

## A. INTRODUCTION

This chapter examines the Proposed Project’s potential for significant adverse impacts on solid waste and sanitation services. According to the *2021 City Environmental Quality Review Technical Manual (CTM)*, 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 and if such an increase may overburden available waste management capacity or otherwise be inconsistent with New York City’s Solid Waste Management Plan (NYC SWMP) or with State policy related to the City’s integrated solid waste management system.

As discussed in **Chapter 02.0, “Project Alternatives,”** there are three feasible alternatives under consideration for implementation of the Proposed Project. These include: Alternative 2 – the Rezoning Alternative; Alternative 3 – the Non-Rezoning Alternative; and Alternative 4 – the Midblock Bulk Alternative. A discussion of Alternative 5 – the Rehabilitation and Infill Alternative, which has been determined to be infeasible, is presented in **Chapter 05.22, “Rehabilitation and Infill Alternative Analysis.”** Refer to **Chapter 04.0, “Analysis Framework,” Table 04.0-4,** for information on the analysis approach for the three feasible alternatives for each technical area.

## B. PRINCIPAL CONCLUSIONS

The Rezoning Alternative, Non-Rezoning Alternative, and Midblock Bulk Alternative would not result in direct or indirect significant adverse solid waste and sanitation services impacts pursuant to applicable guidance and methodologies. Refer to **Section E, “Environmental Effects,”** for further information.

## C. METHODOLOGY

According to the *CTM*, projects which meet all of the following conditions would not result in a significant adverse impact to the City’s waste management capacity, and do not warrant detailed analysis: (1) a generation rate of less than 50 tons (100,000 pounds) of solid waste per week; (2) would not directly affect a solid waste management facility; and (3) would not have a systemwide impact or would be inconsistent with the goals or elements of the NYC SWMP. The Proposed Project would result in a net increase of more than 50 tons of solid waste per week under the Rezoning and Midblock Bulk Alternatives by the 2041 Build Year.<sup>1</sup> Accordingly, an assessment of solid waste and sanitation services is warranted. Although a detailed assessment of solid waste and sanitation services is not warranted for the Non-Rezoning Alternative because the Proposed Project would not result in a net increase of more than 50 tons of solid waste per week, with an

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<sup>1</sup> Based on an estimate using Table 14-1 in *CTM*, Chapter 14 – Solid Waste and Sanitation Services - [https://www.nyc.gov/assets/oec/technical-manual/14\\_Solid\\_Waste\\_2021.pdf](https://www.nyc.gov/assets/oec/technical-manual/14_Solid_Waste_2021.pdf).

increase in approximately 42.1 tons under the Non-Rezoning Alternative, an assessment of solid waste and sanitation services is still provided below for informational purposes.

In addition, as the Proposed Project would also result in more than 500 new residential units, a discussion of the anticipated waste and recycling plans for collection is provided for disclosure purposes. In terms of impact determination, the *CTM* advises that any given project's waste generation would not likely be significant relative to the total citywide and region-wide system, except for large projects that generate large quantities of solid waste over a multiyear period, such as a river or harbor dredging project, that exceed local and regional disposal or processing capacity.

An assessment of solid waste/sanitation services is a density-based technical analysis; as a result, only development on identified projected development sites form the basis of the analysis. The analysis describes existing and future New York City solid waste disposal practices (including the collection system and disposal methods) and estimates the solid waste generated by activities on the Project Sites under existing conditions and in the 2041 Build Year. Refer to **Chapter 02.0** for more details on the alternatives analyzed in this chapter. The chapter also forecasts solid waste generation based on rates for typical land uses and activities on the Project Sites, and assesses the effects of the Proposed Project's incremental solid waste generation on municipal and private sanitation services by the 2041 Build Year.

## **D. AFFECTED ENVIRONMENT**

### **Regulatory Context**

#### **New York State's Solid Waste Management Plan (NYS SWMP)**

To protect communities and mitigate the worst effects of climate change, the 2023 NYS SWMP builds upon sustained efforts to reduce waste and advance the New York State's transition to the circular economy, helping to change New Yorkers' understanding of waste and their relationship to it.

This Plan sets forth six major Focus Areas:

- Waste Reduction and Reuse
- Recycling and Recycling Market Development and Resiliency
- Product Stewardship and Extended Producer Responsibility
- Organics Reduction and Recycling
- Toxics Reduction in Products
- Advanced Design and Operation of Solid Waste Management Facilities and Related Activities

Each Focus Area has a set of 2–10 identified Goals, for a total of 31. Each Goal has a set of 1–17 identified Action Items, for a total of 175. Together, these Action Items are designed to move New York State to an 85 percent total waste stream recycling rate by 2050.

**New York City Solid Waste Management Plan (NYC SWMP)**

As required by New York State Law, the City has adopted a comprehensive NYC SWMP for the long-term management of solid waste generated within its borders. The current NYC SWMP was adopted in 2006 and covers the period through October 2026. It is anticipated that City will update the current plan to build on the ongoing programs to prevent, reuse, recycle, and compost waste, pursuant to the requirements of the New York State Solid Waste Management Act.

The NYC SWMP estimates public- and private-sector waste quantities that must be managed over the planning period and identifies processing, transfer, and disposal capacity that will be necessary for such waste. According to the NYC SWMP, the City's commercial solid waste generation is projected to increase to approximately 74,000 tons per week by the year 2025.<sup>2</sup> The amount of waste managed by the New York City Department of Sanitation (DSNY) is projected to increase to approximately 115,830 tons per week by 2025.<sup>3</sup>

The NYC 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, in order of preference: waste reduction, recycling, composting, resource conservation and energy production, and landfill disposal. The NYC SWMP includes initiatives and programs for waste minimization, reuse, recycling, composting, and 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.

With respect to commercial waste, the NYC SWMP provides the capacity for barge export of certain amounts of commercial refuse from four converted DSNY marine transfer stations (MTSs); provides for barge export of construction and demolition waste from the existing DSNY MTS at W. 59<sup>th</sup> Street in Manhattan; and requires rail export of commercial refuse from the three private transfer stations that also contract to handle DSNY refuse. The NYC SWMP also includes more stringent restrictions on the siting and operation of commercial solid waste transfer stations.

**Description of Current Solid Waste Sanitation Services**

DSNY is the agency responsible for the collection and disposal of residential and institutional solid waste in New York City, while private carters collect solid waste from commercial and manufacturing uses. In addition to collecting municipal solid waste (MSW),<sup>4</sup> refuse, and designated recyclable materials generated by residential and institutional uses, including schools, some nonprofit institutions, and many City and State agencies, DSNY collects waste from city litter baskets, street sweeping operations, and lot cleaning activities. In total the DSNY collection fleet is composed of over 2,100 waste collection trucks, with the typical collection truck for refuse

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<sup>2</sup> New York City Department of Sanitation, *Comprehensive Solid Waste Management Plan Attachment IV, Table IV 2-2*, 4, <https://www.bers.nyc.gov/assets/dsny/downloads/resources/reports/solid-waste-management/2006-swmp/swmp-2006-attachments/swmp-2006-commercial-waste-quantities-projections.pdf>.

<sup>3</sup> New York City Department of Sanitation, *Comprehensive Solid Waste Management Plan Attachment II, Table IV 2-6*, 24, <https://www.bers.nyc.gov/assets/dsny/downloads/resources/reports/solid-waste-management/2006-swmp/swmp-2006-attachments/swmp-2006-dsny-managed-waste-quantities-projections.pdf>.

<sup>4</sup> According to the CTM, "MSW – otherwise known as trash or garbage – consists of discarded everyday items such as product packaging, yard trimmings, furniture, clothing, bottles, food scraps, newspapers, appliances, electronics, and batteries."

carrying approximately 12.5 tons of waste material and the typical recycling truck carrying about 11.5 tons of paper, or approximately 10.0 tons of metal, glass, and plastic containers. In total, DSNY collects approximately 9,566 tons per day of residential and institutional refuse and approximately 1,880 tons per day of recyclables.<sup>5</sup>

Commercial establishments (e.g., restaurants, retail facilities, offices, and industries) in New York City contract with private carters for collection and processing and/or disposal of various kinds of solid waste, including MSW, construction and demolition debris, non-hazardous industrial wastes, and recyclables. According to the *CTM*, commercial carters typically carry between 12 and 15 tons of waste material per truck. The City's businesses generate approximately 13,000 tons of refuse each day.<sup>6</sup>

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 transporting 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 because 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. Similarly, commercial refuse and other solid waste that is not carted directly to disposal facilities are delivered to transfer stations for transport to disposal facilities. Non-putrescible waste such as construction and demolition debris is typically sorted at transfer stations, which remove clean fill materials, metal, and wood for recycling, and send the residue to landfills for disposal. Designated recyclable materials are delivered to privately operated materials recovery facilities (MRFs) in the City and surrounding communities.

### **Existing Solid Waste Generation**

As detailed in **Chapter 04.0**, the Project Sites are currently occupied with primarily residential and community facility uses. Based on citywide average rates for solid waste generation used in the NYC SWMP (and provided in Table 14-1 of the *CTM*), the existing uses on the Project Sites collectively generate a total of approximately 43.2 tons of solid waste per week, which, as shown in **Table 05.11-1**, is handled by DSNY.

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<sup>5</sup> New York City Department of Sanitation, Annual Report: New York City Curbside and Containerized Municipal Refuse and Recycling Statistics by Borough and District: Fiscal Year 2023, <https://www.nyc.gov/assets/dsny/downloads/resources/statistics/annual-curbside-collection/dsny-collections-annual-fy2023.pdf>.

<sup>6</sup> N. Greenfield, "New York City is Finally Cleaning Up its Commercial Garbage Industry," *NRDC*, October 17, 2018, <https://www.nrdc.org/stories/new-york-city-finally-cleaning-its-commercial-garbage-industry>.

**Table 05.11-1: Existing/No-Action Alternative Solid Waste Generation**

Use	Floor Area (sf)	Population	Solid Waste Generation Rate (lbs/wk) <sup>1</sup>	Solid Waste Generation (lbs/wk)	Solid Waste Generation (tons/wk)
Residential	1,828,561	2,056 households	41 per household	84,296	42.1
Community Facility	67,159	157 employees	13 per employee	2,041	1.0
Office	0	0 employees	13 per employee	0	0
Supermarket	0	0 employees	284 per employee	0	0
Retail	0	0 employees	79 per employee	0	0
<b>Total Solid Waste Generation</b>				<b>86,337</b>	<b>43.2</b>
<b>Solid Waste Handled by DSNY (includes residential and CF uses)</b>				<b>86,337</b>	<b>43.2</b>
<b>Solid Waste Handled by Private Carters (includes commercial uses)</b>				<b>0</b>	<b>0</b>

**Notes:**

Some numbers may appear to not sum correctly; this is due to rounding.

<sup>1</sup> Solid waste generation is based on citywide average waste generation rates presented in Table 14-1 of the *CTM*, unless otherwise noted.

**E. ENVIRONMENTAL EFFECTS****Alternative 1 – No-Action Alternative****Solid Waste Generation**

As detailed in **Chapter 02.0**, there would be no change in building program on the Project Sites under the No-Action Alternative. In particular, the residential units and community facility uses would remain, with routine maintenance work conducted within the New York City Housing Authority (NYCHA) buildings. As such, the forecasted solid waste generation for the No-Action Alternative would be the same as the estimate for existing conditions, identified in **Table 05.11-1**, with approximately 43.2 tons per week of solid waste for residential and community facility uses handled by DSNY.

**Alternative 2 – Rezoning Alternative and Alternative 4 – Midblock Bulk Alternative****Solid Waste Generation**

Under the Rezoning Alternative and Midblock Bulk Alternative, the Project Sites would contain a total of approximately 5,044,352 gross square feet (gsf), an increase above the No-Action Alternative of approximately 3,148,632 gsf. The Rezoning Alternative and the Midblock Bulk Alternative would each include a total of approximately 4,822,136 gsf of residential space [5,510 dwelling units (DUs)], approximately 46,364 gsf of commercial space (local retail and supermarket), and approximately 175,852 gsf of community facility space (daycare, neighborhood center, and medical office, also referred to as health care).

**Table 05.11-2** presents the solid waste generation anticipated on the Project Sites under the Rezoning Alternative and Midblock Bulk Alternative. As indicated in **Table 05.11-2**, the total solid waste generation under either of these alternatives would be approximately 121.6 tons per week, with residential and community facility uses generating approximately 115.7 tons per week

and commercial uses generating approximately 6.0 tons per week, as compared with the 2041 No-Action Alternative. Solid waste generated by commercial uses would be collected by private commercial carters, and commercial uses developed under the Proposed Project would be subject to mandatory recycling requirements for paper, metals, construction waste, aluminum foil, as well as metal, glass and plastic containers, and organics. Solid waste generated by residential and community facility uses would be collected by DSNY trucks and would be served by existing DSNY collection routes. As a general practice, DSNY adjusts its operations to service the community. Residents will be required to participate in the City's recycling program for organics, paper, metals, and certain types of plastics and glass.

**Table 05.11-2: Rezoning Alternative/Midblock Bulk Alternative Solid Waste Generation for the Project Sites**

Use	Floor Area (sf)	Population	Solid Waste Generation Rate (lbs/wk) <sup>1</sup>	Solid Waste Generation (lbs/wk)	Solid Waste Generation (tons/wk)
Residential	4,822,136	5,510 households	41 per household	225,910	113.0
Community Facility	175,852	415 employees	13 per employee	5,395	2.7
Office	0	0 employees	13 per employee	0	0.0
Supermarket	17,580	18 employees	284 per employee	5,112	2.6
Retail	28,784	86 employees	79 per employee	6,794	3.4
<b>Total Solid Waste Generation</b>				<b>243,211</b>	<b>121.6</b>
<b>Solid Waste Handled by DSNY (includes residential and CF uses)</b>				<b>231,305</b>	<b>115.7</b>
<b>Solid Waste Handled by Private Carters (includes commercial uses)</b>				<b>11,906</b>	<b>6.0</b>

**Notes:**

Some numbers may appear to not sum correctly; this is due to rounding.

<sup>1</sup> Solid waste generation is based on citywide average waste generation rates presented in Table 14-1 of the CTM, unless otherwise noted.

**Table 05.11-3: Incremental Solid Waste Generation for the Rezoning Alternative/Midblock Bulk Alternative**

	Existing/No-Action	With Action Condition	Increment
Total Solid Waste Generation (tons/wk)	43.2	121.6	+78.4
Solid Waste Handled by DSNY (tons/wk)	43.2	115.7	+72.4
Solid Waste Handled by Private Carters (tons/wk)	0.0	6.0	+6.0

**Note:**

Some numbers may appear to not sum correctly due to rounding.

As shown in **Table 05.11-3**, the Rezoning Alternative and the Midblock Bulk Alternative would each result in a net increase of approximately 78.4 tons per week of solid waste, including approximately 72.4 tons that would be handled by DSNY. Based on the typical DSNY collection truck capacity of approximately 12.5 tons, the new residential and community facility uses introduced by the Rezoning Alternative or the Midblock Bulk Alternative would be expected to generate solid waste equivalent to approximately six more truckloads per week than anticipated under the 2041 No Action Alternative. This increase is not expected to overburden the DSNY's solid waste handling services based on the impact guidance cited above. Likewise, given its scale, neither the Rezoning Alternative nor the Midblock Bulk Alternative would be expected to conflict with the New York City Recycling Law (Local Law 19 of 1989), as amended, or any element of the NYC SWMP including its hierarchy of preferred solid waste management.

Additionally, the Rezoning Alternative and the Midblock Bulk Alternative would each result in a net increase of approximately 6.0 tons per week of solid waste handled by private carters compared to the 2041 No Action Alternative. Based on the typical commercial carter capacity of between 12 and 15 tons of waste material per truck, the Rezoning Alternative and the Midblock Bulk Alternative would each require roughly one additional collection truck per week compared with the No-Action Alternative. Under Local Law 199, codified in Title 16-B of the New York City Administrative Code, the Sanitation Commissioner divided the City into 20 zones, including the Manhattan West zone, where the Proposed Project is located. Local Law 199 authorizes up to 3 carters per zone. Therefore, the net increment in commercial solid waste handled by private carters would not overburden the City's waste management system.

Overall, the Rezoning Alternative and Midblock Bulk Alternative would not conflict with the NYC SWMP, or have a direct effect on a solid waste management facility such as in a manner described in the *CTM*, e.g., causing the dislocation of a DSNY district garage facility or a borough repair shop.

At this time, the proposed location and method of storage of refuse and recyclables prior to collection for the Rezoning Alternative and the Midblock Bulk Alternative has not been finalized; however, the PACT Partner is evaluating a number of options and will work with DSNY to identify an appropriate waste management plan. The use of compactor containers and/or dumpsters is being considered to minimize or avoid bag placement at the sidewalks prior to curb-side pick-up collection, and balers are being considered in light of growing box deliveries. The Proposed Project buildings would also be required to participate in DSNY's mandatory organic waste collection program. In addition, at a minimum, the Proposed Project buildings would comply with all applicable waste containerization requirements that will be in effect as the Proposed Project is developed.

The incremental solid waste generated by either the Rezoning Alternative and the Midblock Bulk Alternative would not overburden the City's solid waste handling systems, and therefore the Rezoning Alternative and Midblock Bulk Alternative would not have a significant adverse impact on the City's solid waste and sanitation services.

### **Alternative 3 – Non-Rezoning Alternative**

As discussed in **Chapter 04.0**, given that solid waste and sanitation services is a density-based technical area in which the Rezoning and Midblock Bulk Alternatives would not result in significant adverse direct or indirect solid waste and sanitation services impacts, a detailed analysis for the Non-Rezoning Alternative is not warranted as its development program is smaller than the Rezoning and Midblock Bulk Alternatives. The latter two alternatives represent a higher potential for environmental impacts than the Non-Rezoning Alternative. Therefore, as the Rezoning Alternative and Midblock Bulk Alternative would not result in significant adverse impacts to the City's solid waste and sanitation services, there is no potential for the Non-Rezoning Alternative to result in a significant adverse impact and further analysis is not warranted.