Chapter 13: Solid Waste and Sanitation Services

A. INTRODUCTION

This chapter examines the proposed project's effects on solid waste and sanitation services. According to the 2012 *City Environmental Quality Review (CEQR) Technical Manual*, a solid waste and sanitation services assessment is intended to determine whether a project has the potential to cause a substantial increase in solid waste production. Such an increase 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. This chapter discloses the proposed project's solid waste generation based on standard waste generation rates provided in the *CEQR Technical Manual*.

PRINCIPAL CONCLUSIONS

The proposed project would generate an increment above the No Build condition of approximately 132,000 pounds (approximately 66 tons) per week of solid waste. Although this would be an increase compared with conditions in the future without the proposed project, it would be a negligible increase relative to the approximately 13,000 tons of waste handled by commercial carters every day or the 16,500 tons per day handled by the New York City Department of Sanitation (DSNY). The proposed project would not result in an increase in solid waste that would overburden available waste management capacity. It would also not conflict with, or require any amendments to, the city's solid waste management objectives as stated in the SWMP. Therefore, the proposed project would not result in a significant adverse impact on solid waste and sanitation services.

B. EXISTING CONDITIONS

DESCRIPTION OF CURRENT SOLID WASTE SANITATION SERVICES

Solid waste management services in New York City are guided by the SWMP, which was prepared by DSNY and adopted by the City Council in 2006. The SWMP takes into account the objectives of New York State's solid waste management policy with respect to the preferred hierarchy of waste management methods: first waste reduction, then recycling, composting, resource conservation and energy production, and, lastly, landfill disposal. The SWMP includes initiatives and programs for waste minimization, reuse, recycling, composting, siting a new waste conversion facility to derive energy from waste, waste transfer, transport, and out-of-city disposal at waste-to-energy facilities and landfills.

In accordance with the SWMP, and with DSNY's responsibilities under the City Charter, DSNY handles all residential and institutional refuse in the city. DSNY collects approximately 16,500 tons per day (tpd) of refuse and recyclables, of which approximately 5,000 tons are recycled.

Solid waste from commercial and manufacturing uses is collected by private carters, which handle another 13,000 tpd of recyclables and mixed municipal solid waste (MSW).[1] Commercial carters transport the MSW to transfer stations and recyclables to recycling facilities. At the transfer stations, MSW is consolidated into larger trucks or rail cars and transported to landfills or waste-to-energy facilities outside of New York City for disposal. Private carters also collect other waste such as mixed construction and demolition debris and dirt, rock, and masonry waste and deliver it to construction and demolition debris processing facilities where clean fill and other items of value are separated out for recycling and the residue is transferred to trucks, rail cars, or barges and sent for disposal. Private carters in New York City handle about 19,070 tpd of construction debris and excavated materials.[2] The SWMP includes solid waste transfer stations and special problem waste collection sites in each borough, as well as certain composting facilities, recycling facilities and private transfer stations.

New York City's Recycling Law requires that both DSNY and commercial carters collect certain designated recyclable materials and deliver them to material recovery facilities for sorting and recycling. New York City residents are required to separate recyclable aluminum foil, glass, plastic and metal containers, newspapers, and other paper wastes from other household waste for separate collection by DSNY. Commercial entities are also required to separate recyclables for collection by private carters. Businesses are required to source-separate certain types of paper, cardboard, metal, and construction wastes. Food and beverage establishments must separate these same wastes, as well as metal, glass and plastic containers, and aluminum foil.

The SWMP also proposes the following three broad categories of action to address traffic issues associated with commercial waste handling: (1) improve conditions at and around transfer stations through stricter operating rules; (2) use DSNY marine transfer stations and procurements to facilitate a transition from a commercial waste system highly reliant on trucks to one that relies increasingly on barge and rail; and (3) reduce private transfer station capacity in the four community districts that currently absorb the largest proportion of the system's impacts.

SOLID WASTE GENERATION

For this analysis, existing solid waste generation was calculated for the building sites, or the area to be redeveloped as part of the proposed project (i.e., the Eastern and WF Parcels and the sites of Buildings 6, 7, and 8). The existing solid waste generation does not include areas where no project development would occur, i.e., on the Hallet's Cove Playground, Whitey Ford Field, or portions of the NYCHA Astoria Houses Campus not located within the sites of Buildings 6, 7, or 8, since the proposed project would not result in any change in use or waste generation at these locations.

Existing uses on the building sites that generate solid waste include an ink and toner manufacturing company and construction and telecommunications storage space. These uses are estimated to have a total of 43 employees. For analysis purposes, these uses are assumed to

[1] *About DSNY:* http://www.nyc.gov/html/dsny/html/about/about.shtml, accessed November, 2012

[2] The DSNY SWMP anticipates and provides for a projected increase in solid waste generation citywide over the 20-year plan period as a result of population growth and non-specific development. By 2020, the SWMP anticipates a daily increase of 2,145 tons or 12.7 percent.

produce solid waste at the rate of an apparel or textile manufacturing operation (125 pounds per employee per week) as defined in Table 14-1 of the *CEQR Technical Manual*. Therefore, the existing solid waste generation on the building sites is estimated to be 5,375 pounds per week, or approximately 3 tons (see **Table 13-1)**.

Table 13-1
Existing Conditions: Solid Waste Generation

Use	Employees	Solid Waste Generation Rate (pounds per employee per week)	Solid Waste Generation (pounds per week)
Ink and toner manufacturing	27[1]	125	3,375
Construction and telecommunications storage	16[2]	125	2,000
		Total Solid Waste Generation	5,375

Notes:
1. Assumes a manufacturing employment rate of approximately 1 employee per 1,000 sf.
2. Assumes a storage facility employment rate of approximately 1 employee per 6,000 sf.

Sources: DCP, MapPLUTO 12v1, March 2012; AKRF field visits; *2012 CEQR Technical Manual.*

C. THE FUTURE WITHOUT THE PROPOSED PROJECT

In the No Build condition, land uses on the building sites would remain as described above under "Existing Conditions," and there would be no change to solid waste generation as compared to the existing condition.

D. PROBABLE IMPACTS OF THE PROPOSED PROJECT

As described in Chapter 3, "Land Use, Zoning, and Public Policy," the proposed project would redevelop the building sites located on the Halletts Point peninsula with residential, retail (including a supermarket), parking, and open space uses.

Table 13-2 shows the cumulative solid waste expected to be generated by the proposed project in the future with the proposed project (Build condition). It is estimated that the proposed project would generate 137,288 pounds (or approximately 69 tons) of solid waste per week in the Build condition.

In the Build condition, residential uses on these sites would generate an estimated 108,404 pounds (or approximately 54 tons) of solid waste per week. Solid waste generated by new residential development would be collected by DSNY collection trucks and would be served by existing DSNY collection routes. As a practice, DSNY adjusts its operations to service the community. Residents would be required to participate in the city's ongoing recycling program for paper, metals, and certain types of plastics and glass.

Table 13-2
Build Condition: Solid Waste Generation

Use	Size	Generation Rate	Solid Waste Generation (pounds per week)
Collected by DSNY			
Residential	2,644 households (dwelling units)	41 pounds per week per household	108,404
Collected by Private Carters			
General Retail	96 employees[1]	79 pounds per week per employee	7,584
Supermarket	75 employees[1]	284 pounds per week per employee	21,300
Total Solid Waste Generation			**137,288**

Notes:
1. Employees in retail and food store uses estimated using approximately 1 employee per 400 sf.
Sources: *2012 CEQR Technical Manual.*

Because there is no solid waste from residential uses in the No Build condition, the approximately 54 tons of solid waste generated by residential uses in the Build condition would constitute the total incremental increase for DSNY collection as compared with the No Build condition. This would be a negligible increase relative to the approximately 16,500 tons of waste handled by DSNY every day. According to the *CEQR Technical Manual*, the typical DSNY collection truck for residential refuse carries approximately 12.5 tons of waste material. Therefore, the new residential uses introduced by the proposed project would be expected to generate solid waste equivalent to approximately four truck loads per week. This minimal increase is not expected to overburden the DSNY's solid waste handling services.

In addition, when compared with the No Build condition, there would be an increase in commercial waste—handled by private carters—by approximately 24,000 pounds (12 tons) per week. Given that a private carter truck typically carries at least 12.5 tons of solid waste, the proposed project would require approximately one additional truck trip compared with the No Build condition. Although this would represent a net increase over the future without the proposed project, it would be a negligible increase relative to the approximately 13,000 tons of waste handled by commercial carters every day. There are more than 100 private carters that are licensed to serve New York City and it is expected that their collection fleets would be sufficiently flexible to accommodate this increased demand for solid waste collection.

Overall, the proposed project would be expected to generate a solid waste equivalent to approximately four DSNY truck loads per week and one commercial carter truck load per week. This minimal increase would not overburden existing DSNY or commercial solid waste handling services. Therefore, the proposed project would not overburden the city's solid waste management capacity and would not have significant adverse impacts on solid waste and sanitation services. ✷