

A. INTRODUCTION

This chapter considers the proposed actions' effects on solid waste and sanitation services. Based on the *City Environmental Quality Review (CEQR) Technical Manual* (January 2012 edition), a solid waste assessment determines whether a project has the potential to cause a substantial increase in solid waste production that may overburden available waste management capacity, or otherwise be inconsistent with the City's Solid Waste Management Plan (SWMP) or with state policy related to the City's integrated solid waste management system. The following analysis estimates the amount of existing solid waste generated by uses on the project site, and assesses the potential impacts of the proposed actions on solid waste and sanitation services.

PRINCIPAL CONCLUSIONS

While the proposed actions would generate additional solid waste, no significant adverse impacts on solid waste and sanitation services would result from the proposed actions. The New York City Department of Sanitation (DSNY) is responsible for the collection and disposal of municipal solid waste, including the collection of recyclables, generated by residents, some nonprofit institutions, tax exempt properties, and City agencies. Private carters provide these services to commercial and other users. The proposed actions would increase the volume of solid waste and recyclables that would have to be managed, but would not pose a significant strain to overall capacity of the City's municipal and private solid waste system or hamper the provision of adequate sanitation services.

B. EXISTING CONDITIONS**DESCRIPTION OF CURRENT SOLID WASTE SANITATION SERVICES**

DSNY is the City agency responsible for the collection and disposal of municipal solid waste, refuse, and designated recyclable materials generated by residences, public schools, some nonprofit institutions, tax exempt non-residential facilities, and many City and State agencies. DSNY also collects waste from City litter baskets, street-sweeping operations, and lot cleaning activities. It is estimated DSNY collects over 12,000 tons of residential and institutional refuse and recyclables per day.¹ DSNY delivers most of the refuse it collects to certain public or private solid waste management facilities known as transfer stations, in the City or in adjoining communities, for processing and transportation to out-of-city disposal facilities. Solid wastes that are not recycled, reused, or converted to a useful product locally must be exported from the City for disposal since New York City does not have public or private local disposal facilities such as sanitary landfills, construction and demolition debris landfills, traditional incinerators, or waste-to-energy resource recovery facilities.

¹ DSNY website: <http://www.nyc.gov/html/dsny/html/about/about.shtml>

Seward Park Mixed-Use Development Project

DSNY collects designated recyclables, including metal, glass, and plastic, and designated paper recyclables and delivers them to materials recovery facilities. In addition, DSNY collects residential yard waste on certain fall weekends and delivers it to the City's yard waste and composting facilities.

DSNY developed a Solid Waste Management Plan (SWMP) to address management of expected future demands for the city's solid waste. The SWMP was approved by the New York City Council in July 2006 and by the New York State Department of Environmental Conservation (NYSDEC) in October 2006, and covers the period through 2025.

The City's solid waste management services are undertaken in accordance with the SWMP, through 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 reduction, recycling, composting, resource conservation and energy production, and lastly, landfill disposal. The SWMP calls for DSNY-managed refuse from each borough to be taken to certain transfer stations located in that borough for export by rail or barge to landfills or waste-to-energy facilities. Commercial refuse is taken to private transfer stations or waste-to-energy facilities in the region, and will be accepted at four DSNY marine transfer stations for further transport and disposal. The City's integrated solid waste management system also includes special waste dropoff sites in each borough for certain hazardous or problem wastes, and yard waste composting facilities. The City's Recycling Law, Local Law 19 of 1989, as amended, requires that DSNY and private carters collect designated recyclable materials and deliver them to material recovery facilities. New York City residents are required to separate aluminum foil, glass, plastic and metal containers, and newspapers and other paper wastes from household waste for separate DSNY collection. The Recycling Law also mandates that commercial establishments are subject to recycling requirements. Businesses must separate certain types of paper wastes, cardboard, metal items, and construction wastes for collection by private carters. Food and beverage establishments must recycle metal, glass, and plastic containers, and aluminum foil, in addition to meeting the commercial recycling requirements.

Recycling of certain waste electronic equipment in New York State is regulated by the Electronic Equipment Recycling and Reuse Act, which was enacted in May 2010. This Act requires manufacturers of certain kinds of electronic items sold in the state, such as televisions, computers, and printers, to take back such items of electronic waste for reuse or recycling. The law prohibits disposal of electronic waste within the state by those other than individuals and households as of January 1, 2012, and by individuals and households as of January 1, 2015.

Recycling of rechargeable batteries is enforced by Local Law 97 of 2005. This law requires that rechargeable batteries be taken to local retailers that sell such batteries so that they may be recycled pursuant to a program arranged by the battery manufacturer.

SOLID WASTE GENERATION

The nine proposed development sites contain a number of active uses that currently generate solid waste. Based on *CEQR Technical Manual* solid waste generation rates and waste generation rates from other published environmental studies, the existing uses on the proposed development sites generate a total of approximately 32,123 pounds of solid waste per week (about 16 tons per week). **Table 11-1** summarizes the existing solid waste generation.

**Table 11-1
Existing Conditions: Solid Waste Generation**

Use	Units	Generation Rate (pounds per week) ¹	Total (pounds per week)
Residential	7 dwelling units	41 per household	287
Single Office ²	2 employees	9 per employee	18
Storage Space ³	4 employees	66 per employee	264
Health Clinic ⁵	44 employees	13 per employee ⁴	572
General Retail ⁵	14 employees	79 per employee	1,106
Restaurant ⁵	28 employees	251 per employee	7,028
Fast Food ⁵	12 employees	200 per employee	2,400
Food Stores ⁵	72 employees	284 per employee	20,448
TOTAL:			32,123

Notes:

1. Solid waste generation rates based on Table 14-1 of the *CEQR Technical Manual* (January 2012 edition).
2. Includes a non-profit cultural organization. Assumes 1 employee per 250 sf for the non-profit cultural organization.
3. Assumes 1 employee per 1,000 sf. The solid waste generation rate for storage was based on the solid waste generation for storage space in the *Domino Sugar Rezoning FEIS*.
4. Based on the solid waste generation rate for medical office uses in the *Saint Vincent's Campus Redevelopment DEIS*.
5. Employment estimates for the health clinic, retail, restaurants, and food stores provided by the New York City Economic Development Corporation (NYCEDC).

C. THE FUTURE WITHOUT THE PROPOSED ACTIONS

In the future without the proposed actions, it is assumed that the proposed development sites would continue in their current use and configuration, and no notable changes would be expected from these sites with respect to solid waste generation.

D. PROBABLE IMPACTS OF THE PROPOSED ACTIONS

This section discloses the anticipated future demand for solid waste handling in the future with the proposed actions. Under a reasonable worst-case development scenario, it is assumed that the proposed actions would result in 900 dwelling units, 469,350 square feet of retail space, 29,152 square feet of public market space, 36,304 square feet of non-specific commercial uses that could be office space, 114,000 square feet of community facility space, and a 200-room hotel of up to 97,450 square feet. For purposes of analysis, it was assumed that the retail would include a 65,000 square foot grocery store, 298,000 square feet of destination retail space and approximately 106,350 square feet of local retail space. The approximate square footage of restaurant space and fast food space was determined based on Urban Land Institute data on shopping centers.¹

As shown in **Table 11-2**, the proposed actions would generate solid waste at a rate of 221,238 pounds per week (approximately 110.6 tons). In 2022, an estimated 38,382 pounds (about 19.2 tons) per week of solid waste generated by the proposed actions would be from residential and community facility uses. This residential and public solid waste would be collected by DSNY. According to the *CEQR Technical Manual* guidelines, the typical DSNY collection truck has a capacity of 12.5 tons. Therefore, the proposed actions would be expected to generate solid waste

¹ Urban Land Institute, *Dollars & Cents of Shopping Centers/The SCORE 2008*.

Table 11-2
The Future with the Proposed Actions: Solid Waste Generation

Use	Program	Households/ Employment	Generation Rate (pounds per week) ¹	Total (pounds per week)
Residential	900 units	900 households	41 per household	36,900
Office Building	36,304 sf	145 employees ²	13 per employee	1,885
General Retail	363,095 sf	535 employees ³	79 per employee	42,265
Restaurants	21,367 sf	107 employees ⁴	251 per employee	26,857
Fast Food	19,887 sf	199 employees ⁵	200 per employee	39,800
Food Stores	94,152 sf	236 employees ³	284 per employee	67,024
Hotel	200 rooms	67 employees ⁶	75 per employee	5,025
Community Facility	114,000 sf	114 employees ⁷	13 per employee	1,482
Total				221,238

Notes:

1. Solid waste generation rates as per Table 14-1 in the *CEQR Technical Manual* (January 2012 edition).
2. Office employment based on 250 sf per employee.
3. Local retail and food stores employment based on 400 sf per employee. Destination retail employment based on 800 sf per employee.
4. Restaurant employment based on 200 sf per employee.
5. Fast food employment based on 100 sf per employee.
6. Hotel employment based on 3 rooms per employee.
7. Based on the solid waste generation rate used in the *Manhattanville in West Harlem Rezoning and Academic Mixed-Use Development FEIS* and in the *Willets Point Development Plan FGEIS*.

for DSNY collection that would require up to two added truckloads per week for solid waste collection services. According to the *CEQR Technical Manual*, because of the large size of the City’s public and private refuse and recyclables collection fleets, the capacity of the local and regional transfer stations and related access to materials recovery facilities and disposal facilities, and the fact that solid waste often moves in interstate commerce, any given project’s waste generation would not likely be significant relative to the total citywide and regionwide system. Therefore, since only two additional truckloads would be needed per week, this is not a significant impact on solid waste services for DSNY.

The non-residential solid waste (retail, office, and hotel uses) would be collected by private carters. The total amount of this waste would be 182,856 pounds per week (or about 91.4 tons). According to the *CEQR Technical Manual* guidelines, commercial carters typically carry between 12 and 15 tons of waste material per truck. Conservatively assuming that the private carters carry 12 tons of solid waste, the proposed actions would require approximately eight additional truck trips per week. As stated in the *CEQR Technical Manual*, because of the large size of the private refuse and recyclables collection fleets as well as other factors, any given project’s waste generation would not likely be significant relative to the total citywide and region-wide system. Therefore, the need for eight additional truck trips per week would not be a significant increase in demand and would be met by private-sector response to the increase in service needs.

Overall, compared with the solid waste generation in the future without the proposed actions, the proposed actions would result in a net increase of approximately 95 tons per week (or about 14 tons per day). Compared with the 12,000 tons per day that DSNY handles and the 13,000 tons per day that private carters handle,¹ the amount of solid waste that would be generated by the proposed actions would be minimal. At this time, the proposed location and method of storage of

¹ <http://www.nyc.gov/html/dsny/html/about/about.shtml> [Accessed November 15, 2011]

refuse and recyclables prior to collection is unknown. However, since the proposed actions would not result in a substantial increase in solid waste that would overburden available waste management capacity and would not be inconsistent with the City's SWMP or other policies, the proposed actions would not result in significant adverse impacts on solid waste and sanitation services. *