COMMERCIAL WASTE MANAGEMENT STUDY

VOLUME III

CONVERTED MARINE TRANSFER STATIONS -

Commercial Waste Processing and Analysis of Potential Impacts

March 2004

Prepared for:

New York City Department of Sanitation
for submission to the New York City Council

Prepared by:

Henningson, Durham & Richardson
Architecture and Engineering, P.C.

and its
Subconsultants

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PREFACE

Local Law 74 of 2000 (LL74) mandated the conduct of a comprehensive study of commercial waste management (Commercial Waste Management Study or Study) in New York City (City) by a Consultant funded by the City Department of Sanitation (DSNY). This Study undertaken to comply with LL74 will assist the City in managing the commercial waste stream in the most efficient and environmentally sound manner, and assist in the development of the City's Solid Waste Management Plan (New SWMP) for the New SWMP Planning Period.

As stated in LL74, the Study should include an analysis of *"whether putrescible and non-putrescible solid waste transfer stations and city-owned marine transfer stations should receive and process both residential and commercial solid waste and the options for transporting such solid waste to and from such transfer stations, including an analysis of potential environmental, economic and public health impacts."* The Commercial Waste Management Study Final Scope of Work describes the approach used to address this issue.

In addition to this Volume III, the Study consists of five other volumes:

- Volume I: Private Transfer Station Evaluations;
- Volume II: Commercial Waste Generation and Projections;
- Volume IV: Evaluation of Waste Disposal Capacity Potentially Available to New York City;
- Volume V: Manhattan Transfer Station Siting Study; and
- Volume VI: Waste Vehicle Technology Assessment.

This volume, Volume III: Converted Marine Transfer Stations (MTSs) – Commercial Waste Processing and Analysis of Potential Impacts, reports on: (i) the capacity required by DSNY for DSNY-managed Waste at each of the Converted MTSs; (ii) the quantity of capacity potentiallyavailable for private carters delivering commercial waste; and (iii) the results of the

environmental review evaluating whether that capacity can be used without causing potentially unmitigatible adverse environmental impacts. The reports and appendices that provide the analyses and data in support of this Executive Summary are:

"Summary Report on Commercial Waste Processing at Converted MTSs" and its **Appendix**:

Appendix A: MTS Environmental Evaluation

Technical Backup for the MTS Environmental Evaluation is available on request by contacting the office of the DSNY Assistant Commissioner, Harry Szarpanski, P.E., (917) 237-5501.

EXECUTIVE SUMMARY

Scope of Analysis/Approach

LL74 requires the Study to consider whether the City's MTS system could accommodate commercial waste as well. When LL74 was adopted, the concept of developing an MTS Conversion Program for containerizing waste for long-term export was not established as a policy objective of the City. Given this policy objective, addressing the issue of processing commercial waste at the Converted MTSs first required, as a foundation, an environmental review of the potential impacts associated with processing DSNY-managed Waste at the new facilities. That environmental review, using City Environmental Quality Review (CEQR) methodologies, is reported in Volume III, Appendix A, MTS Environmental Evaluation, to this report. It concludes that the DSNY-managed Waste generated in the wastesheds that historically delivered to the MTS system can be containerized for export without causing potentially unmitigatible significant adverse environmental impacts. The next step was to analyze what impacts would result from the potential delivery of commercial putrescible waste to the Converted MTSs.

It is important to emphasize that this assessment focuses solely on environmental considerations. It should not be interpreted as a general conclusion that export of commercial waste through the Converted MTSs is feasible. Some of the additional factors that bear on the issue of feasibility that are <u>not</u> addressed in this report are:

- The economics of export through the MTSs, which will be determined in part by proposals from private vendors for transport and disposal of containerized waste from the Converted MTSs. The City has just received and begun evaluating these proposals. Thus the economics of commercial waste export through the Converted MTSs is not yet known.
- The types of business arrangements that the City would enter into with carters for exporting commercial waste through the MTSs, which are not yet defined.
- Whether further development of the designs for the Converted MTSs will substantiate the operational assumptions or necessitate that the assumed operational capacity be reduced.

- The comparative cost of exporting through the existing private Transfer Stations, which could be more attractive.
- The potential permit limitations that NYSDEC may place on the operation of the Converted MTSs.
- The location of some MTSs in relation to the sources of commercial waste generation, which may not provide the same efficiencies and consequently be as attractive to private carters as delivering to private Transfer Stations.

The evaluation of processing commercial putrescible waste at the Converted MTSs is an incremental analysis, complying with the CEQR procedures, that builds on the foundation of the Volume III, Appendix A, MTS Environmental Evaluation report. The analysis of the potential on-site-related impacts associated with processing DSNY-managed Waste is based on the design capacities of the Converted MTSs and concluded that there were no unmitigatible significant adverse impacts. Since commercial putrescible waste deliveries would not exceed these facility design capacities, the potential processing of some quantities of the City's commercial putrescible waste would not cause any incremental significantly adverse impacts attributable to on-site operations.

The analysis of off-site impacts associated with processing putrescible commercial waste required an incremental environmental review of the potential for on-site air quality and off-site (mobile) air quality and noise impacts attributable to delivery of such commercial waste.

The starting point in evaluating the potential capacity available for commercial putrescible waste was defining a scenario for DSNY's capacity requirements that reserved the block of time from 8:00 a.m. to 8:00 p.m. for processing DSNY-managed Waste and assumed that deliveries of DSNY-managed Waste during the 8:00 p.m. to 8:00 a.m. period would have priority over deliveries of commercial waste. Table ES-1 summarizes:

- The design capacity in tons per day (tpd) that each Converted MTS is capable of processing under a normal operations scenario;
- The capacity reserved for DSNY-managed Waste; and
- The potential available excess capacity at each of the Converted MTSs.

The column showing DSNY-managed Waste reserved capacity reflects the historical average peak day generation in the respective MTS wastesheds. Under conditions of high peak generation, the MTSs can be operated to process DSNY-managed Waste in excess of the tpd quantities shown in the table.

Table ES-1
DSNY-managed Waste Reserved Capacity Scenario

Converted MTS Facility	Converted MTS Design Capacity[(1)] (tpd)	DSNY-managed Waste Reserved Capacity (tpd)	Excess Capacity, 8:00 a.m. to 8:00 p.m. (tons)	Excess Capacity, 8:00 p.m. to 8:00 a.m. (tons)
West 135th Street	4,290	1,180	1,211	1,853
East 91st Street	4,290	880	1,227	2,183
West 59th Street[(2)]	2,145	880	279	956
South Bronx	4,290	2,190	333	1,732
North Shore	4,290	2,370	622	1,000
Greenpoint	4,290	2,360	575	1,145
Hamilton Avenue	4,290	2,170	630	1,337
Southwest Brooklyn	4,290	1,090	1,418	1,725
Totals	32,175	13,120	6,295	11,931

Notes:
(1) Based on operating MTSs under normal operating conditions. Spare operating lines are not used to process waste.
(2) West 59th Street is a lift and load operation, not an open top-loading slot system.

Given the DSNY-managed Waste Reserved Capacity Scenario, a Commercial Waste Capacity Scenario was defined to determine the potential available capacity that could be used by private carters delivering waste from commercial sources. This scenario identified the potential available capacity on an hourly basis at each Converted MTS, and provided the basis for evaluating the potential on-site air quality, off-site air quality and off-site noise impacts associated with the delivery of commercial waste in nighttime hours. The maximum capacity potentially available for processing commercial waste was evaluated with a spreadsheet model that incorporates both Converted MTS design and operating parameters developed by the DSNY's Consultant design team and arrival profiles for DSNY-managed Waste. It is assumed that, between the hours of 8:00 p.m. and 8:00 a.m., both DSNY-managed Waste and commercial waste could be received and processed at the Converted MTSs. Table ES-2 summarizes the

results of this evaluation. As shown in the "Potential Available Capacity, 8:00 p.m. to 8:00 a.m." column, the total capacity potentially available for processing commercial waste during this period totals 11,931 tons, allocated among the eight MTSs. This does not take into account any environmental constraints that may limit the potential delivery of commercial waste.

Table ES-2
Available Potential Excess Capacity at Converted MTSs
Based on the Capacity Reserved for DSNY-managed Waste

Converted MTS Facility	Average Day Design Capacity [1] (tpd)	Potential Available Capacity, Average Peak Day (tpd)	Average Peak Day			Maximum Number of DSNY Collection Vehicles, 8:00 a.m. to 8:00 p.m. (peak hour)	Potential Range of Maximum Number of Collection Vehicles[3] 8:00 p.m. to 8:00 a.m. (peak hour)
			Potential Available Capacity, 8:00 a.m. to 8:00 p.m. (tons)	Potential Available Capacity, 8:00 p.m. to 8:00 a.m. (tons)	Potential Additional Number of Commercial Vehicles, 8:00 p.m. to 8:00 a.m.[2] (per day)		
West 135th Street	4,290	3,110	1,211	1,853	175	30	20-22
East 91st Street	4,290	3,410	1,227	2,183	199	28	19-21
West 59th Street [4]	2,145	1,265	279	956	91	21	10-12
South Bronx	4,290	2,100	333	1,732	163	64	21-23
North Shore	4,290	1,920	622	1,000	95	39	24-26
Greenpoint	4,290	1,930	575	1,145	109	61	22-24
Hamilton Avenue	4,290	2,120	630	1,337	129	32	23-25
Southwest Brooklyn	4,290	3,200	1,418	1,725	162	27	21-23
Totals	**32,175**	**19,055**	**6,295**	**11,931**	**1,123**		

Notes:
(1) Based on operating the MTSs under normal operating conditions. Spare operating line is not used to process waste.
(2) Assuming commercial collection vehicles deliver an average of 11 tons per truck. (Field data indicates commercial collection vehicles average between 11 and 13 tons per truck.)
(3) DSNY collection vehicles and commercial Waste Hauling Vehicles.
(4) West 59th Street is a lift and load operation - not an open top-loading slot system.

Findings

Processing of Commercial Waste at the Converted MTSs

1. The CEQR analyses in the MTS Environmental Evaluation show there are no potentially significant unmitigatible adverse environmental impacts associated with on-site processing of DSNY-managed Waste. This would also apply to processing of commercial waste at each converted MTS in the quantities shown in Table ES-2. However, further evaluation of potential on-site air quality, off-site noise and off-site air quality impacts from nighttime deliveries of commercial waste was required.

2. The on-site air quality analysis of processing DSNY-managed Waste at some of the Converted MTS sites showed that using the facility average design capacity (including the processing of commercial waste) to estimate pollutants did not cause an exceedance of annual average standards.

3. The off-site air quality analysis of processing DSNY-managed Waste at some of the Converted MTS sites showed that using the conservative assumption that peak hour conditions occur 24 hours per day (a Tier I analysis) resulted in unmitigatible environmental impacts for PM_{10} and $PM_{2.5}$. (See Section 10 of the individual chapters in the MTS Environmental Evaluation for these analyses.) Therefore, a Tier II air quality analysis was also performed for deliveries of commercial waste at intersections near each of the Converted MTS sites. The analysis used data on actual hourly traffic volumes on routes to and from the site and included the higher number of commercial collection vehicles assumed to deliver to each Converted MTS during the 8:00 p.m. to 8:00 a.m. period. No significant adverse unmitigatible environmental off-site air quality impacts were identified.

4. Evaluating the potential for off-site noise impacts required the use of a second-level noise screening analysis. (See Section 3.14.5.2 of Volume III, Appendix A for a detailed explanation.) The results of this analysis indicate that the number of potential commercial Waste Hauling Vehicles that could be routed to the MTSs during various hours within the 8:00 p.m. to 8:00 a.m. period must be limited to less than the available

excess capacity to avoid causing potential impacts at sensitive receptors on the analyzed routes these vehicles might take to the MTSs. The amount of available capacity that can potentially be used to process commercial waste during the hours of 8:00 a.m. to 8:00 p.m. without causing any significant adverse noise impacts is summarized in Table ES-3.

Table ES-3
Converted MTS
Potential Commercial Waste Capacities Summary Table

Location	Converted MTS Design Capacity		DSNY-managed Waste Delivered 8:00 p.m. to 8:00 a.m. (tons)	Potential Converted MTS Capacity with Off-Site Noise Constraints	
	Total Potential Commercial Vehicles (per day)	Potential Commercial Waste Tonnage 8:00 p.m. to 8:00 a.m. (tons)		Total Potential Commercial Vehicles (per day)	Potential Commercial Waste Tonnage 8:00 p.m. to 8:00 a.m. (tons)
West 135th Street	175	1,853	301	95	1,029
East 91st Street(1)	199	2,183	17	71	781
West 59th Street(2)	91	956	114	91	956
South Bronx(1)	163	1,732	433	150	1,611
North Shore(3)	95	1,000	901	95	1,000
Greenpoint(1)	109	1,145	793	109	1,145
Hamilton Avenue(1)	129	1,337	710	124	1,306
Southwest Brooklyn(4)	162	1,725	418	76	828
Total	**1,123**	**11,931**	**3,687**	**811**	**8,656**

Notes:

(1) Need to use different routes for potential commercial Waste Hauling Vehicles to deliver the full amount of excess capacity for commercial waste.

(2) Can take all potential commercial Waste Hauling Vehicles without any noise constraints.

(3) There is a route to the North Shore Converted MTS that does not pass sensitive receptors that must be used from 12:00 a.m. to 6:00 a.m. to deliver the full amount available for commercial capacity. The route should not be used at other times upon request from the City Department of Transportation (NYCDOT) due to congestion that occurs at certain intersections along the route during daytime traffic hours.

(4) Outbound trucks passing 26th Street between Cropsey Avenue and Shore Road limit the number of inbound commercial Waste Hauling Vehicles that can be accommodated at the Southwest Brooklyn Converted MTS.

Since these results are based on a second-level screening for noise impacts, a detailed off-site noise analysis, utilizing the Federal Highway Administration (FHWA) Traffic Noise Model (TNM) Version 2.1, is being performed to determine if noise impacts would actually occur at these sensitive receptor locations and/or if additional potential commercial Waste Hauling Vehicles could be routed to the MTS during the 8:00 p.m. to 8:00 a.m. hour, without causing unmitigatible significant adverse off-site noise impacts, to fully utilize the potentially available capacity of the MTSs. The results of the off-site detailed noise analyses will be available at a later date.

5. This evaluation of potential processing commercial waste at the Converted MTSs was limited to an environmental review that focused on traffic, on-site and off-site air quality and noise, and on-site odor impacts.

Processing of DSNY-Managed Waste at the Converted MTSs

This section summarizes key findings from Volume III, Appendix A, MTS Environmental Evaluation, an environmental review of operations for the Converted MTSs in processing DSNY-managed Waste.

1. Table ES-4 summarizes the facility design capacity assumptions and the assumed tons of DSNY-managed Waste processed during average peak days that were the basis of the MTS Environmental Evaluation. The assumed tons of DSNY-managed Waste in this table vary from the tons shown in the DSNY-managed Waste Reserved Capacity Scenario Table ES-1. This reflects a contingency added to DSNY average peak day deliveries to provide a margin of conservatism in the analysis.

2. Based on the design capacity and operating assumption, described in more detail in Volume III, the MTS Environmental Evaluation found there were no unmitigatible significant adverse environmental impacts associated with processing the average peak day deliveries of DSNY-managed Waste. The environmental evaluation demonstrates the Converted MTSs will enable export of DSNY-managed Waste in an efficient and environmentally sound manner. This summary conclusion is supported by the environmental evaluation that addressed: Land Use, Zoning and Public Policy;

Table ES-4
MTS Environmental Analysis Information

Converted MTS Facility	Total Number of Loading Slots	DSNY-managed Waste Average Peak Day Deliveries, (tons)[1]	Number of DSNY-Managed Vehicles, Average Peak Day	Average Day Design Capacity[2] (tpd)	Peak-Hour Number of DSNY Collection Vehicles
West 135th Street	4	1,416	222	4,290	30
East 91st Street	4	1,093	130	4,290	28
West 59th Street[3]	3	1,068	124	2,145	21
South Bronx	4	2,804	363	4,290	64
North Shore	4	2,672	329	4,290	39
Greenpoint	4	3,387	423	4,290	61
Hamilton Avenue	4	2,248	267	4,290	32
Southwest Brooklyn	4	1,388	166	4,290	27
Totals		**16,076**	**2,024**	**32,175**	

Notes:

(1) All MTSs based on scale data from Fiscal Year 1998 received from the DSNY Bureau of Cleaning and Collection with a 20% contingency allowance, except for the South Bronx MTS. South Bronx MTS data is based on Fiscal Year 1997 with a 20% contingency allowance.

(2) Based on operating the MTS under normal operating conditions. Spare operating line is not used to process waste.

(3) West 59th Street is a lift and load operation - not an open top-loading slot system.

Socioeconomic Conditions; Neighborhood Character; Community Facilities and Services; Open Space and Parklands; Cultural Resources; Traffic and Transportation; Air Quality; Noise; Infrastructure and Energy and Solid Waste; Natural Resources (including Endangered Species and Habitats); Water Quality; Waterfront Revitalization Program; Hazardous Materials; and Urban Design and Visual Quality. For the eight MTSs, the following measures were identified to mitigate estimated adverse impacts for traffic and on-site noise:

- Traffic signal timing adjustments would mitigate estimated traffic impacts identified at five intersections near the South Bronx Converted MTS; three intersections near the Southwest Brooklyn Converted MTS; three intersections near the Greenpoint Converted MTS; two intersections near the Hamilton Avenue Converted MTS; one intersection near the West 135th Street Converted MTS; two intersections near the East 91st Street Converted MTS; and two intersections near the North Shore Converted MTS. No traffic impacts were estimated at traffic study intersections identified near the West 59th Street Converted MTS.

- Construction of a 20-foot-tall (from the ramp surface) noise barrier located on the southern side of the ramp at the South Bronx Converted MTS would mitigate the potential noise impact on a nearby prison barge. A 20-foot-tall (from the ramp surface) noise barrier located on the southeast property line of the Southwest Brooklyn Converted MTS and a restriction on the number of nighttime arrivals of collection vehicles queuing on trucks and ramps would mitigate the potential noise impact on a nearby residential complex.

- Subsurface site investigations at the Southwest Brooklyn, Greenpoint, and Hamilton Avenue Converted MTS sites are underway. Results will be provided at a later date.

These analyses and findings are detailed in the MTS Environmental Evaluation, the appendix to this volume.

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ATTACHMENTS

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List of Acronyms/Definitions

Acronyms	
CD	community district
CEQR	City Environmental Quality Review
CO	carbon monoxide
DEIS	Draft Environmental Impact Statement
DSNY	New York City Department of Sanitation
FHWA	Federal Highway Administration
LL74	Local Law 74, effective December 19, 2000, enacted by the City Council, requiring a comprehensive assessment of commercial solid waste management in New York City
MTS	marine transfer station
NAAQS	National Ambient Air Quality Standards
NYCDOT	New York City Department of Transportation
NYSDOT	New York State Department of Transportation
PCE	passenger car equivalent
ppm	parts per million
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
STV	screening threshold value
SWMP	Solid Waste Management Plan
TNM	Traffic Noise Model
tpd	tons per day

Acronyms	
$\mu g/m^3$	micrograms per cubic meter

Definitions	
City	New York City
Commercial Waste Capacity Scenario	Scenario which identifies the available capacity on an hourly basis at each Converted MTS, and provides the basis on which potential air quality and noise impacts associated with the delivery of commercial waste in nighttime hours can be evaluated
Converted MTS	One of DSNY's eight marine transfer stations, modified to containerize waste for out-of-City export by barge or rail
DSNY-managed Waste	Solid waste that DSNY collects from all residential households in the City and the institutional waste of City, state and federal agencies that DSNY collects and/or for which DSNY arranges disposal
DSNY-managed Waste Reserved Capacity Scenario	Scenario which determines the Converted MTS capacity that would be required for DSNY-managed Waste to provide for an adequate margin to meet its peak demand requirements under all conditions except declared waste disposal emergencies
Final Study Scope or Final Scope of Work	Commercial Waste Management Study Final Scope of Work issued on July 31, 2003
MTS Conversion Program	The City's initiative to develop, at the sites of the existing marine transfer stations (MTSs), new converted MTSs that will containerize solid waste for long-term export by barge with the potential for additional intermodal transfers to enable delivery of containerized waste to disposal facilities outside of the City

Definitions	
New SWMP	The new comprehensive Solid Waste Management Plan to be developed in 2004 for both DSNY-managed Waste and commercial waste for the planning period 2004 through 2024
New SWMP Planning Period	The 20-year period from 2004 to 2024 addressed by the City's New Solid Waste Management Plan
Study	Commercial Waste Management Study
Transfer Station(s)	Privately owned and operated transfer station in New York City that accepts, transfers and transports some portion of municipal solid waste or construction and demolition (C&D) debris or fill material generated in the private sector for out-of-City disposal
Waste Hauling Vehicles	Collection vehicles/transfer trailers that are used to transport municipal solid waste, C&D debris or fill material to or from the Transfer Stations

1.0 POTENTIAL PROCESSING OF COMMERCIAL WASTE AT THE CONVERTED MARINE TRANSFER STATIONS AND RELATED POTENTIAL IMPACTS

1.1 Introduction

This report evaluates the capacity that would potentially be available at the Converted Marine Transfer Stations (MTSs) to containerize commercial waste delivered by private carters. When Local Law 74 (LL74) was adopted, the concept of developing an MTS Conversion Program for containerizing waste for long-term export was not established as a policy objective of New York City (City). Given this policy objective, addressing the issue of processing commercial waste at the Converted MTSs first required, as a foundation, an environmental review of the potential impacts associated with processing City Department of Sanitation (DSNY)-managed Waste. That environmental review, using City Environmental Quality Review (CEQR) methodologies, is reported in Volume III, Appendix A, MTS Environmental Evaluation. It addressed: Land Use, Zoning and Public Policy; Socioeconomic Conditions; Neighborhood Character; Community Facilities and Services; Open Space and Parklands; Cultural Resources; Traffic and Transportation; Air Quality; Odor; Noise; Infrastructure and Energy and Solid Waste; Natural Resources (including Endangered Species and Habitats); Water Quality; Waterfront Revitalization Program; Hazardous Materials; and Urban Design and Visual Quality. It demonstrates the Converted MTSs will enable export of DSNY-managed Waste in an efficient and environmentally sound manner and provides the basis on which the incremental environmental effects of containerizing and exporting commercial waste from the Converted MTSs are evaluated.

The Converted MTSs, if included in the new Solid Waste Management Plan (New SWMP), would be developed at up to eight of the existing MTS sites with the tons per day (tpd) design capacities indicated below:

- West 135th Street (Manhattan) – 4,290 tpd
- East 91st Street (Manhattan) – 4,290 tpd
- West 59th Street (Manhattan) – 2,145 tpd

- South Bronx (Hunts Point) – 4,290 tpd
- North Shore (Queens) – 4,290 tpd
- Greenpoint (Brooklyn) – 4,290 tpd
- Hamilton Avenue (Brooklyn) – 4,290 tpd
- Southwest Brooklyn– 4,290 tpd

Based on these design capacities and the operating assumption, described in more detail in Appendix A, MTS Environmental Evaluation, there were no unmitigatible significant adverse environmental impacts associated with processing the average peak day deliveries of DSNY-managed Waste. For the eight MTSs, the following measures were identified to mitigate estimated adverse impacts for traffic and on-site noise:

- Traffic signal timing adjustments would mitigate estimated traffic impacts identified at five intersections near the South Bronx Converted MTS; three intersections near the Southwest Brooklyn Converted MTS; three intersections near the Greenpoint Converted MTS; two intersections near the Hamilton Avenue Converted MTS; one intersection near the West 135th Street Converted MTS; two intersections near the East 91st Street Converted MTS; and two intersections near the North Shore Converted MTS. No traffic impacts were estimated at traffic study intersections identified near the West 59th Street Converted MTS.
- Construction of a 20-foot-tall (from the ramp surface) noise barrier located on the southern side of the ramp at the South Bronx Converted MTS would mitigate the potential noise impact on a nearby prison barge. A 20-foot-tall (from the ramp surface) noise barrier located on the southeast property line of the Southwest Brooklyn Converted MTS and a restriction on the number of nighttime arrivals of collection vehicles queuing on trucks and ramps would mitigate the potential noise impact on a nearby residential complex.
- Subsurface site investigations at the Southwest Brooklyn, Greenpoint, and Hamilton Avenue Converted MTS sites are underway. Results will be provided at a later date.

These analyses and findings are detailed in the MTS Environmental Evaluation, the appendix to this volume.

This report evaluates the use of available Converted MTS capacity, after processing all DSNY-managed Waste on a priority basis, to potentially containerize commercial waste without causing potentially significant unmitigatible adverse impacts.

It is important to emphasize that this assessment focuses solely on environmental considerations. It should not be interpreted as a general conclusion that export of commercial waste through the Converted MTSs is feasible. Some of the additional factors that bear on the issue of feasibility that are not addressed in this report are:

- The economics of export through the MTSs, which will be determined in part by proposals from private vendors for transport and disposal of containerized waste from the Converted MTSs. The City has just received and begun evaluating these proposals, thus the economics of commercial waste export through the Converted MTSs are not yet known.
- The types of business arrangements that the City would enter into with carters for exporting commercial waste through the MTSs, which are not yet defined.
- Whether further development of the designs for the Converted MTSs will substantiate the operational assumptions or necessitate that the assumed operational capacity be reduced.
- The comparative cost of exporting through the existing private Transfer Stations, which could be more attractive.
- The potential permit limitations that NYSDEC may place on the operation of the Converted MTSs.
- The location of some MTSs in relation to the sources of commercial waste generation, which may not provide the same efficiencies and consequently be as attractive to private carters as delivering to private Transfer Stations.

1.2 Summary of On-Site Impact Analyses in the MTS Environmental Evaluation

On-site air quality, odor and noise impacts in the MTS Environmental Evaluation were evaluated assuming that the Converted MTSs operated at their design capacities. Appropriate CEQR-based methodologies were applied to evaluate the potential for any significant unmitigatible adverse environmental impacts. As noted in Table 1.2-1, the design capacities are significantly higher than the anticipated quantities of DSNY-managed Waste. The MTS design capacities were based on, among other things, the following considerations:

- Ensuring a facility design with the capacity to containerize DSNY-managed Waste at the peak hourly arrival rates of DSNY collection vehicles;

- Providing redundancy in the system to deal with upset conditions affecting operations at a facility or with weather-related emergencies; and
- Allowing for future growth.

Table 1.2-1
MTS Environmental Analysis Information

Converted MTS Facility	Total Number of Loading Slots	DSNY-managed Waste Average Peak Day Deliveries, (tons)[(1)]	Number of DSNY-managed Vehicles, Average Peak Day	Average Day Design Capacity[(2)] (tpd)	Peak-Hour Number of DSNY Collection Vehicles
West 135th Street	4	1,416	222	4,290	30
East 91st Street	4	1,093	130	4,290	28
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Totals		**16,076**	**2,024**	**32,175**	

Notes:
(1) All MTSs based on scale data from Fiscal Year 1998 received from the DSNY Bureau of Cleaning and Collection with a 20% contingency allowance, except for the South Bronx MTS. South Bronx MTS data is based on Fiscal Year 1997 with a 20% contingency allowance.
(2) Based on operating the MTS under normal operating conditions. Spare operating line is not used to process waste.
(3) West 59th Street is a lift and load operation - not an open top-loading slot system.

Although these peak hourly arrival rates are not sustained over a 24-hour period, the MTS Environmental Evaluation of on-site impacts conservatively modeled these peak hour conditions to predict the potential for on-site noise and odor impacts, and air quality impacts for short-term (1-hour, 3-hour, 8-hour and 24-hour) averaging periods. Because the analyses of short-term averaging periods were based on facility operations at the design capacity, no additional evaluation of on-site noise and odor impacts related to the processing of commercial waste was required.

An evaluation of potential on-site air quality impacts for pollutants compared to annual average standards was modeled assuming commercial waste was processed at the Converted MTSs. Based on these analyses, the potential processing of some quantities of the City's commercial putrescible waste would not cause any incremental significantly adverse impacts attributable to on-site operations (see Attachment 4).

Table 1.2-1 also presents the average peak day[1] assumptions for delivery of DSNY-managed Waste used in the environmental analyses performed at each Converted MTS. For the on-site analysis, a 20% contingency factor (i.e., expected peak volumes were increased by 20%) was applied to the average peak day number of DSNY collection vehicles.

[1] The average peak day is the average of historic DSNY-managed Waste delivered to the existing MTSs on the peak day each week for 52 weeks (i.e., the average of 52 Tuesdays).

2.0 DSNY CAPACITY REQUIREMENTS AND POTENTIALLY AVAILABLE COMMERCIAL WASTE CAPACITY

2.1 DSNY-managed Waste Reserved Capacity Scenario

In evaluating the potential quantity of commercial waste that could be processed at the Converted MTSs, DSNY first determined the facility capacity that would be required for DSNY-managed Waste to provide for an adequate margin to meet its peak demand requirements under all conditions except declared waste disposal emergencies. This is referred to as the DSNY-managed Waste Reserved Capacity Scenario. This scenario differs in certain respects from the assumptions made in the MTS Environmental Evaluation. It is based on historical waste delivery patterns for the average peak days, not including a 20% contingency factor, and reserves all capacity between 8:00 a.m. and 8:00 p.m. for DSNY-managed Waste deliveries. Under conditions of high peak generation, the waste processing throughput of the Converted MTSs can be increased over a short period of time with the addition of personnel and extended shift operating time.

DSNY has defined the allocation of the total number of loads and tons of DSNY-managed Waste that would be delivered to each Converted MTS based on each MTS's historical wasteshed. They used a historical annual average of peak day deliveries to the existing MTSs as a basis for reserving sufficient capacity for processing DSNY-managed Waste at each Converted MTS. An hourly distribution of the loads and tons delivered to each MTS was developed based on historical delivery data to the existing MTSs provided by DSNY. For each Converted MTS, a model was set up using this delivery data to simulate the operation of each MTS for processing its allotted DSNY-managed Waste on an hourly basis under normal operating conditions. The following assumptions were made about the normal operations of the Converted MTSs:

- The Converted MTS would process ten containers per hour with three loading slots in operation, except for the West 59th Street MTS;
- The West 59th Street MTS would process five containers per hour using a lift-and-load-type operation and two of the three loading slots;
- 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; and
- Employees would effectively work six and one-half hours out of an eight-hour shift due to shift changes and break time during the shift.

Based on these assumptions, the Converted MTSs, except for the West 59th Street facility, would containerize a maximum of 220 tons of waste per hour and 4,290 tons of waste per day under normal operating conditions. The West 59th Street Converted MTS would containerize a maximum of 110 tons of waste per hour and 2,145 tons of waste per day.

Waste delivery profiles were established for each Converted MTS and tons and loads were allotted to each Converted MTS on an hourly basis. Facility performance was modeled on an hour-to-hour basis for 24 hours beginning with the first (8:00 a.m. to 4:00 p.m.) of three shifts. The model calculated the difference between the incoming tonnage and the maximum available processing capacity during the same hour. If the incoming tonnage exceeded the processing capacity of the Converted MTS for that hour, the excess tonnage is stockpiled. Stockpiled waste is processed during a subsequent hour, when additional capacity became available. If the total incoming waste plus any waste in the stockpile is less than the processing capacity of the Converted MTS, the model computed the capacity available during that hour to process additional waste.

In addition to calculating the available waste capacity at the Converted MTSs, the model calculated the cumulative tons received, cumulative tons containerized and cumulative number of DSNY collection vehicles that delivered waste to the MTS on an hourly basis. The capacity model also calculated the fluctuation in the stockpile and tonnage in the stockpile by hour and the approximate hour in which barge switches would occur. Table 2.1-1 presents a summary of the reserved capacity for DSNY-managed Waste and available excess capacity at each of the Converted MTSs. The column showing DSNY-managed Waste reserved capacity reflects the historical average peak day generation in the respective MTS wastesheds.

Table 2.1-1
DSNY-managed Waste Reserved Capacity Scenario

Converted MTS Facility	Converted MTS Design Capacity[(1)] (tpd)	DSNY-managed Waste Reserved Capacity (tpd)	Excess Capacity, 8:00 a.m. to 8:00 p.m. (tons)	Excess Capacity, 8:00 p.m. to 8:00 a.m. (tons)
West 135th Street	4,290	1,180	1,211	1,853
East 91st Street	4,290	880	1,227	2,183
West 59th Street[(2)]	2,145	880	279	956
South Bronx	4,290	2,190	333	1,732
North Shore	4,290	2,370	622	1,000
Greenpoint	4,290	2,360	575	1,145
Hamilton Avenue	4,290	2,170	630	1,337
Southwest Brooklyn	4,290	1,090	1,418	1,725
Totals	**32,175**	**13,120**	**6,295**	**11,931**

Notes:
(1) Based on operating MTSs under normal operating conditions. Spare operating lines are not used to process waste.
(2) West 59th Street is a lift and load operation, not an open top-loading slot system.
tpd = tons per day

2.2 Commercial Waste Capacity Scenario

Given the DSNY-managed Waste Reserved Capacity Scenario, a Commercial Waste Capacity Scenario was defined to determine the potential available capacity that could be used by private carters delivering waste from commercial sources. This scenario identified the potential available capacity on an hourly basis at each Converted MTS, and provided the basis for evaluating the potential off-site air quality and off-site noise impacts associated with the delivery of commercial waste in nighttime hours. The Commercial Waste Capacity Scenario involved the following steps:

- Quantifying the tons of waste and number of DSNY-managed Waste collection vehicles delivering waste to each Converted MTS on an hourly basis;
- Identifying hours in which additional waste could be delivered to the Converted MTSs;
- Calculating the additional tons of waste that could be delivered to each Converted MTS on an hourly basis;

- Estimating the additional number of collection vehicles it would take to deliver the additional waste;
- Identifying the potential commercial waste vehicle routes by approach direction (north, south, east, or west);
- Identifying the potential commercial wastesheds for each MTS;
- Estimating the number of commercial vehicles along each route based on the location of the waste source; and
- Determining if additional environmental analyses are required at each Converted MTS based on the additional number of collection vehicles that would deliver commercial waste and their assumed routes.

The following assumptions were made about commercial waste deliveries to the Converted MTSs:

- Commercial waste deliveries would occur only during the 8:00 p.m. to 8:00 a.m. period;
- Commercial collection vehicles would deliver an average of 11 tons per vehicle; and
- Commercial waste deliveries would not exceed the hourly waste processing capacity of each Converted MTS, thus commercial waste would not be stockpiled at the Converted MTSs.

It was assumed that all DSNY-managed Waste would be processed before any commercial waste was accepted at the MTS. Thus, the stockpile was reduced to zero tons, and all incoming DSNY-managed Waste containerized during an hour before excess capacity was allotted for commercial waste. Based on the available commercial waste tonnage, the model calculated the additional number of commercial collection vehicles required to deliver the commercial waste totaling the excess capacity. Additionally, the model calculated the total number of DSNY-managed Waste and potential commercial waste collection vehicles that could deliver waste in each hour.

Excess capacity was calculated for every hour of the day. Excess capacity on the first shift and first half of the second shift (8:00 a.m. to 8:00 p.m.) was considered additional contingency for DSNY-managed Waste. Because the hourly distribution is subject to fluctuation and cannot exactly replicate the delivery patterns of DSNY-managed Waste to the Converted MTSs, the total available capacity was summarized as a total tonnage between the hours of 8:00 a.m. to

8:00 p.m. Table 2.2-1 shows the capacity potentially available to commercial carters, based on the capacity assumptions for processing DSNY-managed Waste. The hourly results of the modeling, provided in tables in Attachment 1 to this report, show the hour-by-hour capacity analysis for each Converted MTS.

Table 2.2-1 also presents information on the potential additional number of commercial waste collection vehicles. It assumes that delivery of commercial waste by private carters uses all the remaining available capacity during the 8:00 p.m. to 8:00 a.m. period not required for processing of DSNY-managed Waste, not taking into account any environmental constraints that might limit deliveries of commercial waste. As shown in the "Potential Available Capacity, 8:00 p.m. to 8:00 a.m." column, the total capacity potentially available for processing commercial waste during this period totals 11,931 tons, allocated among the eight MTSs, not taking into account the environmental constraints.

Table 2.2-1
Available Potential Excess Capacity at Converted MTSs
Based on the Capacity Reserved for DSNY-managed Waste

Converted MTS Facility	Average Day Design Capacity [1] (tpd)	Potential Available Capacity, Average Peak Day (tpd)	Average Peak Day			Maximum Number of DSNY Collection Vehicles, 8:00 a.m. to 8:00 p.m. (peak hour)	Potential Range of Maximum Number of Collection Vehicles[3] 8:00 p.m. to 8:00 a.m. (peak hour)
			Potential Available Capacity, 8:00 a.m. to 8:00 p.m. (tons)	Potential Available Capacity, 8:00 p.m. to 8:00 a.m. (tons)	Potential Additional Number of Commercial Vehicles, 8:00 p.m. to 8:00 a.m.[2] (per day)		
West 135th Street	4,290	3,110	1,211	1,853	175	30	20-22
East 91st Street	4,290	3,410	1,227	2,183	199	28	19-21
West 59th Street [4]	2,145	1,265	279	956	91	21	10-12
South Bronx	4,290	2,100	333	1,732	163	64	21-23
North Shore	4,290	1,920	622	1,000	95	39	24-26
Greenpoint	4,290	1,930	575	1,145	109	61	22-24
Hamilton Avenue	4,290	2,120	630	1,337	129	32	23-25
Southwest Brooklyn	4,290	3,200	1,418	1,725	162	27	21-23
Totals	**32,175**	**19,055**	**6,295**	**11,931**	**1,123**		

Notes:
(1) Based on operating the MTSs under normal operating conditions. Spare operating line is not used to process waste.
(2) Assuming commercial collection vehicles deliver an average of 11 tons per truck. (Field data indicates commercial collection vehicles average between 11 and 13 tons per truck.)
(3) DSNY collection vehicles and commercial Waste Hauling Vehicles.
(4) West 59th Street is a lift and load operation - not an open top-loading slot system.

3.0 SUMMARY OF OFF-SITE IMPACT ANALYSES

A definitive determination of the quantity of potential commercial waste that can be processed at the Converted MTSs requires an assessment of whether commercial waste deliveries would cause any traffic, off-site air quality or off-site noise impacts. The MTS Environmental Evaluation evaluated the potential for traffic, off-site air quality and off-site noise impacts based on waste delivery profiles for DSNY-managed Waste with a 20% contingency to allow for potential variations in waste deliveries. This section identifies where those analyses were also sufficient for purposes of assessing the impacts associated with the delivery of commercial waste, and where additional analyses were required to determine whether commercial waste deliveries would potentially cause unmitigatible significant adverse environmental impacts.

To perform refined traffic, off-site air quality and noise analyses, it was necessary to identify likely locations where commercial waste might originate and be delivered to each Converted MTS and to develop potential routes for commercial waste vehicles to each Converted MTS. General commercial Waste Hauling Vehicle routes were developed by approach direction (north, south, east, or west). In some cases, more than one route per direction was identified as providing access to a Converted MTS. Waste Hauling Vehicle routes were identified to and from major highways and roadways in the vicinity of each Converted MTS, along local truck routes in the vicinity of each Converted MTS, and following the most direct route along local roads to a Converted MTS from the nearest truck route. As in the MTS Environmental Evaluation, it was assumed that commercial Waste Hauling Vehicles originating in different locations and delivering to the same Converted MTS will converge along routes in close proximity to the Converted MTS where access roads become limited.

To establish the approximate numbers of commercial Waste Hauling Vehicles along routes to each Converted MTS, an assessment was performed of commercial waste-generating establishments by zip code. The information developed in Volume II on commercial waste generation was used to develop commercial waste tonnages for an average peak day by zip code. Zip code boundaries for the City were plotted on a map, and commercial waste from establishments within those zip codes was assigned to each Converted MTS based on the community district (CD) assignment used in the Converted MTS Environmental Evaluation.

Those zip codes that fell within multiple CDs assigned to multiple Converted MTSs were assigned to the Converted MTS in which a greater proportion of the zip code boundary was contained. Once zip codes were assigned to a Converted MTS, the corresponding tonnage associated with that zip code was also assigned to the same Converted MTS. It was assumed that excess commercial tonnage that could not be processed at a Converted MTS would be processed at a private facility.

To analyze the full commercial capacity at each Converted MTS, additional zip codes were added to the wasteshed of a Converted MTS, until enough commercial waste would be delivered to the Converted MTS to fill the excess capacity. The additional zip codes were assigned based on geographic proximity to a Converted MTS and the commercial waste generated within a zip code. It was assumed that zip codes that generate greater volumes of commercial waste would be more likely to make up the difference between the excess capacity and allotted commercial tonnage.

Once sufficient commercial tonnage had been allotted to each Converted MTS, the trucks delivering tonnage from each zip code assigned to the Converted MTS were assigned along an approach to the Converted MTS. After all zip codes and their corresponding tonnages had been assigned, percentages by approach direction were calculated for each Converted MTS. These percentages were used to distribute the commercial waste vehicles along the assumed truck routes for the time period between 8:00 p.m. and 8:00 a.m. Commercial waste vehicles were assigned hourly in this manner as no hourly breakdown of commercial waste deliveries was available. The distribution of commercial waste vehicles by direction was then used for traffic, off-site air and off-site noise analyses.

3.1 Traffic

In the MTS Environmental Evaluation, traffic impacts were analyzed during background peak and facility-generated peak traffic hours using the appropriate CEQR-based methodologies. In evaluating the effect of additional commercial waste deliveries on traffic conditions, the analysis assumed that all remaining available capacity (i.e., the capacity not required to process DSNY-managed Waste) during the 8:00 p.m. to 8:00 a.m. period was used to process commercial waste.

The results of the analysis show that peak hour assumptions for processing of DSNY-managed Waste had higher background traffic volumes, lower (poorer) levels of service and a higher number of collection vehicles than would apply to commercial waste deliveries during the 8:00 p.m. to 8:00 a.m. period. (See Section 9 of the individual MTS chapters in the MTS Environmental Evaluation for these analyses.) Peak hour truck arrival rates during the 8:00 p.m. to 8:00 a.m. period (commercial waste plus DSNY collection vehicles) are lower than the peak hour number of DSNY collection vehicles analyzed during the peak hours at all eight Converted MTSs.

Table 2.2-1 illustrates the number of peak hour DSNY collection vehicles evaluated for the MTS Environmental Evaluation and the potential range of peak hour vehicles during commercial waste delivery hours. The peak hour number of vehicles during commercial delivery hours represents both DSNY collection vehicles and commercial Waste Hauling Vehicles. Since the traffic analysis in the MTS Environmental Evaluation found no significant adverse unmitigatible traffic impacts, there would also be no significant adverse unmitigatible environmental traffic impacts related to processing commercial waste during a peak period between 8:00 p.m. and 8:00 a.m., when there are lower background traffic volumes, higher (better) levels of service and a lower number of collection vehicles.

As noted in Section 1.1, for the eight MTSs, traffic signal timing adjustments would mitigate estimated traffic impacts identified at certain intersections related to delivery of DSNY-managed Waste.

3.2 Air Quality

The off-site air quality analyses during the peak hours for processing DSNY-managed Waste at each Converted MTS were based upon higher background traffic volumes, lower (poorer) levels of service and a higher number of collection vehicles than would be the case for deliveries of commercial waste during the 8:00 p.m. to 8:00 a.m. period. (See Section 10 of the individual chapters in the MTS Environmental Evaluation for these analyses.)

The peak hour conditions over 24 hours per day were conservatively assumed to occur under a Tier I[2] air quality analysis. Under these assumptions, there were no significant adverse unmitigatible environmental impacts. Therefore, there would also be no significant adverse unmitigatible air quality impacts related to processing commercial waste during an 8:00 p.m. to 8:00 a.m. peak period, when there are lower background traffic volumes, higher (better) levels of service and a lower number of collection vehicles.

The off-site air quality analysis of processing DSNY-managed Waste at some of the Converted MTS sites showed that using the conservative assumption that peak hour conditions occur 24 hours per day under a Tier I analysis resulted in unmitigatible environmental impacts for particulate matter less than 10 microns in diameter (PM_{10}) and less than 2.5 microns in diameter ($PM_{2.5}$). (See Section 10 of the individual chapters in the MTS Environmental Evaluation for these analyses.) Therefore, a Tier II air quality analysis was performed at intersections near these Converted MTS sites that utilized actual hourly traffic volumes, including the higher number of collection vehicles used for deliveries of commercial waste to each Converted MTS during the 8:00 p.m. to 8:00 a.m. period, and there were no significant adverse unmitigatible environmental impacts. Tables in Attachment 4 provide more detailed information on the results of the off-site air quality analyses.

3.3 Noise

In the MTS Environmental Evaluation, off-site noise impacts were screened over a 24-hour period at intersections where sensitive receptors exist near convergence points along truck routes to and from the Converted MTSs. If required, based on screening, noise analyses were conducted for the worst hour (the hour when the greatest difference in noise levels was expected) during daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) hours. (See Section 3.14 in the MTS Environmental Evaluation for a detailed description of the off-site screening and analyses.)

[2] The Tier I air quality analysis conservatively assumed that the peak hour traffic conditions occur 24 hours per day.

The screening analyses identified the potential for DSNY-managed Waste collection vehicles to double passenger car equivalents (PCEs) at two locations for the 91st Street Converted MTS, two locations for the North Shore Converted MTS, one location for the Hamilton Avenue Converted MTS and one location for the Southwest Brooklyn Converted MTS, at various hours during the nighttime. Off-site noise analyses were conducted during the worst daytime and nighttime hours identified through the screening process at these six locations with the potential to double PCEs. The off-site noise analyses results indicate an impact at one access road to the 91st Street Converted MTS, two locations on one access road to the North Shore Converted MTS and one access road to the Hamilton Avenue Converted MTS. Adjustments in the distribution of trucks and truck routes were made at these four locations. The screening, and, if required, the off-site noise analyses, were performed based on the adjusted lower levels of DSNY-managed Waste collection vehicles at these four locations. The results show that processing DSNY-managed Waste at any of the Converted MTSs would not cause any unmitigatible significant adverse off-site noise impacts. Results of the screening analyses and off-site noise analyses are provided in Sections 4.12 through 11.12 of the MTS Environmental Evaluation.

The off-site noise analysis of DSNY-managed Waste deliveries is not sufficient for purposes of assessing any impacts that would be associated with delivery of commercial waste. To determine if an adverse impact would be caused by the delivery of commercial waste, a screening level analysis was performed for each hour where additional truck volumes are estimated to determine if an off-site noise analysis would be required of commercial Waste Hauling Vehicle quantities and routes to and from the Converted MTSs.

3.3.1 Noise Impact Analysis of Commercial Waste Deliveries

A sequence of analyses were performed to determine if an adverse noise impact would be caused by the delivery of commercial waste to the MTSs, utilizing the noise methodology for the off-site screening, monitoring and detailed analysis provided in Section 3.14 of the MTS Environmental Evaluation. Results of the second-level noise screening analyses limit the number of commercial Waste Hauling Vehicles that could be routed to the MTSs during various hours within the 8:00 p.m. to 8:00 a.m. period without causing potentially significant adverse impacts at sensitive

receptors. Although a Converted MTS may have available capacity to process commercial waste during the hours of 8:00 a.m. to 8:00 p.m., the potential for off-site noise impacts, based on second-level screening, limits the use of that available processing capacity.

Noise-sensitive receptors were identified along the proposed commercial collection vehicle routes and existing traffic data were gathered for those locations. A first-level screening analysis (based on total traffic volumes and axle factors from the New York State Department of Transportation [NYSDOT]) and a second-level screening analysis (based on actual vehicle classification counts) were performed. The Future Build PCEs -- including DSNY-managed Waste collection vehicles, employee vehicles and commercial collection vehicles -- were compared to the Future No-Build PCEs for each hour during the 8:00 p.m. to 8:00 a.m. period, to determine if the proposed action would double PCEs and therefore cause a possible impact. Table 3.3.1-1 summarizes the results of that analysis.

Since these results are based on a second-level screening for noise impacts, a detailed off-site noise analysis, utilizing the Federal Highway Administration (FHWA) Traffic Noise Model (TNM) Version 2.1, is being performed to determine if noise impacts would actually occur at these sensitive-receptor locations and/or if additional potential commercial Waste Hauling Vehicles could be routed to the MTS during the 8:00 p.m. to 8:00 a.m. hour, without causing unmitigatible significant adverse off-site noise impacts, to fully utilize the potentially available capacity of the MTSs. The results of this off-site detailed noise analyses will be provided in the Solid Waste Management Plan (SWMP) Draft Environmental Impact Statement (DEIS).

Tables in Attachment 5 provide more detailed information on the results of the second-level screening analysis, identifying the estimated range of commercial collection vehicles that can be routed through each of the roadways without causing an unmitigatible significant adverse off-site noise impact. (See Section 3.14.5.2 of the MTS Environmental Evaluation for a detailed description of the second-level screening analysis.)

Table 3.3.1-1
Converted MTS
Potential Commercial Waste Capacities Summary Table

Location	Converted MTS Design Capacity		DSNY-managed Waste Delivered 8:00 p.m. to 8:00 a.m. (tons)	Potential Converted MTS Capacity with Off-Site Noise Constraints	
	Total Potential Commercial Vehicles (per day)	Potential Commercial Waste Tonnage 8:00 p.m. to 8:00 a.m. (tons)		Total Potential Commercial Vehicles (per day)	Potential Commercial Waste Tonnage 8:00 p.m. to 8:00 a.m. (tons)
West 135th Street	175	1,853	301	95	1,029
East 91st Street(1)	199	2,183	17	71	781
West 59th Street(2)	91	956	114	91	956
South Bronx(1)	163	1,732	433	150	1,611
North Shore(3)	95	1,000	901	95	1,000
Greenpoint(1)	109	1,145	793	109	1,145
Hamilton Avenue(1)	129	1,337	710	124	1,306
Southwest Brooklyn(4)	162	1,725	418	76	828
Total	**1,123**	**11,931**	**3,687**	**811**	**8,656**

Notes:

(1) Need to use different routes for potential commercial Waste Hauling Vehicles to deliver the full amount of potential excess capacity for commercial waste.

(2) Can take all potential commercial Waste Hauling Vehicles without any noise constraints.

(3) There is a route to the North Shore Converted MTS that does not pass sensitive receptors that must be used from 12:00 a.m. to 6:00 a.m. to deliver the full amount available for commercial capacity. The route should not be used at other times upon request from the City Department of Transportation (NYCDOT) due to congestion that occurs at certain intersections along the route during daytime traffic hours.

(4) Outbound trucks passing 26th Street between Cropsey Avenue and Shore Road limit the number of inbound commercial Waste Hauling Vehicles that can be accommodated at the Southwest Brooklyn Converted MTS.

ATTACHMENT 1

FULL CAPACITY ANALYSIS FOR EACH CONVERTED MTS HOURLY RESULTS OF MODELING

West 135th St Historical Average Peak Day Throughput														
Hour	Start Time	End Time	Inbound Tonnage	Number of DCV	Tons Containerized in the Hour	Fluctuation in Stock Pile (tons)	Tons in Stock Pile	Cumulative Tons Received	Cumulative Tons Containerized	Hour of the Beginning of a barge switch	Excess Capacity, 8 am - 8 pm (tons)	Excess Capacity, 8 pm - 8 am (tons)	Excess number of Commercial Vehicles, 11 tons per vehicle	Total Number of Trucks, Including Commercial Vehicles
1	8:00	9:00	162.0	15	110.0	52.0	52.0	162.0	110.0		0.0	0.0	0	15
2	9:00	10:00	185.4	17	220.0	-34.6	17.3	347.3	330.0		0.0	0.0	0	17
3	10:00	11:00	156.0	14	173.4	-17.3	0.0	503.4	503.4		46.6	0.0	0	14
4	11:00	12:00	116.4	11	110.0	6.4	6.4	619.8	613.4		0.0	0.0	0	11
5	12:00	13:00	84.6	8	91.0	-6.4	0.0	704.4	704.4		129.0	0.0	0	8
6	13:00	14:00	38.5	4	38.5	0.0	0.0	742.9	742.9		181.5	0.0	0	4
7	14:00	15:00	17.4	2	17.4	0.0	0.0	760.3	760.3		202.6	0.0	0	2
8	15:00	16:00	4.5	1	4.5	0.0	0.0	764.8	764.8		105.5	0.0	0	1
9	16:00	17:00	11.1	1	11.1	0.0	0.0	775.9	775.9		98.9	0.0	0	1
10	17:00	18:00	34.1	3	34.1	0.0	0.0	810.0	810.0		185.9	0.0	0	3
11	18:00	19:00	29.4	3	29.4	0.0	0.0	839.4	839.4		190.6	0.0	0	3
12	19:00	20:00	39.7	4	39.7	0.0	0.0	879.1	879.1		70.3	0.0	0	4
13	20:00	21:00	26.4	2	26.4	0.0	0.0	905.5	905.5		0.0	193.6	18	20
14	21:00	22:00	46.1	4	46.1	0.0	0.0	951.6	951.6		0.0	173.9	16	20
15	22:00	23:00	7.1	1	7.1	0.0	0.0	958.7	958.7		0.0	212.9	20	21
16	23:00	0:00	9.0	1	9.0	0.0	0.0	967.7	967.7		0.0	101.0	10	11
17	0:00	1:00	30.5	3	30.5	0.0	0.0	998.2	998.2		0.0	79.5	8	11
18	1:00	2:00	50.4	5	50.4	0.0	0.0	1048.6	1048.6		0.0	169.6	16	21
19	2:00	3:00	26.3	2	26.3	0.0	0.0	1074.9	1074.9	Barge Switch	0.0	193.7	18	20
20	3:00	4:00	18.4	2	18.4	0.0	0.0	1093.3	1093.3		0.0	91.6	9	11
21	4:00	5:00	6.6	1	0.0	6.6	6.6	1099.9	1093.3		0.0	213.4	20	21
22	5:00	6:00	6.2	1	0.0	6.2	12.8	1106.1	1093.3		0.0	207.2	19	20
23	6:00	7:00	14.1	1	0.0	14.1	26.9	1120.3	1093.3		0.0	193.1	18	19
24	7:00	8:00	59.7	6	0.0	59.7	86.7	1180.0	1093.3		0.0	23.3	3	9
Totals			1,180.0	112	1093.3						1210.9	1852.7	175	287
										Max	202.6	213.4	20	21
										Min	0.0	23.3	0	1
										Average	100.9	154.4	7	12

East 91st St Historical Average Peak Day Throughput

Hour	Start Time	End Time	Inbound Tonnage	Number of DCV	Tons Containerized in the Hour	Fluctuation in Stock Pile (tons)	Tons in Stock Pile	Cumulative Tons Received	Cumulative Tons Containerized	Hour of the Beginning of a barge switch	Excess Capacity, 8 am - 8 pm (tons)	Excess Capacity, 8 pm - 8 am (tons))	Excess number of Commercial Vehicles, 11 tons per vehicle	Total Number of Trucks, Including Commercial Vehicles
1	8:00	9:00	113.4	10	110.0	3.4	3.4	113.4	110.0		0.0	0.0	0	10
2	9:00	10:00	192.9	17	196.3	-3.4	0.0	306.3	306.3		23.7	0.0	0	17
3	10:00	11:00	262.7	23	220.0	42.7	42.7	569.1	526.3		0.0	0.0	0	23
4	11:00	12:00	202.9	18	110.0	92.9	135.6	772.0	636.3		0.0	0.0	0	18
5	12:00	13:00	69.3	6	205.0	-135.6	0.0	841.3	841.3		15.0	0.0	0	6
6	13:00	14:00	19.7	2	19.7	0.0	0.0	861.0	861.0		200.3	0.0	0	2
7	14:00	15:00	1.6	1	1.6	0.0	0.0	862.6	862.6		218.4	0.0	0	1
8	15:00	16:00	0.0	0	0.0	0.0	0.0	862.6	862.6		110.0	0.0	0	0
9	16:00	17:00	0.0	0	0.0	0.0	0.0	862.6	862.6		110.0	0.0	0	0
10	17:00	18:00	0.0	0	0.0	0.0	0.0	862.6	862.6		220.0	0.0	0	0
11	18:00	19:00	0.0	0	0.0	0.0	0.0	862.6	862.6		220.0	0.0	0	0
12	19:00	20:00	0.0	0	0.0	0.0	0.0	862.6	862.6		110.0	0.0	0	0
13	20:00	21:00	0.0	0	0.0	0.0	0.0	862.6	862.6		0.0	220.0	20	20
14	21:00	22:00	0.0	0	0.0	0.0	0.0	862.6	862.6		0.0	220.0	20	20
15	22:00	23:00	0.0	0	0.0	0.0	0.0	862.6	862.6		0.0	220.0	20	20
16	23:00	0:00	0.0	0	0.0	0.0	0.0	862.6	862.6		0.0	110.0	10	10
17	0:00	1:00	0.0	0	0.0	0.0	0.0	862.6	862.6		0.0	110.0	10	10
18	1:00	2:00	0.0	0	0.0	0.0	0.0	862.6	862.6		0.0	220.0	20	20
19	2:00	3:00	0.0	0	0.0	0.0	0.0	862.6	862.6		0.0	220.0	20	20
20	3:00	4:00	0.0	0	0.0	0.0	0.0	862.6	862.6		0.0	110.0	10	10
21	4:00	5:00	0.0	0	0.0	0.0	0.0	862.6	862.6		0.0	220.0	20	20
22	5:00	6:00	0.0	0	0.0	0.0	0.0	862.6	862.6		0.0	220.0	20	20
23	6:00	7:00	0.0	0	0.0	0.0	0.0	862.6	862.6		0.0	220.0	20	20
24	7:00	8:00	17.4	2	0.0	17.4	17.4	880.0	862.6		0.0	92.6	9	11
Totals			880.0	79	862.6						1227.4	2182.6	199	278
										Max	220.0	220.0	20	23
										Min	0.0	92.6	0	0
										Average	102.3	181.9	8	12

West 59th St Historical Average Peak Day Throughput														
Hour	Start Time	End Time	Inbound Tonnage	Number of DCV	Tons Containerized In the Hour	Fluctuation In Stock Pile (tons)	Tons in Stock Pile	Cumulative Tons Received	Cumulative Tons Containerized	Hour of the Beginning of a barge switch	Excess Capacity, 8 am - 8 pm (tons)	Excess Capacity, 8 pm - 8 am (tons)	Excess number of Commercial Vehicles, 11 tons per vehicle	Total Number of Trucks, Including Commercial Vehicles
1	8:00	9:00	94.8	9	55.0	39.8	39.8	94.8	55.0		0.0	0.0	0	9
2	9:00	10:00	186.6	18	110.0	76.6	116.4	281.4	165.0		0.0	0.0	0	18
3	10:00	11:00	205.9	20	110.0	95.9	212.3	487.3	275.0		0.0	0.0	0	20
4	11:00	12:00	156.4	15	55.0	101.4	313.7	643.7	330.0		0.0	0.0	0	15
5	12:00	13:00	69.4	7	110.0	-40.6	273.1	713.1	440.0		0.0	0.0	0	7
6	13:00	14:00	25.8	2	110.0	-84.2	188.8	738.8	550.0		0.0	0.0	0	2
7	14:00	15:00	17.2	2	110.0	-92.8	96.0	756.0	660.0		0.0	0.0	0	2
8	15:00	16:00	1.0	1	55.0	-54.0	42.1	757.1	715.0		0.0	0.0	0	1
9	16:00	17:00	0.2	1	42.3	-42.1	0.0	757.3	757.3		12.7	0.0	0	1
10	17:00	18:00	2.9	1	2.9	0.0	0.0	760.2	760.2		107.1	0.0	0	1
11	18:00	19:00	2.7	1	2.7	0.0	0.0	762.9	762.9		107.3	0.0	0	1
12	19:00	20:00	3.3	1	3.3	0.0	0.0	766.2	766.2		51.7	0.0	0	1
13	20:00	21:00	2.7	1	2.7	0.0	0.0	769.0	769.0		0.0	107.3	10	11
14	21:00	22:00	1.5	1	1.5	0.0	0.0	770.5	770.5		0.0	108.5	10	11
15	22:00	23:00	0.5	1	0.5	0.0	0.0	771.0	771.0		0.0	109.5	10	11
16	23:00	0:00	0.0	0	0.0	0.0	0.0	771.0	771.0		0.0	55.0	5	5
17	0:00	1:00	20.0	2	20.0	0.0	0.0	791.1	791.1		0.0	35.0	4	6
18	1:00	2:00	22.1	2	22.1	0.0	0.0	813.1	813.1		0.0	87.9	8	10
19	2:00	3:00	23.4	2	23.4	0.0	0.0	836.5	836.5		0.0	86.6	8	10
20	3:00	4:00	19.1	2	19.1	0.0	0.0	855.5	855.5		0.0	35.9	4	6
21	4:00	5:00	7.1	1	0.0	7.1	7.1	862.6	855.5		0.0	102.9	10	11
22	5:00	6:00	2.9	1	0.0	2.9	10.0	865.5	855.5		0.0	100.0	10	11
23	6:00	7:00	3.0	1	0.0	3.0	13.0	868.6	855.5		0.0	97.0	9	10
24	7:00	8:00	11.4	1	0.0	11.4	24.5	880.0	855.5		0.0	30.5	3	4
Totals			880.0	93	855.5						278.8	956.1	91	184
										Max	107.3	109.5	10	20
										Min	0.0	30.5	0	1
										Average	23.2	79.7	4	8

South Bronx Historical Average Peak Day Throughput

Hour	Start Time	End Time	Inbound Tonnage	Number of DCV	Tons Containerized in the Hour	Fluctuation in Stock Pile (Tons)	Tons in Stock Pile	Cumulative Tons Received	Cumulative Tons Containerized	Hour of the Beginning of a barge switch	Excess Capacity, 8 am - 8 pm (tons)	Excess Capacity, 8 pm - 8 am (tons)	Excess number of Commercial Vehicles, 11 tons per vehicle	Total Number of Trucks, Including Commercial Vehicles
1	8:00	9:00	242.4	27	110.0	132.42	132.42	242.4	110.0		0.0	0.0	0	27
2	9:00	10:00	288.2	32	220.0	68.20	200.63	530.6	330.0		0.0	0.0	0	32
3	10:00	11:00	303.6	34	220.0	83.58	284.20	834.2	550.0		0.0	0.0	0	34
4	11:00	12:00	246.2	27	110.0	136.19	420.39	1,080.4	660.0		0.0	0.0	0	27
5	12:00	13:00	205.9	23	220.0	-14.07	406.32	1,286.3	880.0		0.0	0.0	0	23
6	13:00	14:00	133.3	15	220.0	-86.70	319.62	1,419.6	1,100.0	Barge Switch	0.0	0.0	0	15
7	14:00	15:00	49.5	5	220.0	-170.49	149.13	1,469.1	1,320.0		0.0	0.0	0	5
8	15:00	16:00	15.3	2	110.0	-94.70	54.43	1,484.4	1,430.0		0.0	0.0	0	2
9	16:00	17:00	42.3	5	96.7	-54.43	0.00	1,526.7	1,526.7		13.3	0.0	0	5
10	17:00	18:00	67.9	8	67.9	0.00	0.00	1,594.6	1,594.6		152.1	0.0	0	8
11	18:00	19:00	84.6	9	84.6	0.00	0.00	1,679.2	1,679.2		135.4	0.0	0	9
12	19:00	20:00	77.5	9	77.5	0.00	0.00	1,756.7	1,756.7		32.5	0.0	0	9
13	20:00	21:00	60.2	7	60.2	0.00	0.00	1,816.9	1,816.9		0.0	159.8	15	22
14	21:00	22:00	68.7	8	68.7	0.00	0.00	1,885.6	1,885.6		0.0	151.3	14	22
15	22:00	23:00	29.1	3	29.1	0.00	0.00	1,914.7	1,914.7		0.0	190.9	18	21
16	23:00	0:00	0.8	1	0.8	0.00	0.00	1,915.5	1,915.5		0.0	109.2	10	11
17	0:00	1:00	9.8	1	9.8	0.00	0.00	1,925.3	1,925.3		0.0	100.2	10	11
18	1:00	2:00	22.2	2	22.2	0.00	0.00	1,947.4	1,947.4		0.0	197.8	18	20
19	2:00	3:00	31.9	4	31.9	0.00	0.00	1,979.4	1,979.4		0.0	188.1	18	22
20	3:00	4:00	36.0	4	36.0	0.00	0.00	2,015.3	2,015.3		0.0	74.0	7	11
21	4:00	5:00	17.8	2	0.0	17.80	17.80	2,033.1	2,015.3		0.0	202.2	19	21
22	5:00	6:00	22.0	2	0.0	21.99	39.78	2,055.1	2,015.3		0.0	180.2	17	19
23	6:00	7:00	1.9	1	0.0	1.95	41.73	2,057.1	2,015.3		0.0	178.3	17	18
24	7:00	8:00	132.9	15	0.0	132.93	174.66	2,190.0	2,015.3		0.0	0.0	0	15
Totals			2,190.0	246	2,015.3						333.3	1732.1	163	409
										Max	152.1	202.2	19	34
										Min	0.0	0.0	0	2
										Average	27.8	144.3	7	17

North Shore Historical Average Peak Day Throughput

Hour	Start Time	End Time	Inbound Tonnage	Number of DCV	Tons Containerized in the Hour	Fluctuation in Stock Pile (tons)	Tons in Stock Pile	Cumulative Tons Received	Cumulative Tons Containerized	Hour of the Beginning of a barge switch	Excess Capacity, 8 am - 8 pm (tons)	Excess Capacity, 8 pm - 8 am (tons)	Excess number of Commercial Vehicles, 11 tons per vehicle	Total Number of Trucks, Including Commercial Vehicles
1	8:00	9:00	142.4	17	110.0	32.4	32.4	142.4	110.0		0.0	0.0	0	17
2	9:00	10:00	184.2	22	216.6	-32.4	0.0	326.6	326.6		3.4	0.0	0	22
3	10:00	11:00	176.0	21	176.0	0.0	0.0	502.5	502.5		44.0	0.0	0	21
4	11:00	12:00	181.9	22	110.0	71.9	71.9	684.4	612.5		0.0	0.0	0	22
5	12:00	13:00	150.7	18	220.0	-69.3	2.5	835.1	832.5		0.0	0.0	0	18
6	13:00	14:00	104.1	13	106.7	-2.5	0.0	939.2	939.2		113.3	0.0	0	13
7	14:00	15:00	65.8	8	65.8	0.0	0.0	1005.0	1005.0		154.2	0.0	0	8
8	15:00	16:00	16.7	2	16.7	0.0	0.0	1021.7	1021.7		93.3	0.0	0	2
9	16:00	17:00	97.7	12	97.7	0.0	0.0	1119.4	1119.4	Barge Switch	12.3	0.0	0	12
10	17:00	18:00	116.2	14	116.2	0.0	0.0	1235.6	1235.6		103.8	0.0	0	14
11	18:00	19:00	122.7	15	122.7	0.0	0.0	1358.3	1358.3		97.3	0.0	0	15
12	19:00	20:00	110.7	14	110.0	0.7	0.7	1469.0	1468.3		0.0	0.0	0	14
13	20:00	21:00	80.4	10	81.1	-0.7	0.0	1549.3	1549.3		0.0	138.9	13	23
14	21:00	22:00	114.0	14	114.0	0.0	0.0	1663.4	1663.4		0.0	106.0	10	24
15	22:00	23:00	36.9	5	36.9	0.0	0.0	1700.3	1700.3		0.0	183.1	17	22
16	23:00	0:00	34.7	4	34.7	0.0	0.0	1735.0	1735.0		0.0	75.3	7	11
17	0:00	1:00	82.3	10	82.3	0.0	0.0	1817.2	1817.2		0.0	27.7	3	13
18	1:00	2:00	112.1	14	112.1	0.0	0.0	1929.4	1929.4		0.0	107.9	10	24
19	2:00	3:00	113.3	14	113.3	0.0	0.0	2042.6	2042.6		0.0	106.7	10	24
20	3:00	4:00	105.2	13	105.2	0.0	0.0	2147.9	2147.9	Barge Switch	0.0	4.8	1	14
21	4:00	5:00	80.6	10	0.0	80.6	80.6	2228.5	2147.9		0.0	139.4	13	23
22	5:00	6:00	68.7	8	0.0	68.7	149.4	2297.2	2147.9		0.0	70.6	7	15
23	6:00	7:00	31.2	4	0.0	31.2	180.5	2328.4	2147.9		0.0	39.5	4	8
24	7:00	8:00	41.6	5	0.0	41.6	222.1	2370.0	2147.9		0.0	0.0	0	5
Totals			2,370.0	289	2147.9						621.7	999.9	95	384
										Max	154.2	183.1	17	24
										Min	0.0	0.0	0	2
										Average	51.8	83.3	4	16

Greenpoint Historical Average Peak Day Throughput

Hour	Start Time	End Time	Inbound Tonnage	Number of DCV	Tons Containerized in the Hour	Fluctuation in Stock Pile (tons)	Tons in Stock Pile	Cumulative Tons Received	Cumulative Tons Containerized	Hour of the Beginning of a barge switch	Excess Capacity, 8 am - 8 pm (tons)	Excess Capacity, 8 pm - 8 am (tons)	Excess number of Commercial Vehicles, 11 tons per vehicle	Total Number of Trucks, Including Commercial Vehicles
1	8:00	9:00	99.2	10	99.2	0.0	0.0	99.2	99.2		10.8	0.0	0	10
2	9:00	10:00	180.1	18	180.1	0.0	0.0	279.3	279.3		39.9	0.0	0	18
3	10:00	11:00	197.6	20	197.6	0.0	0.0	476.9	476.9		22.4	0.0	0	20
4	11:00	12:00	184.5	19	110.0	74.5	74.5	661.4	586.9		0.0	0.0	0	19
5	12:00	13:00	178.9	18	220.0	-41.1	33.4	840.3	806.9		0.0	0.0	0	18
6	13:00	14:00	106.9	11	140.3	-33.4	0.0	947.2	947.2		79.7	0.0	0	11
7	14:00	15:00	64.9	7	64.9	0.0	0.0	1012.1	1012.1		155.1	0.0	0	7
8	15:00	16:00	28.5	3	28.5	0.0	0.0	1040.6	1040.6		81.5	0.0	0	3
9	16:00	17:00	86.6	9	86.6	0.0	0.0	1127.2	1127.2	Barge Switch	23.4	0.0	0	9
10	17:00	18:00	135.0	14	135.0	0.0	0.0	1262.2	1262.2		85.0	0.0	0	14
11	18:00	19:00	142.6	15	142.6	0.0	0.0	1404.8	1404.8		77.4	0.0	0	15
12	19:00	20:00	161.7	17	110.0	51.7	51.7	1566.5	1514.8		0.0	0.0	0	17
13	20:00	21:00	95.3	10	147.0	-51.7	0.0	1661.8	1661.8		0.0	73.0	7	17
14	21:00	22:00	101.6	10	101.6	0.0	0.0	1763.5	1763.5		0.0	118.4	11	21
15	22:00	23:00	46.8	5	46.8	0.0	0.0	1810.3	1810.3		0.0	173.2	16	21
16	23:00	0:00	5.1	1	5.1	0.0	0.0	1815.4	1815.4		0.0	104.9	10	11
17	0:00	1:00	54.4	6	54.4	0.0	0.0	1869.8	1869.8		0.0	55.6	6	12
18	1:00	2:00	112.7	12	112.7	0.0	0.0	1982.5	1982.5		0.0	107.3	10	22
19	2:00	3:00	131.8	13	131.8	0.0	0.0	2114.3	2114.3	Barge Switch	0.0	88.2	9	22
20	3:00	4:00	111.4	11	110.0	1.4	1.4	2225.7	2224.3		0.0	0.0	0	11
21	4:00	5:00	46.6	5	0.0	46.6	48.0	2272.3	2224.3		0.0	172.0	16	21
22	5:00	6:00	41.9	4	0.0	41.9	89.8	2314.1	2224.3		0.0	130.2	12	16
23	6:00	7:00	7.5	1	0.0	7.5	97.3	2321.6	2224.3		0.0	122.7	12	13
24	7:00	8:00	38.4	4	0.0	38.4	135.7	2360.0	2224.3		0.0	0.0	0	4
Totals			2,360.0	243	2224.3						575.2	1145.4	109	352
										Max	155.1	173.2	16	22
										Min	0.0	0.0	0	3
										Average	47.9	95.4	5	15

Hamilton Avenue Historical Average Peak Day Throughput

Hour	Start Time	End Time	Inbound Tonnage	Number of DCV	Tons Containerized in the Hour	Fluctuation in Stock Pile (tons)	Tons in Stock Pile	Cumulative Tons Received	Cumulative Tons Containerized	Hour of the Beginning of a barge switch	Excess Capacity, 8 am - 8 pm (tons)	Excess Capacity, 8 pm - 8 am (tons)	Excess number of Commercial Vehicles, 11 tons per vehicle	Total Number of Trucks, Including Commercial Vehicles
1	8:00	9:00	134.2	14	110.0	24.2	24.2	134.2	110.0		0.0	0.0	0	14
2	9:00	10:00	204.8	22	220.0	-15.2	9.0	339.0	330.0		0.0	0.0	0	22
3	10:00	11:00	202.7	22	211.7	-9.0	0.0	541.7	541.7		8.3	0.0	0	22
4	11:00	12:00	187.9	20	110.0	77.9	77.9	729.6	651.7		0.0	0.0	0	20
5	12:00	13:00	156.6	17	220.0	-63.4	14.5	886.3	871.7		0.0	0.0	0	17
6	13:00	14:00	94.9	10	109.5	-14.5	0.0	981.2	981.2		110.5	0.0	0	10
7	14:00	15:00	28.6	3	28.6	0.0	0.0	1009.8	1009.8		191.4	0.0	0	3
8	15:00	16:00	78.0	8	78.0	0.0	0.0	1087.8	1087.8	Barge Switch	32.0	0.0	0	8
9	16:00	17:00	118.5	13	110.0	8.5	8.5	1206.3	1197.8		0.0	0.0	0	13
10	17:00	18:00	81.8	9	90.3	-8.5	0.0	1288.1	1288.1		129.7	0.0	0	9
11	18:00	19:00	86.9	9	86.9	0.0	0.0	1375.0	1375.0		133.1	0.0	0	9
12	19:00	20:00	85.0	9	85.0	0.0	0.0	1460.0	1460.0		25.0	0.0	0	9
13	20:00	21:00	46.9	5	46.9	0.0	0.0	1506.9	1506.9		0.0	173.1	16	21
14	21:00	22:00	84.3	9	84.3	0.0	0.0	1591.1	1591.1		0.0	135.7	13	22
15	22:00	23:00	8.3	1	8.3	0.0	0.0	1599.5	1599.5		0.0	211.7	20	21
16	23:00	0:00	29.2	3	29.2	0.0	0.0	1628.6	1628.6		0.0	80.8	8	11
17	0:00	1:00	100.3	11	100.3	0.0	0.0	1728.9	1728.9		0.0	9.7	1	12
18	1:00	2:00	127.8	14	127.8	0.0	0.0	1856.7	1856.7		0.0	92.2	9	23
19	2:00	3:00	129.9	14	129.9	0.0	0.0	1986.6	1986.6		0.0	90.1	9	23
20	3:00	4:00	98.9	11	98.9	0.0	0.0	2085.5	2085.5		0.0	11.1	2	13
21	4:00	5:00	37.7	4	0.0	37.7	37.7	2123.2	2085.5		0.0	182.3	17	21
22	5:00	6:00	17.1	2	0.0	17.1	54.7	2140.2	2085.5		0.0	165.3	16	18
23	6:00	7:00	6.2	1	0.0	6.2	60.9	2146.5	2085.5		0.0	159.1	15	16
24	7:00	8:00	23.5	3	0.0	23.5	84.5	2170.0	2085.5		0.0	25.5	3	6
Totals			2,170.0	234	2085.5						630.0	1336.7	129	363
										Max	191.4	211.7	20	23
										Min	0.0	9.7	0	3
										Average	52.5	111.4	5	15

Southwest Brooklyn Historical Average Peak Day Throughput

Hour	Start Time	End Time	Inbound Tonnage	Number of DCV	Tons Containerized in the Hour	Fluctuation in Stock Pile (tons)	Tons in Stock Pile	Cumulative Tons Received	Cumulative Tons Containerized	Hour of the Beginning of a barge switch	Excess Capacity, 8 am - 8 pm (tons)	Excess Capacity, 8 pm - 8 am (tons)	Excess number of Commercial Vehicles, 11 tons per vehicle	Total Number of Trucks, Including Commercial Vehicles
1	8:00	9:00	97.2	10	97.2	0.0	0.0	97.2	97.2		12.8	0.0	0	10
2	9:00	10:00	165.8	17	165.8	0.0	0.0	263.0	263.0		54.2	0.0	0	17
3	10:00	11:00	121.6	13	121.6	0.0	0.0	384.5	384.5		98.4	0.0	0	13
4	11:00	12:00	82.1	9	82.1	0.0	0.0	466.6	466.6		27.9	0.0	0	9
5	12:00	13:00	32.0	3	32.0	0.0	0.0	498.6	498.6		188.0	0.0	0	3
6	13:00	14:00	9.5	1	9.5	0.0	0.0	508.1	508.1		210.5	0.0	0	1
7	14:00	15:00	8.9	1	8.9	0.0	0.0	517.0	517.0		211.1	0.0	0	1
8	15:00	16:00	11.1	1	11.1	0.0	0.0	528.1	528.1		98.9	0.0	0	1
9	16:00	17:00	36.2	4	36.2	0.0	0.0	564.2	564.2		73.8	0.0	0	4
10	17:00	18:00	36.4	4	36.4	0.0	0.0	600.6	600.6		183.6	0.0	0	4
11	18:00	19:00	37.3	4	37.3	0.0	0.0	637.9	637.9		182.7	0.0	0	4
12	19:00	20:00	33.9	4	33.9	0.0	0.0	671.9	671.9		76.1	0.0	0	4
13	20:00	21:00	32.2	3	32.2	0.0	0.0	704.1	704.1		0.0	187.8	18	21
14	21:00	22:00	29.5	3	29.5	0.0	0.0	733.6	733.6		0.0	190.5	18	21
15	22:00	23:00	2.2	1	2.2	0.0	0.0	735.8	735.8		0.0	217.8	20	21
16	23:00	0:00	0.0	0	0.0	0.0	0.0	735.8	735.8		0.0	110.0	10	10
17	0:00	1:00	101.4	11	101.4	0.0	0.0	837.2	837.2		0.0	8.6	1	12
18	1:00	2:00	92.9	10	92.9	0.0	0.0	930.2	930.2		0.0	127.1	12	22
19	2:00	3:00	69.1	7	69.1	0.0	0.0	999.3	999.3		0.0	150.9	14	21
20	3:00	4:00	32.4	3	32.4	0.0	0.0	1031.7	1031.7		0.0	77.6	8	11
21	4:00	5:00	14.1	1	0.0	14.1	14.1	1045.8	1031.7		0.0	205.9	19	20
22	5:00	6:00	4.9	1	0.0	4.9	19.0	1050.7	1031.7		0.0	201.0	19	20
23	6:00	7:00	4.9	1	0.0	4.9	23.9	1055.6	1031.7		0.0	196.1	18	19
24	7:00	8:00	34.4	4	0.0	34.4	58.3	1090.0	1031.7		0.0	51.7	5	9
Totals			1,090.0	116	1031.7						1418.1	1724.8	162	278
										Max	211.1	217.8	20	22
										Min	12.8	8.6	0	1
										Average	118.2	143.7	7	12

ATTACHMENT 2

ASSUMED COMMERCIAL WASTE VEHICLE TRUCK ROUTES

Assumed Commercial Waste Vehicle Truck Routes to MTSs

West 135th

From the north
Route 1N
To MTS: Broadway to (West 133rd St OR West 132nd St) to Riverside Drive (12th Ave) to West 135th St
From MTS: Reverse
Route 2N
To MTS: Amsterdam Ave to West 125th St to Riverside Drive (12th Ave) to West 135th St
From MTS: Reverse

From the south
Route 1S
To MTS: Broadway to (West 133rd St OR West 132nd St) to Riverside Drive (12th Ave) to West 135th St
From MTS: Reverse
Route 2S
To MTS: Amsterdam Ave to West 125th St to Riverside Drive (12th Ave) to West 135th St
From MTS: Reverse

From the east
Route 1E
To MTS: 3rd Ave to East 125th St (turns into West 125th St) to Riverside Drive (12th Ave) to West 135th St
From MTS: Reverse

Assumed Commercial Waste Vehicle Truck Routes to MTSs

East 91st

From the north
Route 1N
To MTS: 2nd Ave to (East 90th St OR East 88th St OR East 86th St) to York Ave to East 91st St
From MTS: East 91st St to York Ave to (East 91st St OR East 89th St OR East 87th St OR East 86th St) to (1st Ave OR 3rd Ave)

From the south
Route 1S
To MTS: 1st Ave to (East 90th St OR East 88th St) to York Ave to East 91st St
From MTS: East 91st St to York Ave to East 86th St to 2nd Ave
Route 2S
To MTS: 3rd Ave to East 86th St to York Ave to East 91st St
From MTS: East 91st St to York Ave to East 86th St to 2nd Ave

Assumed Commercial Waste Vehicle Truck Routes to MTSs

West 59th

From the north
Route 1N
To MTS: Columbus Ave to West 59th St
From MTS: West 59th St to Amsterdam Ave

From the south
Route 1S
To MTS: 12th Ave (Joe DiMaggio Hwy) to 12th Ave Service Road (starts at 57th St) to West 59th St
From MTS: Reverse
Route 2S
To MTS: 10th Ave to 57th Ave to 12th Ave Service Road to 59th St
From MTS: West 59th St to 11th Ave

From the east
Route 1E
To MTS: (2nd Ave or 3rd Ave) to East 57th St (turns into West 57th St) to 12th Ave Service Road to 59th St.
From MTS: Reverse

Assumed Commercial Waste Vehicle Truck Routes to MTSs

South Bronx

Route 1
To MTS: Bruckner Blvd to Leggett Ave to Randall Ave to Halleck St to Ryawa Ave
From MTS: Reverse
Route 2
To MTS: Bruckner Blvd to Leggett Ave to (Barry St OR Dupont St OR Truxton St) to Oak Point Ave to Hunt's Point Ave to Halleck St to Ryawa Ave
From MTS: Reverse
Route 3
To MTS: Bruckner Blvd to Longwood Ave to Tiffany St to East Bay Ave to Halleck St to Ryawa Ave
From MTS: Reverse
Route 4
To MTS: Bruckner Blvd to Longwood Ave to Tiffany St to Veile Ave to Halleck St to Ryawa Ave
From MTS: Reverse

Assumed Commercial Waste Vehicle Truck Routes to MTSs

North Shore

From the north
Route 1N
To MTS: 20th Ave to College Point Blvd to 31st Ave
From MTS: Reverse

From the south
Route 1S
To MTS: Van Wick Expressway to Whitestone Expressway to Linden Place to Whitestone Expressway Service Road (Westbound) to College Point Blvd to 31st Ave
From MTS: 31st Ave to College Point Blvd to Whitestone Expressway Service Road (Eastbound) to Linden Place to Whitestone Expressway Service Road (Westbound) to Whitestone Expressway to Van Wick Expressway
Route 2S
To MTS: Van Wick Expressway to College Point Blvd to 31st Ave
From MTS: Reverse

From the east
Route 1E
To MTS: Northern Blvd to Linden Place to Whitestone Expressway Service Road (Eastbound) to College Point Blvd to 31st Ave
From MTS: Reverse
Route 2E
To MTS: Long Island Expressway to College Point Blvd to 31st Ave
From MTS: Reverse

From the west
Route 1W
To MTS: Northern Blvd to Linden Place to Whitestone Expressway Service Road (Eastbound) to College Point Blvd to 31st Ave
From MTS: Reverse
Route 2W
To MTS: Long Island Expressway to College Point Blvd to 31st Ave
From MTS: Reverse
Route 3W
To MTS: Roosevelt Ave to College Point Blvd to 31st Ave
From MTS: Reverse

Assumed Commercial Waste Vehicle Truck Routes to MTSs

Greenpoint

From the north
Route 1N
To MTS: McGuiness Blvd to Greenpoint Ave to Kingsland Ave
From MTS: Reverse
Route 2N
To MTS: Queens Blvd to Greenpoint Ave to Starr Ave to Van Dam St to Greenpoint Ave to Kingsland Ave
From MTS: Kingsland Ave to Greenpoint Ave to Queens Blvd
Route 3N
To MTS: Van Dam St to Greenpoint Ave to Kingsland Ave
From MTS: Reverse

From the south
Route 1S
To MTS: McGuiness Blvd to Greenpoint Ave to Kingsland Ave
From MTS: Reverse
Route 2S
To MTS: Brooklyn-Queens Expressway to Meeker St (eastbound) to Varick St to Bridgewater St to Norman Ave to Kingsland Ave
From MTS: Kingsland Ave to Greenpoint Ave to Henry St to Norman Ave to Bridgewater St to Varick St to Meeker Ave to BQE

From the east
Route 1E
To MTS: Brooklyn-Queens Expressway to Meeker St (eastbound) to Varick St to Bridgewater St to Norman Ave to Kingsland Ave
From MTS: Kingsland Ave to Greenpoint Ave to McGuiness Blvd to Meeker St to BQE
Route 2E
To MTS: Long Island Expressway to Van Dam St to Greenpoint Ave to Kingsland Ave
From MTS: From MTS: Kingsland Ave to Greenpoint Ave to LIE

Assumed Commercial Waste Vehicle Truck Routes to MTSs

Hamilton Ave

From the north
Route 1N
To MTS: BQE to Hamilton Ave (southbound) (Exit 26)
From MTS: Hamilton Ave (southbound) to 20th St to 3rd Ave to Hamilton Ave (northbound) to BQE
Route 2N
To MTS: (3rd Ave OR 4thAve) to 9th Street to Hamilton Ave (southbound)
From MTS: Hamilton Ave (southbound) to 20th St to 3rd Ave to Hamilton Ave (northbound) to 9th Street to 3rd Ave
Route 3N
To MTS: (3rd Ave to 9th Street to Hamilton Ave (northbound) to Hamilton Place to Hamilton Ave (southbound)
From MTS: Hamilton Ave (southbound) to 20th St to 3rd Ave (to 9th St to 4th Ave)

From the south
Route 1S
To MTS: Gowanus Expressway to 4th Ave to Prospect to Hamilton Ave (northbound) to Hamilton Place to Hamilton Ave (southbound)
From MTS: Hamilton Ave (southbound, turns into 3rd Ave) to 65th Street
Route 2S
To MTS: 65th St to 3rd Ave to Hamilton Ave (northbound) to Hamilton Place to Hamilton Ave (southbound)
From MTS: Hamilton Ave (southbound, turns into 3rd Ave) to 65th Street

From the east
Route 1E
To MTS: 39th St to 4th Ave to Prospect Ave to Hamilton Ave (northbound) to Hamilton Place to Hamilton Ave (southbound)
From MTS: Hamilton Ave (southbound, turns into 3rd Ave) to 39th St
Route 2E
To MTS: Prospect Expressway to Prospect Ave to Hamilton Ave (northbound) to Hamilton Place to Hamilton Ave (southbound)
From MTS: Hamilton Ave (southbound) to 20th St to 10th Ave to Prospect Expressway

Assumed Commercial Waste Vehicle Truck Routes to MTSs

Southwest Brooklyn

From the north
Route 1N
To MTS: 86th St to 18th Ave to Cropsey Ave to Bay Parkway to Shore Road (southbound) to 25th Ave
From MTS: 25th Av to Shore Road (southbound) to 26th Ave to Cropsey Ave to 18th Ave to 86th St

From the south
Route 1S
To MTS: Neptune Ave to Cropsey Ave to Bay Parkway to Shore Road (southbound) to 25th Ave
From MTS: 25th Av to Shore Road (southbound) to 26th Ave to Cropsey Ave to Neptune Ave

From the east
Route 1E
To MTS: Kings Highway to Bay Parkway to Shore Road (southbound) to 25th Ave
From MTS: 25th Ave to Shore Road (southbound) to 26th Ave to Cropsey Ave to Bay Parkway to Kings Highway
Route 2E
To MTS: 86th St to 25th Ave to Cropsey Ave to Bay Parkway to Shore Road (southbound) to 25th Ave
From MTS: 25th Ave to Shore Road (southbound) to 26th Ave to Cropsey Ave to 25th Ave to 86th St

ATTACHMENT 3

COMMERCIAL WASTE VEHICLE ALLOCATION BY APPROACH DIRECTION

Commercial Waste Vehicle Allocation by Approach Direction

West 135th St

Time	North	South	East	West	Total Commercial Vehicles
8:00 PM	1	16	1	0	18
9:00 PM	1	14	1	0	16
10:00 PM	1	18	1	0	20
11:00 PM	1	9	1	0	10
12:00 AM	1	7	0	0	8
1:00 AM	1	14	1	0	16
2:00 AM	1	16	1	0	18
3:00 AM	1	8	0	0	9
4:00 AM	1	18	1	0	20
5:00 AM	1	17	1	0	19
6:00 AM	1	16	1	0	18
7:00 AM	0	3	0	0	3

East 91st Street

Time	North	South	East	West	Total Commercial Vehicles
8:00 PM	2	18	0	0	20
9:00 PM	2	18	0	0	20
10:00 PM	2	18	0	0	20
11:00 PM	1	9	0	0	10
12:00 AM	1	9	0	0	10
1:00 AM	2	18	0	0	20
2:00 AM	2	18	0	0	20
3:00 AM	1	9	0	0	10
4:00 AM	2	18	0	0	20
5:00 AM	2	18	0	0	20
6:00 AM	2	18	0	0	20
7:00 AM	1	8	0	0	9

West 59th St

Time	North	South	East	West	Total Commercial Vehicles
8:00 PM	0	9	1	0	10
9:00 PM	0	9	1	0	10
10:00 PM	0	9	1	0	10
11:00 PM	0	4	1	0	5
12:00 AM	0	3	0	0	4
1:00 AM	0	7	1	0	8
2:00 AM	0	7	1	0	8
3:00 AM	0	3	0	0	4
4:00 AM	0	9	1	0	10
5:00 AM	0	9	1	0	10
6:00 AM	0	8	1	0	9
7:00 AM	0	3	0	0	3

Commercial Waste Vehicle Allocation by Approach Direction

South Bronx

Time	North	South	East	West	Total Commercial Vehicles
8:00 PM	6	9	0	0	15
9:00 PM	5	9	0	0	14
10:00 PM	7	11	0	0	18
11:00 PM	4	6	0	0	10
12:00 AM	4	6	0	0	10
1:00 AM	7	11	0	0	18
2:00 AM	7	11	0	0	18
3:00 AM	3	4	0	0	7
4:00 AM	7	12	0	0	19
5:00 AM	7	10	0	0	17
6:00 AM	7	10	0	0	17
7:00 AM	0	0	0	0	0

North Shore

Time	North	South	East	West	Total Commercial Vehicles
8:00 PM	1	8	3	1	13
9:00 PM	1	6	2	1	10
10:00 PM	1	10	4	2	17
11:00 PM	0	4	2	1	7
12:00 AM	0	2	1	0	3
1:00 AM	1	6	2	1	10
2:00 AM	1	6	2	1	10
3:00 AM	0	1	0	0	1
4:00 AM	1	8	3	1	13
5:00 AM	0	4	2	1	7
6:00 AM	0	2	1	0	4
7:00 AM	0	0	0	0	0

Greenpoint

Time	North	South	East	West	Total Commercial Vehicles
8:00 PM	3	3	0	0	7
9:00 PM	5	5	1	0	11
10:00 PM	7	7	1	0	16
11:00 PM	5	5	1	0	10
12:00 AM	3	3	0	0	6
1:00 AM	5	5	1	0	10
2:00 AM	4	4	1	0	9
3:00 AM	0	0	0	0	0
4:00 AM	7	7	1	0	16
5:00 AM	6	6	1	0	12
6:00 AM	6	6	1	0	12
7:00 AM	0	0	0	0	0

Commercial Waste Vehicle Allocation by Approach Direction

Hamilton Ave

Time	North	South	East	West	Total Commercial Vehicles
8:00 PM	9	3	4	0	16
9:00 PM	8	2	3	0	13
10:00 PM	12	3	5	0	20
11:00 PM	5	1	2	0	8
12:00 AM	1	0	0	0	1
1:00 AM	5	1	2	0	9
2:00 AM	5	1	2	0	9
3:00 AM	1	0	1	0	2
4:00 AM	10	3	4	0	17
5:00 AM	9	3	4	0	16
6:00 AM	9	2	4	0	15
7:00 AM	2	0	1	0	3

Southwest Brooklyn

Time	North	South	East	West	Total Commercial Vehicles
8:00 PM	15	1	2	0	18
9:00 PM	15	1	2	0	18
10:00 PM	16	1	2	0	20
11:00 PM	8	1	1	0	10
12:00 AM	1	0	0	0	1
1:00 AM	10	1	1	0	12
2:00 AM	11	1	2	0	14
3:00 AM	7	1	1	0	8
4:00 AM	15	1	2	0	19
5:00 AM	15	1	2	0	19
6:00 AM	15	1	2	0	18
7:00 AM	4	0	1	0	5

ATTACHMENT 4

ON- AND OFF-SITE AIR QUALITY ANALYSIS RESULTS
DSNY-MANAGED WASTE PLUS COMMERCIAL WASTE COLLECTION VEHICLES

Table A.4-1
Highest Estimated Concentrations of the Criteria Pollutants from On-site Emissions
DSNY-managed Waste Plus Commercial Waste
West 135th Street Converted MTS

Pollutant	Averaging Time Period	Maximum Impacts from On-site Emission Sources [1]	Background Pollutant Concentrations [2]	Highest Estimated On-site Pollutant Concentrations	NAAQS[3]	STV[4]
Carbon Monoxide (CO), $\mu g/m^3$	1-hour[6]	2,091	3,781	5,872	40,000	NA
	8-hour[6]	1,019	2,635	3,654	10,000	NA
Nitrogen Dioxide (NO_2), $\mu g/m^3$	Annual	5	77	82	100	NA
Particulate Matter (PM_{10}), $\mu g/m^3$	24-hour[7]	26	88	114	150	NA
	Annual	5	34	39	50	NA
Particulate Matter ($PM_{2.5}$), $\mu g/m^3$	24-hour	2	-	-	NA	5
	Annual Neighborhood Average	0.036[5]	-	-	NA	0.1
Sulfur Dioxide (SO_2), $\mu g/m^3$	3-hour[6]	264	265	529	1,300	NA
	24-hour[6]	7	139	146	365	NA
	Annual	1	34	35	80	NA

Notes:

(1) The highest estimated pollutant concentrations found at any of the off-site receptor locations.

(2) Background concentrations were obtained from the NYCDEP on April 18, 2003.

(3) NAAQS = National Ambient Air Quality Standards.

(4) Screening Threshold Value (STV) established by the NYCDEP and NYSDEC.

(5) Average $PM_{2.5}$ concentration over 1 km x 1 km "neighborhood-scale" receptor grid.

(6) The standards for these averaging periods allow one exceedance per year, so the use of the overall maximum concentration in this provides a very conservative comparison with standards.

(7) The 24-hour PM_{10} NAAQS is based on a 99th percentile concentration, which means that the high, 4th high concentration is appropriate for comparison with the standard. Therefore, the use of the overall highest concentration in this comparison is quite conservative.

NA = Not Applicable.

Table A.4-2
Highest Estimated Non-Cancer Hazard Index and Cancer Risk of Toxic Air Pollutant from On-site Emissions
DSNY-managed Waste Plus Commercial Waste
135th Street Converted MTS

No.	Toxic Air Pollutants	Acute Non-Cancer Risk: Highest Estimated Short-Term (1-hr) Pollutant Conc.[1] ($\mu g/m^3$)	Acute Non-Cancer Risk: Short-Term (1-hr) Guideline Conc. (SGCs)[2] ($\mu g/m^3$)	Acute Non-Cancer Risk: Acute Non-Cancer Hazard Index[3]	Chronic Non-Cancer Risk: Highest Estimated Long-Term (Annual) Pollutant Conc.[4] ($\mu g/m^3$)	Chronic Non-Cancer Risk: Long-Term (Annual) Guideline Conc. (AGCs)[5] ($\mu g/m^3$)	Chronic Non-Cancer Risk: Chronic Non-Cancer Hazard Index[6]	Cancer Risk: Highest Estimated Long-Term (Annual) Pollutant Conc.[4] ($\mu g/m^3$)	Cancer Risk: Unit Risk Factors[7] ($\mu g/m^3$)	Cancer Risk: Maximum Cancer Risk[8,9]
Carcinogenic Pollutants										
1	Benzene	9.56E-01	1.30E+03	7.36E-04	5.49E-03	1.30E-01	4.23E-02	5.49E-03	8.30E-06	4.56E-08
2	Formaldehyde	1.21E+00	3.00E+01	4.03E-02	6.95E-03	6.00E-02	1.16E-01	6.95E-03	1.30E-05	9.03E-08
3	1,3 Butadiene	4.01E-02	-	-	2.30E-04	3.60E-03	6.40E-02	2.30E-04	2.80E-04	6.45E-08
4	Acetaldehyde	7.86E-01	4.50E+03	1.75E-04	4.52E-03	4.50E-01	1.00E-02	4.52E-03	2.20E-06	9.94E-09
5	Benzo(a)pyrene	1.93E-04	-	-	1.11E-06	2.00E-03	5.54E-04	1.11E-06	1.70E-03	1.88E-09
6	Propylene	2.64E+00	-	-	1.52E-02	3.00E+03	5.06E-06	1.52E-02	NA	NA
Non-Carcinogenic Pollutants[10]										
7	Acrolein	9.48E-02	1.90E-01	4.99E-01	5.54E-04	2.00E-02	2.72E-02	5.54E-04	NA	NA
8	Toluene	4.19E-01	3.70E+04	1.13E-05	2.41E-03	4.00E+02	6.02E-06	2.41E-03	NA	NA
9	Xylenes	2.92E-01	4.30E+03	6.79E-05	1.68E-03	7.00E+02	2.40E-06	1.68E-03	NA	NA
10	Anthracene	1.92E-03	-	-	1.10E-05	2.00E-02	5.51E-04	1.10E-05	NA	NA
11	Benzo(a)anthracene	1.72E-03	-	-	9.89E-06	2.00E-02	4.95E-04	9.89E-06	NA	NA
12	Chrysene	3.62E-04	-	-	2.08E-06	2.00E-02	1.04E-04	2.08E-06	NA	NA
13	Naphthalene	8.69E-02	7.90E+03	1.10E-05	4.99E-04	3.00E+00	1.66E-04	4.99E-04	NA	NA
14	Pyrene	4.90E-03	-	-	2.81E-05	2.00E-02	1.41E-03	2.81E-05	NA	NA
15	Phenanthrene	3.01E-02	-	-	1.73E-04	2.00E-02	8.66E-03	1.73E-04	NA	NA
16	Dibenz(a,h)anthracene	5.98E-04	-	-	3.43E-06	2.00E-02	1.72E-04	3.43E-06	NA	NA
		Total Estimated Acute Non-Cancer Hazard Index		**2.43E-01**	**Total Estimated Chronic Non-Cancer Hazard Index**		**2.71E-01**	**Total Estimated Combined Cancer Risk**		**2.12E-07**
		Acute Non-Cancer Hazard Index Threshold[11]		**1.0E+00**	**Chronic Non-Cancer Hazard Index Threshold**[11]		**1.0E+00**	**Cancer Risk Threshold**[11]		**1.0E-06**

Notes to Table A.4-2:

(1) Estimated by multiplying the total 1-hr HCs concentration by the ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.

(2) Short-term (1-hr) guideline concentrations (SGC) established by NYSDEC.

(3) Estimated by dividing the maximum 1-hr concentrations of each pollutant by the SGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.

(4) Estimated by multiplying the total annual HCs concentration by ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.

(5) Long-term (annual) guideline concentrations (AGC) established by NYSDEC.

(6) Estimated by dividing the maximum annual concentration of each of the individual pollutants by the AGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.

(7) Unit risk factors established by USEPA and other governmental agencies for the inhalation of carcinogenic air pollutants.

(8) The maximum cancer risk of each of the individual pollutants was estimated by multiplying the estimated annual concentration of each pollutant by its unit risk factor.

(9) The total incremental cancer risk from all of the pollutants combined was estimated by summing the maximum cancer risk of each of the individual pollutants.

(10) Some of the pollutants included in the group of non-carcinogenic pollutants, such as anthracene, benzo(a)anthracene and chrysene, may also have carcinogenic effects. As these pollutants do not have established unit risk factors, they were evaluated using the hazard index approach for non-carcinogens.

(11) Hazard index and cancer risk thresholds based on NYSDEC "Guidelines for the Control of Toxic Ambient Air Contaminants" dated November 12, 1997. Estimated values below these threshold limits are considered to be insignificant impacts.

Table A.4-3
Highest Estimated Concentrations of the Criteria Pollutants from On-site Emissions
DSNY-managed Waste Plus Commercial Waste
East 91st Street Converted MTS

Pollutant	Averaging Time Period	Maximum Impacts from On-site Emission Sources [1]	Background Pollutant Concentrations [2]	Highest Estimated On-site Pollutant Concentrations	NAAQS[3]	STV[4]
Carbon Monoxide (CO), $\mu g/m^3$	1-hour[6]	1,158	3,781	4,939	40,000	NA
	8-hour[6]	3,38	2,635	3,023	10,000	NA
Nitrogen Dioxide (NO_2), $\mu g/m^3$	Annual	6	77	83	100	NA
Particulate Matter (PM_{10}), $\mu g/m^3$	24-hour[7]	19	88	107	150	NA
	Annual	4	34	38	50	NA
Particulate Matter ($PM_{2.5}$), $\mu g/m^3$	24-hour	2	-	-	NA	5
	Annual Neighborhood Average	0.036[5]	-	-	NA	0.1
Sulfur Dioxide (SO_2), $\mu g/m^3$	3-hour[6]	56	265	321	1,300	NA
	24-hour[6]	9	139	148	365	NA
	Annual	1	34	35	80	NA

Notes:
(1) The highest estimated pollutant concentrations found at any of the off-site receptor locations.
(2) Background concentrations were obtained from the NYCDEP on April 18, 2003.
(3) NAAQS = National Ambient Air Quality Standards.
(4) Screening Threshold Value (STV) established by the NYCDEP and NYSDEC.
(5) Average $PM_{2.5}$ concentration over 1 km x 1 km "neighborhood-scale" receptor grid.
(6) The standards for these averaging periods allow one exceedance per year, so the use of the overall maximum concentration in this provides a very conservative comparison with standards.
(7) The 24-hour PM_{10} NAAQS is based on a 99th percentile concentration, which means that the high, 4th high concentration is appropriate for comparison with the standard. Therefore, the use of the overall highest concentration in this comparison is quite conservative.
NA = Not Applicable.

Table A.4-4
Highest Estimated Non-Cancer Hazard Index and Cancer Risk of Toxic Air Pollutant from On-site Emissions
DSNY-managed Waste Plus Commercial Waste
East 91st Street Converted MTS

No.	Toxic Air Pollutants	Acute Non-Cancer Risk			Chronic Non-Cancer Risk			Cancer Risk		
		Highest Estimated Short-Term (1-hr) Pollutant Conc.[1] ($\mu g/m^3$)	Short-Term (1-hr) Guideline Conc. (SGCs) [2] ($\mu g/m^3$)	Acute Non-Cancer Hazard Index[3]	Highest Estimated Long-Term (Annual) Pollutant Conc.[4] ($\mu g/m^3$)	Long-Term (Annual) Guideline Conc. (AGCs) [5] ($\mu g/m^3$)	Chronic Non-Cancer Hazard Index [6]	Highest Estimated Long-Term (Annual) Pollutant Conc. [4] ($\mu g/m^3$)	Unit Risk Factors [7] ($\mu g/m^3$)	Maximum Cancer Risk [8,9]
Carcinogenic Pollutants										
1	Benzene	3.86E-01	1.30E+03	2.97E-04	7.69E-03	1.30E-01	5.91E-02	7.69E-03	8.30E-06	6.38E-08
2	Formaldehyde	4.88E-01	3.00E+01	1.63E-02	9.72E-03	6.00E-02	1.62E-01	9.72E-03	1.30E-05	1.26E-07
3	1,3 Butadiene	1.62E-02	-	-	3.22E-04	3.60E-03	8.95E-02	3.22E-04	2.80E-04	9.02E-08
4	Acetaldehyde	3.17E-01	4.50E+03	7.04E-05	6.32E-03	4.50E-01	1.40E-02	6.32E-03	2.20E-06	1.39E-08
5	Benzo(a)pyrene	7.77E-05	-	-	1.55E-07	2.00E-03	7.74E-04	1.55E-06	1.70E-03	2.63E-09
6	Propylene	1.07E+00	-	-	2.13E-03	3.00E+03	7.09E-06	2.13E-02	NA	NA
Non-Carcinogenic Pollutants [10]										
7	Acrolein	3.82E-02	1.90E-01	2.01E-01	7.62E-04	2.00E-02	3.81E-02	7.62E-04	NA	NA
8	Toluene	1.69E-01	3.70E+04	4.57E-06	3.37E-03	4.00E+02	8.42E-06	3.37E-03	NA	NA
9	Xylenes	1.18E-01	4.30E+03	2.74E-05	2.35E-04	7.00E+02	3.35E-06	2.35E-03	NA	NA
10	Anthracene	7.73E-04	-	-	1.54E-06	2.00E-02	7.70E-04	1.54E-05	NA	NA
11	Benzo(a)anthracene	6.94E-04	-	-	1.38E-06	2.00E-02	6.92E-04	1.38E-05	NA	NA
12	Chrysene	1.46E-04	-	-	2.91E-07	2.00E-02	1.45E-04	2.91E-06	NA	NA
13	Naphthalene	3.50E-02	7.90E+03	4.44E-06	6.99E-04	3.00E+00	2.33E-04	6.99E-04	NA	NA
14	Pyrene	1.98E-03	-	-	3.94E-05	2.00E-02	1.97E-03	3.94E-05	NA	NA
15	Phenanthrene	1.21E-02	-	-	2.42E-05	2.00E-02	1.21E-02	2.42E-04	NA	NA
16	Dibenz(a,h)anthracene	2.41E-04	-	-	4.80E-06	2.00E-02	2.40E-04	4.80E-05	NA	NA
		Total Estimated Acute Non-Cancer Hazard Index		**2.18E-01**	**Total Estimated Chronic Non-Cancer Hazard Index**		**3.80E-01**	**Total Estimated Combined Cancer Risk**		**2.97E-07**
		Acute Non-Cancer Hazard Index Threshold [11]		**1.0E+00**	**Chronic Non-Cancer Hazard Index Threshold** [11]		**1.0E+00**	**Cancer Risk Threshold** [11]		**1.0E-06**

Notes to Table A.4-4:

(1) Estimated by multiplying the total 1-hr HCs concentration by the ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.

(2) Short-term (1-hr) guideline concentrations (SGC) established by NYSDEC.

(3) Estimated by dividing the maximum 1-hr concentrations of each pollutant by the SGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.

(4) Estimated by multiplying the total annual HCs concentration by ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.

(5) Long-term (annual) guideline concentrations (AGC) established by NYSDEC

(6) Estimated by dividing the maximum annual concentration of each of the individual pollutants by the AGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.

(7) Unit risk factors established by USEPA and other governmental agencies for the inhalation of carcinogenic air pollutants.

(8) The maximum cancer risk of each of the individual pollutants was estimated by multiplying the estimated annual concentration of each pollutant by its unit risk factor.

(9) The total incremental cancer risk from all of the pollutants combined was estimated by summing the maximum cancer risk of each of the individual pollutants.

(10) Some of the pollutants included in the group of non-carcinogenic pollutants, such as anthracene, benzo(a)anthracene and chrysene, may also have carcinogenic effects. As these pollutants do not have established unit risk factors, they were evaluated using the hazard index approach for non-carcinogens.

(11) Hazard index and cancer risk thresholds based on NYSDEC "Guidelines for the Control of Toxic Ambient Air Contaminants" dated November 12, 1997. Estimated values below these threshold limits are considered to be insignificant impacts.

Table A.4-5
Highest Estimated Concentrations of the Criteria Pollutants from On-site Emissions
DSNY-managed Waste Plus Commercial Waste
West 59th Street Converted MTS

Pollutant	Averaging Time Period	Maximum Impacts from On-site Emission Sources [1]	Background Pollutant Concentrations [2]	Highest Estimated On-site Pollutant Concentrations	NAAQS[3]	STV[4]
Carbon Monoxide (CO), $\mu g/m^3$	1-hour[6]	3,033	4,353	7,386	40,000	NA
	8-hour[6]	582	3,322	3,904	10,000	NA
Nitrogen Dioxide (NO_2), $\mu g/m^3$	Annual	4	77	81	100	NA
Particulate Matter (PM_{10}), $\mu g/m^3$	24-hour[7]	14	88	102	150	NA
	Annual	1	34	35	50	NA
Particulate Matter ($PM_{2.5}$), $\mu g/m^3$	24-hour	4	-	-	NA	5
	Annual Neighborhood Average	0.033[5]	-	-	NA	0.1
Sulfur Dioxide (SO_2), $\mu g/m^3$	3-hour[6]	57	265	322	1,300	NA
	24-hour[6]	13	139	152	365	NA
	Annual	1	34	35	80	NA

Notes:
(1) The highest estimated pollutant concentrations found at any of the off-site receptor locations.
(2) Background concentrations were obtained from the NYCDEP on April 18, 2003.
(3) NAAQS = National Ambient Air Quality Standards.
(4) Screening Threshold Value (STV) established by the NYCDEP and NYSDEC.
(5) Average $PM_{2.5}$ concentration over 1 km x 1 km "neighborhood-scale" receptor grid.
(6) The standards for these averaging periods allow one exceedance per year, so the use of the overall maximum concentration in this provides a very conservative comparison with standards.
(7) The 24-hour PM_{10} NAAQS is based on a 99th percentile concentration, which means that the high, 4th high concentration is appropriate for comparison with the standard. Therefore, the use of the overall highest concentration in this comparison is quite conservative.
NA = Not Applicable.

Table A.4-6
Highest Estimated Non-Cancer Hazard Index and Cancer Risk of Toxic Air Pollutant from On-site Emissions
DSNY-managed Waste Plus Commercial Waste
West 59th Street Converted MTS

No.	Toxic Air Pollutants	Acute Non-Cancer Risk			Chronic Non-Cancer Risk			Cancer Risk		
		Highest Estimated Short-Term (1-hr) Pollutant Conc.[1] ($\mu g/m^3$)	Short-Term (1-hr) Guideline Conc. (SGCs)[2] ($\mu g/m^3$)	Acute Non-Cancer Hazard Index[3]	Highest Estimated Long-Term (Annual) Pollutant Conc.[4] ($\mu g/m^3$)	Long-Term (Annual) Guideline Conc. (AGCs)[5] ($\mu g/m^3$)	Chronic Non-Cancer Hazard Index[6]	Highest Estimated Long-Term (Annual) Pollutant Conc.[4] ($\mu g/m^3$)	Unit Risk Factors[7] ($\mu g/m^3$)	Maximum Cancer Risk[8,9]
Carcinogenic Pollutants										
1	Benzene	9.85E-01	1.30E+03	7.58E-04	4.06E-03	1.30E-01	3.12E-02	4.06E-03	8.30E-06	3.37E-08
2	Formaldehyde	1.25E+00	3.00E+01	4.15E-02	5.14E-03	6.00E-02	8.56E-02	5.14E-03	1.30E-05	6.68E-08
3	1,3 Butadiene	4.13E-02	-	-	1.70E-04	3.60E-03	4.73E-02	1.70E-04	2.80E-04	4.77E-08
4	Acetaldehyde	8.10E-01	4.50E+03	1.80E-05	3.34E-03	4.50E-01	7.42E-03	3.34E-03	2.20E-06	7.35E-09
5	Benzo(a)pyrene	1.98E-04	-	-	8.19E-07	2.00E-03	4.09E-04	8.19E-07	1.70E-03	1.39E-09
6	Propylene	2.72E+00	-	-	1.12E-02	3.00E+03	3.74E-06	1.12E-02	NA	NA
Non-Carcinogenic Pollutants[10]										
7	Acrolein	9.77E-02	1.90E-01	5.14E-01	4.03E-04	2.00E-02	2.01E-02	4.03E-04	NA	NA
8	Toluene	4.32E-01	3.70E+04	1.17E-05	1.78E-03	4.00E+02	4.45E-06	1.78E-03	NA	NA
9	Xylenes	3.01E-01	4.30E+03	7.00E-05	1.24E-03	7.00E+02	1.77E-06	1.24E-03	NA	NA
10	Anthracene	1.97E-03	-	-	8.14E-06	2.00E-02	4.07E-04	8.14E-06	NA	NA
11	Benzo(a)anthracene	1.77E-03	-	-	7.31E-06	2.00E-02	3.66E-04	7.31E-06	NA	NA
12	Chrysene	3.73E-04	-	-	1.54E-06	2.00E-02	7.68E-05	1.54E-06	NA	NA
13	Naphthalene	8.95E-02	7.90E+03	1.13E-05	3.69E-04	3.00E+00	1.23E-04	3.69E-04	NA	NA
14	Pyrene	5.05E-03	-	-	2.08E-05	2.00E-02	1.04E-03	2.08E-05	NA	NA
15	Phenanthrene	3.10E-02	-	-	1.28E-04	2.00E-02	6.40E-03	1.28E-04	NA	NA
16	Dibenz(a,h)anthracene	6.16E-04	-	-	2.54E-06	2.00E-02	1.27E-04	2.54E-06	NA	NA
		Total Estimated Acute Non-Cancer Hazard Index		**5.57E-01**	**Total Estimated Chronic Non-Cancer Hazard Index**		**2.01E-01**	**Total Estimated Combined Cancer Risk**		**1.57E-07**
		Acute Non-Cancer Hazard Index Threshold[11]		**1.0E+00**	**Chronic Non-Cancer Hazard Index Threshold**[11]		**1.0E+00**	**Cancer Risk Threshold**[11]		**1.0E-06**

Notes to Table A.4-6:

(1) Estimated by multiplying the total 1-hr HCs concentration by the ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.

(2) Short-term (1-hr) guideline concentrations (SGC) established by NYSDEC.

(3) Estimated by dividing the maximum 1-hr concentrations of each pollutant by the SGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.

(4) Estimated by multiplying the total annual HCs concentration by ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.

(5) Long-term (annual) guideline concentrations (AGC) established by NYSDEC.

(6) Estimated by dividing the maximum annual concentration of each of the individual pollutants by the AGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.

(7) Unit risk factors established by USEPA and other governmental agencies for the inhalation of carcinogenic air pollutants.

(8) The maximum cancer risk of each of the individual pollutants was estimated by multiplying the estimated annual concentration of each pollutant by its unit risk factor.

(9) The total incremental cancer risk from all of the pollutants combined was estimated by summing the maximum cancer risk of each of the individual pollutants.

(10) Some of the pollutants included in the group of non-carcinogenic pollutants, such as anthracene, benzo(a)anthracene and chrysene, may also have carcinogenic effects. As these pollutants do not have established unit risk factors, they were evaluated using the hazard index approach for non-carcinogens.

(11) Hazard index and cancer risk thresholds based on NYSDEC "Guidelines for the Control of Toxic Ambient Air Contaminants" dated November 12, 1997. Estimated values below these threshold limits are considered to be insignificant impacts.

Table A.4-7
Highest Estimated Concentrations of the Criteria Pollutants from On-site Emissions
DSNY-managed Waste Plus Commercial Waste
South Bronx Converted MTS

Pollutant	Averaging Time Period	Maximum Impacts from On-site Emission Sources [1]	Background Pollutant Concentrations [2]	Highest Estimated On-site Pollutant Concentrations	NAAQS[3]	STV[4]
Carbon Monoxide (CO), $\mu g/m^3$	1-hour[6]	947	3,781	4,728	40,000	NA
	8-hour[6]	182	2,635	2,817	10,000	NA
Nitrogen Dioxide (NO_2), $\mu g/m^3$	Annual	3	68	71	100	NA
Particulate Matter (PM_{10}), $\mu g/m^3$	24-hour[7]	18	73	91	150	NA
	Annual	5	25	30	50	NA
Particulate Matter ($PM_{2.5}$), $\mu g/m^3$	24-hour	1	-	-	NA	5
	Annual Neighborhood Average	0.027[5]	-	-	NA	0.1
Sulfur Dioxide (SO_2), $\mu g/m^3$	3-hour[6]	35	325	360	1,300	NA
	24-hour[6]	3	144	147	365	NA
	Annual	0.7	31	32	80	NA

Notes:

[1] The highest estimated pollutant concentrations found at any of the off-site receptor locations.

[2] Background concentrations were obtained from the NYCDEP on April 18, 2003.

[3] NAAQS = National Ambient Air Quality Standards.

[4] Screening Threshold Value (STV) established by the NYCDEP and NYSDEC.

[5] Average $PM_{2.5}$ concentration over 1 km x 1 km "neighborhood-scale" receptor grid.

[6] The standards for these averaging periods allow one exceedance per year, so the use of the overall maximum concentration in this provides a very conservative comparison with standards.

[7] The 24-hour PM_{10} NAAQS is based on a 99^{th} percentile concentration, which means that the high, 4^{th} high concentration is appropriate for comparison with the standard. Therefore, the use of the overall highest concentration in this comparison is quite conservative.

NA = Not Applicable.

Table A.4-8
Highest Estimated Non-Cancer Hazard Index and Cancer Risk of Toxic Air Pollutant from On-site Emissions
DSNY-managed Waste Plus Commercial Waste
South Bronx Converted MTS

No.	Toxic Air Pollutants	Acute Non-Cancer Risk			Chronic Non-Cancer Risk			Cancer Risk		
		Highest Estimated Short-Term (1-hr) Pollutant Conc.[1] ($\mu g/m^3$)	Short-Term (1-hr) Guideline Conc. (SGCs)[2] ($\mu g/m^3$)	Acute Non-Cancer Hazard Index[3]	Highest Estimated Long-Term (Annual) Pollutant Conc.[4] ($\mu g/m^3$)	Long-Term (Annual) Guideline Conc. (AGCs)[5] ($\mu g/m^3$)	Chronic Non-Cancer Hazard Index[6]	Highest Estimated Long-Term (Annual) Pollutant Conc.[4] ($\mu g/m^3$)	Unit Risk Factors[7] ($\mu g/m^3$)	Maximum Cancer Risk[8,9]
Carcinogenic Pollutants										
1	Benzene	3.08E-01	1.30E+03	2.37E-04	4.23E-03	1.30E-01	3.25E-02	4.23E-03	8.30E-06	3.51E-08
2	Formaldehyde	3.98E-01	3.00E+01	1.30E-02	5.35E-03	6.00E-02	8.91E-02	5.35E-03	1.30E-05	6.95E-08
3	1,3 Butadiene	1.29E-02	-	-	1.77E-04	3.60E-03	4.92E-02	1.77E-04	2.80E-04	4.96E-08
4	Acetaldehyde	2.53E-01	4.50E+03	5.62E-05	3.48E-03	4.50E-01	7.73E-03	3.48E-03	2.20E-06	7.65E-09
5	Benzo(a)pyrene	6.20E-05	-	-	8.52E-07	2.00E-03	4.26E-04	8.52E-07	1.70E-03	1.45E-09
6	Propylene	8.51E-01	-	-	1.17E-02	3.00E+03	3.90E-06	1.17E-02	NA	NA
Non-Carcinogenic Pollutants[10]										
7	Acrolein	3.05E-02	1.90E-01	1.61E-01	4.19E-04	2.00E-02	2.10E-02	4.19E-04	NA	NA
8	Toluene	1.35E-01	3.70E+04	3.65E-06	1.85E-03	4.00E+02	4.63E-06	1.85E-03	NA	NA
9	Xylenes	9.40E-02	4.30E+03	2.19E-05	1.29E-03	7.00E+02	1.85E-06	1.29E-03	NA	NA
10	Anthracene	6.17E-04	-	-	8.48E-06	2.00E-02	4.24E-04	8.48E-06	NA	NA
11	Benzo(a)anthracene	5.54E-04	-	-	7.61E-06	2.00E-02	3.81E-04	7.61E-06	NA	NA
12	Chrysene	1.16E-04	-	-	1.60E-06	2.00E-02	8.00E-05	1.60E-06	NA	NA
13	Naphthalene	2.80E-02	7.90E+03	3.54E-06	3.84E-04	3.00E+00	1.28E-04	3.84E-04	NA	NA
14	Pyrene	1.58E-03	-	-	2.17E-05	2.00E-02	1.08E-03	2.17E-05	NA	NA
15	Phenanthrene	9.70E-03	-	-	1.33E-04	2.00E-02	6.66E-03	1.33E-04	NA	NA
16	Dibenz(a,h)anthracene	1.92E-04	-	-	2.64E-06	2.00E-02	1.32E-04	2.64E-06	NA	NA
		Total Estimated Acute Non-Cancer Hazard Index		**1.74E-01**	**Total Estimated Chronic Non-Cancer Hazard Index**		**2.09E-01**	**Total Estimated Combined Cancer Risk**		**1.63E-07**
		Acute Non-Cancer Hazard Index Threshold[11]		**1.0E+00**	**Chronic Non-Cancer Hazard Index Threshold**[11]		**1.0E+00**	**Cancer Risk Threshold**[11]		**1.0E-06**

Notes to Table A.4-8:

(1) Estimated by multiplying the total 1-hr HCs concentration by the ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.

(2) Short-term (1-hr) guideline concentrations (SGC) established by NYSDEC.

(3) Estimated by dividing the maximum 1-hr concentrations of each pollutant by the SGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.

(4) Estimated by multiplying the total annual HCs concentration by ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.

(5) Long-term (annual) guideline concentrations (AGC) established by NYSDEC.

(6) Estimated by dividing the maximum annual concentration of each of the individual pollutants by the AGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.

(7) Unit risk factors established by USEPA and other governmental agencies for the inhalation of carcinogenic air pollutants.

(8) The maximum cancer risk of each of the individual pollutants was estimated by multiplying the estimated annual concentration of each pollutant by its unit risk factor.

(9) The total incremental cancer risk from all of the pollutants combined was estimated by summing the maximum cancer risk of each of the individual pollutants.

(10) Some of the pollutants included in the group of non-carcinogenic pollutants, such as anthracene, benzo(a)anthracene and chrysene, may also have carcinogenic effects. As these pollutants do not have established unit risk factors, they were evaluated using the hazard index approach for non-carcinogens.

(11) Hazard index and cancer risk thresholds based on NYSDEC "Guidelines for the Control of Toxic Ambient Air Contaminants" dated November 12, 1997. Estimated values below these threshold limits are considered to be insignificant impacts.

Table A.4-9
Highest Estimated Concentrations of the Criteria Pollutants from On-site Emissions
DSNY-managed Waste Plus Commercial Waste
North Shore Converted MTS

Pollutant	Averaging Time Period	Maximum Impacts from On-site Emission Sources [1]	Background Pollutant Concentrations [2]	Highest Estimated On-site Pollutant Concentrations	NAAQS[3]	STV[4]
Carbon Monoxide (CO), $\mu g/m^3$	1-hour[6]	1,261	3,781	5,042	40,000	NA
	8-hour[6]	194	2,635	3,767	10,000	NA
Nitrogen Dioxide (NO_2), $\mu g/m^3$	Annual	4	56	60	100	NA
Particulate Matter (PM_{10}), $\mu g/m^3$	24-hour[7]	17	57	74	150	NA
	Annual	4	23	27	50	NA
Particulate Matter ($PM_{2.5}$), $\mu g/m^3$	24-hour	1	-	-	NA	5
	Annual Neighborhood Average	0.036[5]	-	-	NA	0.1
Sulfur Dioxide (SO_2), $\mu g/m^3$	3-hour[6]	49	186	235	1,300	NA
	24-hour[6]	5	107	112	365	NA
	Annual	1	18.3	19	80	NA

Notes:

(1) The highest estimated pollutant concentrations found at any of the off-site receptor locations.

(2) Background concentrations were obtained from the NYCDEP on April 18, 2003.

(3) NAAQS = National Ambient Air Quality Standards.

(4) Screening Threshold Value (STV) established by the NYCDEP and NYSDEC.

(5) Average $PM_{2.5}$ concentration over 1 km x 1 km "neighborhood-scale" receptor grid.

(6) The standards for these averaging periods allow one exceedance per year, so the use of the overall maximum concentration in this provides a very conservative comparison with standards.

(7) The 24-hour PM_{10} NAAQS is based on a 99th percentile concentration, which means that the high, 4th high concentration is appropriate for comparison with the standard. Therefore, the use of the overall highest concentration in this comparison is quite conservative.

NA = Not Applicable.

Table A.4-10
Highest Estimated Non-Cancer Hazard Index and Cancer Risk of Toxic Air Pollutant from On-site Emissions
DSNY-managed Waste Plus Commercial Waste
North Shore Converted MTS

No.	Toxic Air Pollutants	Acute Non-Cancer Risk			Chronic Non-Cancer Risk			Cancer Risk		
		Highest Estimated Short-Term (1-hr) Pollutant Conc.[1] ($\mu g/m^3$)	Short-Term (1-hr) Guideline Conc. (SGCs)[2] ($\mu g/m^3$)	Acute Non-Cancer Hazard Index[3]	Highest Estimated Long-Term (Annual) Pollutant Conc.[4] ($\mu g/m^3$)	Long-Term (Annual) Guideline Conc. (AGCs)[5] ($\mu g/m^3$)	Chronic Non-Cancer Hazard Index[6]	Highest Estimated Long-Term (Annual) Pollutant Conc.[4] ($\mu g/m^3$)	Unit Risk Factors[7] ($\mu g/m^3$)	Maximum Cancer Risk[8,9]
Carcinogenic Pollutants										
1	Benzene	4.06E-01	1.30E+03	3.12E-04	4.63E-03	1.30E-01	3.56E-02	4.63E-03	8.30E-06	3.84E-08
2	Formaldehyde	5.13E-01	3.00E+01	1.71E-02	5.85E-03	6.00E-02	9.75E-02	5.85E-03	1.30E-05	7.60E-08
3	1,3 Butadiene	1.70E-02	-	-	1.94E-04	3.60E-03	5.38E-02	1.94E-04	2.80E-04	5.43E-08
4	Acetaldehyde	3.33E-01	4.50E+03	7.41E-05	3.80E-03	4.50E-01	8.45E-03	3.80E-03	2.20E-06	8.36E-09
5	Benzo(a)pyrene	8.17E-05	-	-	9.32E-07	2.00E-03	4.66E-04	9.32E-07	1.70E-03	1.58E-10
6	Propylene	1.12E+00	-	-	1.28E-02	3.00E+03	4.26E-06	1.28E-02	NA	NA
Non-Carcinogenic Pollutants[10]										
7	Acrolein	4.02E-02	1.90E-01	2.12E-01	4.59E-04	2.00E-02	2.29E-02	4.59E-04	NA	NA
8	Toluene	1.78E-01	3.70E+04	4.81E-06	2.03E-03	4.00E+02	5.07E-06	2.03E-03	NA	NA
9	Xylenes	1.24E-01	4.30E+03	2.88E-05	1.41E-03	7.00E+02	2.02E-06	1.41E-03	NA	NA
10	Anthracene	8.13E-04	-	-	9.27E-06	2.00E-02	4.63E-04	9.27E-06	NA	NA
11	Benzo(a)anthracene	7.30E-04	-	-	8.33E-06	2.00E-02	4.16E-04	8.33E-06	NA	NA
12	Chrysene	1.53E-04	-	-	1.75E-06	2.00E-02	8.75E-05	1.75E-06	NA	NA
13	Naphthalene	3.69E-02	7.90E+03	4.67E-06	4.20E-04	3.00E+00	1.40E-04	4.20E-04	NA	NA
14	Pyrene	2.08E-03	-	-	2.37E-05	2.00E-02	1.18E-03	2.37E-05	NA	NA
15	Phenanthrene	1.28E-02	-	-	1.46E-04	2.00E-02	7.29E-03	1.46E-04	NA	NA
16	Dibenz(a,h)anthracene	2.54E-04	-	-	2.89E-06	2.00E-02	1.45E-04	2.89E-06	NA	NA
		Total Estimated Acute Non-Cancer Hazard Index		**2.29E-01**	**Total Estimated Chronic Non-Cancer Hazard Index**		**2.28E-01**	**Total Estimated Combined Cancer Risk**		**1.79E-07**
		Acute Non-Cancer Hazard Index Threshold[11]		**1.0E+00**	**Chronic Non-Cancer Hazard Index Threshold**[11]		**1.0E+00**	**Cancer Risk Threshold**[11]		**1.0E-06**

Notes to Table A.4-10:

(1) Estimated by multiplying the total 1-hr HCs concentration by the ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.

(2) Short-term (1-hr) guideline concentrations (SGC) established by NYSDEC.

(3) Estimated by dividing the maximum 1-hr concentrations of each pollutant by the SGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.

(4) Estimated by multiplying the total annual HCs concentration by ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.

(5) Long-term (annual) guideline concentrations (AGC) established by NYSDEC.

(6) Estimated by dividing the maximum annual concentration of each of the individual pollutants by the AGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.

(7) Unit risk factors established by USEPA and other governmental agencies for the inhalation of carcinogenic air pollutants.

(8) The maximum cancer risk of each of the individual pollutants was estimated by multiplying the estimated annual concentration of each pollutant by its unit risk factor.

(9) The total incremental cancer risk from all of the pollutants combined was estimated by summing the maximum cancer risk of each of the individual pollutants.

(10) Some of the pollutants included in the group of non-carcinogenic pollutants, such as anthracene, benzo(a)anthracene and chrysene, may also have carcinogenic effects. As these pollutants do not have established unit risk factors, they were evaluated using the hazard index approach for non-carcinogens.

(11) Hazard index and cancer risk thresholds based on NYSDEC "Guidelines for the Control of Toxic Ambient Air Contaminants" dated November 12, 1997. Estimated values below these threshold limits are considered to be insignificant impacts.

Table A.4-11
Highest Estimated Concentrations of the Criteria Pollutants from On-site Emissions
DSNY-managed Waste Plus Commercial Waste
Greenpoint Converted MTS

Pollutant	Averaging Time Period	Maximum Impacts from On-site Emission Sources [1]	Background Pollutant Concentrations [2]	Highest Estimated On-site Pollutant Concentrations	NAAQS[3]	STV[4]
Carbon Monoxide (CO), $\mu g/m^3$	1-hour[6]	1,335	3,321	4,656	40,000	NA
	8-hour[6]	445	2,635	3,080	10,000	NA
Nitrogen Dioxide (NO_2), $\mu g/m^3$	Annual	2	56	58	100	NA
Particulate Matter (PM_{10}), $\mu g/m^3$	24-hour[7]	25	57	82	150	NA
	Annual	4	23	27	50	NA
Particulate Matter ($PM_{2.5}$), $\mu g/m^3$	24-hour	2	-	-	NA	5
	Annual Neighborhood Average	0.024[5]	-	-	NA	0.1
Sulfur Dioxide (SO_2), $\mu g/m^3$	3-hour[6]	51	189	240	1,300	NA
	24-hour[6]	6	87	93	365	NA
	Annual	0.5	21	22	80	NA

Notes:

(1) The highest estimated pollutant concentrations found at any of the off-site receptor locations.

(2) Background concentrations were obtained from the NYCDEP on April 18, 2003.

(3) NAAQS = National Ambient Air Quality Standards.

(4) Screening Threshold Value (STV) established by the NYCDEP and NYSDEC.

(5) Average $PM_{2.5}$ concentration over 1 km x 1 km "neighborhood-scale" receptor grid.

(6) The standards for these averaging periods allow one exceedance per year, so the use of the overall maximum concentration in this provides a very conservative comparison with standards.

(7) The 24-hour PM_{10} NAAQS is based on a 99^{th} percentile concentration, which means that the high, 4^{th} high concentration is appropriate for comparison with the standard. Therefore, the use of the overall highest concentration in this comparison is quite conservative.

NA = Not Applicable.

Table A.4-12
Highest Estimated Non-Cancer Hazard Index and Cancer Risk of Toxic Air Pollutant from On-site Emissions
DSNY-managed Waste Plus Commercial Waste
Greenpoint Converted MTS

No.	Toxic Air Pollutants	Acute Non-Cancer Risk			Chronic Non-Cancer Risk			Cancer Risk		
		Highest Estimated Short-Term (1-hr) Pollutant Conc.[1] ($\mu g/m^3$)	Short-Term (1-hr) Guideline Conc. (SGCs)[2] ($\mu g/m^3$)	Acute Non-Cancer Hazard Index[3]	Highest Estimated Long-Term (Annual) Pollutant Conc.[4] ($\mu g/m^3$)	Long-Term (Annual) Guideline Conc. (AGCs)[5] ($\mu g/m^3$)	Chronic Non-Cancer Hazard Index[6]	Highest Estimated Long-Term (Annual) Pollutant Conc.[4] ($\mu g/m^3$)	Unit Risk Factors[7] ($\mu g/m^3$)	Maximum Cancer Risk[8,9]
Carcinogenic Pollutants										
1	Benzene	4.31E-01	1.30E+03	3.31E-04	3.00E-03	1.30E-01	2.31E-02	3.00E-03	8.30E-06	2.49E-08
2	Formaldehyde	5.45E-01	3.00E+01	1.82E-02	3.80E-03	6.00E-02	6.33E-02	3.80E-03	1.30E-05	4.94E-08
3	1,3 Butadiene	1.81E-02	-	-	1.26E-04	3.60E-03	3.50E-02	1.26E-04	2.80E-04	3.53E-08
4	Acetaldehyde	3.54E-01	4.50E+03	7.87E-05	2.47E-03	4.50E-01	5.49E-03	2.47E-03	2.20E-06	5.43E-09
5	Benzo(a)pyrene	8.68E-05	-	-	6.05E-07	2.00E-03	3.03E-04	6.05E-07	1.70E-03	1.03E-09
6	Propylene	1.19E+00	-	-	8.31E-03	3.00E+03	2.77E-06	8.31E-03	NA	NA
Non-Carcinogenic Pollutants[10]										
7	Acrolein	4.27E-02	1.90E-01	2.25E-01	2.98E-04	2.00E-02	1.49E-02	2.98E-04	NA	NA
8	Toluene	1.89E-01	3.70E+04	5.10E-06	1.32E-03	4.00E+02	3.29E-06	1.32E-03	NA	NA
9	Xylenes	1.32E-01	4.30E+03	3.06E-05	9.18E-04	7.00E+02	1.31E-06	9.18E-04	NA	NA
10	Anthracene	8.63E-04	-	-	6.02E-06	2.00E-02	3.01E-04	6.02E-06	NA	NA
11	Benzo(a)anthracene	7.76E-04	-	-	5.41E-06	2.00E-02	2.70E-04	5.41E-06	NA	NA
12	Chrysene	1.63E-04	-	-	1.14E-06	2.00E-02	5.68E-05	1.14E-06	NA	NA
13	Naphthalene	3.92E-02	7.90E+03	4.96E-06	2.73E-04	3.00E+00	9.10E-05	2.73E-04	NA	NA
14	Pyrene	2.21E-03	-	-	1.54E-05	2.00E-02	7.70E-04	1.54E-05	NA	NA
15	Phenanthrene	1.36E-02	-	-	9.47E-05	2.00E-02	4.73E-03	9.47E-05	NA	NA
16	Dibenz(a,h)anthracene	2.69E-04	-	-	1.88E-06	2.00E-02	9.39E-05	1.88E-06	NA	NA
		Total Estimated Acute Non-Cancer Hazard Index		**2.43E-01**	**Total Estimated Chronic Non-Cancer Hazard Index**		**1.48E-01**	**Total Estimated Combined Cancer Risk**		**1.16E-07**
		Acute Non-Cancer Hazard Index Threshold[11]		**1.0E+00**	**Chronic Non-Cancer Hazard Index Threshold**[11]		**1.0E+00**	**Cancer Risk Threshold**[11]		**1.0E-06**

Notes to Table A.4-12:

(1) Estimated by multiplying the total 1-hr HCs concentration by the ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.

(2) Short-term (1-hr) guideline concentrations (SGC) established by NYSDEC.

(3) Estimated by dividing the maximum 1-hr concentrations of each pollutant by the SGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.

(4) Estimated by multiplying the total annual HCs concentration by ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.

(5) Long-term (annual) guideline concentrations (AGC) established by NYSDEC.

(6) Estimated by dividing the maximum annual concentration of each of the individual pollutants by the AGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.

(7) Unit risk factors established by USEPA and other governmental agencies for the inhalation of carcinogenic air pollutants.

(8) The maximum cancer risk of each of the individual pollutants was estimated by multiplying the estimated annual concentration of each pollutant by its unit risk factor.

(9) The total incremental cancer risk from all of the pollutants combined was estimated by summing the maximum cancer risk of each of the individual pollutants.

(10) Some of the pollutants included in the group of non-carcinogenic pollutants, such as anthracene, benzo(a)anthracene and chrysene, may also have carcinogenic effects. As these pollutants do not have established unit risk factors, they were evaluated using the hazard index approach for non-carcinogens.

(11) Hazard index and cancer risk thresholds based on NYSDEC "Guidelines for the Control of Toxic Ambient Air Contaminants" dated November 12, 1997. Estimated values below these threshold limits are considered to be insignificant impacts.

Table A.4-13
Highest Estimated Concentrations of the Criteria Pollutants from On-site Emissions
DSNY-managed Waste Plus Commercial Waste
Hamilton Avenue Converted MTS

Pollutant	Averaging Time Period	Maximum Impacts from On-site Emission Sources [1]	Background Pollutant Concentrations [2]	Highest Estimated On-site Pollutant Concentrations	NAAQS[3]	STV[4]
Carbon Monoxide (CO), $\mu g/m^3$	1-hour[6]	1,334	3,321	4,655	40,000	NA
	8-hour[6]	393	2,636	3,029	10,000	NA
Nitrogen Dioxide (NO_2), $\mu g/m^3$	Annual	4	56	60	100	NA
Particulate Matter (PM_{10}), $\mu g/m^3$	24-hour[7]	21	82	103	150	NA
	Annual	5	22	27	50	NA
Particulate Matter ($PM_{2.5}$), $\mu g/m^3$	24-hour	2	-	-	NA	5
	Annual Neighborhood Average	0.029[5]	-	-	NA	0.1
Sulfur Dioxide (SO_2), $\mu g/m^3$	3-hour[6]	45	152	197	1,300	NA
	24-hour[6]	9	94	103	365	NA
	Annual	1	24	25	80	NA

Notes:

(1) The highest estimated pollutant concentrations found at any of the off-site receptor locations.

(2) Background concentrations were obtained from the NYCDEP on April 18, 2003.

(3) NAAQS = National Ambient Air Quality Standards.

(4) Screening Threshold Value (STV) established by the NYCDEP and NYSDEC.

(5) Average $PM_{2.5}$ concentration over 1 km x 1 km "neighborhood-scale" receptor grid.

(6) The standards for these averaging periods allow one exceedance per year, so the use of the overall maximum concentration in this provides a very conservative comparison with standards.

(7) The 24-hour PM_{10} NAAQS is based on a 99th percentile concentration, which means that the high, 4th high concentration is appropriate for comparison with the standard. Therefore, the use of the overall highest concentration in this comparison is quite conservative.

NA = Not Applicable.

Table A.4-14
Highest Estimated Non-Cancer Hazard Index and Cancer Risk of Toxic Air Pollutant from On-site Emissions
DSNY-managed Waste Plus Commercial Waste
Hamilton Avenue Converted MTS

No.	Toxic Air Pollutants	Acute Non-Cancer Risk			Chronic Non-Cancer Risk			Cancer Risk		
		Highest Estimated Short-Term (1-hr) Pollutant Conc.[1] ($\mu g/m^3$)	Short-Term (1-hr) Guideline Conc. (SGCs)[2] ($\mu g/m^3$)	Acute Non-Cancer Hazard Index[3]	Highest Estimated Long-Term (Annual) Pollutant Conc.[4] ($\mu g/m^3$)	Long-Term (Annual) Guideline Conc. (AGCs)[5] ($\mu g/m^3$)	Chronic Non-Cancer Hazard Index[6]	Highest Estimated Long-Term (Annual) Pollutant Conc.[4] ($\mu g/m^3$)	Unit Risk Factors[7] ($\mu g/m^3$)	Maximum Cancer Risk[8,9]
Carcinogenic Pollutants										
1	Benzene	4.75E-01	1.30E+03	3.65E-04	6.22E-03	1.30E-01	4.79E-02	6.22E-03	8.30E-06	5.17E-08
2	Formaldehyde	6.01E-01	3.00E+01	2.00E-02	7.87E-03	6.00E-02	1.31E-02	7.87E-03	1.30E-05	1.02E-07
3	1,3 Butadiene	1.99E-02	-	-	2.61E-04	3.60E-03	7.24E-02	2.61E-04	2.80E-04	7.30E-08
4	Acetaldehyde	3.90E-01	4.50E+03	8.67E-05	5.12E-03	4.50E-01	1.14E-03	5.12E-03	2.20E-06	1.13E-08
5	Benzo(a)pyrene	9.57E-05	-	-	1.25E-06	2.00E-03	6.27E-04	1.25E-06	1.70E-03	2.13E-09
6	Propylene	1.31E+00	-	-	1.72E-02	3.00E+03	5.74E-06	1.72E-02	NA	NA
Non-Carcinogenic Pollutants [10]										
7	Acrolein	4.71E-02	1.90E-01	2.48E-01	6.17E-04	2.00E-02	3.09E-02	6.17E-04	NA	NA
8	Toluene	2.08E-01	3.70E+04	5.63E-06	2.73E-03	4.00E+02	6.82E-06	2.73E-03	NA	NA
9	Xylenes	1.45E-01	4.30E+03	3.37E-05	1.90E-03	7.00E+02	2.72E-06	1.90E-03	NA	NA
10	Anthracene	9.52E-04	-	-	1.25E-05	2.00E-02	6.24E-04	1.25E-05	NA	NA
11	Benzo(a)anthracene	8.55E-04	-	-	1.12E-05	2.00E-02	5.60E-04	1.12E-05	NA	NA
12	Chrysene	1.80E-04	-	-	2.35E-06	2.00E-02	1.18E-05	2.35E-06	NA	NA
13	Naphthalene	4.32E-02	7.90E+03	5.46E-06	5.66E-04	3.00E+00	1.89E-05	5.66E-04	NA	NA
14	Pyrene	2.43E-03	-	-	3.19E-05	2.00E-02	1.59E-04	3.19E-05	NA	NA
15	Phenanthrene	1.50E-02	-	-	1.96E-04	2.00E-02	9.81E-03	1.96E-04	NA	NA
16	Dibenz(a,h)anthracene	2.97E-04	-	-	1.49E-06	2.00E-02	3.89E-05	1.49E-06	NA	NA
		Total Estimated Acute Non-Cancer Hazard Index		**2.68E-01**	**Total Estimated Chronic Non-Cancer Hazard Index**		**3.07E-01**	**Total Estimated Combined Cancer Risk**		**2.40E-07**
		Acute Non-Cancer Hazard Index Threshold [11]		**1.0E+00**	**Chronic Non-Cancer Hazard Index Threshold** [11]		**1.0E+00**	**Cancer Risk Threshold** [11]		**1.0E-06**

Notes to Table A.4-14:

(1) Estimated by multiplying the total 1-hr HCs concentration by the ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.

(2) Short-term (1-hr) guideline concentrations (SGC) established by NYSDEC.

(3) Estimated by dividing the maximum 1-hr concentrations of each pollutant by the SGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.

(4) Estimated by multiplying the total annual HCs concentration by ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.

(5) Long-term (annual) guideline concentrations (AGC) established by NYSDEC.

(6) Estimated by dividing the maximum annual concentration of each of the individual pollutants by the AGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.

(7) Unit risk factors established by USEPA and other governmental agencies for the inhalation of carcinogenic air pollutants.

(8) The maximum cancer risk of each of the individual pollutants was estimated by multiplying the estimated annual concentration of each pollutant by its unit risk factor.

(9) The total incremental cancer risk from all of the pollutants combined was estimated by summing the maximum cancer risk of each of the individual pollutants.

(10) Some of the pollutants included in the group of non-carcinogenic pollutants, such as anthracene, benzo(a)anthracene and chrysene, may also have carcinogenic effects. As these pollutants do not have established unit risk factors, they were evaluated using the hazard index approach for non-carcinogens.

(11) Hazard index and cancer risk thresholds based on NYSDEC "Guidelines for the Control of Toxic Ambient Air Contaminants" dated November 12, 1997. Estimated values below these threshold limits are considered to be insignificant impacts.

Table A.4-15
Highest Estimated Concentrations of the Criteria Pollutants from On-site Emissions
DSNY-managed Waste Plus Commercial Waste
Southwest Brooklyn Converted MTS

Pollutant	Averaging Time Period	Maximum Impacts from On-site Emission Sources [1]	Background Pollutant Concentrations [2]	Highest Estimated On-site Pollutant Concentrations	NAAQS[3]	STV[4]
Carbon Monoxide (CO), $\mu g/m^3$	1-hour[6]	1,391	3,781	5,172	40,000	NA
	8-hour[6]	419	2,635	3,054	10,000	NA
Nitrogen Dioxide (NO_2), $\mu g/m^3$	Annual	4	56	60	100	NA
Particulate Matter (PM_{10}), $\mu g/m^3$	24-hour[7]	22	91	113	150	NA
	Annual	4	27	31	50	NA
Particulate Matter ($PM_{2.5}$), $\mu g/m^3$	24-hour	2	-	-	NA	5
	Annual Neighborhood Average	0.028[5]	-	-	NA	0.1
Sulfur Dioxide (SO_2), $\mu g/m^3$	3-hour[6]	47	152	199	1,300	NA
	24-hour[6]	8	94	102	365	NA
	Annual	0.7	24	25	80	NA

Notes:
(1) The highest estimated pollutant concentrations found at any of the off-site receptor locations.
(2) Background concentrations were obtained from the NYCDEP on April 18, 2003.
(3) NAAQS = National Ambient Air Quality Standards.
(4) Screening Threshold Value (STV) established by the NYCDEP and NYSDEC.
(5) Average $PM_{2.5}$ concentration over 1 km x 1 km "neighborhood-scale" receptor grid.
(6) The standards for these averaging periods allow one exceedance per year, so the use of the overall maximum concentration in this provides a very conservative comparison with standards.
(7) The 24-hour PM_{10} NAAQS is based on a 99^{th} percentile concentration, which means that the high, 4^{th} high concentration is appropriate for comparison with the standard. Therefore, the use of the overall highest concentration in this comparison is quite conservative.
NA = Not Applicable.

Table A.4-16
Highest Estimated Non-Cancer Hazard Index and Cancer Risk of Toxic Air Pollutant from On-site Emissions
DSNY-managed Waste Plus Commercial Waste
Southwest Brooklyn Converted MTS

No.	Toxic Air Pollutants	Acute Non-Cancer Risk			Chronic Non-Cancer Risk			Cancer Risk		
		Highest Estimated Short-Term (1-hr) Pollutant Conc.[1] ($\mu g/m^3$)	Short-Term (1-hr) Guideline Conc. (SGCs) [2] ($\mu g/m^3$)	Acute Non-Cancer Hazard Index[3]	Highest Estimated Long-Term (Annual) Pollutant Conc.[4] ($\mu g/m^3$)	Long-Term (Annual) Guideline Conc. (AGCs) [5] ($\mu g/m^3$)	Chronic Non-Cancer Hazard Index [6]	Highest Estimated Long-Term (Annual) Pollutant Conc. [4] ($\mu g/m^3$)	Unit Risk Factors [7] ($\mu g/m^3$)	Maximum Cancer Risk [8,9]
Carcinogenic Pollutants										
1	Benzene	7.42E-01	1.30E+03	5.71E-04	4.28E-03	1.30E-01	3.29E-02	4.28E-03	8.30E-06	3.56E-08
2	Formaldehyde	9.39E-01	3.00E+01	3.13E-02	5.42E-03	6.00E-02	9.03E-02	5.42E-03	1.30E-05	7.04E-08
3	1,3 Butadiene	3.11E-02	-	-	1.80E-04	3.60E-03	4.99E-02	1.80E-04	2.80E-04	5.03E-08
4	Acetaldehyde	6.10E-01	4.50E+03	1.36E-04	3.52E-03	4.50E-01	7.83E-03	3.52E-03	2.20E-06	7.75E-09
5	Benzo(a)pyrene	1.50E-04	-	-	8.63E-07	2.00E-03	4.32E-04	8.63E-07	1.70E-03	1.47E-09
6	Propylene	2.05E+00	-	-	1.18E-02	3.00E+03	3.95E-06	1.18E-02	NA	NA
Non-Carcinogenic Pollutants [10]										
7	Acrolein	7.36E-02	1.90E-01	3.87E-01	4.25E-04	2.00E-02	2.12E-02	4.25E-04	NA	NA
8	Toluene	3.25E-01	3.70E+04	8.80E-06	1.88E-03	4.00E+02	4.69E-06	1.88E-03	NA	NA
9	Xylenes	2.27E-01	4.30E+03	5.27E-05	1.31E-03	7.00E+02	1.87E-06	1.31E-03	NA	NA
10	Anthracene	1.49E-03	-	-	8.59E-06	2.00E-02	4.29E-04	8.59E-06	NA	NA
11	Benzo(a)anthracene	1.34E-03	-	-	7.71E-06	2.00E-02	3.86E-04	7.71E-06	NA	NA
12	Chrysene	2.81E-04	-	-	1.62E-06	2.00E-02	8.10E-05	1.62E-06	NA	NA
13	Naphthalene	6.75E-02	7.90E+03	8.54E-06	3.89E-04	3.00E+00	1.30E-04	3.89E-04	NA	NA
14	Pyrene	3.80E-03	-	-	2.19E-05	2.00E-02	1.10E-03	2.19E-05	NA	NA
15	Phenanthrene	2.34E-02	-	-	1.35E-04	2.00E-02	6.75E-03	1.35E-04	NA	NA
16	Dibenz(a,h)anthracene	4.64E-04	-	-	2.68E-06	2.00E-02	1.34E-04	2.68E-06	NA	NA
		Total Estimated Acute Non-Cancer Hazard Index		**4.20E-01**	**Total Estimated Chronic Non-Cancer Hazard Index**		**2.12E-01**	**Total Estimated Combined Cancer Risk**		**1.65E-07**
		Acute Non-Cancer Hazard Index Threshold [11]		**1.0E+00**	**Chronic Non-Cancer Hazard Index Threshold** [11]		**1.0E+00**	**Cancer Risk Threshold** [11]		**1.0E-06**

Notes to Table A.4-16:

(1) Estimated by multiplying the total 1-hr HCs concentration by the ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.

(2) Short-term (1-hr) guideline concentrations (SGC) established by NYSDEC.

(3) Estimated by dividing the maximum 1-hr concentrations of each pollutant by the SGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.

(4) Estimated by multiplying the total annual HCs concentration by ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.

(5) Long-term (annual) guideline concentrations (AGC) established by NYSDEC.

(6) Estimated by dividing the maximum annual concentration of each of the individual pollutants by the AGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.

(7) Unit risk factors established by USEPA and other governmental agencies for the inhalation of carcinogenic air pollutants.

(8) The maximum cancer risk of each of the individual pollutants was estimated by multiplying the estimated annual concentration of each pollutant by its unit risk factor.

(9) The total incremental cancer risk from all of the pollutants combined was estimated by summing the maximum cancer risk of each of the individual pollutants.

(10) Some of the pollutants included in the group of non-carcinogenic pollutants, such as anthracene, benzo(a)anthracene and chrysene, may also have carcinogenic effects. As these pollutants do not have established unit risk factors, they were evaluated using the hazard index approach for non-carcinogens.

(11) Hazard index and cancer risk thresholds based on NYSDEC "Guidelines for the Control of Toxic Ambient Air Contaminants" dated November 12, 1997. Estimated values below these threshold limits are considered to be insignificant impacts.

Table A.4-17
Maximum Estimated Potential Pollutant Concentrations Near Selected Roadway Intersection
DSNY-managed Waste Plus Commercial Waste Hauling Vehicles
West 135th Street Converted MTS

Air Quality Receptor Site	CO	PM_{10}		24-hr $PM_{2.5}$ Impacts			Annual Neighborhood $PM_{2.5}$ Impacts		
	8-hr CO Conc.[1] ppm (NAAQS: 9 ppm)	24-hr PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 150 $\mu g/m^3$)	Annual PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 50 $\mu g/m^3$)	Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Impacts from Off-Site Emission Sources[3] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)	Impacts from Off-Site Emission Sources[4] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)	Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)
12th Ave. & 133rd St.									
Existing Conditions	NA [5]	77 [6]	34 [6]						
Future No-Build Conditions	NA [5]	77 [6]	34 [6]						
Future Build Conditions	NA [5]	77 [6]	34 [6]						
Future Build Incremental				0.4	0.27 [6]	0.67	0.02	0.06 [6]	0.08
Broadway & 133rd St.									
Existing Conditions	NA [5]	77 [6]	33 [6]						
Future No-Build Conditions	NA [5]	77 [6]	33 [6]						
Future Build Conditions	NA [5]	78 [6]	34 [6]						
Future Build Incremental				0.4	0.21 [6]	0.61	0.02	0.06 [6]	0.04

Notes:

[1] PM_{10} concentrations are the maximum concentrations estimated using the AM, Facility AM, and PM peak traffic conditions plus background concentration (24-hr PM_{10} = 46 $\mu g/m^3$; Annual PM_{10} = 21$\mu g/m^3$).

[2] The maximum estimated concentrations of on-site emissions near the intersection considered.

[3] The $PM_{2.5}$ concentrations are the maximum modeled incremental $PM_{2.5}$ impacts (due to project-induced [or future build] traffic only) estimated by taking the difference between the maximum $PM_{2.5}$ concentrations for the Future No-Build and Future Build scenarios at any receptor 3 meters from the edge of the roadways using AM, midday or PM peak traffic conditions .

[4] The $PM_{2.5}$ concentrations are the maximum modeled incremental $PM_{2.5}$ impacts (due to project-induced [or future build] traffic only) estimated by taking the difference between the maximum $PM_{2.5}$ concentrations for the Future No-Build and Future Build scenarios at any receptor 15 meters from the edge of the roadways using AM, midday or PM peak traffic conditions.

[5] Incremental 1-hour vehicular trips were below CEQR CO air quality screening thresholds.

ppm = parts per million.

$\mu g/m^3$ = micrograms per cubic meter.

Table A.4-18
Maximum Estimated Potential Pollutant Concentrations Near Selected Roadway Intersection
DSNY-managed Waste Plus Commercial Waste Hauling Vehicles
East 91st Street Converted MTS

Air Quality Receptor Site	CO	PM_{10}		24-hr $PM_{2.5}$ Impacts			Annual Neighborhood $PM_{2.5}$ Impacts		
	8-hr CO Conc.[1] ppm (NAAQS: 9 ppm)	24-hr PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 150 $\mu g/m^3$)	Annual PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 50 $\mu g/m^3$)	Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Impacts from Off-Site Emission Sources[3] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)	Impacts from Off-Site Emission Sources[4] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)	Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)
York Ave. & 86th St.									
Existing Conditions	NA [5]	76	32 [6]						
Future No-Build Conditions	NA [5]	77	32 [6]						
Future Build Conditions	NA [5]	77	32 [6]						
Future Build Incremental				0.31	0.3 [6]	0.68	0.04	0.09 [6]	0.1
York Ave. & 91st St.									
Existing Conditions	4	86	35 [6]						
Future No-Build Conditions	4	87	35 [6]						
Future Build Conditions	4	89	36 [6]						
Future Build Incremental				0.88	1.36 [6]	2.17	0.04	0.1 [6]	0.1

Notes:

[1] PM_{10} concentrations are the maximum concentrations estimated using the AM, Facility AM, and PM peak traffic conditions plus background concentration (24-hr PM_{10} = 46 $\mu g/m^3$; Annual PM_{10} = 21$\mu g/m^3$).

[2] The maximum estimated concentrations of on-site emissions near the intersection considered.

[3] The $PM_{2.5}$ concentrations are the maximum modeled incremental $PM_{2.5}$ impacts (due to project-induced [or future build] traffic only) estimated by taking the difference between the maximum $PM_{2.5}$ concentrations for the Future No-Build and Future Build scenarios at any receptor 3 meters from the edge of the roadways using AM, midday or PM peak traffic conditions .

[4] The $PM_{2.5}$ concentrations are the maximum modeled incremental $PM_{2.5}$ impacts (due to project-induced [or future build] traffic only) estimated by taking the difference between the maximum $PM_{2.5}$ concentrations for the Future No-Build and Future Build scenarios at any receptor 15 meters from the edge of the roadways using AM, midday or PM peak traffic conditions.

[5] Incremental 1-hour vehicular trips were below CEQR CO air quality screening thresholds.

ppm = parts per million.

$\mu g/m^3$ = micrograms per cubic meter.

Table A.4-19
Maximum Estimated Potential Pollutant Concentrations Near Selected Roadway Intersection
DSNY-managed Waste Plus Commercial Waste Hauling Vehicles
West 59th Street Converted MTS

Air Quality Receptor Site	CO	PM_{10}		24-hr $PM_{2.5}$ Impacts			Annual Neighborhood $PM_{2.5}$ Impacts		
	8-hr CO Conc.[1] ppm (NAAQS: 9 ppm)	24-hr PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 150 $\mu g/m^3$)	Annual PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 50 $\mu g/m^3$)	Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Impacts from Off-Site Emission Sources[3] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)	Impacts from Off-Site Emission Sources[4] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)	Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)
59th St. and 12th Avenue									
Existing Conditions	NA [5]	86	36						
Future No-Build Conditions	NA [5]	92	40						
Future Build Conditions	NA [5]	93	41						
Future Build Incremental				1.57	0.77 [6]	2.36	0.03	0.04 [6]	0.06
Route 9A & 57th									
Existing Conditions	NA [5]	105	44						
Future No-Build Conditions	NA [5]	109	44						
Future Build Conditions	NA [5]	109	44						
Future Build Incremental				0.64	0.2 [6]	0.87	0.03	0.03 [6]	0.05

Notes:

[1] PM_{10} concentrations are the maximum concentrations estimated using the AM, Facility AM, and PM peak traffic conditions plus background concentration (24-hr PM_{10} = 46 $\mu g/m^3$; Annual PM_{10} = 21$\mu g/m^3$).

[2] The maximum estimated concentrations of on-site emissions near the intersection considered.

[3] The $PM_{2.5}$ concentrations are the maximum modeled incremental $PM_{2.5}$ impacts (due to project-induced [or future build] traffic only) estimated by taking the difference between the maximum $PM_{2.5}$ concentrations for the Future No-Build and Future Build scenarios at any receptor 3 meters from the edge of the roadways using AM, midday or PM peak traffic conditions .

[4] The $PM_{2.5}$ concentrations are the maximum modeled incremental $PM_{2.5}$ impacts (due to project-induced [or future build] traffic only) estimated by taking the difference between the maximum $PM_{2.5}$ concentrations for the Future No-Build and Future Build scenarios at any receptor 15 meters from the edge of the roadways using AM, midday or PM peak traffic conditions.

[5] Incremental 1-hour vehicular trips were below CEQR CO air quality screening thresholds.

ppm = parts per million.

$\mu g/m^3$ = micrograms per cubic meter.

Table A.4-20
Maximum Estimated Potential Pollutant Concentrations Near Selected Roadway Intersection
DSNY-managed Waste Plus Commercial Waste Hauling Vehicles
South Bronx Converted MTS

Air Quality Receptor Site	CO	PM_{10}		24-hr $PM_{2.5}$ Impacts			Annual Neighborhood $PM_{2.5}$ Impacts		
	8-hr CO Conc.[1] ppm (NAAQS: 9 ppm)	24-hr PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 150 $\mu g/m^3$)	Annual PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 50 $\mu g/m^3$)	Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Impacts from Off-Site Emission Sources[3] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)	Impacts from Off-Site Emission Sources[4] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)	Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)
Bruckner & Leggett									
Existing Conditions	6	121	42						
Future No-Build Conditions	5	117	41						
Future Build Conditions	5	118	41						
Future Build Incremental				0.02	0.31	0.33	0.0003	0.09	0.09
Bruckner & Longwood									
Existing Conditions	NA [5]	132	42						
Future No-Build Conditions	NA [5]	129	41						
Future Build Conditions	NA [5]	129	43						
Future Build Incremental				0.02	0.36	0.39	0.0004	0.08	0.08
Tiffany & Randall									
Existing Conditions	3	93	32						
Future No-Build Conditions	3	88	34						
Future Build Conditions	3	99	34						
Future Build Incremental				0.03	0.28	0.31	0.0006	0.06	0.06

Table A.4-20 (Continued)
Maximum Estimated Potential Pollutant Concentrations Near Selected Roadway Intersection
DSNY-managed Waste Plus Commercial Waste Hauling Vehicles
South Bronx Converted MTS

Air Quality Receptor Site	CO	PM_{10}		24-hr $PM_{2.5}$ Impacts			Annual Neighborhood $PM_{2.5}$ Impacts		
	8-hr CO Conc.[1] ppm (NAAQS: 9 ppm)	24-hr PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 150 $\mu g/m^3$)	Annual PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 50 $\mu g/m^3$)	Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Impacts from Off-Site Emission Sources[3] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)	Impacts from Off-Site Emission Sources[4] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)	Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)
Halleck & Ryawa									
Existing Conditions	NA [5]	84	28						
Future No-Build Conditions	NA [5]	95	32						
Future Build Conditions	NA [5]	98	33						
Future Build Incremental				0.10	0.54	0.65	0.03	0.07	0.09
Halleck & East Bay/Hunts Point									
Existing Conditions	4	111	44						
Future No-Build Conditions	4	110	43						
Future Build Conditions	4	113	44						
Future Build Incremental				0.07	0.34	0.45	0.002	0.05	0.05

Notes:

[1] PM_{10} concentrations are the maximum concentrations estimated using the AM, Facility AM, and PM peak traffic conditions plus background concentration (24-hr PM_{10} = 46 $\mu g/m^3$; Annual PM_{10} = 21$\mu g/m^3$).

[2] The maximum estimated concentrations of on-site emissions near the intersection considered.

[3] The $PM_{2.5}$ concentrations are the maximum modeled incremental $PM_{2.5}$ impacts (due to project-induced [or future build] traffic only) estimated by taking the difference between the maximum $PM_{2.5}$ concentrations for the Future No-Build and Future Build scenarios at any receptor 3 meters from the edge of the roadways using AM, midday or PM peak traffic conditions .

[4] The $PM_{2.5}$ concentrations are the maximum modeled incremental $PM_{2.5}$ impacts (due to project-induced [or future build] traffic only) estimated by taking the difference between the maximum $PM_{2.5}$ concentrations for the Future No-Build and Future Build scenarios at any receptor 15 meters from the edge of the roadways using AM, midday or PM peak traffic conditions.

[5] Incremental 1-hour vehicular trips were below CEQR CO air quality screening thresholds.

ppm = parts per million.

$\mu g/m^3$ = micrograms per cubic meter.

Table A.4-21
Maximum Estimated Potential Pollutant Concentrations Near Selected Roadway Intersection
DSNY-managed Waste Plus Commercial Waste Hauling Vehicles
North Shore Converted MTS

	CO	PM_{10}		24-hr $PM_{2.5}$ Impacts			Annual Neighborhood $PM_{2.5}$ Impacts		
Air Quality Receptor Site	**8-hr CO Conc.[1] ppm (NAAQS: 9 ppm)**	**24-hr PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 150 $\mu g/m^3$)**	**Annual PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 50 $\mu g/m^3$)**	**Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)**	**Impacts from Off-Site Emission Sources[3] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)**	**Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$ (STV: 5 $\mu g/m^3$)**	**Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)**	**Impacts from Off-Site Emission Sources[4] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)**	**Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)**
College Point Blvd. & 31st Ave.									
Existing Conditions	4.4	87	35						
Future No-Build Conditions	4.8	88	35						
Future Build Conditions	4.3	91	36						
Future Build Incremental				0.12	0.41 [5]	0.71	0.01	0.1 [5]	0.1
College Point Blvd. & Booth Memorial Ave.									
Existing Conditions	5.1	100	41						
Future No-Build Conditions	4.5	102	42						
Future Build Conditions	4.9	102	42						
Future Build Incremental				0.02	0.30	0.35	0.002	0.1	0.1
College Point Blvd., 32nd Ave. & WSE Service Rd.									
Existing Conditions	5.0	96	39						
Future No-Build Conditions	4.9	97	39						
Future Build Conditions	4.9	98	40						
Future Build Incremental				0.06	0.38	0.56	0.01	0.1	0.1

Notes for Table A.4-21:

(1) PM_{10} concentrations are the maximum concentrations estimated using the AM, Facility AM, and PM peak traffic conditions plus background concentration (24-hr $PM_{10} = 46\ \mu g/m^3$; Annual $PM_{10} = 21 \mu g/m^3$).

(2) The maximum estimated concentrations of on-site emissions near the intersection considered.

(3) The $PM_{2.5}$ concentrations are the maximum modeled incremental $PM_{2.5}$ impacts (due to project-induced [or future build] traffic only) estimated by taking the difference between the maximum $PM_{2.5}$ concentrations for the Future No-Build and Future Build scenarios at any receptor 3 meters from the edge of the roadways using AM, midday or PM peak traffic conditions .

(4) The $PM_{2.5}$ concentrations are the maximum modeled incremental $PM_{2.5}$ impacts (due to project-induced [or future build] traffic only) estimated by taking the difference between the maximum $PM_{2.5}$ concentrations for the Future No-Build and Future Build scenarios at any receptor 15 meters from the edge of the roadways using AM, midday or PM peak traffic conditions.

(5) Incremental 1-hour vehicular trips were below CEQR CO air quality screening thresholds.

ppm = parts per million.

$\mu g/m^3$ = micrograms per cubic meter.

Table A.4-22
Maximum Estimated Potential Pollutant Concentrations Near Selected Roadway Intersection
DSNY-managed Waste Plus Commercial Waste Hauling Vehicles
Greenpoint Converted MTS

	CO	PM_{10}		24-hr $PM_{2.5}$ Impacts			Annual Neighborhood $PM_{2.5}$ Impacts		
Air Quality Receptor Site	**8-hr CO Conc.[1] ppm (NAAQS: 9 ppm)**	**24-hr PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 150 $\mu g/m^3$)**	**Annual PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 50 $\mu g/m^3$)**	**Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)**	**Impacts from Off-Site Emission Sources[3] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)**	**Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$ (STV: 5 $\mu g/m^3$)**	**Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)**	**Impacts from Off-Site Emission Sources[4] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)**	**Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)**
Kingsland Ave., Greenpoint Ave. & Norman Ave.									
Existing Conditions	5.2	104	43						
Future No-Build Conditions	4.8	105	43						
Future Build Conditions	4.9	105	43						
Future Build Incremental				0.061	0.7	0.76	0.02	0.1	0.1
Greenpoint Ave., Review Ave. & VanDam St.									
Existing Conditions	NA [5]	118	49						
Future No-Build Conditions	NA [5]	102	40						
Future Build Conditions	NA [5]	103	40						
Future Build Incremental				0.037	0.3	0.34	0.01	0.1	0.1
Greenpoint Ave., McGuiness Blvd. & Provost									
Existing Conditions	NA [5]	104	40						
Future No-Build Conditions	NA [5]	105	40						
Future Build Conditions	NA [5]	106	41						
Future Build Incremental				0.037	0.5	0.54	0.006	0.1	0.1

Notes for Table A.4-22:

(1) PM_{10} concentrations are the maximum concentrations estimated using the AM, Facility AM, and PM peak traffic conditions plus background concentration (24-hr PM_{10} = 46 $\mu g/m^3$; Annual PM_{10} = 21$\mu g/m^3$).

(2) The maximum estimated concentrations of on-site emissions near the intersection considered.

(3) The $PM_{2.5}$ concentrations are the maximum modeled incremental $PM_{2.5}$ impacts (due to project-induced [or future build] traffic only) estimated by taking the difference between the maximum $PM_{2.5}$ concentrations for the Future No-Build and Future Build scenarios at any receptor 3 meters from the edge of the roadways using AM, midday or PM peak traffic conditions .

(4) The $PM_{2.5}$ concentrations are the maximum modeled incremental $PM_{2.5}$ impacts (due to project-induced [or future build] traffic only) estimated by taking the difference between the maximum $PM_{2.5}$ concentrations for the Future No-Build and Future Build scenarios at any receptor 15 meters from the edge of the roadways using AM, midday or PM peak traffic conditions.

(5) Incremental 1-hour vehicular trips were below CEQR CO air quality screening thresholds.

ppm = parts per million.

$\mu g/m^3$ = micrograms per cubic meter.

Table A.4-23
Maximum Estimated Potential Pollutant Concentrations Near Selected Roadway Intersection
DSNY-managed Waste Plus Commercial Waste Hauling Vehicles
Hamilton Avenue Converted MTS

Air Quality Receptor Site	CO	PM_{10}		24-hr $PM_{2.5}$ Impacts			Annual Neighborhood $PM_{2.5}$ Impacts		
	8-hr CO Conc.[1] ppm (NAAQS: 9 ppm)	24-hr PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 150 $\mu g/m^3$)	Annual PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 50 $\mu g/m^3$)	Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Impacts from Off-Site Emission Sources[3] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)	Impacts from Off-Site Emission Sources[4] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)	Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)
20th St., 3rd Ave. & 4th Ave.									
Existing Conditions	NA [5]	128 [6]	37 [6]						
Future No-Build Conditions	NA [5]	127 [6]	38 [6]						
Future Build Conditions	NA [5]	131 [6]	38 [6]						
Future Build Incremental				0.075	0.5	0.58	0.006	0.10	0.1
Hamilton Ave., Hamilton Pl. & 14th St.									
Existing Conditions	NA [5]	137 [6]	43 [6]						
Future No-Build Conditions	NA [5]	141 [6]	45 [6]						
Future Build Conditions	NA [5]	142 [6]	45 [6]						
Future Build Incremental				0.46	0.3	0.76	0.03	0.05	0.08

Notes:

(1) PM_{10} concentrations are the maximum concentrations estimated using the AM, Facility AM, and PM peak traffic conditions plus background concentration (24-hr PM_{10} = 46 $\mu g/m^3$; Annual PM_{10} = 21$\mu g/m^3$).

(2) The maximum estimated concentrations of on-site emissions near the intersection considered.

(3) The $PM_{2.5}$ concentrations are the maximum modeled incremental $PM_{2.5}$ impacts (due to project-induced [or future build] traffic only) estimated by taking the difference between the maximum $PM_{2.5}$ concentrations for the Future No-Build and Future Build scenarios at any receptor 3 meters from the edge of the roadways using AM, midday or PM peak traffic conditions .

(4) The $PM_{2.5}$ concentrations are the maximum modeled incremental $PM_{2.5}$ impacts (due to project-induced [or future build] traffic only) estimated by taking the difference between the maximum $PM_{2.5}$ concentrations for the Future No-Build and Future Build scenarios at any receptor 15 meters from the edge of the roadways using AM, midday or PM peak traffic conditions.

(5) Incremental 1-hour vehicular trips were below CEQR CO air quality screening thresholds.

ppm = parts per million.

$\mu g/m^3$ = micrograms per cubic meter.

Table A.4-24
Maximum Estimated Potential Pollutant Concentrations Near Selected Roadway Intersection
DSNY-managed Waste Plus Commercial Waste Hauling Vehicles
Southwest Brooklyn Converted MTS

	CO	PM_{10}		24-hr $PM_{2.5}$ Impacts			Annual Neighborhood $PM_{2.5}$ Impacts		
Air Quality Receptor Site	**8-hr CO Conc.[1] ppm (NAAQS: 9 ppm)**	**24-hr PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 150 $\mu g/m^3$)**	**Annual PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 50 $\mu g/m^3$)**	**Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)**	**Impacts from Off-Site Emission Sources[3] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)**	**Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$ (STV: 5 $\mu g/m^3$)**	**Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)**	**Impacts from Off-Site Emission Sources[4] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)**	**Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)**
26th Ave., Cropsey Ave & Shore Parkway									
Existing Conditions	NA [5]	137	47						
Future No-Build Conditions	NA [5]	136	46						
Future Build Conditions	NA [5]	136	46						
Future Build Incremental				0.25	0.4	0.65	0.03	0.06	0.09
Bay Parkway, Cropsey Ave. & Shore Parkway									
Existing Conditions	NA [5]	147 [3]	54 [3]						
Future No-Build Conditions	NA [5]	149 [3]	55 [3]						
Future Build Conditions	NA [5]	150 [3]	55 [3]						
Future Build Incremental				0.10	0.3	0.40	0.006	0.1	0.1

Notes:

[1] PM_{10} concentrations are the maximum concentrations estimated using the AM, Facility AM, and PM peak traffic conditions plus background concentration (24-hr PM_{10} = 46 $\mu g/m^3$; Annual PM_{10} = 21$\mu g/m^3$).

[2] The maximum estimated concentrations of on-site emissions near the intersection considered.

[3] The $PM_{2.5}$ concentrations are the maximum modeled incremental $PM_{2.5}$ impacts (due to project-induced [or future build] traffic only) estimated by taking the difference between the maximum $PM_{2.5}$ concentrations for the Future No-Build and Future Build scenarios at any receptor 3 meters from the edge of the roadways using AM, midday or PM peak traffic conditions .

[4] The $PM_{2.5}$ concentrations are the maximum modeled incremental $PM_{2.5}$ impacts (due to project-induced [or future build] traffic only) estimated by taking the difference between the maximum $PM_{2.5}$ concentrations for the Future No-Build and Future Build scenarios at any receptor 15 meters from the edge of the roadways using AM, midday or PM peak traffic conditions.

[5] Incremental 1-hour vehicular trips were below CEQR CO air quality screening thresholds.

ppm = parts per million.

$\mu g/m^3$ = micrograms per cubic meter.

ATTACHMENT 5

COMMERCIAL WASTE TRUCKS ALLOWED BASED ON SECOND-LEVEL NOISE SCREENING

Summary of Commercial Waste Trucks Allowed for the 8:00 p.m. to 8:00 a.m. Period Based on Second-Level Noise Screening and the DSNY-managed Waste Reserved Capacity

Routes Screened [1]	Commercial Waste Trucks Based on Second-Level Noise Screening		Range of Commercial Waste Trucks Allowed during 8:00 p.m. to 8:00 a.m. Period Based on DSNY Managed Waste Reserved Capacity at MTS
	Hours Where Commercial Waste Trucks are Allowed	Range of Commercial Waste Trucks Allowed during these Hours	
135th Street Converted MTS			
From the north			
Route 1N A To MTS: Broadway to West 133rd St to Riverside Drive (12th Ave) to West 135th St From MTS: Reverse	8 p.m. - 12 a.m., 6 a.m. - 8 a.m. [2]	2-7	3 - 18
Route 1N B To MTS: Broadway to West 132m St to Riverside Drive (12th Ave) to West 135th St From MTS: Reverse	8 p.m. - 12 a.m., 6 a.m. - 8 a.m. [2]	1-5	3 - 18
Route 2N To MTS: Amsterdam Ave to West 125th St to Riverside Drive (12th Ave) to West 135th St From MTS: Reverse	8 p.m. – 1 a.m., 4 a.m. – 8 a.m. [2]	2-16	3 - 20
From the south			
Route 1S A To MTS: Broadway to West 133rd St to Riverside Drive (12th Ave) to West 135th St From MTS: Reverse	8 p.m. - 12 a.m., 6 a.m. - 8 a.m. [2]	3-7	3 - 18
Route 1S B To MTS: Broadway to West 132nd St to Riverside Drive (12th Ave) to West 135th St From MTS: Reverse	8 p.m. - 12 a.m., 6 a.m. - 8 a.m. [2]	1-5	3 - 18
Route 2S To MTS: Amsterdam Ave to West 125th St to Riverside Drive (12th Ave) to West 135th St From MTS: Reverse	8 p.m. – 1 a.m., 4 a.m. – 8 a.m. [2]	2-16	3 - 20
From the east			
Route 1E To MTS: 3rd Ave to East 125th St (turns into West 125th St) to Riverside Drive (12th Ave) to West 135th St From MTS: Reverse	8 p.m. – 1 a.m., 4 a.m. – 8 a.m. [2]	2-16	3 - 20
91st Street Converted MTS			
From the north			
Route 1N A To MTS: 2nd Ave to East 90th St to York Ave to East 91st St From MTS: East 91st St to York Ave to East 91st St to (1st Ave OR 3rd Ave)	8 p.m. - 2 a.m., 5 a.m. - 8 a.m. [2]	1-2	1-2
Route 1N B To MTS: 2nd Ave to East 88th St to York Ave to East 91st St From MTS: East 91st St to York Ave to East 89th to (1st Ave OR 3rd Ave)	8 p.m. - 2 a.m., 6 a.m. - 7 a.m. [2]	1-2	1-2
Route 1N C To MTS: 2nd Ave East 86th St to York Ave to East 91st St From MTS: East 91st St to York Ave to East 87th St to (1st Ave OR 3rd Ave)	8 p.m. – 11 p.m., 6 a.m. - 7 a.m. [2]	1-2	1-2
From the south			
Route 1S A To MTS: 1st Ave to East 90th St to York Ave to East 91st St From MTS: East 91st St to York Ave to East 86th St to 2nd Ave	8 p.m. - 2 a.m., 4 a.m. - 7 a.m. [2]	3-4	9-20

Summary of Commercial Waste Trucks Allowed for the 8:00 p.m. to 8:00 a.m. Period Based on Second-Level Noise Screening and the DSNY-managed Waste Reserved Capacity (Continued)

Routes Screened [1]	Commercial Waste Trucks Based on Second-Level Noise Screening		Range of Commercial Waste Trucks Allowed during 8:00 p.m. to 8:00 a.m. Period Based on DSNY Managed Waste Reserved Capacity at MTS
	Hours Where Commercial Waste Trucks are Allowed	Range of Commercial Waste Trucks Allowed during these Hours	
Route 1S B To MTS: 1st Ave to East 88th St to York Ave to East 91st St From MTS: East 91st St to York Ave to East 86th St to 2nd Ave	8 p.m. - 2 a.m., 5 a.m. - 7 a.m. [2]	1-6	9-20
Route 2S To MTS: 3rd Ave to East 86th St to York Ave to East 91st St From MTS: East 91st St to York Ave to East 86th St to 2nd Ave	8 p.m. - 2 a.m., 5 a.m. - 7 a.m. [2]	1 - 12	9-20
59th Street Converted MTS[2]			
From the north			
Route 1N To MTS: Columbus Ave to West 59th St From MTS: West 59th St to Amsterdam Ave	8 p.m. - 3 a.m., 4 a.m. - 8 a.m. [2]	0-1	0-1
From the south			
Route 1S To MTS: 12th Ave (Joe DiMaggio Hwy) to 12th Ave Service Road (starts at 57th St) to West 59th St From MTS: Reverse	8 p.m. – 8 a.m.	3-9	3-9
Route 2S To MTS: 10th Ave to 57th Ave to 12th Ave Service Road to 59th St From MTS: West 59th St to 11th Ave	8 p.m. – 8 a.m.	3-9	3-9
From the east			
Route 1E To MTS: (2nd Ave or 3rd Ave) to East 57th St (turns into West 57th St) to 12th Ave Service Road to 59th St. From MTS: Reverse	8 p.m. – 8 a.m.	3-10	3-10
South Bronx Converted MTS			
Route 1 To MTS: Bruckner Blvd to Leggett Ave to Randall Ave to Halleck St to Ryawa Ave From MTS: Reverse	8 p.m. - 8 a.m.	0-7	0-7
Route 2 To MTS: Bruckner Blvd to Leggett Ave to (Barry St OR Dupont St OR Truxton St) to Oak Point Ave to Hunt's Point Ave to Halleck St to Ryawa Ave From MTS: Reverse	8 p.m. - 8 a.m.	0-7	0-7
Route 3 To MTS: Bruckner Blvd to Longwood Ave to Tiffany St to East Bay Ave to Halleck St to Ryawa Ave From MTS: Reverse	8 p.m. - 1 a.m., 2 a.m. – 8 a.m. [2]	0-7	0-7
Route 4 To MTS: Bruckner Blvd to Longwood Ave to Tiffany St to Viele Ave to Halleck St to Ryawa Ave From MTS: Reverse	8 p.m. - 1 a.m., 2 a.m. – 8 a.m. [2]	0-7	0-7
North Shore Converted MTS			
From the north			
Route 1N To MTS: 20th Ave to College Point Blvd to 31st Ave From MTS: Reverse	8 p.m. - 8 a.m.	0-1	0-1

Summary of Commercial Waste Trucks Allowed for the 8:00 p.m. to 8:00 a.m. Period Based on Second-Level Noise Screening and the DSNY-managed Waste Reserved Capacity (Continued)

Routes Screened [1]	Commercial Waste Trucks Based on Second-Level Noise Screening		Range of Commercial Waste Trucks Allowed during 8:00 p.m. to 8:00 a.m. Period Based on DSNY Managed Waste Reserved Capacity at MTS
	Hours Where Commercial Waste Trucks are Allowed	Range of Commercial Waste Trucks Allowed during these Hours	
Route 1S B To MTS: 1st Ave to East 88th St to York Ave to East 91st St From MTS: East 91st St to York Ave to East 86th St to 2nd Ave	8 p.m. - 2 a.m., 5 a.m. - 7 a.m. [2]	1-6	9-20
From the south			
Route 1S To MTS: Van Wick Expressway to Whitestone Expressway to Linden Place to Whitestone Expressway Service Road (Westbound) to College Point Blvd to 31st Ave From MTS: 31st Ave to College Point Blvd to Whitestone Expressway Service Road (Eastbound) to Linden Place to Whitestone Expressway Service Road (Westbound) to Whitestone Expressway to Van Wick Expressway	8 p.m. - 8 a.m.	0 -16	0 -16
Route 2S To MTS: Van Wick Expressway to College Point Blvd to 31st Ave From MTS: Reverse	8 p.m. – 12 a.m., 6 a.m. – 8 a.m. [2]	0 – 11	0-14
From the east			
Route 1E To MTS: Northern Blvd to Linden Place to Whitestone Expressway Service Road (Eastbound) to College Point Blvd to 31st Ave From MTS: Reverse	8 p.m. – 1 a.m., 3 a.m. – 4 a.m., 5 a.m. – 8 a.m. [2]	0 – 5	0 - 5
Route 2E To MTS: Long Island Expressway to College Point Blvd to 31st Ave From MTS: Reverse	8 p.m. – 12 a.m., 6 a.m. – 8 a.m. [2]	0 – 11	0 - 14
From the west			
Route 1W To MTS: Northern Blvd to Linden Place to Whitestone Expressway Service Road (Eastbound) to College Point Blvd to 31st Ave From MTS: Reverse	8 p.m. – 1 a.m., 3 a.m. – 4 a.m., 5 a.m. – 8 a.m. [2]	0 – 2	0 - 2
Route 2W To MTS: Long Island Expressway to College Point Blvd to 31st Ave From MTS: Reverse	8 p.m. – 12 a.m., 6 a.m. – 8 a.m. [2]	0 – 11	0 - 14
Route 3W To MTS: Roosevelt Ave to College Point Blvd to 31st Ave From MTS: Reverse	8 p.m. – 1 a.m., 3 a.m. – 4 a.m., 6 a.m. – 8 a.m. [2]	0 – 2	0 - 2
Greenpoint Avenue Converted MTS			
From the north			
Route 1N To MTS: McGuiness Blvd to Greenpoint Ave to Kingsland Ave From MTS: Reverse	8 p.m. - 2 a.m., 3 a.m. - 8 a.m. [2]	0 – 8	0 – 8
Route 2N To MTS: Queens Blvd to Greenpoint Ave to Starr Ave to Van Dam St to Greenpoint Ave to Kingsland Ave From MTS: Kingsland Ave to Greenpoint Ave to Queens Blvd	8 p.m. - 8 a.m.	1 –6	0 – 7

Summary of Commercial Waste Trucks Allowed for the 8:00 p.m. to 8:00 a.m. Period Based on Second-Level Noise Screening and the DSNY-managed Waste Reserved Capacity (Continued)

Routes Screened [1]	Commercial Waste Trucks Based on Second-Level Noise Screening		Range of Commercial Waste Trucks Allowed during 8:00 p.m. to 8:00 a.m. Period Based on DSNY Managed Waste Reserved Capacity at MTS
	Hours Where Commercial Waste Trucks are Allowed	Range of Commercial Waste Trucks Allowed during these Hours	
Route 1S B To MTS: 1st Ave to East 88th St to York Ave to East 91st St From MTS: East 91st St to York Ave to East 86th St to 2nd Ave	8 p.m. - 2 a.m., 5 a.m. - 7 a.m. [2]	1-6	9-20
Route 3N To MTS: Van Dam St to Greenpoint Ave to Kingsland Ave From MTS: Reverse	8 p.m. - 8 a.m.	0 – 7	0 – 7
From the south			
Route 1S To MTS: McGuiness Blvd to Greenpoint Ave to Kingsland Ave From MTS: Reverse	8 p.m. - 2 a.m., 3 a.m. - 8 a.m. [2]	0 – 8	0 - 8
Route 2S To MTS: Brooklyn-Queens Expressway to Meeker St (eastbound) to Varick St to Bridgewater St to Norman Ave to Kingsland Ave From MTS: Kingsland Ave to Greenpoint Ave to Henry St to Norman Ave to Bridgewater St to Varick St to Meeker Ave to BQE	8 p.m. - 8 a.m.	0 – 6	0 - 9
From the east			
Route 1E To MTS: Brooklyn-Queens Expressway to Meeker St (eastbound) to Varick St to Bridgewater St to Norman Ave to Kingsland Ave From MTS: Kingsland Ave to Greenpoint Ave to McGuiness Blvd to Meeker St to BQE	8 p.m. - 2 a.m., 3 a.m. - 8 a.m. [2]	0 – 8	0 – 8
Route 2E To MTS: Long Island Expressway to Van Dam St to Greenpoint Ave to Kingsland Ave From MTS: From MTS: Kingsland Ave to Greenpoint Ave to LIE	8 p.m. - 8 a.m.	0 – 7	0 – 7
Hamilton Avenue Converted MTS			
From the north			
Route 1N To MTS: BQE to Hamilton Ave (southbound) (Exit 26) From MTS: Hamilton Ave (southbound) to 20th St to 3rd Ave to Hamilton Ave (northbound) to BQE	8 p.m. - 8 a.m.	1 – 12	1 - 12
Route 2NA To MTS: 3rd Ave to 9th Street to Hamilton Ave (southbound) From MTS: Hamilton Ave (southbound) to 20th St to 3rd Ave to Hamilton Ave (northbound) to 9th Street to 3rd Ave	8 p.m. - 8 a.m.	1 – 9	1 - 12
Route 2NB To MTS: 4th Ave to 9th Street to Hamilton Ave (southbound) From MTS: Hamilton Ave (southbound) to 20th St to 3rd Ave to Hamilton Ave (northbound) to 9th Street to 3rd Ave	8 p.m. - 8 a.m.	1 – 9	1 - 12
Route 3N To MTS: 3rd Ave to 9th Street to Hamilton Ave (northbound) to Hamilton Place to Hamilton Ave (southbound) From MTS: Hamilton Ave (southbound) to 20th St to 3rd Ave (to 9th St to 4th Ave)	8 p.m. - 8 a.m.	1 – 9	1 - 12
From the south			

Summary of Commercial Waste Trucks Allowed for the 8:00 p.m. to 8:00 a.m. Period Based on Second-Level Noise Screening and the DSNY-managed Waste Reserved Capacity (Continued)

Routes Screened [1]	Commercial Waste Trucks Based on Second-Level Noise Screening		Range of Commercial Waste Trucks Allowed during 8:00 p.m. to 8:00 a.m. Period Based on DSNY Managed Waste Reserved Capacity at MTS
	Hours Where Commercial Waste Trucks are Allowed	Range of Commercial Waste Trucks Allowed during these Hours	
Route 1S B To MTS: 1st Ave to East 88th St to York Ave to East 91st St From MTS: East 91st St to York Ave to East 86th St to 2nd Ave	8 p.m. - 2 a.m., 5 a.m. - 7 a.m. [2]	1-6	9-20
Route 1S To MTS: Gowanus Expressway to 4th Ave to Prospect to Hamilton Ave (northbound) to Hamilton Place to Hamilton Ave (southbound) From MTS: Hamilton Ave (southbound, turns into 3rd Ave) to 65th Street	8 p.m. -2 a.m., 3 a.m. – 8 a.m. [2]	0 – 3	0 – 3
Route 2S To MTS: 65th St to 3rd Ave to Hamilton Ave (northbound) to Hamilton Place to Hamilton Ave (southbound) From MTS: Hamilton Ave (southbound, turns into 3rd Ave) to 65th Street	8 p.m. - 8 a.m.	0 – 3	0 – 3
From the east			
Route 1E To MTS: 39th St WB to 4th Ave NB to Prospect Ave to Hamilton Ave (northbound) to Hamilton Place to Hamilton Ave (southbound) From MTS: Hamilton Ave (southbound, turns into 3rd Ave) to 39th St	8 p.m. - 2 a.m., 4 a.m. – 8 a.m. [2]	0-5	0-5
Route 2E To MTS: Prospect Expressway to Prospect Ave to Hamilton Ave (northbound) to Hamilton Place to Hamilton Ave (southbound) From MTS: Hamilton Ave (southbound) to 20th St to 10th Ave to Prospect Expressway	8 p.m. -2 a.m., 4 a.m. – 8 a.m. [2]	0-4	0-5
Southwest Brooklyn Converted MTS			
From the north			
Route 1N To MTS: 86th St to 18th Ave to Cropsey Ave to Bay Parkway to Shore Road (southbound) to 25th Ave From MTS: 25th Av to Shore Road (southbound) to 26th Ave to Cropsey Ave to 18th Ave to 86th St	8 p.m. - 2 a.m., 4 a.m. - 8 a.m. [2]	1 - 12	1 - 16
From the south			
Route 1S To MTS: Neptune Ave to Cropsey Ave to Bay Parkway to Shore Road (southbound) to 25th Ave From MTS: 25th Av to Shore Road (southbound) to 26th Ave to Cropsey Ave to Neptune Ave	8 p.m. - 2 a.m., 4 a.m. - 8 a.m. [2]	0-1	0-1
From the east			
Route 1E To MTS: Kings Highway to Bay Parkway to Shore Road (southbound) to 25th Ave From MTS: 25th Ave to Shore Road (southbound) to 26th Ave to Cropsey Ave to Bay Parkway to Kings Highway	8 p.m. - 2 a.m., 4 a.m. - 8 a.m. [2]	0 – 2	0 – 2

Summary of Commercial Waste Trucks Allowed for the 8:00 p.m. to 8:00 a.m. Period Based on Second-Level Noise Screening and the DSNY-managed Waste Reserved Capacity (Continued)

Routes Screened [1]	Commercial Waste Trucks Based on Second-Level Noise Screening		Range of Commercial Waste Trucks Allowed during 8:00 p.m. to 8:00 a.m. Period Based on DSNY Managed Waste Reserved Capacity at MTS
	Hours Where Commercial Waste Trucks are Allowed	Range of Commercial Waste Trucks Allowed during these Hours	
Route 1S B To MTS: 1st Ave to East 88th St to York Ave to East 91st St From MTS: East 91st St to York Ave to East 86th St to 2nd Ave	8 p.m. - 2 a.m., 5 a.m. - 7 a.m. [2]	1-6	9-20
Route 2E To MTS: 86th St to 25th Ave to Cropsey Ave to Bay Parkway to Shore Road (southbound) to 25th Ave From MTS: 25th Ave to Shore Road (southbound) to 26th Ave to Cropsey Ave to 25th Ave to 86th St	8 p.m. - 2 a.m., 5 a.m. - 8 a.m. [2]	0 – 2	0 – 2

Notes:

(1) It is assumed that one route will be chosen for multiple routes originating from the same direction.

(2) Hours not listed cannot accept any commercial waste trucks based on second-level noise screening analysis.

West 135th Street Converted MTS
Hourly Summary of Potential Commercial Waste Hauling Vehicles for the 8:00 p.m. to 8:00 a.m. Period
Based on Second Level Noise Screening and the DSNY-managed Waste Reserved Capacity

Traffic Route Number	Traffic Route Description	Hour	Weighted Average	
			Potential Commercial Waste Hauling Vehicles	Potentially Allowed Commercial Waste Hauling Vehicles
1-N (A)[1]	To MTS: Broadway to West 133rd St to Riverside Drive (12th Ave) to West 135th St From MTS: Reverse	8 - 9 pm	16	7
		9 - 10 pm	14	6
		10 - 11 pm	18	5
		11 pm - 12 am	9	4
		12 - 1 am	7	0
		1 - 2 am	14	0
		2 - 3 am	16	0
		3 - 4 am	8	0
		4 - 5 am	18	0
		5 - 6 am	17	0
		6 - 7 am	16	6
		7 - 8 am	3	2
1-N (B)	To MTS: Broadway to West 132nd St to Riverside Drive (12th Ave) to West 135th St From MTS: Reverse	8 - 9 pm	16	5
		9 - 10 pm	14	3
		10 - 11 pm	18	3
		11 pm - 12 am	9	2
		12 - 1 am	7	0
		1 - 2 am	14	0
		2 - 3 am	16	0
		3 - 4 am	8	0
		4 - 5 am	18	0
		5 - 6 am	17	0
		6 - 7 am	16	1
		7 - 8 am	3	3

Notes:

[1] This route is predominantly for trucks leaving the MTS. One truck per hour for the hours of 8 p.m. to 6 a.m. is assigned to deliver waste to the MTS using this route. The proposed and allowed Commercial Waste Truck numbers shown above for this route are trucks leaving the MTS.

1-S (A)[1]	To MTS: Broadway to West 133rd St to Riverside Drive (12th Ave) to West 135th St From MTS: Reverse	8 - 9 pm	16	7
		9 - 10 pm	14	6
		10 - 11 pm	18	5
		11 pm - 12 am	9	4
		12 - 1 am	7	0
		1 - 2 am	14	0
		2 - 3 am	16	0
		3 - 4 am	8	0
		4 - 5 am	18	0
		5 - 6 am	17	0
		6 - 7 am	16	6
		7 - 8 am	3	3

Notes:

[1] This route is predominantly for trucks leaving the MTS. One truck per hour for the hours of 8 p.m. to 6 a.m. is assigned to deliver waste to the MTS using this route. The proposed and allowed Commercial Waste Truck numbers shown above for this route are trucks leaving the MTS.

West 135th Street Converted MTS
Hourly Summary of Potential Commercial Waste Hauling Vehicles for the 8:00 p.m. to 8:00 a.m. Period
Based on Second Level Noise Screening and the DSNY-managed Waste Reserved Capacity

Traffic Route Number	Traffic Route Description	Hour	Weighted Average	
			Potential Commercial Waste Hauling Vehicles	Potentially Allowed Commercial Waste Hauling Vehicles
1-S (B)	**To MTS:** Broadway to West 132nd St) to Riverside Drive (12th Ave) to West 135th St **From MTS:** Reverse	8 - 9 pm	16	5
		9 - 10 pm	14	3
		10 - 11 pm	18	3
		11 pm - 12 am	9	2
		12 - 1 am	7	0
		1 - 2 am	14	0
		2 - 3 am	16	0
		3 - 4 am	8	0
		4 - 5 am	18	0
		5 - 6 am	17	0
		6 - 7 am	16	1
		7 - 8 am	3	3
2-N & 2-S	**To MTS:** Amsterdam Ave to West 125th St to Riverside Drive (12th Ave) to West 135th St **From MTS:** Reverse	8 - 9 pm	18	15
		9 - 10 pm	16	15
		10 - 11 pm	20	12
		11 pm - 12 am	10	10
		12 - 1 am	8	8
		1 - 2 am	16	0
		2 - 3 am	18	0
		3 - 4 am	9	0
		4 - 5 am	20	2
		5 - 6 am	19	10
		6 - 7 am	18	16
		7 - 8 am	3	3
1-E	**To MTS:** 3rd Ave to East 125th St (turns into West 125th St) to Riverside Drive (12th Ave) to West 135th St **From MTS:** Reverse	8 - 9 pm	18	15
		9 - 10 pm	16	15
		10 - 11 pm	20	12
		11 pm - 12 am	10	10
		12 - 1 am	8	8
		1 - 2 am	16	0
		2 - 3 am	18	0
		3 - 4 am	9	0
		4 - 5 am	20	2
		5 - 6 am	19	10
		6 - 7 am	18	16
		7 - 8 am	3	3

East 91st Street Converted MTS
Hourly Summary of Potential Commercial Waste Hauling Vehicles Allowed for the 8:00 a.m. to 8:00 p.m. Period
Based on Second Level Noise Screening and the DSNY-managed Waste Reserved Capacity

Traffic Route Number	Traffic Route Description	Hour	Weighted Average	
			Potential Commercial Waste Hauling Vehicles	Potentially Allowed Commercial Waste Hauling Vehicles
1-N (A)	To MTS: 2nd Ave to East 90th St to York Ave to East 91st St From MTS: East 91st St to York Ave to East 91st St to 1st Ave or 3rd ave	8 - 9 pm	2	2
		9 - 10 pm	2	2
		10 - 11 pm	2	2
		11 pm - 12 am	1	1
		12 - 1 am	1	1
		1 - 2 am	2	2
		2 - 3 am	2	0
		3 - 4 am	1	0
		4 - 5 am	2	0
		5 - 6 am	2	1
		6 - 7 am	2	2
		7 - 8 am	1	0
1-N (B)	To MTS: 2nd Ave to East 88th St to York Ave to East 91st St From MTS: East 91st St to York Ave to East 89th St to 1st Ave OR 3rd Ave	8 - 9 pm	2	2
		9 - 10 pm	2	2
		10 - 11 pm	2	2
		11 pm - 12 am	1	1
		12 - 1 am	1	1
		1 - 2 am	2	1
		2 - 3 am	2	0
		3 - 4 am	1	0
		4 - 5 am	2	0
		5 - 6 am	2	0
		6 - 7 am	2	2
		7 - 8 am	1	0
1-N (C)	To MTS: 2nd Ave to East 86th St to York Ave to East 91st St From MTS: East 91st St to York Ave to East 87th St to 1st Ave OR 3rd Ave	8 - 9 pm	2	1
		9 - 10 pm	2	2
		10 - 11 pm	2	1
		11 pm - 12 am	1	0
		12 - 1 am	1	0
		1 - 2 am	2	0
		2 - 3 am	2	0
		3 - 4 am	1	0
		4 - 5 am	2	0
		5 - 6 am	2	0
		6 - 7 am	2	2
		7 - 8 am	1	0
1-SA	To MTS: 1st Ave to East 90th St to York Ave to East 91st St From MTS: East 91st St to York Ave to East 86th St to 2nd Ave	8 - 9 pm	20	4
		9 - 10 pm	20	4
		10 - 11 pm	20	4
		11 pm - 12 am	10	4
		12 - 1 am	10	4
		1 - 2 am	20	4
		2 - 3 am	20	0
		3 - 4 am	10	0
		4 - 5 am	20	4
		5 - 6 am	20	4
		6 - 7 am	20	3
		7 - 8 am	9	0

East 91st Street Converted MTS
Hourly Summary of Potential Commercial Waste Hauling Vehicles Allowed for the 8:00 a.m. to 8:00 p.m. Period
Based on Second Level Noise Screening and the DSNY-managed Waste Reserved Capacity

Traffic Route Number	Traffic Route Description	Hour	Weighted Average	
			Potential Commercial Waste Hauling Vehicles	Potentially Allowed Commercial Waste Hauling Vehicles
1-SB	To MTS: 1st Ave to East 88 th St to York Ave to East 91st St From MTS: East 91st St to York Ave to East 86th St to 2nd Ave	8 - 9 pm	20	4
		9 - 10 pm	20	3
		10 - 11 pm	20	2
		11 pm - 12 am	10	4
		12 - 1 am	10	2
		1 - 2 am	20	1
		2 - 3 am	20	0
		3 - 4 am	10	0
		4 - 5 am	20	0
		5 - 6 am	20	1
		6 - 7 am	20	6
		7 - 8 am	9	0
2-S	To MTS: 3rd Ave to East 86th St to York Ave to East 91st St From MTS: East 91st St to York Ave to East 86th St to 2nd Ave	8 - 9 pm	20	9
		9 - 10 pm	20	8
		10 - 11 pm	20	6
		11 pm - 12 am	10	5
		12 - 1 am	10	3
		1 - 2 am	20	2
		2 - 3 am	20	0
		3 - 4 am	10	0
		4 - 5 am	20	1
		5 - 6 am	20	5
		6 - 7 am	20	12
		7 - 8 am	9	0

West 59th Street Converted MTS
Hourly Summary of Potential Commercial Waste Hauling Vehicles Allowed for the 8:00 a.m. to 8:00 p.m. Period
Based on Second Level Noise Screening and the DSNY-managed Waste Reserved Capacity

Traffic Route Number	Traffic Route Description	Hour	Weighted Average	
			Potential Commercial Waste Hauling Vehicles	Potentially Allowed Commercial Waste Hauling Vehicles
1-N	To MTS: Columbus Ave to West 59th St From MTS: West 59th St to Amsterdam Ave	8 - 9 pm	1	1
		9 - 10 pm	1	1
		10 - 11 pm	1	1
		11 pm - 12 am	1	1
		12 - 1 am	1	1
		1 - 2 am	1	1
		2 - 3 am	1	1
		3 - 4 am	1	0
		4 - 5 am	1	1
		5 - 6 am	1	1
		6 - 7 am	1	1
		7 - 8 am	0	0
1-S	To MTS: 12th Ave (Joe DiMaggio Hwy) to 12th Ave Service Road (starts at 57th St) to West 59th St From MTS: Reverse	8 - 9 pm	9	9
		9 - 10 pm	9	9
		10 - 11 pm	9	9
		11 pm - 12 am	4	4
		12 - 1 am	3	3
		1 - 2 am	7	7
		2 - 3 am	7	7
		3 - 4 am	3	3
		4 - 5 am	9	9
		5 - 6 am	9	9
		6 - 7 am	8	8
		7 - 8 am	3	3
2-S	To MTS: 10th Ave to 57th Ave to 12th Ave Service Road to 59th St From MTS: West 59th St to 11th Ave	8 - 9 pm	9	9
		9 - 10 pm	9	9
		10 - 11 pm	9	9
		11 pm - 12 am	4	4
		12 - 1 am	3	3
		1 - 2 am	7	7
		2 - 3 am	7	7
		3 - 4 am	3	3
		4 - 5 am	9	9
		5 - 6 am	9	9
		6 - 7 am	8	8
		7 - 8 am	3	3
1-E	To MTS: (2nd Ave or 3rd Ave) to East 57th St (turns into West 57th St) to 12th Ave Service Road to 59th St. From MTS: Reverse	8 - 9 pm	10	10
		9 - 10 pm	10	10
		10 - 11 pm	10	10
		11 pm - 12 am	5	5
		12 - 1 am	4	4
		1 - 2 am	8	8
		2 - 3 am	8	8
		3 - 4 am	4	4
		4 - 5 am	10	10
		5 - 6 am	10	10
		6 - 7 am	9	9
		7 - 8 am	3	3

South Bronx Converted MTS
Hourly Summary of Potential Commercial Waste Hauling Vehicles Allowed for the 8:00 p.m. to 8:00 a.m. Period
Based on Second Level Noise Screening and the DSNY-managed Waste Reserved Capacity

Traffic Route Number	Traffic Route Description	Hour	Weighted Average	
			Potential Commercial Waste Hauling Vehicles	Potentially Allowed Commercial Waste Hauling Vehicles
1	**To MTS:** Bruckner Blvd to Leggett Ave to Randall Ave to Halleck St to Ryawa Ave **From MTS:** Reverse	8 - 9 pm	6	6
		9 - 10 pm	5	5
		10 - 11 pm	7	7
		11 pm - 12 am	4	4
		12 - 1 am	4	4
		1 - 2 am	7	7
		2 - 3 am	7	7
		3 - 4 am	3	3
		4 - 5 am	7	7
		5 - 6 am	7	7
		6 - 7 am	7	7
		7 - 8 am	0	0
2	**To MTS:** Bruckner Blvd to Leggett Ave to (Barry St OR Dupont St OR Truxton St) to Oak Point Ave to Hunt's Point Ave to Halleck St to Ryawa Ave **From MTS:** Reverse	8 - 9 pm	6	6
		9 - 10 pm	5	5
		10 - 11 pm	7	7
		11 pm - 12 am	4	4
		12 - 1 am	4	4
		1 - 2 am	7	7
		2 - 3 am	7	7
		3 - 4 am	3	3
		4 - 5 am	7	7
		5 - 6 am	7	7
		6 - 7 am	7	7
		7 - 8 am	0	0
3 & 4	**Truck Route 3** **To MTS:** Bruckner Blvd to Longwood Ave to Tiffany St to East Bay Ave to Halleck St to Ryawa Ave **From MTS:** Reverse **Truck Route 4** **To MTS:** Bruckner Blvd to Longwood Ave to Tiffany St to Viele Ave to Halleck St to Ryawa Ave **From MTS:** Reverse	8 - 9 pm	6	4
		9 - 10 pm	5	5
		10 - 11 pm	7	6
		11 pm - 12 am	4	4
		12 - 1 am	4	4
		1 - 2 am	7	0
		2 - 3 am	7	4
		3 - 4 am	3	3
		4 - 5 am	7	7
		5 - 6 am	7	7
		6 - 7 am	7	7
		7 - 8 am	0	0

North Shore Converted MTS
Hourly Summary of Potential Commercial Waste Hauling Vehicles Allowed for the 8:00 p.m. to 8:00 a.m. Period
Based on Second Level Noise Screening and DSNY-managed Waste Reserved Capacity

Traffic Route Number	Traffic Route Description	Hour	Weighted Average	
			Potential Commercial Waste Hauling Vehicles	Potentially Allowed Commercial Waste Hauling Vehicles
1-N	To MTS: 20th Avenue WB to College Point Blvd SB to 31st Ave WB From MTS: (reverse)	8 - 9 pm	1	1
		9 - 10 pm	1	1
		10 - 11 pm	1	1
		11 pm - 12 am	0	0
		12 - 1 am	0	0
		1 - 2 am	1	1
		2 - 3 am	1	1
		3 - 4 am	0	0
		4 - 5 am	1	1
		5 - 6 am	0	0
		6 - 7 am	0	0
		7 - 8 am	0	0
1-S	To MTS: Van Wick Expwy NB to Whitestone Expwy NB to Linden Place NB to Whitestone Expwy Service Rd WB to College Point Blvd NB to 31st Ave WB From MTS: 31st Ave EB to College Point Blvd SB to Whitestone Expwy Service Rd WB to Whitestone Expwy SB to Van Wick Expwy SB	8 - 9 pm	12	12
		9 - 10 pm	9	9
		10 - 11 pm	16	16
		11 pm - 12 am	7	7
		12 - 1 am	3	3
		1 - 2 am	9	9
		2 - 3 am	9	9
		3 - 4 am	1	1
		4 - 5 am	12	12
		5 - 6 am	7	7
		6 - 7 am	4	4
		7 - 8 am	0	0
2-S & 2-E & 2-W	2-S To MTS: Van Wick Expwy NB to College Point Blvd NB to 31st Ave WB From MTS: (reverse) 2-E To MTS: LIE WB to College Point Blvd NB to 31st Ave WB From MTS: (reverse) 2-W To MTS: LIE EB to College Point Blvd NB to 31st Ave WB From MTS: (reverse)	8 - 9 pm	11	11
		9 - 10 pm	8	8
		10 - 11 pm	14	8
		11 pm - 12 am	6	6
		12 - 1 am	3	0
		1 - 2 am	8	0
		2 - 3 am	8	0
		3 - 4 am	1	0
		4 - 5 am	11	0
		5 - 6 am	6	0
		6 - 7 am	3	1
		7 - 8 am	0	0
1-E	To MTS: Northern Blvd WB to Linden Place NB to Whitestone Expwy Service Rd WB to College Point Blvd NB to 31st Ave WB From MTS: (reverse)	8 - 9 pm	4	4
		9 - 10 pm	3	3
		10 - 11 pm	5	5
		11 pm - 12 am	2	2
		12 - 1 am	1	1
		1 - 2 am	3	0
		2 - 3 am	3	0
		3 - 4 am	0	0
		4 - 5 am	4	0
		5 - 6 am	2	2
		6 - 7 am	1	1
		7 - 8 am	0	0

North Shore Converted MTS
Hourly Summary of Potential Commercial Waste Hauling Vehicles Allowed for the 8:00 p.m. to 8:00 a.m. Period
Based on Second Level Noise Screening and DSNY-managed Waste Reserved Capacity

Traffic Route Number	Traffic Route Description	Hour	Weighted Average	
			Potential Commercial Waste Hauling Vehicles	Potentially Allowed Commercial Waste Hauling Vehicles
1-W	**To MTS:** Northern Blvd EB to Linden Place NB to Whitestone Expressway Service Road WB to College Point Blvd NB to 31st Ave WB **From MTS:** (reverse)	8 - 9 pm	1	1
		9 - 10 pm	1	1
		10 - 11 pm	2	2
		11 pm - 12 am	1	1
		12 - 1 am	0	0
		1 - 2 am	1	0
		2 - 3 am	1	0
		3 - 4 am	0	0
		4 - 5 am	1	0
		5 - 6 am	1	1
		6 - 7 am	0	0
		7 - 8 am	0	0
3-W	**To MTS:** Roosevelt Ave EB to College Point Blvd NB to 31st Ave WB **From MTS:** (reverse)	8 - 9 pm	1	1
		9 - 10 pm	1	1
		10 - 11 pm	2	2
		11 pm - 12 am	1	1
		12 - 1 am	0	0
		1 - 2 am	1	0
		2 - 3 am	1	0
		3 - 4 am	0	0
		4 - 5 am	1	0
		5 - 6 am	1	0
		6 - 7 am	1	1
		7 - 8 am	0	0

Greenpoint Converted MTS
Hourly Summary of Potential Commercial Waste Hauling Vehicles Allowed for the 8:00 p.m. to 8:00 a.m. Period
Based on Second Level Noise Screening and the DSNY-managed Waste Reserved Capacity

Traffic Route Number	Traffic Route Description	Hour	Weighted Average	
			Potential Commercial Waste Hauling Vehicles	Potentially Allowed Commercial Waste Hauling Vehicles
1-N	**To MTS:** McGuinness Blvd SB to Greenpoint Ave EB to Kingsland Ave NB **From MTS:** (reverse)	8 - 9 pm	3	3
		9 - 10 pm	5	5
		10 - 11 pm	8	8
		11 pm - 12 am	5	5
		12 - 1 am	3	3
		1 - 2 am	5	4
		2 - 3 am	4	0
		3 - 4 am	0	0
		4 - 5 am	8	8
		5 - 6 am	6	6
		6 - 7 am	6	6
		7 - 8 am	0	0
2-N	**To MTS:** Queens Blvd WB to Greepoint Ave WB to Starr Ave NB to Van Dam WB to Greenpoint WB to Kingsland Ave NB **From MTS:** Kingsland Ave SB to Greenpoint Ave EB to Queens Blvd EB	8 - 9 pm	3	3
		9 - 10 pm	5	5
		10 - 11 pm	7	6
		11 pm - 12 am	5	5
		12 - 1 am	3	3
		1 - 2 am	5	2
		2 - 3 am	4	2
		3 - 4 am	0	0
		4 - 5 am	7	2
		5 - 6 am	6	6
		6 - 7 am	6	6
		7 - 8 am	0	0
3-N	**To MTS:** LIE WB to Van Dam St WB to Greenpoint Ave WB to Kingsland Ave NB **From MTS:** Kingsland Ave SB to Greenpoint Ave EB to LI	8 - 9 pm	3	3
		9 - 10 pm	5	5
		10 - 11 pm	7	6
		11 pm - 12 am	5	5
		12 - 1 am	3	3
		1 - 2 am	5	5
		2 - 3 am	4	3
		3 - 4 am	0	0
		4 - 5 am	7	7
		5 - 6 am	6	6
		6 - 7 am	6	6
		7 - 8 am	0	0
1-S	**To MTS:** McGuinness Blvd NB to Greenpoint Ave EB to Kingsland Ave NB **From MTS:** (reverse)	8 - 9 pm	3	3
		9 - 10 pm	5	5
		10 - 11 pm	8	8
		11 pm - 12 am	5	5
		12 - 1 am	3	3
		1 - 2 am	5	4
		2 - 3 am	4	0
		3 - 4 am	0	0
		4 - 5 am	8	8
		5 - 6 am	6	6
		6 - 7 am	6	6
		7 - 8 am	0	0

Greenpoint Converted MTS
Hourly Summary of Potential Commercial Waste Hauling Vehicles Allowed for the 8:00 p.m. to 8:00 a.m. Period
Based on Second Level Noise Screening and the DSNY-managed Waste Reserved Capacity

Traffic Route Number	Traffic Route Description	Hour	Weighted Average	
			Potential Commercial Waste Hauling Vehicles	Potentially Allowed Commercial Waste Hauling Vehicles
2-S	**To MTS:** BQE EB to Meeker St EB to Varick St NB to Bridgewater St WB to Norman Ave WB to Kingsland Ave NB **From MTS:** Kingsland Ave SB to Greenpoint Ave WB to Henry St SB to Norman Ave EB to Bri	8 - 9 pm	4	3
		9 - 10 pm	6	6
		10 - 11 pm	9	6
		11 pm - 12 am	5	3
		12 - 1 am	3	3
		1 - 2 am	5	4
		2 - 3 am	5	2
		3 - 4 am	0	0
		4 - 5 am	9	8
		5 - 6 am	6	6
		6 - 7 am	6	6
		7 - 8 am	0	0
1-E	**To MTS:** BQE WB to Meeker St EB to Varick St NB to Bridgewater St WB to Norman Ave WB to Kingsland Ave NB **From MTS:** Kingsland Ave SB to Greenpoint Ave WB to McGuinness Blvd SB to Meeker St EB	8 - 9 pm	3	3
		9 - 10 pm	5	5
		10 - 11 pm	8	6
		11 pm - 12 am	5	3
		12 - 1 am	3	3
		1 - 2 am	5	4
		2 - 3 am	4	0
		3 - 4 am	0	0
		4 - 5 am	8	8
		5 - 6 am	6	6
		6 - 7 am	6	6
		7 - 8 am	0	0
2-E	**To MTS:** LIE WB to Van Dam St WB to Greenpoint Ave WB to Kingsland Ave NB **From MTS:** Kingsland Ave SB to Greenpoint Ave EB to LI	8 - 9 pm	3	3
		9 - 10 pm	5	5
		10 - 11 pm	7	6
		11 pm - 12 am	5	5
		12 - 1 am	3	3
		1 - 2 am	5	5
		2 - 3 am	4	3
		3 - 4 am	0	0
		4 - 5 am	7	7
		5 - 6 am	6	6
		6 - 7 am	6	6
		7 - 8 am	0	0

Hamilton Avenue Converted MTS
Hourly Summary of Potential Commercial Waste Hauling Vehicles Allowed for the 8:00 p.m. to 8:00 a.m. Period
Based on Second-Level Screening and the DSNY-managed Waste Reserve Capacity

Traffic Route Number	Traffic Route Description	Hour	Weighted Average	
			Potential Commercial Waste Hauling Vehicles	Potentially Allowed Commercial Waste Hauling Vehicles
1-N	**To MTS:** BQE WB to Hamilton Ave SB/Exit 26 **From MTS:** Hamilton Ave SB To 20th St EB to Hamilton Ave NB to BQE EB	8 - 9 pm	9	9
		9 - 10 pm	8	8
		10 - 11 pm	12	12
		11 pm - 12 am	5	5
		12 - 1 am	1	1
		1 - 2 am	5	5
		2 - 3 am	5	5
		3 - 4 am	1	1
		4 - 5 am	10	10
		5 - 6 am	9	9
		6 - 7 am	9	9
		7 - 8 am	2	2
2-N (A)	**To MTS:** 3rd SB to 9th St WB to Hamilton Ave SB **From MTS:** Hamilton Ave SB to 20th St EB to 3rd Ave NB	8 - 9 pm	9	9
		9 - 10 pm	8	8
		10 - 11 pm	12	7
		11 pm - 12 am	5	5
		12 - 1 am	1	1
		1 - 2 am	5	1
		2 - 3 am	5	2
		3 - 4 am	1	1
		4 - 5 am	10	4
		5 - 6 am	9	9
		6 - 7 am	9	9
		7 - 8 am	2	2
2-N (B)	**To MTS:** 4th Ave SB to 9th St WB to Hamilton Ave SB **From MTS:** Hamilton Ave SB to 20th St EB to 3rd Ave NB	8 - 9 pm	9	9
		9 - 10 pm	8	8
		10 - 11 pm	12	7
		11 pm - 12 am	5	5
		12 - 1 am	1	1
		1 - 2 am	5	1
		2 - 3 am	5	2
		3 - 4 am	1	1
		4 - 5 am	10	4
		5 - 6 am	9	9
		6 - 7 am	9	9
		7 - 8 am	2	2
3-N	**To MTS:** 3rd Ave SB to 9th St WB to Hamilton Ave SB **From MTS:** Hamilton Ave SB to 20th St EB to 3rd Ave NB to 9th St to 4th Ave	8 - 9 pm	9	9
		9 - 10 pm	8	8
		10 - 11 pm	12	7
		11 pm - 12 am	5	5
		12 - 1 am	1	1
		1 - 2 am	5	1
		2 - 3 am	5	2
		3 - 4 am	1	1
		4 - 5 am	10	4
		5 - 6 am	9	9
		6 - 7 am	9	9
		7 - 8 am	2	2

Hamilton Avenue Converted MTS
Hourly Summary of Potential Commercial Waste Hauling Vehicles Allowed for the 8:00 p.m. to 8:00 a.m. Period
Based on Second-Level Screening and the DSNY-managed Waste Reserve Capacity

Traffic Route Number	Traffic Route Description	Hour	Weighted Average	
			Potential Commercial Waste Hauling Vehicles	Potentially Allowed Commercial Waste Hauling Vehicles
1-S	To MTS: Gowanus Expwy NB to 4th Avenue NB to Prospect Avenue WB to Hamilton Ave NB to Hamilton Place WB to Hamilton Ave SB From MTS: Hamilton Ave (southbound, turns into 3rd Ave) to 65th St	8 - 9 pm	3	3
		9 - 10 pm	2	2
		10 - 11 pm	3	3
		11 pm - 12 am	1	1
		12 - 1 am	0	0
		1 - 2 am	1	1
		2 - 3 am	1	0
		3 - 4 am	0	0
		4 - 5 am	3	1
		5 - 6 am	3	3
		6 - 7 am	2	2
		7 - 8 am	0	0
2-S	To MTS: 65th St WB to Hamilton Ave NB to Hamilton Place WB to Hamilton Ave SB From MTS: Hamilton Ave SB to 65th St EB	8 - 9 pm	3	3
		9 - 10 pm	2	2
		10 - 11 pm	3	3
		11 pm - 12 am	1	1
		12 - 1 am	0	0
		1 - 2 am	1	1
		2 - 3 am	1	1
		3 - 4 am	0	0
		4 - 5 am	3	3
		5 - 6 am	3	3
		6 - 7 am	2	2
		7 - 8 am	0	0
1-E	To MTS: 39th St WB to 4th Ave NB to Prospect Ave WB to Hamilton Ave NB to Hamilton Pl WB to Hamilton Ave SB From MTS: Hamilton Ave SB to 39th St EB	8 - 9 pm	4	4
		9 - 10 pm	3	3
		10 - 11 pm	5	5
		11 pm - 12 am	2	2
		12 - 1 am	0	0
		1 - 2 am	2	2
		2 - 3 am	2	0
		3 - 4 am	1	0
		4 - 5 am	4	2
		5 - 6 am	4	4
		6 - 7 am	4	4
		7 - 8 am	1	1
2-E	To MTS: Prospect Expwy WB to Prospect Ave WB to Hamilton Ave NB to Hamilton Pl WB to Hamilton Ave SB From MTS: Hamilton Av SB to 20th St EB to 10th Ave NB to Prospect Expwy EB	8 - 9 pm	4	4
		9 - 10 pm	3	3
		10 - 11 pm	5	2
		11 pm - 12 am	2	2
		12 - 1 am	0	0
		1 - 2 am	2	2
		2 - 3 am	2	0
		3 - 4 am	1	0
		4 - 5 am	4	2
		5 - 6 am	4	2
		6 - 7 am	4	4
		7 - 8 am	1	1

Southwest Brooklyn Converted MTS
Hourly Summary of Potential Commercial Waste Hauling Vehicles Allowed for the 8:00 p.m. to 8:00 a.m. Period
Based on Second Level Noise Screening and the DSNY-managed Waste Reserved Capacity

Traffic Route Number	Traffic Route Description	Hour	Weighted Average	
			Potential Commercial Waste Hauling Vehicles	Potentially Allowed Commercial Waste Hauling Vehicles
1-N	**To MTS:** 86th St SB to 18th Ave WB to Cropsey Ave SB to Bay Pkwy WB to Shore Road SB to 25th Ave WB **From MTS:** 25th Ave EB to Shore Road SB to 26th Ave EB to Cropsey Ave NB to 18th Ave EB to 86th St NB	8 - 9 pm	15	11
		9 - 10 pm	15	9
		10 - 11 pm	16	5
		11 pm - 12 am	8	4
		12 - 1 am	1	1
		1 - 2 am	10	2
		2 - 3 am	11	0
		3 - 4 am	7	0
		4 - 5 am	15	2
		5 - 6 am	15	3
		6 - 7 am	15	12
		7 - 8 am	4	4
1-S	**To MTS:** Neptune Ave WB to Cropsey Ave NB to Bay Pkwy WB to Shore Road SB to 25th Ave WB **From MTS:** 25th Ave EB to Shore Road SB to 26th Ave EB to Cropsey Ave SB to Neptune EB	8 - 9 pm	1	1
		9 - 10 pm	1	1
		10 - 11 pm	1	1
		11 pm - 12 am	1	1
		12 - 1 am	0	0
		1 - 2 am	1	1
		2 - 3 am	1	0
		3 - 4 am	1	0
		4 - 5 am	1	1
		5 - 6 am	1	1
		6 - 7 am	1	1
		7 - 8 am	0	0
1-E	**To MTS:** Kings Hwy WB to Bay Pkwy WB to Shore Road SB to 25th Ave WB **From MTS:** 25th Ave EB to Shore Road SB to 26th Ave EB to Cropsey Ave NB to Bay Pkwy EB to Kings Hwy EB	8 - 9 pm	2	2
		9 - 10 pm	2	2
		10 - 11 pm	2	2
		11 pm - 12 am	1	1
		12 - 1 am	0	0
		1 - 2 am	1	1
		2 - 3 am	2	0
		3 - 4 am	1	0
		4 - 5 am	2	2
		5 - 6 am	2	2
		6 - 7 am	2	2
		7 - 8 am	1	1
2-E	**To MTS:** 86th St NB to 25th Ave WB to Cropsey Ave NB to Bay Pkwy WB to Shore Road SB to 25th Ave WB **From MTS:** 25th Ave EB to Shore Road SB to 26th Ave EB to Cropsey Ave NB to 25th Ave EB to 86th St SB	8 - 9 pm	2	2
		9 - 10 pm	2	2
		10 - 11 pm	2	2
		11 pm - 12 am	1	1
		12 - 1 am	0	0
		1 - 2 am	1	1
		2 - 3 am	2	0
		3 - 4 am	1	0
		4 - 5 am	2	0
		5 - 6 am	2	2
		6 - 7 am	2	2
		7 - 8 am	1	1