# Chapter 12: Solid Waste and Sanitation Services

## A. INTRODUCTION

This chapter considers the proposed projects' effects on solid waste and sanitation services. According to the *City Environmental Quality Review (CEQR) Technical Manual*, a solid waste and sanitation services 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.

Few projects have the potential to generate substantial amounts of solid waste (50 tons per week or more) and, therefore, would not result in a significant adverse impact. However, it is recommended in the *CEQR Technical Manual* that the solid waste and service demand generated by a project be disclosed, based on standard waste generation rates. Therefore, this chapter discloses the proposed projects' solid waste generation.

### PRINCIPAL CONCLUSIONS

This chapter concludes that proposed projects would have no effect on the City's SWMP or other solid waste policies. Since the proposed projects 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 projects would not have a significant adverse impact on solid waste and sanitation services.

## B. EXISTING CONDITIONS

### DESCRIPTION OF CURRENT SOLID WASTE SANITATION SERVICES

In the City of New York, residential and institutional refuse is handled by the New York City Department of Sanitation (DSNY), while solid waste from commercial and manufacturing uses is collected by private carters. DSNY collects approximately 12,000 tons per day (tpd) of refuse and recyclables.[1]

Commercial carters pick up solid waste from businesses, manufacturers and offices and take the waste materials to transfer stations where the recyclable materials are separated from the solid waste. The solid waste is consolidated into larger trucks for transport and disposal in landfills outside of New York City. The recyclable materials are sold and transported to manufacturing facilities. Private carters handle about 13,000 tons per day of recyclables and solid waste.[2]

[1] http://www.nyc.gov/html/dsny/html/about/about.shtml [Accessed July 13, 2011].

[2] http://www.nyc.gov/html/dsny/html/about/about.shtml [Accessed July 13, 2011].

The City's solid waste management services are undertaken in accordance with the existing SWMP, which is the responsibility of 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 minimization; reuse, recycling, or composting; and export for out-of-city disposal. The SWMP mandates that solid waste be transferred to solid waste management facilities located in each borough, including special (hazardous materials) waste collection sites, composting facilities, and bulk residential waste sites. 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 wastes from household waste for separate collection. The SWMP also mandates that commercial 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, and plastic containers, and aluminum foil, in addition to meeting the commercial recycling requirements.

The New SWMP also proposes three broad categories of action to address traffic issues associated with commercial waste handling as follows: (1) improve conditions at and around transfer stations; (2) facilitate a transition from a network heavily reliant on trucks to one that relies primarily on barge and rail; and (3) redistribute private transfer capacity from a small number of communities that have the largest proportion of the system's impacts.

## SOLID WASTE GENERATION

The O'Toole Building, which is partially occupied by medical clinics run by Mount Sinai Medical Center and Beth Israel Medical Center, currently generates solid waste. The East Site and the Triangle Site are currently vacant. The East Site contains vacant buildings that do not generate solid waste. The Triangle Site includes loading docks, trash compactors, and oxygen and nitrogen tanks, which also do not generate solid waste. The medical office uses on the O'Toole Site are served by private commercial solid waste and recycling management companies.

Based on *CEQR Technical Manual* solid waste generation rates, the existing uses in the project area generate a total of approximately 1,120 pounds of solid waste per week (about 0.5 tons per week) that is handled privately. **Table 12-1** summarizes the existing solid waste generation on the project area.

**Table 12-1**
**Solid Waste Generation: Existing Conditions**

| Site/Use | Size | Generation Rate (lbs/week) | DSNY (lbs/week) | Private Carters (lbs/week) | Total (lbs/week) |
|---|---|---|---|---|---|
| **East Site** | | | | | |
| Vacant | NA | NA | 0 | 0 | 0 |
| **O'Toole Site** | | | | | |
| Medical Office | 86 employees[1] | 13 per employee[2] | 0 | 1,118 | 1,118 |
| **Triangle Site** | | | | | |
| Vacant | NA | NA | 0 | 0 | 0 |
| | | **Total** | **0** | **1,118** | **1,118** |

**Notes:**
[1] For analysis purposes, employment estimate assumes approximately 30 percent occupancy, since the building is in the process of being vacated.
[2] The solid waste generation rate for medical office uses was assumed to be comparable to the solid waste generation rate for office building uses since the *CEQR Technical Manual* does not specify a rate for medical office.
**Sources:** 2010 *CEQR Technical Manual*.

## C. THE FUTURE WITHOUT THE PROPOSED PROJECTS

This section discloses the anticipated future demand for solid waste handling in the future without the proposed projects. In the future without the proposed projects, it is expected that the O'Toole Building would be fully re-tenanted with medical offices and clinic space, but the East Site buildings and Triangle Site would remain vacant. As shown in **Table 12-2**, uses in the O'Toole Building would generate solid waste at a rate of approximately 4,000 pounds (approximately 2 tons) per week, all of which would be handled by private carters.

**Table 12-2**
**Solid Waste Generation: The Future Without the Proposed Projects**

| Use/Site | Size | Generation Rate (lbs/week) | DSNY (lbs/week) | Private Carters (lbs/week) | Total (lbs/week) |
|---|---|---|---|---|---|
| **East Site** | | | | | |
| Vacant | NA | NA | 0 | 0 | 0 |
| **O'Toole Site** | | | | | |
| Medical Office | 305 employees[1] | 13 per employee[2] | 0 | 3,965 | 3,965 |
| **Triangle Site** | | | | | |
| Vacant | NA | NA | 0 | 0 | 0 |
| | | **Total** | **0** | **3,965** | **3,965** |

**Notes:**
[1] Employment estimate assumes 1 employee per 450 sf, not including the square footage devoted to the on-site public garage.
[2] The solid waste generation rate for medical office uses was assumed to be comparable to the solid waste generation rate for office building uses since the *CEQR Technical Manual* does not specify a rate for medical office.
**Sources:** 2010 *CEQR Technical Manual*.

## D. PROBABLE IMPACTS OF THE PROPOSED PROJECTS

This section discloses the anticipated future demand for solid waste handling in the future with the proposed East Site project and Center for Comprehensive Care. As described in Chapter 1, "Project Description," in the future with the proposed projects the East Site area would be redeveloped with residential/commercial/retail uses, and the Triangle Site would be redeveloped with publicly accessible open space and the O'Toole Building would be redeveloped for the Center for Comprehensive Care. It is expected that solid waste generated by medical-related uses and retail uses would be handled by private carters while solid waste generated by the residential uses on the East Site would be handled by DSNY.

As shown in **Table 12-3**, the proposed projects would generate solid waste at a rate of 27,334 pounds (approximately 13.7 tons) per week. Of this amount, about 9.2 tons per week would be handled by DSNY, and private carters would handle about 4.4 tons per week. Compared to the 12,000 tons per day that DSNY handles and the 13,000 tons per day that private carters handle,[1] this amount of solid waste would be minimal. Given that a DSNY truck can haul about 12.5 tons of solid waste, the proposed projects would require less than one additional truck trip per week compared with the future without the proposed projects. Likewise, a private carter truck typically

[1] http://www.nyc.gov/html/dsny/html/about/about.shtml [Accessed July 13, 2011].

carries at least 12 tons of solid waste, and the proposed projects would require less than one additional truck trip compared with the future without the proposed projects.

**Table 12-3**
**Solid Waste Generation: The Future With the Proposed Projects**

| Use | Size | Generation Rate (lbs/week) | DSNY (lbs/week) | Private Carters (lbs/week) | Total (lbs/week) |
|---|---|---|---|---|---|
| **East Site** | | | | | |
| Residential | 450 households | 41 per household | 18,450 | 0 | 18,450 |
| Community Facility (Medical Office) | 56 employees[1] | 13 per employee[2] | 0 | 1,144 | 1,144 |
| Retail | 34 employees[3] | 79 per employee | 0 | 2,657 | 2,657 |
| **O'Toole Site** | | | | | |
| Medical Office | 391 employees[1] | 13 per employee[2] | 0 | 5,083 | 5,083 |
| **Triangle Site** | | | | | |
| Open Space | NA | NA | 0 | 0 | 0 |
| | | **Total** | **18,450** | **8,884** | **27,334** |

**Notes:**
[1] Employment estimate assumes 1 employee per 450 sf, not including the square footage devoted to the on-site public garage.
[2] The solid waste generation rate for medical office uses was assumed to be comparable to the solid waste generation rate for office building uses.
[3] Employment estimate assumes 3 employees per 1,000 sf.
**Sources:** 2010 *CEQR Technical Manual*.

Overall, compared with the solid waste generation in the future without the proposed projects, the proposed projects would result in a net increase of approximately 23,369 pounds of solid waste per week (approximately 11.7 tons).

The proposed projects would have no effect on the City's SWMP or other solid waste policies. Since the proposed projects 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 projects would not result in a significant adverse impact on solid waste and sanitation services.

The proposed projects would result in a new Center for Comprehensive Care and would include medical office uses on the East Site that would generate regulated medical waste.[1] The New York State Department of Health and New York State Department of Environmental Conservation regulate the generation, treatment, storage, transfer and disposal of these medical wastes. Regulated medical waste generated in the City must be placed in special sealed containers and disposed of in facilities permitted to process such waste, either by incineration, another form of sterilization, disinfection, or another approved method. Each medical facility is

[1] Regulated Medical Waste is defined as any solid waste generated in the diagnosis, treatment or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals including cultures of infectious agents, human pathological wastes, liquid waste human blood and blood products, sharps including hypodermic needles, contaminated animal carcasses, wastes from surgery or autopsy, laboratory wastes from research, dialysis wastes, and biological wastes from humans or animals isolated to protect others. (*CEQR Technical Manual,* p. 14-11)

required to submit a plan to DSNY explaining how it plans to dispose of its waste. The proposed projects would comply with all applicable laws and regulations regarding regulated medical waste, which would eliminate possible significant adverse impacts.

Overall, the proposed projects would not result in a significant adverse impact on solid waste and sanitation services. ✷