equipment, when added to the background pollutant concentration, would not exceed the national and state ambient air quality standards for the appropriate averaging time periods. For fine particulate matter of 2.5 microns in diameter and smaller (PM\textsubscript{2.5}), DSNY finds that that maximum estimated changes in 24-hour and annual neighborhood average PM\textsubscript{2.5} concentrations from facility vehicles and equipment operations analyzed would also be below the significance threshold values established by the State and City Department of Environmental Protection (NYCDEP). Based on the State and NYCDEP policies, the interim STVs are 5 \(\mu\text{g/m}^3\) for 24-hour PM\textsubscript{2.5} impacts and 0.1 \(\mu\text{g/m}^3\) for annual neighborhood PM\textsubscript{2.5} impacts. If the incremental impacts are below the STVs, the impacts are considered insignificant. DSNY finds that the East 91st Street Converted MTS would not, therefore, significantly impact air quality in the area.

DSNY also finds that the highest estimated non-carcinogenic toxic air pollutant impacts are below the short-term (acute) and long-term (chronic) hazard index thresholds specified in New York State’s Air Guide 1. The highest estimated carcinogenic impacts are less than the one-in-a-million threshold level that is defined by NYSDEC as being significant. Therefore, DSNY finds that the potential impacts of the toxic pollutant emissions from the on-site operations of the East 91st Street Converted MTS would not be significant.

DSNY considered off-site air impacts from the facility’s collection vehicles at selected intersections for the worst-case time periods. The intersections were York Avenue & East 91st Street (for Carbon Monoxide), York Avenue & East 91st Street, and York Avenue & East 86th Street (for PM\textsubscript{2.5}), and York Avenue & East 91st Street and York Avenue & East 86th Street (for PM\textsubscript{10}). DSNY finds that the applicable pollutant concentrations are all within (less than) the applicable state and federal ambient air quality standards, STV (for PM\textsubscript{2.5}) and/or de minimis impact values (for Carbon Monoxide). DSNY finds that air impacts from the offsite operations of the East 91st Street Converted MTS would not be significant. DSNY further finds that the combined PM\textsubscript{2.5} impacts from on-site and off-site emission

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57 For example, the 1990 federal standard for particulate matter for heavy duty diesel highway engines was 0.60 grams per brake-horsepower-hour (g/bhp-hr); 2007 model year engines may not exceed 0.01 g/bhp-hr. NOx standards have been reduced from 10.7 g/bhp-hr in 1988 to 0.20g/bhp-hr in 2007. USEPA; Code of Federal Regulations.
sources would not exceed the significant threshold value for annual neighborhood average impacts of 0.1 micrograms/cubic meter.

DSNY also considered the potential air impacts from the proposed addition of commercial waste vehicles to the facility, in addition to DSNY-managed Waste vehicles. DSNY finds that the addition of the proposed limit of 780 tpd of commercial waste during the hours of 8 PM to 8 AM at the facility, when added to DSNY and other agency collection vehicles for these periods, would not exceed 16 deliveries per hour, therefore likewise would not cause significant impacts to air quality from on-site or off-site operations.

**Hamilton Avenue Converted MTS** The equipment and related air emissions concerning this facility would be generally similar to that proposed for the East 91st Street Converted MTS. The highest estimated criteria pollutant concentrations at any of the receptor locations considered are below the national and state ambient air quality standards for the appropriate averaging time periods. In addition, the highest estimated changes in 24-hour and annual neighborhood average PM$_{2.5}$ concentrations from Hamilton Avenue Converted MTS-generated vehicles at any of the receptor locations considered are below the Significance Threshold Values (STVs) established by New York State and NYCDEP policies. DSNY finds, therefore, that the Hamilton Avenue Converted MTS would not significantly impact air quality in the area. The results of the toxic pollutant analysis are below the short-term (acute) and long-term (chronic) hazard index thresholds specified in New York State’s Air Guide 1. In addition, the highest estimated carcinogenic impacts are less than the one-in-a-million threshold level that is defined by NYSDEC as being significant. Therefore, DSNY finds that the potential impacts of the toxic pollutant emissions from the on-site operations of the Hamilton Avenue Converted MTS would not be significant. The offsite analysis of impacts to air quality from mobile sources related to the facility likewise found that the facility’s traffic would not cause exceedances of criteria pollutant levels or of PM$_{2.5}$ significance levels. DSNY therefore finds that air impacts from off-site operations of the Hamilton Avenue Converted MTS would not be significant.

DSNY also analyzed the potential air impacts from the proposed addition of commercial waste vehicles to the facility, in addition to DSNY-managed Waste vehicles. DSNY finds that the addition of the proposed limit of 1,242 tons of commercial waste during the hours of 8 PM to 8 AM at the facility, when added to DSNY and other agency collection vehicles for these periods, would not exceed 23 deliveries per hour, and therefore likewise would not cause significant impacts to air quality from on-site or off-site operations.

**Southwest Brooklyn Converted MTS** The equipment and related air emissions concerning this facility would be generally similar to that proposed for the East 91st Street Converted MTS. The highest estimated criteria pollutant concentrations at any of the receptor locations considered are below the national and state ambient air quality standards for the appropriate averaging time periods. In addition, the highest estimated changes in 24-hour and annual PM$_{2.5}$ concentrations from Southwest Brooklyn Converted MTS-generated vehicles at any of the receptor locations considered are below the interim Significance Threshold Values established under State and NYCDEP policies. DSNY therefore finds that the Southwest Brooklyn Converted MTS would not cause significant adverse impacts to air quality in the area. The results of the toxic pollutant analysis are below the short-term (acute) and long-term (chronic) hazard index thresholds specified in New York State’s Air Guide 1. In addition, the highest estimated carcinogenic impacts are less than the one-in-a-million threshold level that is defined by NYSDEC as being significant. Therefore, DSNY finds the potential impacts of the toxic pollutant emissions from the on-site operations of the Southwest BrooklynConverted MTS would not be significant. The offsite analysis of potential impacts to air quality from mobile sources found that the facility’s traffic would not cause exceedances of PM$_{10}$ ambient air quality standards or cause significant impacts from PM$_{2.5}$. 

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Therefore, DSNY finds the impacts to air quality from off-site operations of the Southwest Brooklyn Converted MTS would not be significant.

DSNY also analyzed the potential air impacts from the proposed addition of commercial waste deliveries to the facility, in addition to DSNY-managed Waste deliveries. DSNY finds that the addition of the proposed limit of 718 tpd of commercial waste during the hours of 7 PM to 8 AM at the facility, when added to DSNY and other agency collection vehicles for these periods, would not exceed 22 deliveries per hour, and therefore likewise would not cause significant impacts to air quality from on-site or off-site operations.

**North Shore Converted MTS** The equipment and related air emissions concerning this facility would be generally similar to that proposed for the East 91st Street Converted MTS. The highest estimated criteria pollutant concentrations at any of the receptor locations considered are below the national and state ambient air quality standards for the appropriate averaging time periods. In addition, the highest estimated changes in 24-hour and annual PM$_{2.5}$ concentrations from North Shore Converted MTS-generated vehicles at any of the receptor locations considered are below the Significance Threshold Values (STV’s) established under interim State and NYCDEP policies. DSNY therefore finds that the North Shore Converted MTS would not cause significant adverse impacts to air quality in the area. The results of the toxic pollutant analysis are below the short-term (acute) and long-term (chronic) hazard index thresholds specified in New York State’s Air Guide 1. In addition, the highest estimated carcinogenic impacts are less than the one-in-a-million threshold level defined by NYSDEC as being significant. The offsite analysis of impacts to air quality for mobile sources related to facility operations found the results for all applicable pollutant concentrations are all within (less than) the applicable state and federal ambient air quality standards, STVs (for PM$_{2.5}$) and/or de minimis impact values (for CO). Therefore, DSNY finds that the off-site operations of the North Shore Converted MTS would not cause significant adverse impacts to air quality.

DSNY also analyzed the potential air impacts from the proposed addition of commercial waste vehicles to the facility, in addition to DSNY-managed Waste vehicles. DSNY finds that the addition of the proposed limit of 1,000 tons of commercial waste in approximately 95 commercial waste hauling vehicles during the hours of 8 p.m. to 8 a.m. at the facility, when added to DSNY and other agency collection vehicles for these periods, would not exceed 35 deliveries per hour, and would not cause significant impacts to air quality from on-site or off-site operations.

### 2.2.15 Odor

**East 91st Street Converted MTS** The nearest sensitive receptors for odor are Bobby Wagner Walk, a park area directly abutting the East 91st Street Converted MTS property boundary; an apartment building on York Avenue approximately 131 feet from the facility property boundary (the facility building will be considerably farther away); an apartment building on East 90th Street east of York Avenue, approximately 375 feet from the facility property boundary; a playing field located on land abutting the East 91st Street Converted MTS truck ramp, owned by Asphalt Green Aqua Center Recreation Facility (Asphalt Green); Asphalt Green, directly abutting the East 91st Street Converted MTS truck ramp and property boundary; and a playground that is part of Asphalt Green on York Avenue, directly abutting the East 91st Street Converted MTS truck ramp and property boundary. Additional residential areas exist immediately north, south and west of these receptors.

The potential odor sources from the facility at peak design capacity would be one exhaust fan from the processing building, and 17 moving and queuing Collection Vehicles. The building odor control system, (designed to introduce neutralizing misting agent into the exhaust duct work system, maintaining negative air pressure) would be able to remove from 90% to 99% of odorous compounds, and would be
supplemented by operational measures and other facility features such as rapid roll-up doors and dust control measures. Based on sampling performed, DSNY finds that odor from the vents of the full and empty intermodal containers of waste will be negligible. DSNY notes further that the proposed odor controls are considerably more advanced than the controls at the existing MTS facility, and that the former practice of having open hopper barges of loose waste at the facility would not be reintroduced, as all waste will be in gasket sealed containers before leaving the processing building for loading onto a barge.

The highest predicted Odor Unit (OU) number associated with the East 91st Street Converted MTS at any nearby sensitive receptor is less than 1, compared to an OU of 5 (which represents the estimated level of odor impact that would begin to be detected by an average observer in New York City). Odors from the East 91st Street Converted MTS are predicted to be below detectable levels at off-site sensitive receptors and the facility would comply with City and NYSDEC requirements for effective odor control. Loaded collection vehicles may cause some transitory odors immediately adjacent to the facility ramp that would quickly dissipate; these are unavoidable and DSNY finds they would not impact off-site sensitive receptors. Therefore DSNY finds that no significant adverse impacts from odors on receptors would occur as a result of this facility and no further mitigation is required.

**Hamilton Avenue Converted MTS** An odor control system (neutralizing agent misting system injected into the exhaust duct work system, ventilation to maintain negative air pressure, rapid rollup doors) is included in the design to control odorous emissions from the processing building and all waste would be placed in gasket sealed containers before removal from the building. The nearest sensitive receptor for odors is the row of apartment buildings located on 15th Street between 2nd Avenue and 3rd Avenue, approximately 372 feet from the site boundary. The highest predicted OU associated with the Hamilton Avenue Converted MTS at any nearby sensitive receptor is less than 1, so odors from the Hamilton Avenue Converted MTS would not be detectable by off-site sensitive receptors and the facility would comply with City and NYSDEC requirements for effective odor control. Therefore, DSNY finds that no significant adverse impacts from odors on receptors would occur as a result of this facility.

**Southwest Brooklyn Converted MTS** An odor control system (neutralizing agent misting system injected into the exhaust duct work system, sufficient ventilation to maintain negative air pressure, rapid roll up doors) is included in the design to control odorous emissions from the processing building, and all waste would be placed in gasket sealed containers before removal from the building. The nearest sensitive odor receptor is 749 feet from the Converted MTS property boundary. The highest predicted OU associated with the Southwest Brooklyn Converted MTS at any nearby sensitive receptor is less than 1, so odors from the Southwest Brooklyn Converted MTS would not be detectable by off-site sensitive receptors and the facility would comply with City and NYSDEC requirements for effective odor control. Therefore, DSNY finds that no significant adverse impacts from odors on receptors would occur as a result of this facility.

**North Shore Converted MTS** The nearest sensitive receptor is a residential house on 29th Avenue west of 119th Street, approximately 301 feet from the site boundary. An odor control system (e.g., neutralizing agent misting system injected into the exhaust duct work system, sufficient ventilation to maintain negative air pressure, rapid rollup doors) would be included in the design to control odorous emissions from the processing building, and all waste would be placed in gasket sealed containers before removal from the building. The highest predicted OU associated with the North Shore Converted MTS at any nearby sensitive receptor is less than 1, so odors from the North Shore Converted MTS would not be detectable by off-site sensitive receptors and the facility would comply with City and NYSDEC requirements for effective odor control. Therefore, DSNY finds that no significant adverse impacts from odors on receptors would occur as a result of this facility.
2.2.16 Noise

East 91st St. MTS  DSNY studied on-site and off-site noise sources from East 91st Street Converted MTS-related solid waste management activities. DSNY finds that all noise impacts can be fully mitigated. The analysis included a louver fence that will be placed on the truck ramp as a visual screen. The louver fence will be approximately nine (9) feet in height and will be constructed on top of a 3-foot high concrete base, for a total height of 12 feet. The louver fence will provide a noise reduction of approximately 7dBA for receptors adjacent to the property boundary. The gantry crane and tug boat for the facility will be constructed to meet certain noise specifications. No significant noise impacts were predicted from the facility on-site operations.

If DSNY were to send collection trucks to this facility during the nighttime hours, the off-site noise impact analysis found that, without mitigation, a potentially significant noise impact could occur during a one-hour period at a sensitive receptor along York Avenue between East 90th Street and East 91st Street. To fully mitigate this impact, DSNY would limit the number of collection trucks sent to this facility during this hour. In addition, the noise analysis found that commercial vehicles delivering to the facility at night could cause a significant adverse noise impact at noise-sensitive receptors on the approach routes these vehicles would take to the Converted MTS. Therefore, as mitigation, DSNY proposes a limit on the number of commercial waste vehicles that could be routed to the East 91st Street Converted MTS during various hours within the 8:00 p.m. to 8:00 a.m. period to avoid causing significant noise impacts, as discussed in the FEIS. As a result of this limitation, DSNY finds the amount of available MTS capacity that can be used to process commercial waste during the hours of 8:00 p.m. to 8:00 a.m. without causing any significant adverse noise impact would be 781 tons (or 71 commercial waste hauling vehicles, assuming an average of 11 tons per truck) over this 12-hour period.

Southwest Brooklyn Converted MTS  The noise analysis considered on-site and off-site noise sources from Converted MTS-related solid waste management activities. A detailed noise analysis was performed to calculate the Southwest Brooklyn Converted MTS-related predicted noise levels at identified noise-sensitive receptors, and the predicted noise levels with both facility noise and background noise combined. An increase was predicted to be greater than the CEQR significance threshold of 3 dBA at the nearest noise-sensitive receptor for the quietest nighttime hour from on-site operations (trucks queuing on the facility ramp). DSNY finds that a restriction on the number of: (1) relayed DSNY collection vehicles delivering waste between 2:00 a.m. and 3:00 a.m., and (2) commercial waste hauling vehicles at certain hours between 8:00 p.m. and 8:00 a.m., will fully mitigate such predicted impacts. DSNY finds that the resulting amount of available capacity that can be used to process commercial waste during the hours of 8:00 pm to 8:00 a.m. without causing any significant adverse noise impacts is 718 tons (or approximately 66 commercial waste hauling vehicles, assuming an average of 11 tons per truck) over this 12-hour period. In addition, the gantry crane and tug boat for the facility will be required to meet certain noise specifications.

Hamilton Avenue Converted MTS  The noise analysis in the FEIS addressed on-site and off-site sources of noise emissions from Converted MTS-related solid waste management activities. In addition, the gantry crane and tug boat for the facility will be required to meet certain noise specifications. A detailed off-site noise analysis predicted an impact at a noise-sensitive receptor during the 2:00 a.m. to 3:00 a.m. hour along 20th Street west of 4th Avenue. Therefore, as mitigation, DSNY will limit to four (rather than six) the distribution of its collection trucks during this hour, a number that can be routed through this location without causing a significant impact.

An off-site noise analysis of the potential for off-site noise impacts from commercial waste hauling vehicles at night found that such truck trips must be limited during various hours within the 8:00 p.m. to 8:00 a.m. period to avoid causing potentially significant impacts at noise-sensitive receptors on the approach routes these vehicles would take to the Converted MTS. With this proposed mitigation, DSNY finds that the amount of available capacity that can be used to process commercial waste during the hours
of 8:00 p.m. to 8:00 a.m., without causing any significant adverse noise impacts, is 1,306 tons (or 124 commercial waste hauling vehicles, assuming an average of 11 tons per truck) over this 12-hour period.

**North Shore Converted MTS.** The noise analysis in the FEIS addressed on-site and off-site noise sources from Converted MTS-related solid waste management activities. DSNY finds that all noise impacts can be fully mitigated. The analysis included a louver fence on the truck ramp that will be approximately 9 feet in height on top of a 3-foot high concrete base, for a total height of 12 feet. The louver fence will provide an on-site noise reduction of approximately 7dBA for receptors adjacent to the property boundary and ensure compliance with applicable standards.

Noise simulations predicted an off-site impact at a noise-sensitive receptor from 1:00 a.m. to 3:00 a.m. for the College Point Boulevard - North of Roosevelt Avenue location, and from 3:00 a.m. to 5:00 a.m. for the College Point Boulevard - South of Sanford Avenue location. Therefore, adjustments are proposed to the truck routes to the North Shore Converted MTS to mitigate such impact. During these hours, DSNY collection vehicles en route to the North Shore Converted MTS from Queens CD 9 would be routed further on the Van Wyck Expressway to Exit 14, Linden Place, rather than the originally proposed route of the Van Wyck Expressway or LIE to College Point Boulevard, thus avoiding the locations predicted to have an impact. However, during these hours, DSNY collection vehicles leaving the MTS would continue to be routed along College Point Boulevard to either the LIE or Van Wyck Expressway.

DSNY finds that a restriction on the number of Commercial Waste vehicles delivering waste to the North Shore Converted MTS during certain hours will mitigate estimated off-site noise impacts at receptors along the routes to this facility between 8:00 p.m. and 8:00 a.m. The results of the noise analysis indicate that the potential number of commercial waste hauling vehicles that could be routed to the North Shore Converted MTS during various hours within the 8:00 p.m. to 8:00 a.m. period will be limited to less than the available excess capacity to avoid causing potential impacts at noise-sensitive receptors on the approach routes these vehicles would take to the Converted MTS. DSNY finds that the amount of available capacity that can be used to process commercial waste during the hours of 8:00 p.m. to 8:00 a.m. without causing any significant adverse noise impacts is 1,000 tons (or 95 commercial waste hauling vehicles, assuming an average of 11 tons per truck) over this 12-hour period. Commercial vehicles would be required to follow a route that would avoid sensitive receptors during the 12:00 a.m. to 6:00 a.m. period.

### 2.2.17 Public Health Evaluation

DSNY considered the potential impacts of the Proposed Plan Facilities on public health and finds they would not be significant. The fundamental purpose of the plan is to provide for the safe and sanitary collection, transfer and disposal of household and commercial waste to prevent adverse impacts to public health. The review considered potential health effects of air pollutants related to operations (diesel engine emissions, dust) at Proposed Plan Facilities, as well as noise, odors and vermin.

The facility operations would not cause an exceedance of any regulatory standard for air quality. The levels of criteria pollutants associated with facility operations would not cause exceedances of health-based standards or significant impact levels. The levels of hazardous air pollutants (HAPs) from facility-related diesel emissions would not exceed applicable standards or guidance benchmarks. DSNY collection vehicles all use clean diesel technology and ultra low sulfur fuel that yield much cleaner emissions than was the case with pre-1998 diesel truck fleets. On-site and off-site mobile source emissions from commercial vehicles delivering to the Converted MTS facilities at night were considered in the air quality analysis.
As noted above, stricter emissions requirements and ultra low sulfur fuel mandates imposed under federal law will further reduce public and private diesel fleet emissions over the 20 year planning period for the draft New SWMP. Moreover, Local Law 40 of 2005, which was enacted after the FEIS was completed, mandates that all diesel powered vehicles engaged in city solid waste or recycling contracts that operate primarily within New York City be powered by ultra low sulfur fuel and be equipped with best available retrofit technology, such as oxidation catalysts, particulate filters, and/or other technology. DSNY also notes that the draft New SWMP plan would result in a significant reduction in truck vehicle miles traveled in the City and to disposal and transfer sites and a reduction in regional air emissions from waste transport vehicles.

The FEIS presented a review of scientific information regarding epidemiologic studies relating traffic to respiratory health, including asthma. Asthma is a serious problem facing New York City and the nation and has been increasing in the last two decades, even as outdoor air quality has improved. The issue of asthma is complex and poorly understood. DSNY considered whether the reintroduction of DSNY waste deliveries to the facility sites would be expected significantly to adversely affect respiratory health in the community and finds it would not.

The facilities would implement vermin control measures in accordance with applicable regulations and health standards, and therefore would not result in adverse impacts to public health from vermin.

The potential noise impacts associated with on-site and off-site operations at the proposed Converted MTS facilities and the private facilities analyzed would not exceed significant impact levels or regulatory standards and/or would not be perceptible, with the mitigation proposed, as discussed in the section on Noise, above. Therefore, DSNY finds that no significant adverse health impact from noise from the Plan would occur.

Odors would be controlled effectively and not cause public health symptoms at or near the facilities. For each Proposed Plan Facility analyzed, the analysis suggested that emissions would not pose a risk of detectable, let alone obnoxious, odors at the property boundary or nearby receptors. Therefore, the likelihood of chemical irritative effects is also small, and no adverse odor impacts are expected upon public health.

2.2.18 Construction Impacts

Non-Marine Resource Construction Impacts The proposed Converted MTS facilities will require varying degrees of over-water and on-shore construction. Construction of these facilities will have certain potential short-term impacts on the surrounding marine environment and ambient natural resources. Since construction of the MTSs will be approximately 28 to 30 months in duration, a detailed construction related impact analysis was not required, in accordance with the CEQR Technical Manual. Potential areas of construction-related impacts from the Proposed Action include: temporarily impeded access to community facilities, parks and open space (notably at the East 91st Street Converted MTS site); short term effects on neighborhood character and natural resources; potential exposure to contaminated materials; disposal of construction debris; temporary street or lane closures; and potential traffic, air quality, vibration, and noise impacts. Since most of the construction at several sites would be over water, DSNY considered in particular the potential impacts during construction to the marine environment (which consists of the benthic and epibenthic communities, adult finfish and ichthyoplankton) evaluated during a year long study in 2003, and discussed separately below.

The level of construction activity at each site will vary over the course of the construction period because certain activities, such as pile driving and construction-related traffic, will be greater at specific periods of time. DSNY’s bid documents will require the selected contractor(s) to submit a detailed demolition/
construction sequencing schedule for DSNY review. While there will be periods of time when construction activities will cause temporary impacts in the areas listed above, DSNY is committed to minimizing these potential temporary impacts. For example, among other things, DSNY will require the selected contractor to construct temporary construction fencing around the site, and provide security to restrict access to the site by only authorized personnel for the duration of construction. DSNY will also require the contractor to submit: (1) a construction waste management plan that identifies the contractor’s plan for management of construction debris generated at the site; and (2) air monitoring and dust minimization measures to minimize the potential for the release of particulates during dust-generating activities. As indicated by the subsurface investigations conducted at the Southwest Brooklyn and Hamilton Avenue Converted MTS sites and described in the Hazardous Materials sections of the FEIS, the potential for contaminated subsurface materials exists at these sites. Therefore, DSNY will require the contractor to submit Health and Safety Plans for its employees, have appropriate safety professionals on site, and submit a site management plan to address the contractor’s procedures for excavation, removal and off-site disposal of any potentially encountered contaminated or hazardous materials in accordance with applicable regulations.

DSNY will also require those contractors who are preparing Maintenance and Protection of Traffic (MPT) plans to assure, to the maximum extent practicable, access to community facilities and services, and parks and open space in the vicinity of the Converted MTSs during construction. These MPT Plans will also be reviewed by appropriate state and City agencies, such as New York State Department of Transportation and NYCDOT, when the plans include temporary street or lane closures of state or City roads, and the City Department of Parks and Recreation in regard to maintaining access to Asphalt Green and the East River Esplanade parks. Any potential traffic, air quality, noise, and pedestrian access impacts of these street or lane closures will be temporary and localized in nature.

The duration for demolition of the existing over-water MTSs at East 91st Street and North Shore and the upland Hamilton Avenue MTS is approximately five (5) to six (6) months, and construction duration of the Converted MTSs at these locations is approximately 17 to 18 months. The construction duration for the upland Southwest Brooklyn and Hamilton Avenue Converted MTSs is estimated to be approximately nine (9) to 12 months, since it is anticipated that construction of pile foundations, structural concrete, and the structural steel building will require less time at the upland sites. During these periods, the peak periods of activity (with the highest number of construction-related vehicles) is likely to be less than nine (9) to 12 months, so any potential traffic, air quality and noise impacts associated with this construction would be short term. In addition to meeting requirements for applicable state, city and local permits for construction, DSNY will require the contractor to provide noise mitigation strategies, methods, procedures and technology to minimize potential short term noise impacts.

Neighborhood character and visual quality (including river views) near the Converted MTS sites will vary, depending upon the type and duration of demolition/construction activity, but will likely experience some degree of short term adverse impacts as a result.

At the proposed East 91st Street Converted MTS site, the estimated duration for demolition and reconstruction of the access ramp is approximately 11 months. Given that the existing East 91st Street MTS access ramp is adjacent to Asphalt Green (with ball fields to the south and the Aqua Center to the north, east of York Avenue) and crosses over the East River Esplanade, ramp reconstruction would be expected to have short-term effects on these nearby park facilities, even though it would be in the same footprint as the existing ramp. Temporary construction fencing around the construction areas will alter the visual environment, and potentially affect access to small portions of these park facilities while the existing ramp is being demolished and the new one is being built. The estimated duration for demolition of the existing ramp is approximately five (5) months, and for construction of the new ramp is approximately six (6) months (which includes the portion of the ramp over the FDR and the section of
ramp passing between the Aqua Center and the park), making these impacts temporary. The ramp work is scheduled to take place towards the end of construction, so that the new ramp is completed at approximately the same time that the proposed Converted MTS is completed. The existing ramp will be used for construction operations until it is demolished.

As necessary, DSNY would require certain specific measures in the construction documents to mitigate these potential impacts at the proposed East 91st Street Converted MTS site, such as:

- Requirements that demolition and reconstruction be completed from within the footprint of the existing ramp and from the western most lane of the FDR.
- Isolation of the work area within temporary construction fences and barriers.
- Traffic control provisions and traffic control staff for the York Avenue Transfer Station Ramp intersection.
- Construction of a temporary steel tunnel to maintain the southwest Aqua Center entrance in service.
- Temporary storage structures to compensate for the existing storage space beneath the ramp.
- Facade protection for the Aqua Center.
- Temporary louver filters for the Aqua Center louvers located adjacent to the ramp.
- Strict enforcement of various dust and sedimentation control requirements.
- Soil vibration control and monitoring systems.
- Design of augured shafts for foundations instead of driven piles.
- Stringent post demolition/reconstruction clean up requirements.
- Temporary relocation of Aqua Center utility services.

DSNY is also considering imposing contractual requirements that the work be completed during specific periods of time. DSNY will coordinate these plans with the Department of Parks and Recreation and consult with Asphalt Green to maximize access to these facilities during the various stages of construction activity.

**Construction Impacts to Marine Natural Resources**  Construction impacts to the marine environment result from both the demolition of existing structures and the fabrication of new facilities. Construction impacts are limited temporally to the span of the activities, typically a few years. These impacts generally include loss of benthic habitat due to dredging, turbidity and siltation from piling removal or installation, loss of encrusting organism habitat from piling removal, and general disruption of existing communities due to human and mechanical activity. Minor water quality impacts, such as localized anoxia, may result if newly exposed reduced sediments draw down dissolved oxygen on contact. Extensive sampling of the sediment at the proposed facilities indicates that the sediments are not “hazardous”, although they contain some low levels of contaminants. The proposed construction plans call for some activity at each of the proposed four Converted MTSs in the Proposed Action, but the extent varies, with some sites being totally rebuilt and other sites having relatively minor alterations. The Plan would required a relatively minor loss or replacement (< 0.05 acres) of tidal wetland vegetation, as noted above in the Natural Resources discussion.

Construction period impacts resulting from the project will be limited both spatially and temporally. The greatest impacts will be temporary destruction of benthic and epibenthic communities and avoidance by finfish due to suspended particles and food source reduction. While they may not be amenable to
avoidance or reduction, these impacts will be limited and will not last beyond one seasonal cycle for invertebrates. Temporary construction impacts on finfish will not be quantifiable.

DSNY finds that during the demolition of the existing MTSs at the North Shore, East 91st Street, and Hamilton Avenue sites, the upper organic silts lying under that structure would be disturbed to some degree, resulting in re-suspension of the sediment. However, the amount of re-suspended sediment would be low, and the impacts, if any, highly localized. Turbidity and short-term, lowered, dissolved oxygen are possible, but not measurable, against the normal background fluctuations. Construction would involve installing piles for the foundation supports at the East 91st Street and North Shore sites, and dredging to accommodate barges; the Southwest Brooklyn site would require the construction of a king pile wall and dredging. Protective measures such as the use of clam shell buckets would be utilized for dredging, as discussed above. The benthic and finfish community would be temporarily disrupted during this phase of the project. Benthic invertebrates would recolonize the area within 6 to 12 months and finfish would return to the area immediately following completion of the construction. The pile-driving and dredging activity during the construction will cause adult finfish to avoid the site temporarily. Fish in the herring family are most sensitive to the suspended sediment and noise from construction; flatfish (flounders) are least sensitive. Finfish eggs and larvae are more sensitive to suspended sediment, and those that settle to the harbor floor may be smothered by sediment. Swift currents may sweep eggs and larvae past the East 91st Street Converted MTS construction site, but the short exposure time should not significantly harm the ichthyoplankton. In addition, larvae will be able to swim away from the impacted environments. The impact to benthic organisms from the proposed construction activity would be minimal at Hamilton Avenue, and moderate at the other three Converted MTS sites. The epibenthic communities will be removed temporarily from removal of the pilings supporting the East 91st Street MTS, the Hamilton Avenue MTS and the North Shore MTS, but would recolonize the new pilings at the Converted MTS facilities (East 91st Street and North Shore). Recolonization may be delayed if treated marine lumber is utilized in construction, releasing some heavy metals and polycyclic aromatic hydrocarbons, but DSNY finds such lumber would not pose a significant risk to aquatic life.

DSNY finds that the construction period impacts from the proposed Plan facilities are unavoidable, temporary, and would not cause significant adverse impacts requiring further mitigation beyond the measures being proposed.

2.2.19 Irreversible and Irretrievable Commitment of Resources

Several resources, both natural and man-made, would be expended through Plan implementation. These resources include the land that makes up the proposed facility sites; building materials used in construction of the facilities; energy in the form of gas and electricity consumed during the construction and operation of each facility; the fossil fuels used in tugs, trains and trucks transporting waste or construction materials; and the human effort required to develop, construct and operate the facilities and means of waste transport. All of these resources are considered irretrievably committed because their reuse for some other purpose, once exploited for the project, would be highly unlikely.

Development of the Harlem River Yard Site, East 132nd Street Site, Review Avenue TS, or Scott Avenue/Scholes Street TS, or use of any existing MTSs as part of Plan implementation, would not be new commitments of land to industrial use because those facilities would exist without Plan implementation. While all other sites proposed for development would be Plan-induced commitments, such as the Converted MTSs, they would also be re-activation of industrial uses in areas zoned for heavy industry.

Generally, the soil, shoreline and natural waterways in the areas of the proposed new facilities and the MTSs could be described as having been, in effect, already committed to industrial use as a result of prior industrial activities. The redevelopment and use of abandoned, derelict or underutilized infrastructure,
therefore, could be considered the reclamation of the “working waterfront,” a man-made resource of economic importance to the City. The proposed developments could be considered improvements of their respective sites and waterfront areas, particularly as they utilize and often upgrade the existing rail and water transport infrastructure.

2.2.20 Growth-Inducing Aspects of the SWMP

The Proposed Action would replace four existing MTSs with Converted MTSs, potentially modify some portions of existing private transfer stations in the City to enable truck-to-rail/barge export from these facilities, would develop a Recyclables Acceptance Facility in Manhattan for barge transport of Recyclables to processing facility, and would develop a Recyclables Processing Facility at the South Brooklyn Marine Terminal to receive and process barge-delivered Recyclables from other acceptance facilities in the City. With the exception of the Recyclables Acceptance Facility in Manhattan, which is subject to further environmental review as the design is developed, these new facilities would: (1) not involve substantial new land uses at the designated sites; (2) be compatible with existing surrounding land uses; (3) not introduce new residents to or significantly increase employment in the surrounding areas; and (4) not require that any new support uses be located nearby (although DSNY or other private waste-related facilities already exist near some sites).

The Proposed Action facilities located on under-utilized or unused sites may require infrastructure improvements (e.g., sewer connections, etc.), but these upgrades would not necessarily encourage off-site development. Development of some facilities may require dredging on site. Waterfront Revitalization Program consistency review concludes that while no facility would specifically require the siting of any additional water-dependent uses, certain facilities would not necessarily preclude the siting of these uses either. For example, the four Converted MTS facilities could increase the demand for barge repair and maintenance facilities at sites that are appropriately zoned for this activity, but whether the locations of these facilities are near the proposed sites or are within the City cannot be foreseen at this time.

DSNY finds that the Proposed Action would be compatible with existing public plans and policies for planned improvements in the City’s freight rail infrastructure and/or in waterfront infrastructure related to barging of containerized freight. These infrastructure improvements may occur in Staten Island, the Bronx, Brooklyn and Queens, where these improvements are consistent with current and planned land uses. Specifically, the NYCEDC and/or the Port Authority of New York and New Jersey is planning or implementing: (1) upgrades on the Metro-North and CSX-owned Hudson North lines to facilitate freight traffic into the Bronx; (2) upgrade of the Staten Island Railroad (SIRR) and connections to SIRR from New Jersey freight rail lines to facilitate freight traffic on and off Staten Island; and (3) upgrades of intermodal terminal capacity at Howland Hook or in the immediate vicinity.

These plans would potentially facilitate the operation of Plan-related rail facilities in the Bronx, Queens and Staten Island. However, these are being pursued independently by the NYCEDC and other parties.

The intra-harbor barging of containerized waste from the four Converted MTSs would utilize intermodal facilities in the harbor to transfer these containers to ocean-going barges or to rail cars. This activity would be compatible with the City’s overall plan for port development.
3.0  ALTERNATIVES CONSIDERED

Following a screening process described below, the Alternatives to the integrated Plan’s proposed Long Term Export system that were advanced for environmental review in the FEIS as per the adopted Scope were: the (i) No Action Alternative, (ii) Converted MTSs at all eight existing MTS sites; (iii) the development of a new private truck-to-rail facility on Meserole Street in Brooklyn (a proposal submitted in response to DSNY’s RFP procurement for private transfer station capacity for the Brooklyn portion of the Greenpoint wasteshed); and (iv) the use of the existing MTSs, assuming substantial refurbishing of these facilities, to supply waste in open hopper barges to an enclosed barge unloading facility (EBUF) in the New York/New Jersey harbor region where it would be containerized for transport to disposal sites, although the location of such an EBUF has not been identified. Consistent with the wishes of the City Council expressed in Local Law 74/2000, the FEIS analysis considers impacts at the MTSs both with and without commercial waste, in effect constituting another Alternative scenario. In addition, the FEIS considered several alternative support facilities where sealed containers of DSNY-managed Waste from transfer stations would potentially be transloading from trucks or barges onto rail cars.

3.1  Screening of Long Term Export Alternatives for Analysis

DSNY considered a number of different potential New SWMP scenarios and elements before selecting the proposed draft Plan elements and certain Alternatives for analysis in the Scope and DEIS/FEIS. Sanitation Districts, which are coterminous with Community Districts under the City Charter, must be left intact. Similarly, for operational reasons having to do with the location of Sanitation garages and collection route efficiencies, one criterion for selection of each draft Plan element or Alternative for analysis was that it would generally leave intact the nine separate wastesheds of the historic MTS collection and transfer system. Another criterion was that the Plan element or Alternative comply with the policy objective of avoiding trucking DSNY waste from one borough to another borough for transfer or disposal. This is a continuation of the policy in the approved 2000 SWMP Modification. A third criterion was that no Plan element or Alternative could involve operation of new incineration capacity in the City, also in accordance with the approved 2000 SWMP Modification. In addition, the Plan element and Alternative had to be capable of implementation in the near term of approximately five years, and thus had to involve commercially available technology and/or existing facilities. Cost considerations, location with respect to operational convenience, equitable distribution within the City, and municipal control were also factors, such that waste transfer sites within the City, and especially City-owned sites, were viewed more favorably than privately owned sites outside the City. From these basic criteria and other screening discussed below, three specific categories of sites ultimately emerged for detailed consideration in the FEIS as the proposed Plan elements and Alternatives: (i) existing MTS sites as locations for the Converted MTSs; (ii) existing truck-receiving privately owned putrescible waste transfer stations that are currently capable of exporting or can be modified to export by barge, rail or truck-to-rail; and (iii) new sites than could be developed as truck-receiving, putrescible waste transfer stations that would be capable of exporting by barge, rail or truck-to-rail.

3.1.1  2000 SWMP Modification Alternatives

DSNY’s consideration of potential elements of the Long Term Export Plan and Alternatives for analysis was informed by DSNY’s recent consideration of various alternatives undertaken for the 2000 SWMP Modification. DSNY had solicited ideas for dealing with DSNY-managed waste following the closure of
Fresh Kills. Following a screening process, the 2000 SWMP Modification supported by an October 2000 FEIS included a generic environmental and economic assessment of 25 types and capacities of barge and rail export facilities (including truck-to-rail/barge transfer stations and EBUFs). The 2000 SWMP FEIS then analyzed in detail long term export options at some 20 specific sites with 25 different facility options across the City. This detailed technical and public review process helped DSNY determine the guiding principles of reliance on rail and barge for long distance waste transport, and taking advantage of the City’s existing marine transfer station sites.

3.1.2 In-State Disposal Capacity

DSNY’s consideration of alternatives for the draft New SWMP also evaluated the information obtained through a Request For Expressions of Interest to Provide Waste Disposal Capacity on February 17, 2004, that sought expressions of interest to (1) sell or otherwise provide to DSNY, for its exclusive use, permitted waste disposal capacity in New York State; (2) sell or otherwise provide to DSNY, for its exclusive use, land in New York State that is suitable to serve as a site for a waste disposal facility; and/or (3) serve as a host community for a disposal facility located in New York State that would receive waste managed by DSNY. DSNY received no viable expressions of interest in supplying the City via long-term contracts for significant in-state landfill or waste-to-energy facility capacity.

3.1.3 Consideration of New and Emerging Technologies

In addition, DSNY also reviewed responses to its April 21, 2004 Request for Information concerning new and emerging solid waste management technologies other than waste-to-energy incineration. DSNY’s consultant produced a report, Evaluation of New and Emerging Solid Waste Management Technologies (September 16, 2004) provided as Appendix F to the draft New SWMP, which concluded that three non-incineration technologies in particular met the screening criteria for further consideration by New York City: anaerobic digestion, by which the organic component of municipal waste is broken down by microorganisms to form useable methane; thermal technologies such as gasification or pyrolysis; and hydrolysis (the acid-catalyzed reaction of the cellulose fraction of the waste -- such as paper, food waste and yard waste -- with water to produce sugars than can be made into commercial products such as ethanol). DSNY’s Commissioner and consultants testified about the report at a hearing before the City Council Solid Waste Committee on December 8, 2004. The study noted that thermal processing technologies (e.g., gasification, pyrolysis, plasma, cracking) operate at commercial scale abroad (e.g., Japan, Germany, Italy) but not the United States. Similarly, anaerobic digestion plants currently exist in Canada, the Netherlands, Italy, Germany, Israel and other nations but not in the United States. Only pilot plants for acid hydrolysis to produce cellulose ethanol from the organic fraction of municipal solid waste have been constructed, with a commercial scale facility approved for Middletown, New York but not yet built.

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DSNY’s consideration of potential alternatives for the 2000 SWMP Modification FEIS included a review of 34 responses received to a Request for Expressions of Interest from qualified vendors for conceptual plans defining the services they were interested in providing for managing some portion of the waste going to Fresh Kills. The responses consisted of: ten conceptual plans for waste export based upon use of the existing MTSs; eight that emphasized innovative recycling strategies and/or proposed the development of innovative recycling strategies; four that proposed the development of composting facilities to handle all or some portion of the residential waste stream; three that offered disposal capacity at existing or to-be-developed/modified waste-to-energy facilities; two that outlined schemes for retrofitting or converting MTSs into containerization facilities; two that offered to provide truck-to-truck transfer service at in-City facilities; one that offered an unspecified amount of disposal capacity at two existing in-state landfills; one that offered an unspecified amount of disposal capacity at a fully permitted out-of-state landfill; one that proposed the transport of baled waste to a landfill in western Canada; one that proposed to provide floating incinerators; and one that proposed a marketing proposal for an in-City site characterized as suitable to serve as a site for a barge-to-rail transfer facility.
DSNY’s study found that (compared to conventional waste-to-energy technology) anaerobic digestion, hydrolysis and thermal processing appear potentially advantageous with respect to facility emissions and public acceptability, generally comparable in terms of cost and certain other criteria, but potentially disadvantageous with respect to readiness and reliability. The City is conducting a new study to further evaluate these three technologies. DSNY finds that such new and emerging “waste conversion” technologies should be monitored and may have a cost-effective and environmentally beneficial role to play in New York City’s SWMP in the medium-to-longer-term as an alternative to long-distance transport and landfilling of post-recycling waste. However, it is not a realistic alternative to site, permit and build a new commercial-scale waste conversion facility in the New York City region in the near term of the next five years. DSNY also gave consideration to a full-scale mixed waste composting facility as part of the SWMP, following promising pilot results involving DSNY post-recycling waste, as detailed in DSNY’s New York City MSW Composting Report: Summary of Research Project and Conceptual Pilot Facility Design, (2004), provided as Appendix C to the draft New SWMP. DSNY found the biodegradable portion of post-recycling DSNY-managed residential and institutional waste to be 64% in 2001. DSNY determined that in the near term of the next five years a pilot project may be considered for a demonstration MSW composting facility but that a full-scale facility would not be realistic. Therefore this option was not included as an Alternative in the Scope for the DEIS/FEIS.

3.1.4 Manhattan Transfer Station Siting Study

DSNY also had the benefit of the Commercial Waste Management Study, which considered alternative sites for truck-to-rail or truck-to-barge transfer stations in Manhattan, as noted below. These sites were not selected for full environmental reviews due to serious constraints, as discussed in the Commercial Waste Management Study Volume 5: Manhattan Transfer Station Siting Study, provided in an appendix both to the draft New SWMP and to the FEIS. That study evaluated four potential waste transfer sites in Manhattan, based upon comments received during the study scoping meetings, as well as sites previously identified in the 2000 SWMP Modification: West 140th Street (Block 2101, which runs between the North River Water Pollution Control Plant on the Hudson River and the Henry Hudson Parkway, from about West 145th Street to just south of West 137th Street); Pier 42 on the East River; West 30th Street; and West 13th Street (Gansevoort). None of these four sites currently serves or is permitted as a waste transfer facility. Facility conceptual designs and site plans were prepared to determine the feasibility of using each site as a minimum 1,000 tpd transfer station. Based on the conceptual designs developed for the sites, DSNY finds three of the four sites to be technically problematic for use as waste transfer facilities for the reasons discussed in the Study. DSNY finds the fourth site, the site of the inactive DSNY Gansevoort MTS, to be technically feasible but problematic because of its location within the Hudson

59 DSNY notes that the recently enacted Federal Energy Policy Act of 2005 provides financial incentives for the development of cellulose ethanol facilities, and that a new waste-to-ethanol facility in Canada in 2004 began producing up to 4 million liters of ethanol per year commercially from waste agricultural residue (straw).

60 DSNY notes that the first comprehensive environmental life-cycle analysis of certain new and emerging waste conversion technologies such as gasification, acid hydrolysis, and catalytic cracking has recently been prepared for the California State Legislature. The Conversion Technologies Report to the Legislature, RTI International (May 2005), available from the California Integrated Waste Management Board, concludes that an integrated system that relied on a combination of acid hydrolysis, gasification and catalytic cracking facilities for the waste remaining after recycling programs for the Los Angeles metropolitan area may be technically viable and would have favorable air emissions (SOx, NOx and Carbon) and net energy benefits as compared with landflling with gas recovery, increased recycling, or waste-to-energy combustion. Also, a report on the economics of acid hydrolysis conversion of post-recycling MSW to ethanol for the Phoenix area concluded it would be economical even without tip fees at $10 per ton. P. Fox, J Fents and D. Bogner, Market Development Program for Refuse to Alcohol Plants in Arizona, Western Regional Biomass Energy Program (Sept 30, 1999)(55 pp.), available at www.westbioenergy.org/reports/ 55015/55015final.htm.
River Park, requiring State legislation; moreover, DSNY is proposing use of this Gansevoort site as a Recyclables processing facility.

3.1.5 LIPCo/Covanta Facility in New Jersey

In addition to the Manhattan site alternatives considered for transfer stations, DSNY considered sending waste from the Manhattan wasteshed to the LIPCo/Covanta waste-to-energy facility in Rahway, New Jersey. However, during the re-procurement of Interim Export contracts for DSNY-managed Waste from Manhattan awarded in November 2004, DSNY established that the LIPCo/Covanta facility in Rahway had insufficient capacity to serve as a primary disposal facility. This facility was therefore awarded an Interim Export contract for backup capacity in the amount of 125 tpd, substantially less than is generated in any of Manhattan’s three wastesheds (for example, the four CD’s of the historic East 91st Street MTS wasteshed generate approximately 720 tpd of waste). Moreover, the facility receives waste from 5:30 a.m. to 5:00 p.m. on weekdays and from 5:30 a.m. to 12 noon on Saturdays, which is not consistent with DSNY’s need for a facility that is open 24 hours per day.

3.1.6 Delivery of Manhattan Waste to Bronx Facility

It would be operationally feasible for DSNY to deliver a portion of Manhattan waste by collection truck to the existing Harlem River Yard truck-to-rail transfer station or to the East 132nd Street truck-to-rail transfer station in the Bronx. However, as this alternative would fail to adhere to the policy objective of avoiding trucking of DSNY post-recycling waste to a facility in another borough, DSNY did not include this option for analysis in the FEIS.

3.2 No Action Alternative: Interim Export

Instead of building and operating the Converted MTSs, under the No Action Alternative the practice of contracting with private transfer stations for transfer, transport and disposal of post-recycling DSNY-managed Waste would continue, along with the approved construction and use of the Staten Island Transfer Station to be served by rail.

- Waste from the Bronx would continue to be transferred at private transfer stations where it is either placed directly in rail cars or placed in containers and driven a short distance by truck to a local rail yard for transloading to rail cars. The principal difference from the Proposed Plan is that the contracts under the No Action Alternative would continue to be short-term (3 to 5 years) as opposed to 20-year contracts and there would be no contractual requirement that the private transfer station operator export by rail.

- Waste from Manhattan would continue to be driven directly to facilities in New Jersey for disposal (such as the Essex County Resource Recovery Facility – eight districts) or transfer at private transfer stations, such as the Waste Management facility at Julia Street in Elizabeth, NJ (two districts) and the Onyx Waste facility in Totowa, NJ (one district). The principal difference from the Proposed Plan is that the waste shed that historically went to the East 91st Street MTS (CD’s 5, 6, 8 and 11) would continue to send waste in DSNY collection vehicles to facilities in New Jersey rather than to the East 91st Street Converted MTS, requiring longer travel for DSNY vehicles.

- Waste from Brooklyn and Queens would be transferred at local transfer stations, with some waste being driven directly by DSNY trucks to facilities in New Jersey or Nassau County.

- As at present, DSNY would not truck DSNY-managed Waste from one borough to a facility in another borough.
There would continue to be more local and regional truck traffic from waste export under the No Action Alternative than under the proposed Plan. As noted in Section 1.5.6 above, under the current DSNY waste disposal system, DSNY delivers approximately 6000 tpd of post-recycling DSNY-managed Waste in approximately 541 DSNY collection vehicles to eight private transfer stations within the City where it is transferred to private long-haul transfer trailers or railcars in the Bronx, for transport to disposal facilities. This waste leaves the City via approximately 257 tractor trailers daily, each bearing from 20 to 25 tons of waste (averaging about 22 tons) or in railcars.\(^6\) As compared with the Plan, DSNY finds that the No Action Alternative would result in an estimated 2.8 million more vehicle miles traveled (VMT) for transfer trailer trucks within New York City, an additional 2.8 million VMT by DSNY collection trucks enroute to regional transfer locations that would be farther away than the proposed Plan facilities, and an estimated 55 million more VMT in annual diesel transfer trailer truck traffic on regional roads and highways outside of New York City (VMT reductions would be partially offset by increased travel by barge and rail). In addition, commercial waste vehicles would not be able to deliver their loads to the four Converted MTSs or the West 59\(^{th}\) MTS, as contemplated by the Plan, and so there would be no corresponding relief to City blocks and communities that have been seeking reductions in the current levels of waste-related truck traffic.

### 3.3 Eight Converted MTS Alternative

The FEIS reviewed an Alternative by which all eight of DSNY’s recently used MTS sites would be turned into Converted MTSs rather than just the four under the proposed Plan. Specifically, in addition to building Converted MTSs at four current DSNY MTS sites (East 91\(^{st}\) Street in Manhattan, North Shore in Queens, Hamilton Avenue in Brooklyn, and Southwest Brooklyn), this Eight Converted MTS Alternative would also involve building a Converted MTS at the following DSNY locations: West 135\(^{th}\) Street MTS site and West 59\(^{th}\) Street MTS site in Manhattan; South Bronx MTS site at Hunts Point, Bronx; and the Greenpoint MTS site in Brooklyn. Under this Alternative, the wastesheds previously used for these facility sites would be reactivated. DSNY finds this alternative would be considerably more expensive and take longer to implement than the proposed Plan, as noted in Section 1.5.6, above, and would not generally result in fewer significant adverse environmental impacts that the Plan.

### 3.4 Meserole Street Truck-to-Rail Transfer Station Alternative

This site, consisting of two parcels (568 Meserole Street and 111 Gardener Avenue) on either side of Gardener Avenue in the East Williamsburg In-Place Industrial Park, was proposed by two different applicants as a potential private truck-to-rail transfer station with a capacity of 2000 tpd, of which 1000 tpd would be utilized for DSNY-managed waste that formerly went to the Greenpoint MTS. Although this Alternative was found to result in no significant environmental impacts, the development of this facility has been affected significantly since its proposal by DSNY’s 2004 transfer station siting rule amendments, which provide that any new transfer station capacity within Brooklyn Community District 1 requires closing an offsetting amount of capacity at one or more existing transfer stations within the same community district. This Alternative is therefore not part of the proposed Plan.

### 3.5 Alternative of Reactivating Existing MTSs

The FEIS (Chapters 23 through 30) considered the Alternative of reactivating the eight existing MTSs (North Shore, Hamilton Avenue, Southwest Brooklyn, Greenpoint, West 135\(^{th}\) Street in Manhattan, East Staten Island Transfer Station and the associated connection and upgrades to the Travis Branch of the Staten Island Railroad and the interconnections to the Chemical Coast Line in New Jersey are completed, as approved under the 2000 SWMP Modification, 900 tpd of waste from Staten Island will leave the City by rail rather than direct haul.

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\(^6\)Once the Staten Island Transfer Station and the associated connection and upgrades to the Travis Branch of the Staten Island Railroad and the interconnections to the Chemical Coast Line in New Jersey are completed, as approved under the 2000 SWMP Modification, 900 tpd of waste from Staten Island will leave the City by rail rather than direct haul.
91st Street, West 59th Street, and the South Bronx MTS), to be used in conjunction with an EBUF facility in the New York Harbor at a location to be identified, similar to the plan approved in the 2000 SWMP Modification. This Alternative did not consider processing commercial waste at these existing MTS facilities in addition to DSNY-managed waste. Substantial refurbishment would be required at a number of these facilities, possibly requiring new permits from the NYSDEC. In addition to potentially significant noise impacts from certain of these facilities, this Alternative requires a facility to which the hopper barges of waste can be transported for unloading, such as an EBUF. As a location for an EBUF has not been found to date, DSNY finds the draft New SWMP Plan for waste transfer and transport preferable to this Alternative.

3.6 Alternative Support Facilities

3.6.1 Intermodal Barge-to-Rail Yard: Harlem River Yard

This facility, located at East 132nd Street and St. Ann’s Avenue in the Bronx on property contiguous to the Harlem River Yard Truck to Rail Transfer Station, was analyzed in the FEIS as a potential support facility to receive barge deliveries of containers from one or more Converted MTSs for transloading to rail heads. The Harlem River Yard site is described above in Section 1.5.2; the FEIS references the environmental review done for the facility site in the 2000 SWMP FEIS as a potential enclosed barge unloading facility (EBUF), which found there were no unmitigable adverse environmental impacts associated with the EBUF operations. DSNY undertook additional analyses for noise and PM$_{2.5}$ for the draft New SWMP FEIS. This site is not part of the proposed Plan, and thus is an Alternative support facility.

3.6.2 52nd Street Barge Staging Area

The 52nd Street Barge Staging Area, at 52nd Street and 1st Avenue in Brooklyn, historically served the existing MTSs as a location where barge movements between individual MTSs and the Fresh Kills landfill could be staged. DSNY considered a replacement in kind of the existing pier structure to serve as a supply storage facility and a location to temporarily moor barges that are scheduled for maintenance at other facilities. This support facility Alternative was analyzed in the DEIS and FEIS; it is not part of the proposed draft New SWMP Plan for export of DSNY-managed waste.

The existing pier, which would be replaced in kind, is a concrete deck supported by timber piles and substructure elements. It is located with the Sunset Park section of the industrial Brooklyn waterfront in Community District 7, just south of Bush Terminal and north of the Brooklyn Army Terminal. It is bounded to the east by First Avenue and to the west by the Upper New York Bay. It is located within Tax Block 803, Lot 5. Currently, the site contains a DSNY vehicle maintenance facility and a storage facility for sand and salt, as well as a parking lot for employees. The site is within a large M3-1 zoning district, which extends east to Second Avenue. Warehouses, factories, automotive repair ships, parking lots and several vacant lots are located between First and Section Avenues. The site is two blocks from the IESI 50th Street putrescible transfer station under contract with DSNY for Brooklyn waste. South of the site is the Brooklyn Wholesale Meat Market.

3.6.3 Intermodal Barge-to-Rail Yard: 65th Street Rail Yard, Brooklyn

This facility was discussed in the DEIS as a potential support facility to serve as a transload facility to move sealed containers of DSNY-managed waste from transfer stations to rail heads. This site is not part of the proposed Plan.
3.7 Recycling Alternatives

As noted above, a detailed separate environmental review of the two proposed Recyclables Facilities (South Brooklyn Marine Terminal, and Gansevoort or another Manhattan site) will be completed once the facility plans are more advanced; such review would consider alternatives, if appropriate. For the purposes of the draft New SWMP environmental review, the following brief discussion of recycling facility Alternatives is provided.

3.7.1. South Brooklyn Marine Terminal Recyclables Facility- Alternatives

An Alternative to the proposal to help develop and contract on a long-term basis with a centralized MGP and paper Recyclables processing facility to be built by SHNC at the South Brooklyn Marine Terminal (SBMT) would be the continuation of the current DSNY contracts by which MGP Recyclables are delivered to several metropolitan area MGP processing facilities by DSNY collection vehicles pursuant to short-term contracts. Continuing the status quo arrangement would not involve the development of a state-of-the-art facility with processing equipment such as optical sorting machines, economies of scale, and the barge transport capability of the HNC centralized processing facility at the SBMT, all of which are expected to reduce the net cost to the City for MGP recycling, and would not commit the City contractually to deliver MGP and potentially paper to one facility for a 20-year period. Continuing the status quo contracts would not involve the expenditure of approximately $25 million in City funds toward the construction of the central MGP processing facility and associated debt service, and therefore may cost less than the proposed action. Travel by DSNY Recyclables collection vehicles would continue to be greater by approximately 55,000 vehicle miles annually under the status quo contracts than under the proposed action.

DSNY considered several alternative MGP facility sites as a result of the Request for Proposals (RFP) that DSNY issued in 2003 for services to accept, process and market MGP and Paper Recyclables. In addition to the proposed SHNC processing facility at the SBMT, DSNY received two other proposals deemed responsive, but lacking certain advantages afforded by the HNC proposal. These alternative proposals were not advanced for detailed environmental review in the FEIS. Notably, one proposal would have utilized two locations on Staten Island to receive MGP, but the delivery of MGP from the rest of the City to Staten Island would present logistical and transport problems for DSNY. The second proposal offered two sites for acceptance facilities that were in close proximity to each other in Brooklyn, but DSNY delivery to these locations would be less efficient compared to delivery to other facilities more evenly distributed in the City. A third proposal was deemed non-responsive for technical reasons.

3.7.2 Manhattan Recyclables Acceptance Facility- Alternatives

DSNY is deferring to a future date detailed environmental review for the development of the Manhattan Recyclables Acceptance Facility and any potential Alternatives, as such development will not occur in the near term of the next five years. DSNY notes, however, that an alternative to developing a Recyclables Acceptance Facility at the site of the former Gansevoort MTS would be continuing delivery of Manhattan MGP to facilities in New Jersey and the Bronx under the status quo contracts. The likely result would be longer distances traveled by DSNY collection trucks than would be the case with a Manhattan recyclables delivery location. Another alternative could be potentially using another existing MTS facility in Manhattan for recyclables transfer (as noted above, paper is currently transferred at the West 59th Street MTS). If an existing MTS were not needed for refuse and made available for the transfer of MGP Recyclables, DSNY notes that the impacts of such use would likely be less than those already analyzed in the FEIS with respect to refuse being transferred at such facility, assuming similar delivery times, and therefore not significant; however, any such proposal would be subject to an appropriate level of environmental review in the future.
4.0 CONCLUSION AND FINDINGS

4.1 Long Term Export Facility Elements - Rationale

DSNY finds that the proposed Plan facilities for the transfer, transport and disposal of DSNY-managed waste as part of the City’s integrated solid waste management system offer the following advantages:

- DSNY-managed Waste delivered to private transfer facilities in the Bronx, Brooklyn and Queens will be exported by barge or rail and the Commercial Waste processed at these facilities is also expected to be exported by barge or rail.
- The in-City facilities proposed would be developed on either existing MTS or private transfer station sites.
- The proposed combination of facilities provides the City with redundancy in the DSNY-managed Waste system that accommodates future increases in waste generated in the City as a function of population growth. Occasional conditions that may affect certain components of the system will not disrupt future waste export.
- Use of existing private transfer stations and Essex County RRF capacity: (i) allows some components to be implemented on a faster timetable; and (ii) avoids City investment in new capital projects.
- The Converted MTSs will provide capacity that could be available to containerize Commercial Waste for barge/rail export.
- The projected costs of the Proposed Action are less to the City than the Eight Converted MTS alternative that was evaluated.

4.2 Commercial Waste Elements - Rationale

DSNY finds that the proposed Plan elements for Commercial Waste as part of the City’s integrated solid waste management plan offer the following advantages:

Developing the West 59th Street MTS site for transfer of a portion of Manhattan-generated Commercial Waste would:

- More equitably distribute the impacts of Commercial Waste transfer among the City’s boroughs;
- Reduce the volume of transfer trailer truck traffic in the City;
- Provide the site most proximate to midtown, a major generator of Commercial Waste; and
- Shorten carters’ current runtime from the end of their midtown collection route to their tipping locations in other boroughs, resulting in a decline in the overall duration of commercial collection operations and fewer vehicle miles traveled in the City.

The advantages of using the Converted MTSs to containerize Commercial Waste include that it:

- Capitalizes on unused capacity during the hours when private carter collection operations occur. As DSNY would tip during the day and private carters at night, there is minimal potential for conflict in terms of processing both waste streams at the Converted MTSs.
- Potentially removes approximately 178 transfer trailers from the City’s streets that would otherwise be transporting waste for export. As containerization facilities, the four Converted
MTSs have potentially available capacity for processing up to approximately 3,772 tpd of Commercial Waste.

The advantages of requiring private transfer station owners/operators who are containerizing and exporting DSNY-managed Waste by barge and/or rail to also containerize and export by barge or rail any Commercial Waste processed at their respective facilities are that it:

- Reduces outbound transfer trailer traffic from the private transfer stations, thus reducing truck traffic in these communities; and
- Accelerates the conversion of the City’s private transfer network towards a barge- and/or rail-based system that will have long-term economic and environmental benefits for the City.

4.3 Recycling Plan Elements – Rationale

DSNY finds that the Proposed Plan elements for Recycling facilities as part of the City’s integrated solid waste management plan, notably to help develop a central Recyclables Processing Facility and contract with it on a long-term basis, offer the following advantages:

- 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 potentially 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 contain high proportions by weight of glass, particularly mixed-color broken glass (22%), a material that does not currently 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 a shift that will help reduce truck traffic on City streets and improve the local environment.
- Creates significant local employment opportunities through creation of an estimated 160 construction jobs and 100 permanent jobs when facility operations commence.
- Eliminates the need for Recyclables collection vehicles to travel 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.
4.4 Certification of Findings to Approve/Fund/Undertake

Having considered the Draft and Final EIS, and having considered the relevant environmental impacts, facts and conclusions disclosed therein and summarized in the preceding written facts and conclusions, this Statement of Findings certifies that:

All CEQR/SEQRA requirements have been met;

Consistent with social, economic and other essential considerations of State and City policy, from among the reasonable alternatives, the proposed action is one that minimizes or avoids significant adverse environmental effects to the maximum extent practicable, including the effects disclosed in the Final Environmental Impact Statement;

Consistent with social, economic and other essential considerations, to the maximum extent practicable, adverse environmental effects revealed in the FEIS will be minimized or avoided by incorporating as conditions to the decision those mitigative measures that are identified as practicable;

February 13, 2006

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125 Worth Street
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By

John J. Doherty, Commissioner