Chapter 14:

Solid Waste and Sanitation

A. INTRODUCTION

Implementation of the proposed actions, as described in Chapter 1 "Project Description," would generate new demands on solid waste management and sanitation services provided at the project sites. This chapter describes the increased demand in comparison to the future without the proposed actions and assesses the proposed actions' effects on these solid waste and sanitation services.

PRINCIPAL CONCLUSIONS

The proposed actions would not cause any significant adverse impacts on solid waste and sanitation services. While implementation of the proposed actions would create new demands on these services, the municipal systems serving the project sites would have adequate capacity to meet the projected increases in solid waste generation. The New York City Department of Sanitation (DSNY), which collects solid waste and recyclables, is expected to provide municipal solid waste and sanitation services to the project sites for residential and institutional uses. Private carters provide these services for non-DSNY managed solid waste.

The proposed actions are expected to generate three additional truckloads per day for DSNY collection and one additional truckload per day for private carter collection. Although the proposed actions would increase the volume of solid waste and recyclables, the delivery of these services would not be affected and no significant burden would be placed on the City's solid waste management services (either public or private).

B. METHODOLOGY

As discussed below, this chapter:

- Describes the existing solid waste management services on the project sites, using solid waste generation rates for typical land uses and activities provided in the *City Environmental Quality Review (CEQR) Technical Manual.*
- Determines future solid waste demands with the proposed actions for 2017.
- Assesses the effects of this incremental demand on municipal and private sanitation services.
- Describes the proposed sustainable features that would be incorporated into the project design to minimize demands on solid waste and sanitation.

C. EXISTING CONDITIONS

SOLID WASTE SERVICES

In New York City, the DSNY is the agency responsible for the collection and disposal of solid waste and recyclable materials generated by residences, public schools, some nonprofit institutions, tax-exempt properties, and City agencies. Private carters collect solid waste from other uses, e.g., commercial retail, office, and industrial operations.

The Fresh Kills Landfill, which was New York City's last operating landfill, was officially closed in March 2001. DSNY continues to collect residential and institutional solid waste and recyclables (the municipal waste stream), which are now transported out of the City. Currently, most of the City's municipal solid waste is collected and delivered to transfer stations for sorting and transfer to larger "hopper" trucks and then transported out of the City. Private carters also consolidate solid waste from commercial and industrial operations and haul it to waste transfer facilities both inside and outside New York City, where it is transported to out-of-City disposal facilities. It is estimated that DSNY collects more than 12,000 tons of residential and institutional refuse and recyclables (solid waste) per day.¹ In addition, the non-residential (commercial/industrial) waste stream is estimated at about 13,000 tons per day (tpd).¹ Therefore, the total solid waste generated in the City averages approximately 25,000 tpd.

The City's solid waste management services are undertaken in accordance with a 20-year Solid Waste Management Plan (SWMP). DSNY developed a new Comprehensive SWMP that was approved by the New York State Department of Environmental Conservation (NYSDEC) on October 27, 2006. The new SWMP recognizes and addresses the interdependency of the systems for managing recycling, residential waste, and commercial waste. It introduces a shift from the current mode of truck-based export to export by barge and/or rail. Under the SWMP, solid waste generated in Queens will be transported by truck to either the Review Avenue transfer station—located at 30-58 Review Avenue, in Long Island City—or to the North Shore marine transfer station located in College Point. The Review Avenue transfer station will serve Queens community districts 1 through 6, while North Shore station will serve Queens community districts 7 through 14.

Local Law 19 of 1989 requires that DSNY and private carters collect 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 waste from household waste for separate collection. Under the SWMP, commercial and industrial establishments are also subject to recycling requirements. 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 commercial recycling requirements.

SOLID WASTE GENERATION

Sites A and B are located within DSNY's Queens Community District 2 for public solid waste collection services. Commercial and industrial operations are handled by private carters.

The Hunter's Point South site (Site A) is occupied by a tennis facility, New York Water Taxi's ferry landing and Water Taxi Beach, and a temporary staging area for a construction contractor.

¹ DSNY website: http://www.nyc.gov/html/dsny/html/about/about.shtml (November 8, 2007).

(The construction contractor does not occupy a building on Site A but is temporarily using the southern portion of the site for staging construction materials; no solid waste is generated from this use.) Site B is occupied by low-rise manufacturing buildings used by Anheuser-Busch as a distribution facility and by NBC for television operations and other studio-related uses. Solid waste generated on Sites A and B was calculated using generation rates for similar land uses provided in the *CEQR Technical Manual*. As described in the Manual, these rates were derived from the SWMP.

As shown in **Table 14-1**, the existing uses on the project site generate a total of approximately 58,920 pounds of solid waste per week (about 4.2 tons per day). These private businesses are served by commercial solid waste and recycling management companies.

Existing Use	No. of Businesses	No. of Employees	Solid Waste Rate (Ibs/wk/employee)	Total (Ibs/week)		
Site A						
Recreation Facility (Tennisport)	2	45 ¹	251	11,295		
New York Water Taxi's ferry landing and Water Taxi Beach	1	5 ¹	9 ²	45		
Construction Material Staging (Temporary Use)	1	0	0	0		
Site A total				11,340		
	S	ite B				
Warehouse and distribution facility (NBC and Anheuser- Busch)	2	260 ¹	183 ³	47,580		
Site B total				47,580		
TOTAL Site A and B				58,920		
Notes:						

Table 14-1Existing Solid Waste Generation on the Project Sites

Notes:

¹ Employment for Water Taxi (5 employees), Anheuser-Busch (180 employees), Tennisport (45 employees) and NBC (80 employees) provided by NYCEDC.

² Generation rate based on single office use category of the CEQR Technical Manual.

³ Assumed to be the average of two industrial use generation rates (125 and 240 pounds per week per employee) in the *CEQR Technical Manual*.

SANITATION SERVICES

In addition to collecting refuse, DSNY is also responsible for sanitation services on the City's street network. This includes regular street sweeping, lot cleaning, snow removal, as well as collection of waste from street litter baskets.

D. THE FUTURE WITHOUT THE PROPOSED ACTIONS

In 2017, in the future without the proposed actions, it is conservatively assumed that the existing uses on the project sites would remain, although it is possible that some properties would be reused and that some limited development would occur. Independent of the proposed actions, Anheuser-Busch, the distribution facility currently on Site B, will relocate to a new 12-acre

vacant waterfront site in the Hunts Point Food Distribution Center in the Bronx. It is assumed that the company's existing location on Site B will be occupied by a similar use, with no significant change in the site layout. In the future without the proposed actions in 2017, no major changes to solid waste generation on the project sites are therefore expected.

Under the City's new SWMP, the new Review Avenue transfer station will be permitted an increased capacity of 1,200 tpd. The Review Avenue Truck to Rail transfer station would containerize DSNY-managed waste and then dray the containers to the Maspeth Rail Yard in Queens community district 2, where the containers would be located onto rail cars.²

E. PROBABLE IMPACTS OF THE PROPOSED ACTIONS

With the conversion of Sites A and B from their existing, low-density land uses to a large-scale residential community, the amount of solid waste generated on the sites would increase substantially.

To determine future solid waste volumes, the solid waste generation rates from the *CEQR Technical Manual* were applied to the project site. **Table 14-2** presents the cumulative solid waste volumes expected under the proposed actions using these assumptions. As shown in the table, it is estimated that the proposed actions would generate approximately 251,337 pounds of solid waste per week (about 18 tons per day) in 2017. As mentioned earlier in this chapter, DSNY collects around 12,000 tons of residential and institutional waste per day, therefore the residential and institutional component of the proposed actions would approximately add 16 tons of waste per day (0.13 percent) to the total waste collected by DSNY. The proposed actions would also generate approximately 1.8 tons of commercial waste, a 0.01 percent increase over the 13,000 tons of non-residential/commercial waste generated in the City The daily increase in solid waste over the future without the proposed actions would be 17.8 tons per day in 2017 and is the equivalent of less than 0.1 percent of the total amount of solid waste generated each day in New York City. This is not a significant increase in the City's solid waste stream.

While all of the existing solid waste generated on the project site is currently from nonresidential uses and, therefore, collected by private carting companies, in 2017 an estimated 226,373 pounds (113 tons) per week of solid waste generated by the proposed actions would be from residential, school and community 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 for DSNY collection that would require up to three added truckloads per day in 2017, assuming a three-day work week for solid waste collection services. This would not be a significant impact on solid waste services for DSNY.

The non-residential solid waste (retail uses) would be collected by private contractors. The total amount of this waste would be 24,964 pounds (12.5 tons) per week in 2017. Given that the typical collection truck averages a 12.5-ton capacity, the proposed actions would require about one additional truck load per week collected by a private contractor(s). This is not a significant increase in demand and would be met by private-sector response to the increase in service needs.

² Department of Sanitation New York City, Comprehensive Solid waste Management Plan FEIS, April 2005

			Solid Waste Rate	Total		
Future Use	Size	Individuals	(lbs per week)	(lbs per week)		
Site A						
	5,000,000 gsf					
Residential	(5,000 units)	9,750 residents*	17 per resident	165,750		
Retail	90,500 gsf	226 employees	79 per employee	17,854		
Community						
facility/ cultural						
uses	45,000 gsf	45 employees	13 per employee	585		
	180,000 gsf	1,600 students				
School	(1,600 seats)	and 180 staff	4 per person	5,340		
			Site A total	189,529		
Site B						
	1,650,000 gsf					
Residential	(1,650 units)	3,218 residents*	17 per resident	54,698		
Retail	36,000 gsf	90 employees	79 per employee	7,110		
			Site B total	61,808		
TOTAL				251,337		
Note: * Based on average household size of 1.95 for Queens Community District 2 in the						
year 2000.						

Table 14-2 Solid Waste Generation on the Project Sites in 2017

SANITATION SERVICES

As detailed in Chapter 1 "Project Description", a new waterfront park and street network would be developed. New streets would include a relocated Center Boulevard, 56th and 57th Avenues, and new segments of 51st, 54th, and 55th Avenues. The new park and street network would require litter collection, and street sweeping cleaning and snow removal. These activities would be the responsibility of DSNY.

CONCLUSION

In sum, there would be no significant adverse impacts on residential or commercial solid waste collection and disposal services in the future with the proposed actions in 2017. In addition, the proposed actions would not conflict with, or require any amendments to, the City's solid waste management objectives as stated in the SWMP.