

A. INTRODUCTION

The proposed project would generate new demands on solid waste management and sanitation services provided in the project area. The New York City Department of Sanitation (DSNY) has developed a new Solid Waste Management Plan (SWMP) to address expected future demands for solid waste management for the City. The new SWMP was approved by the New York City Council in July 2006 and the New York State Department of Environmental Conservation (DEC) in October 2006, and is effective for the next 20 years with compliance reports to DEC every two years starting in 2009.

This chapter analyzes the potential impact of the proposed project on these services, and considers the conformity of the proposed project with the new SWMP.

PRINCIPAL CONCLUSIONS

The proposed project would result in a net increase over existing conditions of approximately 1.12 tons of solid waste per day in 2011. Although the proposed project would create new demand for the disposal of solid waste, municipal and private solid waste services would have adequate capacity to meet these increases in demand. Therefore, the proposed project would not result in any significant adverse impacts on solid waste and sanitation services.

B. METHODOLOGY

As discussed below, this chapter:

- Describes the existing solid waste management services in the project area, 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 project; and
- Assesses the effects of this incremental demand on municipal and private sanitation services.

C. EXISTING CONDITIONS**DESCRIPTION OF SOLID WASTE AND SANITATION SERVICES**

In New York City, 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. DSNY also collects waste from street litter baskets, and handles street-sweeping operations and lot-cleaning activities. Commercial operations handle solid waste from other uses, e.g., commercial, office, and industrial operations.

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, from where it is transported to out-of-City disposal facilities. It is estimated that DSNY collects over 12,000 tons of residential and institutional refuse and recyclables (solid waste) per day.¹ It is also estimated that the non-residential (commercial/industrial) waste stream is about 13,000 tons per day (tpd). The total solid waste generated in the City therefore averages approximately 25,000 tpd.

As stated above, DSNY developed a new comprehensive SWMP that was approved by the New York City Council in July 2006, and DEC on October 27, 2006. The new SWMP addresses and recognizes the interdependency of the systems for managing recycling, residential waste, and commercial waste, and introduces a shift from the current mode of truck-based export to export by barge and/or rail. The new SWMP includes a Long-Term Export Program for residential waste, which will be implemented through: (1) the redevelopment of four new converted marine transfer stations (MTS); (2) the award of up to five contracts with private transfer stations for barge or rail export of DSNY-managed waste for disposal; and (3) an intergovernmental agreement to dispose of a portion of Manhattan's DSNY-managed waste at a Port Authority waste-to-energy facility in New Jersey. Solid waste will be consolidated, containerized, and barged or railed out of the City from the converted MTSs or the five existing private transfer stations. The barges currently used at MTS facilities will be replaced or retrofitted with new sealed containers or "intermodal containers" capable of being transported on barge or rail. The four converted MTS facilities will be designed to each process up to 4,290 tpd and accommodate 30 collection vehicles per hour.

On January 29, 2007, DSNY submitted an application to construct and operate a new waste transfer station at the site of the Hamilton Avenue MTS, which would serve the proposed project. DEC issued a Notice of Complete Application on September 29, 2007, and the application is undergoing public review prior to DEC reaching its decision on the MTS. If approved, the new Hamilton Avenue MTS is expected to receive about 1,900 tpd on an average day and about 2,280 on a average peak day. The requested permitted capacity of the Hamilton Avenue MTS is 3,520 tpd. The decision on the permit application is expected prior to completion of the proposed project, but, if the application is approved, the new Hamilton Avenue MTS would not be operational until soon after the proposed project is complete. In the interim, all municipal solid waste will be trucked out of the City.²

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, newspapers and other paper wastes from household waste for separate collection. Under the SWMP, commercial and industrial establishments are 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, plastic containers, and aluminum foil, in addition to meeting the commercial recycling requirements. The project site is within DSNY's Brooklyn Community Service District 6 for public solid waste collection services. Commercial and industrial operations are handled by private carters.

¹ DSNY Web site: <http://www.nyc.gov/html/dsny/html/about/about.shtml> (July 24, 2007).

² DSNY, Comprehensive Solid Waste Management Plan, September 2006.

SOLID WASTE GENERATION

Currently, the project site is comprised of warehouses, open vehicle storage, and vacant land and buildings. Table 3M-1 of the *CEQR Technical Manual* provides a solid waste generation rate of 125 pounds per week per employee, which would be representative of the lighter types industrial uses that are currently operating on the project site. The existing businesses on the project site currently employ approximately 20 employees. Based on these assumptions, the existing project site uses generate a total of approximately 2,500 pounds of solid waste per week (approximately 0.18 tons per day [tpd]). These private businesses are served by commercial solid waste and recycling management companies.

D. FUTURE WITHOUT THE PROPOSED PROJECT

Without the proposed project, no major changes to land use would be expected to occur on the project site by 2011. Land uses on the site would remain as one- and two-story buildings light-industrial buildings and vacant land serving primarily as space for vehicle storage.

In the future without the proposed project, no major changes with respect to solid waste generation on the project site are expected to occur by 2011. Also, under the new SWMP, the methods of handling commercial solid waste are not expected to change significantly from current methods. In March 2004, DSNY published the Commercial Waste Management Study (CWMS) pursuant to Local Law 74 of 2000. The purpose is to: (1) address the siting and operations of private transfer station and waste collection operations, (2) determine future demand for commercial transfer capacity, and (3) facilitate a transition from the current mode of truck-based export to export by barge and/or rail. The study found that the basic system of private carters collecting and disposing of waste from commercial facilities is expected to remain unchanged. Overall, the major change to solid waste collection systems serving New York City is greater reliance on private carters to transport and dispose of DSNY-handled waste outside New York City. Municipal waste and privately handled waste will continue to be shipped to licensed landfills and resource recovery facilities outside New York City. Recyclables are expected to be sorted and sold.

E. PROBABLE IMPACTS OF THE PROPOSED PROJECT

As described in Chapter 1, “Proposed Project,” in the future with the proposed project, land uses introduced by the proposed project would be considerably different than the warehousing uses and vacant land that currently exist on the project site.

The proposed project would result in the construction of a predominantly residential, mixed-use development on the project site. It would contain approximately 447 housing units, 2,000 square feet of community facility space, 2,000 square feet of commercial space (intended to house commercial uses), and approximately 268 accessory parking spaces for the project’s residents.

These new uses would place additional demands on the solid waste and sanitation services in the area. To determine future solid waste volumes, the solid waste generation rates from the *CEQR Technical Manual* were applied to the proposed project. Table 14-1 presents the cumulative solid waste volumes expected under the proposed project using these assumptions.

Table 14-1
Solid Waste Generation for the Proposed Project

Use	Size	Generation Rate (pounds per week)	DSNY (pounds per week)	Private Carters (pounds per week)	Total (pounds per week)
Residential	447 units	41 per unit	18,327	0	18,327
Commercial	2,000 square feet (5 employees) ¹	79 per employee	0	395	395
Community Facility	2,000 square feet	0.03 per square foot	60	0	60
Total			18,387	395	18,782
Notes:					
¹ Number of retail employees assumes one employee per 400 square feet of commercial space.					
Source: <i>City Environmental Quality Review (CEQR) Technical Manual (2001).</i>					

As shown in the table, it is estimated that the proposed project would generate approximately 18,782 pounds of solid waste per week (approximately 1.3 tpd) in 2011. This daily demand would result in a 1.12 tpd increase in 2011 over the existing demand. As mentioned above, the total solid waste generated in the City averages approximately 25,000 tpd. Therefore, the demand from the proposed project would be equivalent to approximately 0.0052 percent of the total amount of solid waste currently handled each day in New York City. This would not be considered a significant increase in the City's solid waste stream.

In 2011 an estimated 18,387 pounds (approximately 9 tons) per week of residential and community facility solid waste is expected to be generated per week by the proposed project. This 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. Based on three solid waste collections per week, the proposed project would be expected to generate approximately three tons of solid waste for each DSNY collection day in 2011. This would not be considered a significant impact on solid waste services for DSNY.

The non-residential solid waste (commercial) would be collected by private contractors. The total amount of this waste would be 395 pounds (approximately 0.2 tons) per week in 2011. Given that the typical collection truck averages a 12.5-ton capacity, this additional demand would require a fraction of the capacity of one collection truck. This would not be a significant increase in demand and would be met by private-sector response to the increase in service needs.

According to the *CEQR Technical Manual*, the City's SWMP is based on projected rates of growth in the generation of solid waste. The measures proposed to be implemented by the City pursuant to the SWMP are therefore designed to meet the goals of the proposed project notwithstanding further development within certain defined future conditions. In other words, the solid waste handling system assumed to be in place in the future analysis year was designed to accommodate future growth in the generation of solid waste, which includes growth from the proposed project.

Under the new SWMP, new residential and community facility development on the project site would be served by existing DSNY collection routes with DSNY adjusting appropriate collection levels to service the community. The new SWMP would require all municipal waste generated from the proposed project to be trucked to a new City-owned converted MTS at

Hamilton Avenue, where waste would be received, containerized, and exported by barge. As mentioned above, DEC issued a Notice of Complete Application on September 29, 2007, and the application is undergoing public review prior to DEC reaching its decision on the MTS. If approved, the converted MTS facility will be designed to process 3,520 tons per day and accommodate 30 collection vehicles per hour. As the residential and community facility waste generated by the proposed project would be only 0.09 percent of the designed and expected permitted waste capacity, and since less than one truck trip per day would be generated, the converted MTS is expected to have sufficient capacity to accommodate the additional municipal waste generated by the proposed project. If approved, the new Hamilton Avenue MTS would not be operational until soon after the proposed project is complete. In the interim, all municipal solid waste will be trucked out of the City. Once operational, the proposed project's municipal waste would be processed at this converted MTS.

The proposed project would comply with the City's recycling program. The proposed project would be designed to accommodate source separation of recyclables in conformance with City recycling regulations. This would include recycling paper, glass, metals, and certain plastics. With an effective recycling program, it is estimated that the waste stream could be reduced by up to 25 percent. Overall, the proposed project is not expected to have an adverse impact on solid waste handling and disposal methods or recycling in the City. *