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# Chapter 17: Solid Waste and Sanitation Services

## A. INTRODUCTION

This chapter describes the effects of the Proposed Action on the New York City (the City) municipal solid waste management system. It considers the existing services available within the Project Area and projects future changes in solid waste generation that would be anticipated to occur with and without the Proposed Action and its effects on the municipal solid waste system.

### 1. Issues

Extension of the No. 7 Subway Line, development spurred by the rezoning of Hudson Yards, expansion of the Convention Center, and development of the Multi-Use Facility would increase the volume of solid waste generated compared to existing conditions. Commercial solid waste from offices, restaurants, retail stores, and other businesses is collected and disposed of by private waste haulers subject to the City's requirements. Municipal waste collection services in the Project Area are provided by the New York City Department of Sanitation (DSNY) in accordance with a Comprehensive Solid Waste Management Plan (SWMP) revised in 2000. On October 15, 2004, DSNY transmitted the Draft New SWMP – proposing changes to the 2000 SWMP for the next 20-year planning period – to the City Council for review and approval. The Draft New SWMP anticipates future demands for solid waste management by the City. This chapter quantifies expected changes in solid waste generation and assesses the conformance of the Proposed Action to the existing SWMP and the Draft New SWMP released in October 2004.

The DSNY garage located on the Gansevoort Peninsula, which could be relocated to the Hudson Yards area, is not assessed in this chapter.

### 2. Principal Conclusions

Of the principal elements of the Proposed Action, the development generated by the proposed Zoning Amendments would result in the greatest demand for DSNY solid waste services. The projected development of approximately 28 million square feet of commercial office space and 12.5 million square feet of residential space would generate approximately 266 tons per week (tpw) of municipal solid waste and 1,044 tpw of commercial solid waste.

A peak capacity event at the Multi-Use Facility, with 75,000 patrons in attendance, would result in approximately 11.5 tons of solid waste, while the average weekly volume of solid waste would be an estimated 25 tons. A peak event at the expanded Convention Center would result in approximately 23 tons of solid waste daily, while the typical weekly volume of solid waste would be approximately 58 tons. Both the Multi-Use Facility and Convention Center use private carters to dispose of solid waste.

Operation of the extended No. 7 Subway Line would generate approximately 10 tpw of solid waste, principally from the Terminal and Intermediate Stations. The modification of Corona Yard to house the additional trains required by the Proposed Action would result in a minimal increase in the amount of solid waste. MTA New York City Transit (NYCT) uses private carters to dispose of solid waste collected at subway stations.

The DSNY has indicated that the municipal solid waste management system, as described in the current SWMP and the October 2004 Draft New SWMP, would accommodate the projected quantities of municipal solid waste that would be generated by the Proposed Action on 2025. The municipal solid waste generated by the Proposed Action would require two additional collection trucks and 12 additional sanitation workers. These additional resource requirements would not result in significant adverse effects on DSNY operations.

## **B. METHODOLOGY**

This chapter describes existing solid waste and sanitation services and examines conditions in the Future With and Without the Proposed Action. The future impacts assessment considers 2010 and 2025 analysis years. Future Conditions With the Proposed Action are compared to the Future Conditions Without the Proposed Action in order to determine potential impacts.

The *CEQR Technical Manual* provides guidance on the methods used to assess effects on the City's solid waste and sanitation system and conformity with the SWMP. It allows for both a screening level and a full assessment of the Proposed Action, depending on the anticipated magnitude of the action's effects. Because of the scale of the Proposed Action, a full impact assessment has been completed in accordance with *CEQR Technical Manual* guidelines.

The *CEQR Technical Manual* recommends that any project that would generate in excess of 10,000 pounds per week of municipal solid waste include an assessment of its impact on the municipal solid waste management system. Because the Proposed Action would exceed this threshold, this chapter provides estimates of the increased volumes of commercial and municipal waste that would be generated by the Proposed Action, as well as the additional municipal waste services that would be required. In addition, this chapter identifies available waste reduction, recycling, and other waste management measures to mitigate anticipated effects.

The October 2004 Draft New SWMP sets forth a Long Term Export Program that would replace the interim export contracts that were put into place beginning in 1997 as part of the closure of the Fresh Kills Landfill to the City residential waste. The October 2004 Draft New SWMP requires review and approval by the New York City Council and approval by the New York State Department of Environmental Conservation. That process is presently expected to take approximately six months. Because the new SWMP would be in effect at the time that the Proposed Action is implemented, this assessment considers the conformity of the Proposed Action with the October 2004 Draft New SWMP, as currently envisioned. However, the impact assessments of the future conditions in 2010 and 2025 also consider the condition in which the current SWMP remains in effect.

Most of the Project Area is within DSNY service area M-4 (i.e., Manhattan Community Board District 4). A small portion of the Rezoning Area is located within service area M-5 (see Figure 17-1). The portion of the Rezoning Area located within M-5, the Madison Square Garden (MSG) site and the three blocks to the south between West 31st and West 28th Streets from Seventh to Eighth Avenues, would not generate increased quantities of municipal solid waste under the Proposed Action. Therefore, this chapter only provides an assessment of potential impacts to DSNY service area M-4.

## **C. EXISTING CONDITIONS**

The DSNY manages the disposal of municipal solid waste and recyclable materials collected by the DSNY from residences, public areas, nonprofit institutions, and government offices. It also collects wastes from street litter baskets, street sweeping operations, and lot cleaning activities. The City does not operate any incinerators or waste-to-energy facilities; and individual apartment house incinerators are prohibited under Local Law 39 of 1989. Waste incineration is permitted at hospitals within the City. Commercial solid waste from offices, restaurants, retail stores, and other businesses is collected and disposed by private carters.

Private carters dispose of solid waste generated within MTA NYCT subway stations. Solid waste and newspapers collected from waste bins located on the station platforms along the No. 7 Subway Line are hauled away by MTA NYCT "work trains" to Corona Yard, transferred to private carters' collection trucks, and hauled out of the City to disposal facilities.

Throughout the 1990s, almost all of the municipal waste generated in the City was disposed of at the Fresh Kills Landfill on Staten Island. Fresh Kills Landfill was permanently closed in the spring of 2001 pursuant to a statute enacted by the New York State legislature. Under the current interim export activities, most of the City's municipal solid waste is collected and delivered to transfer stations, where it is loaded onto larger transfer trailers and transported out of the City for disposal; and some waste is transported to out-of-City disposal sites by rail. Waste is also moved to out-of-City transfer stations or disposal facilities in DSNY collection vehicles. Municipal solid waste from the Project Area is collected and trucked directly to out-of-State waste-to-energy facilities. Private carters consolidate solid waste at waste transfer facilities both inside and outside the City, and it is then transported to out-of-City disposal facilities.

The City's solid waste management services are undertaken in accordance with the SWMP, which is implemented by and is the responsibility of the DSNY. The SWMP establishes a hierarchy of preferred solid waste management methods to reduce and process solid waste generated within the City. The objectives of the SWMP are, in order of importance: waste minimization; reuse, recycling, or composting; and export out of the City for disposal. Local Law 19 of 1989 requires that the DSNY and private carters collect certain recyclable materials and deliver them to material recovery facilities. City residents are required to separate metal, glass, plastic, and newspapers and other mixed paper from household waste for separate collection. Local Law requires commercial establishments to recycle. Businesses must source-separate certain types of paper wastes, cardboard, metal items, and construction wastes. Food and beverage establishments must recycle metal, glass and plastic containers, and aluminum foil, in addition to meeting the other commercial recycling requirements.

The Project Area is principally located within DSNY service area M-4, and the Proposed Action would only affect municipal solid waste services in M-4 (Figure 17-1). Trucks serving M-4 are housed and maintained at a combined M-2/M-4 garage located near Gansevoort Street (2 Bloomfield Street). The typical solid waste collection truck serving M-4 carries approximately 12.5 tons of municipal waste; recycling trucks carry about 11.5 tons of paper or 10 tons of plastic, glass, and metal.

Sanitation trucks servicing the Hudson Yards area and other areas of Manhattan are currently being stored at the Gansevoort Pier, the Gansevoort Street garage (2 Bloomfield Street), and a parking lot at West 30th Street between Eleventh and Twelfth Avenues under the High Line. The Hudson River Park Act mandates that the City “shall use best efforts to relocate the sanitation garage (at the Gansevoort Peninsula) and by December 31, 2003 relocate the salt pile and remove the incinerator.” The collection trucks under the High Line serve M-6, while the aforementioned Gansevoort facilities serve M-2 and M-4.

### **1. Rezoning Area**

Based on information provided by the DSNY, approximately 560 tons of municipal solid waste, 100 tons of paper, and 25 tons of metal and plastic are collected in M-4 each week. Glass recycling was reintroduced in 2004 further reducing the amount of municipal solid waste collected in M-4. The current volume of recycled materials collected in M-4 is estimated to be 100 tons of paper and 85 tons of glass, metal, and plastic per week. Due to the variable boundaries and the extent of the Rezoning Area, the precise estimates of the current volumes of municipal solid waste generated in the Rezoning Area are not readily available. The estimated current volume of municipal solid waste produced by the residential areas within the Rezoning Area, based on solid waste generation rates provided in the *CEQR Technical Manual*, is approximately 13 tpw (Table 17-1). This volume represents approximately two percent of the overall municipal waste generated in service area M-4. As stated previously, the municipal waste from M-4 is trucked to out-of-State disposal facilities under the current SWMP and the October 2004 Draft New SWMP proposed that this method of disposal continue in the future. The estimated commercial waste generated within the Rezoning Area, based

on rates provided in the *CEQR Technical Manual*, is 394 tpw. Based on the typical capacities of 12.5 tons for a DSNY collection truck and 13.5 tons for a private collection truck, the current volume of municipal solid waste generated in the Hudson Yards area requires two DSNY truck trips per week and 29 private carter truck trips per week.

**2. Convention Center**

The Convention Center uses a private carting service to collect and dispose of its recyclables and solid waste. As shown in Table 17-1, the average weekly volume of solid waste at the Convention Center is approximately 18 tpw (based on comparable volume rates within the region), resulting in two truck trips per week. The peak solid waste generation at the Convention Center occurs during the Auto Show, during which a daily maximum of approximately 16 tons of solid waste is generated. This tonnage of solid waste would require two truck trips per day. This peak volume of solid waste occurs during the day immediately before a peak event when packing material from freight is discarded, and the day immediately after the peak event, when abandoned freight, carpet remnants, packing material, and food waste are collected. Corrugated cardboard, mixed paper, and wooden pallets are separated and sold back to a private vendor. Solid waste is exported to private sites, where recyclable items (glass, clean metals, wood, etc.) are separated, and then transported to private landfills outside the City. When available, food, carpeting, and other furnishings resulting from Convention Center events are donated to charity.

**TABLE 17-1  
2003 EXISTING: SOLID WASTE GENERATED WITHIN THE PROJECT AREA  
(POUNDS PER WEEK)**

Use	Municipal Solid Waste	Commercial Solid Waste
<b>Rezoning Area</b>		
Office		96,600
Retail		44,600
Other Commercial		246,400
Residential	20,700	
Hotel		0
Industrial/Manufacturing		381,000
Institutional	4,400	
MSG		19,500
Subtotal	25,100 (13 tons)	788,100 (394 tons)
<b>Convention Center</b>		36,000 (18 tons)
<b>Total</b>	<b>25,100 (13 tons)</b>	<b>824,100 (412 tons)</b>

Source: DCP provided the existing land uses for the Rezoning Area.

Note: Solid waste generation rates for the Rezoning Area are based on the CEQR Technical Manual. Solid waste generation rates for the Convention Center are based on similar events held at the Meadowlands complex in New Jersey.

**D. 2010 FUTURE WITHOUT THE PROPOSED ACTION**

The October 2004 Draft New SWMP includes a Long Term Export Program that calls for the conversion of four of the City’s eight marine transfer station (MTS) sites, to the extent possible, to waste containerization facilities. While MTS conversion is the primary piece of the proposed Long Term Waste Export policy, other initiatives are under consideration as well, including the possible development of private facilities to transfer and containerize waste. Once consolidated and containerized, solid waste would be exported by barge or rail to disposal sites outside of the City. According to the proposed SWMP, the four proposed converted MTSs would be operational in 2008. As currently drafted, the October 2004 Draft New SWMP would require all residential and other

DSNY-managed municipal solid waste generated in the Project Area to be transported directly to the out-of-City landfills for disposal. Likewise, if the current SWMP remains in effect in 2010, all municipal solid waste would continue to be trucked out of the City.

**1. Rezoning Area**

In M-4, including the Hudson Yards area, municipal solid waste generated in 2010 would continue to be trucked directly to the out-of-City landfills. The existing West 59th Street MTS site, which currently receives paper for export and recycling, could be made available to commercial carters to receive commercial solid waste.

The growth expected to occur in the Future Without the Proposed Action would add new demand for private and municipal solid waste services. As identified in Chapter 4, “Land Use, Zoning, and Public Policy,” a number of residential and commercial projects and development proposals have been identified as likely to be developed by 2010 Without the Proposed Action.

Based on this projected level of development, it is estimated that approximately 40 tpw of municipal solid waste and 394 tpw of commercial solid waste would be generated in the Rezoning Area in 2010 Without the Proposed Action (Table 17-2). This would result in four M-4 truck round trips per week by DSNY collection trucks and 31 private hauler round trips.

**2. Convention Center**

In the Future Without the Proposed Action, the capacity of the Convention Center would remain unchanged at 18 tpw on average, requiring two truck trips per week. The peak event (Auto Show) would continue to generate a maximum of approximately 16 tons per day of solid waste, resulting in two private carter truck trips per day. The Convention Center would continue to use private carters to haul the solid waste to out-of-City landfills. There would be no increased demand for private carter services.

**TABLE 17-2**  
**2010 FUTURE WITHOUT THE PROPOSED ACTION:**  
**SOLID WASTE GENERATION WITHIN THE REZONING AREA**  
**(POUNDS PER WEEK)**

Use	Municipal Solid Waste	Commercial Solid Waste
<b>Rezoning Area</b>		
Office		85,000
Retail		58,000
Other Commercial		243,700
Residential	75,000	
Hotel		0
Industrial/Manufacturing		381,000
Institutional	4,300	
MSG		19,500
Subtotal	79,300 (40 tons)	787,200 (394 tons)
<b>Convention Center</b>		36,000 (18 tons)
<b>Total</b>	<b>79,300 (40 tons)</b>	<b>823,200 (412 tons)</b>

Source: DCP provided the existing land uses for the Rezoning Area.  
 Note: Solid waste generation rates for the Rezoning Area are based on the CEQR Technical Manual. Solid waste generation rates for the Convention Center are based on similar events held at the Meadowlands complex in New Jersey.

## **E. 2010 FUTURE WITH THE PROPOSED ACTION**

It is anticipated that the No. 7 Subway Extension, Convention Center expansion, and Multi-Use Facility would be completed and operational by 2010. In addition, a small portion of the commercial and residential development allowed under the proposed rezoning of Hudson Yards would be constructed. As a result, the Proposed Action would generate increased demand for solid waste and sanitation services.

Based on the *CEQR Technical Manual* solid waste generation rates, it is estimated that the Proposed Action would generate an estimated peak demand of 65 tons per week of municipal solid waste and 538 tons per week of commercial solid waste, as indicated in Table 17-4. This volume of municipal solid waste generated by the Proposed Action would represent a 12 percent increase over the current volume of municipal solid waste collected in M-4 of 560 tpw. This volume would also represent a small increase over the City's daily solid waste generation of 12,000 tons per day of municipal waste collected by the DSNY and 10,000 tons per day of commercial waste collected by private carters. This estimated increase in solid waste would require six additional DSNY truck trips per week and 40 truck trips per week by private carters. The DSNY has indicated that the six additional collection truck trips would require one additional truck shift per day and would not require additional trucks or sanitation workers within M-4. This would result in three additional truck trips per week by municipal collection trucks and six additional private hauler trips, when compared to the Future Without the Proposed Action. The DSNY has indicated that this additional level of service would not result in significant adverse impacts to their operations.

As currently drafted, the October 2004 Draft New SWMP would require all residential and other DSNY-managed municipal solid waste generated in the Project Area to be transported directly to out-of-City sites for disposal. Likewise, if the current SWMP remains in effect in 2010, all municipal solid waste would continue to be trucked out of the City for disposal.

### **1. No. 7 Subway Extension**

The proposed Terminal Station would have public waste and newspaper collection bins within paid areas. Waste and paper recyclables would also be collected from employee areas, which would generate relatively small amounts of waste each day. Small amounts of solid waste would also be collected in Corona Yard, where the additional cars required for the No. 7 Subway Extension would be cleaned and swept. The proposed systems and ventilation buildings associated with the subway extension would not generate solid waste. Approximately five tons of solid waste and approximately 60 pounds of newspaper would be generated each week from the proposed Terminal Station. Solid waste collected from the station would be consolidated in dumpsters on the platform, loaded onto a work train, taken to Corona Yard, consolidated by private carters, and trucked out of the City to disposal facilities.

### **2. Rezoning Area**

A small portion of the residential and office developments allowed under the Zoning Amendments would be in place by 2010. Approximately 2.2 million square feet of new office and 2.7 million square feet of residential development would likely occur by 2010. As listed in Table 17-3, the projected developments within the Project Area would generate approximately 65 tpw of municipal waste and 450 tpw of commercial waste. These projected volumes of municipal waste would require a net increase of six DSNY truck trips per week in the M-4 service area, and 34 private hauler trips. The DSNY has indicated that this additional demand would not create a significant impact on their operations. It should also be noted that these conservative volumes of solid waste are based on the *CEQR Technical Manual* and do not consider the quantities that could be recycled. The amount of



recyclables could be approximately 13,098 pounds per week, based on the current Citywide municipal waste recycling rate of 18 percent.

**3. Convention Center Expansion**

Under the reasonable worst-case development scenario, it is anticipated that Phase II of the Convention Center expansion would be completed and operational by 2010. Using *CEQR Technical Manual* employee rates and rates based on similar events, this expansion would generate approximately 58 tpw (Table 17-4). A peak event day, with full occupancy of the new hotel and exposition space, would create an estimated 23 tons of solid waste daily. Private carters would cart all solid waste and recyclables generated. The Convention Center would minimize solid waste production by separating used corrugated cardboard, mixed paper, and wooden pallets, and then selling them to private vendors. In addition, glass, clean metals, and wood would be separated for recycling. Food, carpeting, and other furnishings resulting from Convention Center events would continue to be donated to charity.

**4. Multi-Use Facility**

In 2010, the Multi-Use Facility would be completed and open for sporting events, concerts, conventions, and exhibitions. The event that would generate the greatest volume of solid waste at the Multi-Use Facility would be a sold-out New York Jets football game, with 75,000 patrons. Using waste generation rates observed at current football games, approximately 11.5 tons of solid waste would be generated during a Multi-Use Facility football event. During a typical week at the Multi-Use Facility, averaging two sports events and three exposition events, the estimated volume of solid waste, using *CEQR Technical Manual* rates, would be 25 tpw (see Table 17-4). This volume of waste would require two private carter trips per week. Measures to minimize the volume of solid waste would include the use bulk-packaged supplies and air-dryers in public bathrooms. It is anticipated that a private carter would collect the solid waste from the Multi-Use Facility for disposal at out-of-City disposal sites. The DSNY has indicated that this projected amount of solid waste would not overburden the available private carter services.

**TABLE 17-3  
2010 FUTURE WITH THE PROPOSED ACTION:  
SOLID WASTE GENERATION WITHIN THE REZONING AREA  
(POUNDS PER WEEK)**

Projected Sites	Units/Size/ FA	Person/ Employees/ Students	Solid Waste Generation Rate (pounds per week)	Municipal Solid Waste	Commercial Solid Waste
<b>Rezoning Area</b>					
Office	3,767,644	15,071	13/employee	---	195,900
Retail	237,996	793	79/employee	---	62,700
Other Commercial	908,989	3,636	66/employee	---	240,000
Residential	3,082		41/residential unit	126,400	----
Hotel	0	0	75/employee	----	0
Industrial/Manufacturing	762,058	3,048	125/employee	----	381,000
Institutional	433,628	1,445	3/person	4,400	----
MSG	1,000,000	19,500	1/patron	----	19,500
<b>2010 Rezoning Area Total</b>				<b>130,800 (65 tons)</b>	<b>899,100 (450 tons)</b>

1. Household size is based on an average of 2.57 persons/household in the proposed rezoning area.
2. Solid waste generation calculations are based on the CEQR Technical Manual. For office employees, an estimated rate of one employee/250 square feet was used, and for retail employees, a rate of one employee/300 square feet was used.

**TABLE 17-4**  
**2010 FUTURE WITH THE PROPOSED ACTION:**  
**SOLID WASTE GENERATION WITHIN THE PROJECT AREA**  
**(POUNDS PER WEEK)**

Projected Sites	Units/Size/ FA	Person/ Employees/ Students	Solid Waste Generation Rate (pounds per week)	Municipal Solid Waste	Commercial Solid Waste
<b>Rezoning Area in 2010</b>					
<b>No. 7 Subway Extension<sup>1</sup></b>				130,800 (65 tons)	899,100 (450 tons)
Employees at new station		13	13/employee		170 <sup>1</sup>
Public at new station		1	9,800/station		9,800 <sup>1</sup>
Total					9,970 (5 tons)
<b>Multi-Use Facility</b>					
Patrons (3 exposition and 2 sports events)		55,000	0.3/patron		16,500
F/T employees		2,503	13/employee		32,500
Total					49,000 (25 tons)
<b>Convention Center Expansion</b>					
2.5 million sq. ft. of function space, with patrons (peak)	4,100,000	105,000	0.3/patron		31,500
Convention employees and contractors		1,812	13/employee		23,600
Hotel		800	75/employee		60,000
Total					115,100 (58 tons)
<b>2010 Total</b>				<b>130,800 (65 tons)</b>	<b>1,073,170 (538 tons)</b>

1. MTA NYCT does not use DSNY services for waste disposal. Private carters remove consolidated waste from MTA rail yards.
2. Household units are based on an average of 2.57 persons/household in the proposed rezoning area.
3. Solid waste generation calculations are based on the CEQR Technical Manual. For office employees, an estimated rate of one employee/250 square feet was used, and for retail employees, a rate of one employee/300 square feet was used.
4. For the Convention Center and Multi-Use Facility, an estimated 0.3 pounds per patron was used, based on the current waste generation rates at New York Jets football games. The waste generation rates used for the Multi-Use Facility and Convention Center employees, however, were based on the CEQR Technical Manual.

## F. 2025 FUTURE WITHOUT THE PROPOSED ACTION

### 1. Rezoning Area

Based on the *CEQR Technical Manual* methodology, the projected development within the Rezoning Area anticipated to occur by 2025 Without the Proposed Action would be approximately 53 tpw of municipal solid waste and 460 tpw of commercial solid waste. The DSNY has indicated that this would not overburden the City municipal solid waste system or private hauler operations. These projected volumes would result in approximately five DSNY truck trips per week in the M-4 service area, and 34 private carter truck trips per week. Based on the October 2004 Draft New SWMP, it is anticipated that DSNY-managed municipal solid waste generated within the Rezoning Area would be carted directly out of the City for ultimate disposal. Likewise, if the current SWMP disposal practices remain in effect in 2025, all municipal solid waste from the Project Area would continue to be carted directly out of the City for disposal.

### 2. Convention Center

The amount of recyclables and solid waste generated by the Convention Center in 2025 Without the Proposed Action would remain unchanged from current levels.

**TABLE 17-5**  
**2025 FUTURE WITHOUT THE PROPOSED ACTION:**  
**SOLID WASTE GENERATION WITHIN THE REZONING AREA**  
**(POUNDS PER WEEK)**

Use	Municipal Solid Waste	Commercial Solid Waste
<b>Rezoning Area</b>		
Office		151,000
Retail		87,600
Other Commercial		243,700
Residential	100,700	
Hotel		0
Industrial/Manufacturing		381,000
Institutional	4,300	
MSG		19,500
<i>Subtotal</i>	105,000 (53 tons)	882,800 (442 tons)
<b>Convention Center</b>		36,000 (18 tons)
<b>Total</b>	<b>105,000 (53 tons)</b>	<b>918,800 (460 tons)</b>

Source: DCP provided the existing land uses for the Rezoning Area.

Note: Solid waste generation rates for the Rezoning Area are based on the CEQR Technical Manual.

Solid waste generation rates for the Convention Center are based on similar events at the Meadowlands complex in New Jersey.

**G. 2025 FUTURE WITH THE PROPOSED ACTION**

The balance of the projected residential, office, and retail space development that would occur within the Rezoning Area between 2010 and 2025 would increase the demand for the City's solid waste management and sanitation services. Development allowed under the proposed Zoning Amendments would create approximately 28 million square feet of new commercial office space, 12.6 million square feet of new residential space, and 1.5 million square feet of new hotel space. This development, including the relocated MSG, extended No. 7 Subway Line, Multi-Use Facility, and expanded Convention Center, would create approximately 266 tpw of municipal waste and 1,137 tpw of commercial waste (Table 17-6). These projected volumes of solid waste are based on generation rates established in the *CEQR Technical Manual*; however, they do not consider solid waste reduction measures mandated by the City. These volumes of solid waste would generate approximately 21 new DSNY collection truck trips and 85 new private carter truck trips each week to accommodate the additional waste generated by the Proposed Action.

The DSNY has indicated that the projected increase in residential waste could be accommodated by facilities identified in the proposed new SWMP. The total DSNY waste management demand of 21 truck trips would require four truck shifts per day, two additional collection trucks, and 12 additional sanitation workers. The proposed M-4 garage located between West 29th and West 30th Streets, between Eleventh and Twelfth Avenues, would accommodate these additional trucks. DSNY has indicated that this increased level of service would not create a significant adverse impact on municipal solid waste operations.

The Proposed Action would result in 16 additional DSNY truck trips when compared to the Future Without the Proposed Action. These truck trips would occur during off-peak hours (early morning), and would not be anticipated to create significant adverse impacts to the traffic circulation within Hudson Yards. Based on the proposed new SWMP, it is anticipated that DSNY-managed municipal solid waste generated within the Rezoning Area would continue to be carted directly out of the City for ultimate disposal. Likewise, if the current SWMP disposal practices remain in effect in 2025, all DSNY-managed municipal solid waste from the Project Area would continue to be trucked directly out of the City.

**No. 7 Subway Extension—Hudson Yards Rezoning and Development Program FGEIS**

Potential air quality and noise impacts resulting from the additional solid waste collection truck trips are identified in Chapter 21, “Air Quality” and Chapter 22, “Noise and Vibration,” respectively.

Potential traffic-related impacts resulting from the anticipated number of DSNY and private carter truck trips are presented in Chapter 19, “Traffic and Parking.”

It is anticipated that the solid waste volumes generated by the Multi-Use Facility and the expanded Convention Center in 2025 would remain the same as the volumes estimated for 2010.

The solid waste generated by the No. 7 Subway Extension would increase in 2025 due to the completion of the Intermediate Station. Similar to the Terminal Station, the Intermediate Station would generate approximately five tons of solid waste and approximately 60 pounds of newspaper each week. The completion of this station would increase the total amount of solid waste generated by the No. 7 Subway Extension to approximately 10 tons per week (see Table 17-6). This solid waste would be transported via rail to Corona Yard and then trucked via private carters out of the City to disposal facilities.

**TABLE 17-6  
2025 FUTURE WITH THE PROPOSED ACTION:  
SOLID WASTE GENERATION WITHIN THE PROJECT AREA  
(POUNDS PER WEEK)**

Projected Sites	Units/Size/FA	Person/ Employees/ Students	Rate (pounds per week)	Municipal Solid Waste	Commercial Solid Waste
<b>No. 7 Subway Extension</b>					
Employees at 2 new stations		26	13/employee		340
Public at 2 new stations		2	9,800/station		19,600
<b>Total</b>					19,940 (10 tons)
<b>Multi-Use Facility</b>					25 tons
<b>Convention Center Expansion</b>					58 tons
<b>2025 Projected Development within the Rezoning Area</b>					
<i>2025 With Relocation of MSG</i>					
Office	29,245,812	116,983	13/employee	---	1,520,800
Retail	1,106,128	3,687	79/employee	---	291,300
Other Commercial	0	0	66/employee	---	0
Residential	12,887		41/residential unit	528,400	---
Hotel	1,500,000	3,000	75/employee	---	225,000
Industrial/Manufacturing	56,963	228	125/employee	---	28,500
Institutional	397,086	1,324	3/person	4,000	---
MSG Seats	1,000,000	23,000	1/patron	---	23,000
Subtotal				532,400 (266 tons)	2,088,600 (1,044 tons)
<b>2025 Total Proposed Action</b>				<b>266 tons</b>	<b>1,137 tons</b>

Note: The Convention Center, No. 7 Subway Extension, and Multi-Use Facility solid waste generation rates were provided by designers of those facilities. All other calculations are based on the CEQR Technical Manual. The same assumptions used for Table 17-4 apply.

**TABLE 17-7**  
**2010 AND 2025 FUTURE WITH AND WITHOUT THE PROPOSED ACTION:**  
**COMPARISON OF SOLID WASTE GENERATED BY ANALYSIS YEAR**  
**(TONS PER WEEK)**

Project Element	Existing Conditions (2003)	2010 Without Proposed Action	2010 With Proposed Action	2025 Without Proposed Action	2025 With Proposed Action
<b>Municipal Solid Waste</b>					
Rezoning Area Total	13 tons	40 tons	65 tons	53 tons	266 tons
<b>Commercial Solid Waste</b>					
Rezoning Area Total	394 tons	394 tons	450 tons	460 tons	1,044 tons
No. 7 Subway Extension			5 tons		10 tons
Multi-Use Facility			25 tons		25 tons
Convention Center Existing/Expansion	18 tons	18 tons	58 tons	18 tons	58 tons
<b>Total Commercial Solid Waste</b>	<b>412 tons</b>	<b>412 tons</b>	<b>538 tons</b>	<b>478 tons</b>	<b>1,137 tons</b>

Note: Calculations within the Rezoning Area are based on the CEQR Technical Manual. The same assumptions used for Tables 17-4 and 17-6 apply.

**H. MITIGATION**

The projected wastes generated by the Proposed Action would neither create a significant adverse impact nor overburden the municipal solid waste system or the private hauler’s ability to manage the City's commercial waste and recyclables. Therefore, no mitigation measures would be required. ❖