

3.13 SOLID WASTE AND SANITATION SERVICES

INTRODUCTION

This chapter examines potential impacts from the proposed action on the generation of municipal solid waste and sanitation services. According to the 2001 *CEQR Technical Manual*, actions involving construction of housing or other development generally do not require an evaluation for solid waste impacts unless they are unusually large. The proposed action may include the construction of 1,000 new residential dwelling units that could generate upwards of 40,000 pounds (20 tons) per week of municipal solid waste. The manual also states that projects with a generation rate of less than 10,000 pounds per week are not considered large and do not require detailed analyses. Therefore, this chapter will include a detailed assessment of the potential for impacts on solid waste disposal and sanitation services

The proposed action would not result in a significant increase in municipal solid waste (MSW) generation and sanitation services. The average volume of MSW anticipated at the East 91st Street Converted Marine Transfer Station Waste Containerization Facility, which services this area of Manhattan, is 720 tons per day (TPD)¹. The existing MSW tonnage generated by the project site as shown in Table 14-1 is less than 1 TPD. Considering the 12.5-ton capacity of New York City Department of Sanitation (DSNY) trucks, this is a small percentage of a single truckload.

A quantitative assessment of the East 125th Street Development in conformance with the City's Solid Waste Management Plan and the *CEQR Technical Manual* follows and includes calculations of existing solid waste generation on the East 125th Street Development project site (Parcels A, B, & C), and compares the result with equivalent calculations on the same development sites in the future with and without the proposed action.

3.13.1 EXISTING CONDITIONS

Municipal solid waste is managed in accordance with the City's 2006 Solid Waste Management Plan (SWMP). The collection of MSW from residential properties and other sources including City agencies and tax-exempt properties is the responsibility of DSNY. The Department also collects wastes from street receptacles, street sweeping operations, and lot cleaning activities. MSW is collected and transported to transfer stations for sorting and separating solid wastes and recyclables, and transfer to other modes of transportation – larger trucks, barges, and trains – destined for landfills outside of the New York City metropolitan area or incinerator facilities (energy recovery or volume reduction). During fiscal year 2006

¹ New York City Department of Sanitation, *Final Engineering Report for the East 91st Street Marine Transfer Station Waste Containerization Facility, Part 360 Permit Application – Volume I*, 2007.

(July 2005 to June 2006) DOS collected approximately 11,800 tons per day of trash and 5,100 tons per day of recyclable materials, for a total of 16,900 tons per day².

The proposed development is located within Manhattan Community District 11, which corresponds to DSNY's service area M-11. According to the SWMP, service area M-11 is in the watershed currently served by the East 91st Street Converted Marine Transfer Station (MTS) Waste Containerization Facility. The January 2007 Engineering Report for the East 91st Street MTS Permit Application provides for DSNY-managed waste of 720 average tons per day (TPD), and 864 average peak day TPD³.

DSNY does not collect commercial waste, including construction and demolition debris, regulated medical waste, asbestos, hazardous or industrial wastes, fill materials, or dredge spoils. Businesses, manufacturers, and offices responsible for the collection and disposal of its own waste and recyclables generally contract that service with a private carter. An identical process as described above is followed by the private carters for sorting, separating, and transfer of wastes to disposal facilities. Private carters collect and transport approximately 15,000 tons per week of recyclables and solid waste and 19,000 tons per day of construction debris and excavated materials.

Solid Waste Generation Analysis

As previously noted, the basis for this analysis is the amount of MSW generated from existing and proposed land uses within the East 125th Street Development project site only (Parcels A, B, & C). Using the solid waste generation rates found in the *CEQR Technical Manual*, the estimated amount of MSW currently generated by the East 125th Street Development project site is shown in Table 3.13-1.

The Department of City Planning's MapPluto database identifies four existing dwelling units on the project site on the upper floors of 225 East 125th Street. Field visits conducted between April and July 2007 by STV, Inc. indicate that these units are not occupied. However, the solid waste analysis considers the potential demand from four occupied units in this building for the purposes of a providing a conservative analysis. The average number of persons per household in the study area is 2.57 (average for Community District 11) with a MSW generation rate of 17 pounds per person per week. Other assumptions, e.g. number of employees and generation rates, are noted in the following table.

The current land uses located within the East 125th Street Development project site generate approximately 9,000 pounds (4.6 tons) per week of MSW. Assuming a six-day work week, this amounts to 0.77 TPD. According to the *CEQR Technical Manual*, the typical DSNY

² New York City Department of Sanitation website (see <http://www.nyc.gov/html/dsny>)

³ New York City Department of Sanitation, *Final Engineering Report for the East 91st Street Marine Transfer Station Waste Containerization Facility, Part 360 Permit Application* – Volume I, 2007.

collection truck for residential waste has a capacity of 12.5 tons of material per trip; commercial carters can haul between 12-15 tons of waste per truck.

Table 3.13-1: Existing MSW Generation from East 125th Street Development Project Site

Use	SF/DUs	Rate (lbs/wk)	MSW (lbs/wk)
Residential @ 2.57 residents per DU	4 DU*	17 per resident	187
Vacant land	51,115 sf	0	0
Commercial – 3 employees per 1,000 sf	21,328 sf	79 per employee	5,056
Parking Facilities	132,054 sf	0	0
Industrial – 1 employee per 500 sf	2,498 sf	183 per employee	915
Mixed Commercial/Residential	2,813 sf	79 per employee	632
Transportation/Utility – 1 employee per 1,000 sf	8,341 sf	79 per employee	632
Other – 1 employee per 1,000 sf	22,982 sf	79 per employee	1,817
Total	241,131 sf		9,239 = 0.77 TPD

Notes: 1. Community District 11 average number of residents per dwelling unit is 2.57.
2. MSW generation rates from *CEQR Technical Manual*. Industrial rate is the average of the two Industrial rates given in the *CEQR Technical Manual*.
3. TPD assumes a six-day collection week.
4. Mixed Commercial/Residential uses Commercial rate.

* DCP's MapPluto database identifies four existing dwelling units on the project site on the upper floors of 225 East 125th Street. Field visits conducted between April and July 2007 by STV, Inc. indicate that these units are not occupied. However, the solid waste analysis considers the potential demand from four occupied units in this building for the purposes of a providing a conservative analysis.

3.13.2 FUTURE WITHOUT THE PROPOSED ACTION

Municipal solid waste generation from the project site under future conditions without the proposed action would likely remain identical to existing conditions as there are no other plans for development on the site. The amount of MSW generated by the site would not be expected to create a burden for DSNY or commercial carter services.

As discussed in Chapter 3.1, other foreseeable development projects in the vicinity of the project site are expected to go forward independently of the proposed action and may increase the amount of solid waste generated in the vicinity of the project site. In the Future without the Proposed Action, approximately 1,800 additional dwelling units are anticipated in other developments. Although area population is expected to increase as a result, the burden on DSNY solid waste collection would be minimal. Other major projects include East River Plaza, a 500,000-square foot commercial development, and residential developments including the Kalahari and Fifth on the Park. Trash collection would be the responsibility of private commercial carters and would have no impact on DSNY services. The additional demand from these other foreseeable projects is expected to comprise a small fraction of the maximum peak day TPD allowable under the proposed permit limits for the

East 91st Street MTS and would not create any significant adverse impact to DSNY’s collection capacity or schedule.⁴

3.13.3 FUTURE WITH THE PROPOSED ACTION

Construction and occupancy of the East 125th Street Development is expected to result in new residential, retail, office, hotel and institutional uses. The Proposed Action would result in approximately 176,455 pounds of MSW per week, or 15 TPD, collected and delivered to the East 91st Street MTS.

**Table 3.13-2: Future MSW Generation With
the Proposed East 125th Street Development**

Use	Build Conditions	
	SF/DUs/Residents/ Employees	MSW (lbs/wk)
Residential	1,000 DUs/ 2,570 residents	43,690
Office Commercial	300,000 sf/ 1,200 Employees	15,600
Retail	470,000 sf/ 1,410 employees	111,390
Institutional	30,000 sf/	900
Hotel	100,000 sf/100-room/ 65 employees	4,875
Public Open Space	12,500 sf	0
Total		176,455 14.7 TPD
Notes: Based on the following assumptions: <ul style="list-style-type: none"> ▪ Tons per Day (TPD) assumes a 6-day collection schedule. ▪ Commercial Uses – assume 3 employees per 1,000 sf for retail and 4 per 1,000 sf for office space; retail uses generate 79 lbs of MSW per week per employee, office buildings generate 13 lbs. MSW per week per employee. ▪ Industrial/Manufacturing – assume 1 employee per 1,000 sf and 183 lbs of MSW per week per employee (based on average generation rates for two industrial classes listed in Table 3M-1 of the <i>CEQR Technical Manual</i>). Existing MTA Bus Storage Facility employee estimate from CEQR EA Statement. ▪ Community Facilities – assume 0.03 lbs of MSW per week per sf (based on generation rate for Government Office listed in Table 3M-1). ▪ Residential Uses – assume 2.57 residents per DU (based on Community District average), and 17 lbs. of MSW per week per individual. 		

Commercial development will generate greater amounts of solid waste than residential and institutional uses in the Build condition. Therefore, most of the MSW would be collected by private carters. Approximately four TPD of MSW generated by residential development and other development generating waste that is managed by DSNY would be collected by DSNY

⁴ Ibid.

trucks. According to the *CEQR Technical Manual*, DSNY collection trucks have a carrying capacity of approximately 12.5 tons of waste material per trip. Based on this analysis, residential uses and other uses generating DSNY-managed waste that are induced by the proposed action on the East 125th Street Development project site would generate enough waste material to fill one-third of the capacity of a single DSNY truck per day. The additional increment of development that would be possible as a result of the proposed rezoning of the separate United Moravian Church parcel that is to be rezoned only would not be expected to result in significant adverse impacts related to solid waste. No development is proposed on that off-site parcel at this time. Thus, the Proposed Action would likely have no significant adverse impact on the City's ability to collect and transport MSW.

CONCLUSION

An increase in the amount of MSW generated as the result of development in the study area, including the Proposed Action, would have no significant adverse impact to solid waste and sanitation services. Additional project-generated residential waste and other DSNY-managed waste would increase MSW by 44,500 pounds (22 tons) per week as a result of the East 125th Street Development compared to future conditions without the action. Considering a DSNY six-day work-week, this amount is the equivalent of less than one truckload per day; there would be no significant burden on the City's solid waste management program. The study area is currently served by DSNY-managed waste collection trucks and any increases could be easily accommodated.

Commercial waste from future development in both No-Action and Build conditions would increase, but not significantly. Private carters collecting MSW from commercial users would be hauling the equivalent of one truckload extra per day (approximately 11 tons), assuming 12.5 ton hauling capacity. This amounts to less than two percent of the potential quantity of commercial wastes (780 TPD) hauled to the East 91st Street Converted MTS by commercial carters. This is a minimal amount and it is expected that it could be easily handled by commercial solid waste management entities.

Curbside pickup and removal of commercial trash (non-DSNY-managed) is not proposed. All commercial solid waste would be housed within the East 125th Street Development buildings and removed in a discreet, controlled manner to mitigate noise, alleviate traffic and minimize disruption to neighbors. It is anticipated that restaurants would store trash in refrigerated trash rooms within the tenant space until the scheduled pickup time.