Chapter 9: Water and Sewer Infrastructure

A. INTRODUCTION

New York City's water and sewer network is fundamental to the operation, health, safety, and quality of life of the City and its surrounding environment, and it must be sized to fit the City's users and surface conditions in order to function adequately. Ensuring these systems have adequate capacity to accommodate land use or density changes and new development is critical to avoiding environmental and health problems such as sewer back-ups, street flooding, or pressure reductions. In accordance with the guidance of the 2021 *City Environmental Quality Review (CEQR) Technical Manual,* this chapter evaluates the potential for the proposed Lenox Hill Hospital (LHH) Redevelopment project (the Proposed Project) to result in significant adverse impacts on the City's water supply and wastewater and stormwater conveyance, management, and treatment infrastructure.

As described in Chapter 1, "Project Description," Lenox Hill Hospital (the Applicant) is requesting a series of discretionary actions from the City Planning Commission (CPC) to facilitate the enlargement and modernization of the existing LHH on Block 1411, Lots 1 and 113 (Projected Development Site 1), bounded by Park and Lexington Avenues and East 76th and East 77th Streets in Manhattan. The Proposed Project would include a new building fronting on Lexington Avenue, as well as additions and modifications to portions of the existing hospital complex on Projected Development Site 1 and connections between the new hospital building and the renovated buildings. Two building envelopes are proposed, each of which would accommodate the Proposed Project's program. Envelope 1 would include a new approximately 771,000-gross-square-foot (gsf) building on Lexington Avenue and 56,000 gsf of additions to the existing hospital. Envelope 2 would include a new approximately 867,000-gsf building and 8,000 gsf of additions to the existing hospital. With the existing buildings to remain, the overall gross floor area of the Proposed Project on Projected Development Site 1 would be approximately 1.4 million gsf with either envelope. The program, project population (staff, patients, visitors), site access, zoning actions, and construction duration would be the same for both Envelope 1 and Envelope 2.

This Environmental Impact Statement (EIS) also considers the as-of-right development of a building with hospital support functions at 111-115 East 77th Street between Lexington and Park Avenues (Block 1412, Lots 9, 10, and 11) (Projected Development Site 1a) as part of the Proposed Project. It would be connected to Projected Development Site 1 by a utility tunnel under East 77th Street. In addition, the Applicant proposes to provide improvements to the 77th Street subway station of the Lexington Avenue (No. 6) line, providing Americans with Disabilities Act (ADA) access to the downtown platform and improving sidewalk conditions in the immediate area.

PRINCIPAL CONCLUSIONS

The Proposed Project with either Envelope 1 or Envelope 2 would not result in significant adverse impacts on the City's water and sewer infrastructure. Based on the methodology set forth in the *CEQR Technical Manual,* while the Proposed Project would result in minor increases in demand

for water and treatment of sewage as compared to the No Action condition, the incremental increases would not constitute a significant adverse impact on the City's water supply, wastewater treatment, or stormwater management and treatment infrastructure.

SEWER SYSTEM AND WASTEWATER TREATMENT

In the 2036 analysis year, the With Action condition would generate an incremental 16,551 gallons per day (gpd) of sewage over the No Action condition. This incremental volume in sanitary flow to the combined sewer system and the Wards Island Wastewater Resource Recovery Facility (WRRF) would not be substantial when compared with the WRRF's average daily flow of 202 million gallons per day (mgd), and would not result in an exceedance of the WRRF's permitted capacity of 275 mgd. Therefore, it is not anticipated to create a significant adverse impact on the City's (NYC's) sanitary sewage treatment system. In addition, in accordance with the NYC Plumbing Code (Local Law 33 of 2007), the developments on the Projected Development Sites would be required to utilize low-flow plumbing fixtures, which would help to further reduce sanitary flows to the WRRF. The developments on the Projected Development Sites would be required to file a Site Connection Proposal (SCP) Application for approval from the New York City Department of Environmental Protection (DEP) to tie into the sewer system. In this process, before a building permit can be issued, SCPs must be certified for sewer availability by DEP. This analysis and any improvements would be undertaken, as necessary, in coordination with DEP.

STORMWATER FLOWS

The Project Site is within the service area of the Wards Island WRRF. In the With Action condition, flows from the Project Site to the WRRF would be comparable to or lower than the existing condition flows, as there would be a minor decrease in sanitary sewage generation, and no change to stormwater runoff (the Projected Development Sites would be fully impervious rooftop space under both existing and With Action conditions). Furthermore, a reduction in stormwater peak flows to the combined sewer system would be achieved with the incorporation of stormwater source control best management practices (BMPs); specifically, on-site detention would be required as part of the DEP site connection approval process. DEP's detention performance standard is intended to reduce peak discharges to the City's sewer system during rain events by requiring greater on-site storage of stormwater runoff and slower release to the sewer system. The implementation of DEP's stormwater performance standard over time is expected to provide additional capacity to the existing sewer system, thereby improving its performance. In addition, as coverage under the New York State Department of Environmental Conservation (DEC) State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (GP-0-10-001) is required for any development that would involve soil disturbance of one or more acres, a Stormwater Pollution Prevention Plan (SWPPP), consisting of both temporary erosion and sediment controls and post-construction BMPs, would be required of the Applicant.

The Proposed Project would result in similar flows to the City's combined sewer system as under existing conditions, and therefore is not expected to result in an increase in combined sewer overflow (CSO) volumes or frequencies during rain events. With the incorporation of BMP measures to meet the City's site connection requirement, the Proposed Project would not result in a significant increase in stormwater runoff. Because of the available capacity of the Wards Island WRRF, the projected flows to the combined sewer system would not have a significant adverse impact on water quality. Therefore, it is concluded that the Proposed Project would not result in

significant adverse impacts to local water supply or wastewater and stormwater conveyance and treatment infrastructure.

B. METHODOLOGY

According to the *CEQR Technical Manual*, an analysis of an action's impact on the water supply system should be conducted only for actions that would have exceptionally large demand for water (generally over 1 million gpd), such as power plants, very large cooling systems, or large developments. In addition, analysis should be conducted if a project is located in an area that experiences low water pressure (e.g., areas at the end of the water supply distribution system such as the Rockaway Peninsula and Coney Island). The Proposed Project does not meet any of these criteria,[1] and therefore, an analysis of water supply is not warranted.[2]

The *CEQR Technical Manual* indicates that for wastewater and stormwater conveyance and treatment analyses, a preliminary assessment is warranted if a project is located in a combined sewer area and would have an incremental increase above the No Action condition of 1,000 residential units or 250,000 square feet (sf) of commercial, public facility, and institution and/or community facility space in Manhattan. Since the Project Site is located in a combined sewer area in Manhattan and the Proposed Project would result in a net increase of more than 250,000 sf of hospital and support space, an assessment of wastewater and stormwater infrastructure is provided.

To assess the potential impacts of the Proposed Project on water and sewer infrastructure, this chapter provides:

- A description of the existing water and sewer infrastructure serving the Project Site.
- A preliminary analysis that estimates water demand and sewage generation on the Project Site under existing and No Action conditions based on use generation rates provided in the *CEQR Technical Manual* and information on LHH's water demand and sewage generation provided by the Applicant. The preliminary analysis also calculates stormwater runoff and sanitary flows using the DEP Volume Calculation Matrix. The preliminary analysis then forecasts water demand and sewage and stormwater generation by the Proposed Project under the Reasonable Worst Case Development Scenario (RWCDS) based on *CEQR Technical Manual* guidelines.
- An assessment of the effects of the With Action condition water demand and sewage and stormwater generation on the City's water and sewer infrastructure based on the preliminary analyses, pursuant to *CEQR Technical Manual* guidelines.

For the purposes of this analysis, this chapter considers Envelope 1 of the Proposed Project, which would include a new approximately 771,000-gsf building on Lexington Avenue and 56,000 gsf of additions to the existing hospital. Although the With Action condition for the Proposed Project includes a second development scenario (Envelope 2), in which the new hospital building would be reduced in height along the Lexington Avenue frontage but would extend into the midblock to a taller height than under Envelope 1, the program, project population (staff, patients, visitors),

[1] As shown in **Table 9-4**, the Proposed Project would result in a total water demand of 243,753 gpd and would not exceed 1 million gpd.

[2] In a comment letter dated August 22, 2023, DEP confirmed that the existing water supply infrastructure is capable of handling the estimated increase in water demand associated with the Proposed Project (see **Appendix D**).

and lot coverage would be the same for both Envelope 1 and Envelope 2. Therefore, Envelope 2 would result in the same water demand and wastewater generation as Envelope 1 and would result in the same effects on water and sewer infrastructure.

C. EXISTING CONDITIONS

SEWER SYSTEM AND WASTEWATER TREATMENT

The Project Site is located within a part of Manhattan that is served by a combined sewer system that collects both sanitary sewage and stormwater, as well as direct drainage. In periods of dry weather, the combined sewers located in the adjacent streets convey only sanitary sewage. The Project Site is served by combined sewers within the service area of the Wards Island WRRF.

According to DEP sewer system mapping, the existing system serving the Project Site consists of 10- to 12-inch-diameter combined sewers along Park Avenue and East 77th Street, which date to the mid-19th Century, and 15- to 18-inch-diameter sewers along East 76th Street and Lexington Avenue, which date to the early 20th Century. These sewers generally flow to the south and east, where the system connects to Regulator WI-R2A/WI-R-2B, located at the FDR Drive near East 74th Street. From Regulator WI-R2A/WI-R-2B, flow is conveyed to the interceptor running north along the FDR Drive to the Wards Island WRRF.

At the Wards Island WRRF, wastewater is treated by physical and biological processes before it is discharged into the Upper East River. The WRRF operates under an SPDES permit issued by DEC, which establishes limits for effluent parameters (i.e., suspended solids, fecal coliform bacteria, and other pollutants) and regulates the quality of the treated wastewater (effluent). Since the volume of flow to WRRF affects the level of treatment a plant can provide, the maximum permitted capacity for the Wards Island WRRF is 275 mgd. The average monthly flow over the latest 12-month period for which data are available is 202 mgd,[3] which is well below the maximum permitted capacity.

Most of NYC's sewers are combined sewers that collect both sanitary sewage and stormwater. In periods of dry weather, the combined sewers (sized to convey an amount of sanitary sewage that is based on density levels according to zoning regulations) convey only sanitary sewage. During and immediately after wet weather, combined sewers can experience a much larger flow due to stormwater runoff collection. To control flooding at the WRRFs, regulators built into the system serve as relief valves, allowing only approximately two times the amount of design dry weather flow into the interceptors (larger sewers that convey wastewater to the WRRFs). The interceptors then take the allowable flow to the WRRFs, while the excess flow is discharged untreated to the nearest waterbody as CSO. As described above, the Project Site is located within the drainage area of Regulator WI-R2A/WI-R-2B; the Regulator connects to outfall WIM-003, located near East 74th Street, which discharges CSO to the East River.

SANITARY FLOWS

The average daily sanitary sewage generated on Projected Development Site 1 under existing conditions is based on the LHH facility's utility usage rates. The estimated daily sanitary sewage on Projected Development Site 1a is estimated using the rates for office space provided by the

[3] Twelve-month period through March 2017.

CEQR Technical Manual. As shown in **Table 9-1**, the total estimated sanitary sewage generated on the Projected Development Sites under existing conditions is 287,731 gpd.

Table 9-1
Existing Water Consumption and Wastewater Generation

Land Use[1]	Area	Wastewater Generation (gpd)	Water Demand (gpd)
Hospital (Projected Development Site 1)[2]	781,500 gsf	285,411	300,433
Hospital Support (Projected Development Site 1a)[3]	23,200 gsf	2,320	6,264
Total		**287,731**	**306,697**

Notes:
Totals may not sum due to rounding.
gpd = gallons per day; gsf = gross square feet
[1] Consumption rates from *CEQR Technical Manual* Table 13-2, "Water Usage and Sewage Generation Rates for Use in Impact Assessment," unless otherwise noted.
[2] Existing water consumption and sanitary generation for the LHH facility on Projected Development Site 1 provided by the Applicant based on the LHH facility's utility usage rates.
[3] Hospital support space on Projected Development Site 1a assumed to have water demand and sewage generation at the rates of office space: 0.10 gpd/sf for sanitary sewage and 0.17 gpd/sf for air conditioning.

STORMWATER FLOWS

The Projected Development Sites have a combined lot area of approximately 90,419 sf (2.08 acres). Both Projected Development Site 1 and Projected Development Site 1a are currently developed with buildings; therefore, both sites are fully covered by rooftop areas. **Table 9-2** summarizes the surfaces and surface areas on the Projected Development Sites, as well as the weighted runoff coefficient (the fraction of precipitation that becomes surface runoff for each surface type).

Table 9-2
Existing Surface Coverage

Affected CSO Outfall	Surface Type	Roof	Pavement and Walkways	Other	Grass and Soft Scape	Total
WIM-003	Area (percent)	100%	0%	0%	0%	**100%**
	Surface Area (sf)	90,419	-	–	–	**90,419**
	Runoff Coefficient	1.00	0.85	–	0.20	**1.00**

Notes:
* The Runoff Coefficient is a weighted average. The calculations are based on the DEP Volume Calculation Matrix provided in the *CEQR Technical Manual*, retrieved January 2022.
Totals may not sum due to rounding.

UNIFIED STORMWATER RULE

In February 2022, DEP adopted the Unified Stormwater Rule, which amended on-site stormwater management requirements for new and redevelopment projects in combined sewer areas. The Unified Stormwater Rule was an update to the previous regulations (2012 Stormwater Rule) that reduced peak discharges to the City's sewer system during rain events by requiring greater on-site storage of stormwater runoff and slower release to the sewer system. Specifically, DEP adopted amendments to Chapters 31 and 19.1 of Title 15 of the Rules of the City of New York (RCNY) as part of the Unified Stormwater Rule.

Under the Chapter 31 amendments, the Unified Stormwater Rule increases the amount of stormwater required to be managed on-site and further restricts the release rates for all new and redevelopment projects that require a DEP House Connection Proposal or SCP. Additionally, under the Chapter 19.1 amendments, sites that disturb 20,000 sf or more of soil or increase impervious surfaces by 5,000 sf or more will also be required to manage the Water Quality Volume (WQv), currently defined as 1.5 inches over the lot area, using stormwater management practices (SMPs) dictated by DEP SMP hierarchies. DEP has developed hierarchies for both combined and separate sewer areas. The SMP hierarchies prioritize vegetated retention SMPs for both drainage areas with stormwater volume control and stormwater treatment communicated as the underlying goals for combined and separate sewer areas, respectively. For sites that trigger the Chapter 19.1 component of the Unified Stormwater Rule, the hierarchy is mandatory, meaning that developers must start with the most preferred SMP and provide documentation of site constraints that prevent implementation in order to move to the next SMP.

The Unified Stormwater Rule is expected to result in substantial improvements to the way that individual new and redeveloped properties manage stormwater compared with the 2012 Stormwater Rule it replaced. In some cases, stormwater will be entirely prevented from entering the sewer system through retention and, in most cases, stormwater that does enter the system will be reduced and/or treated and released at a lesser rate, allowing the system to operate more efficiently during peak wet weather events. In combined sewersheds such as the portion of Manhattan that contains the Project Site, the Unified Stormwater Rule is expected to lead to a reduction in CSO volume as more lots redevelop over time. The analyses of stormwater flows presented in this chapter conservatively do not account for the recommendations of the Unified Stormwater Rule and design guidance included within.

D. THE FUTURE WITHOUT THE PROPOSED PROJECT

Absent the Proposed Project, the hospital complex will remain in its current form, with most ambulatory uses on the main hospital block relocating to other facilities (including Projected Development Site 1a). Approximately 650 daily patients, 943 daily visitors, and 281 workers will be relocated (see Table 1-1) to facilities beyond the Project Site, including Northwell's as-of-right Third Avenue project, which is currently under development. In the No Action condition, these relocations will make approximately 13,500 sf within the existing hospital available to convert a limited number of double-bedded rooms to single-bedded rooms without any effect on the total number of beds, and will allow for reconfiguration of certain suboptimal spaces.

Under the No Action condition, the Applicant may redevelop Projected Development Site 1a. However, the No Action condition conservatively assumes that the buildings on the Projected Development Sites will continue to be used as-is, other than the above-mentioned relocations from the main hospital complex on Projected Development Site 1.

SANITARY FLOWS

As discussed above, there is expected to be a reduction in workers, visitors, and patients at the LHH facility on Projected Development Site 1; therefore, sanitary sewage generation is expected to decrease in the No Action condition as compared with existing conditions. The buildings on Projected Development Site 1a will continue in their current use as hospital support space, and there will be no change to sanitary sewage generation on that site in the No Action condition. As shown in **Table 9-3**, in the No Action condition, wastewater generated on the Project Site will total 207,816 gpd, an incremental decrease of 79,915 gpd compared with existing conditions.

Therefore, there will be a reduction in sanitary discharge to the Wards Island WRRF, which will continue to operate within its design capacity.

Table 9-3
No Action Condition Water Consumption and Wastewater Generation

Land Use[1]	Area	Wastewater Generation (gpd)	Water Demand (gpd)
Hospital (Projected Development Site 1)[2]	781,500 gsf	205,496	216,312
Hospital Support (Projected Development Site 1a)[3]	23,200 gsf	2,320	6,264
Total		**207,816**	**222,576**

Notes:
Totals may not sum due to rounding.
gpd = gallons per day; gsf = gross square feet
[1] Consumption rates from *CEQR Technical Manual* Table 13-2, "Water Usage and Sewage Generation Rates for Use in Impact Assessment," unless otherwise noted.
[2] No Action condition water consumption and sanitary generation for the LHH facility on Projected Development Site 1 provided by the Applicant based on the LHH facility's utility usage rates; adjusted for projected No Action condition population.
[3] Hospital support space on Projected Development Site 1a assumed to have water demand and sewage generation at the rates of office space: 0.10 gpd/sf for sanitary sewage and 0.17 gpd/sf for air conditioning.

STORMWATER FLOWS

In the No Action condition, there would be no changes to the surface area of the Project Site, as it would remain fully covered by rooftop area. The weighted runoff coefficient would remain as in existing conditions, shown in **Table 9-2**.

E. THE FUTURE WITH THE PROPOSED PROJECT

As noted above and as described in Chapter 1, "Project Description," the Applicant is requesting a series of discretionary actions from the CPC to facilitate the enlargement and modernization of the existing LHH, which would include a new building fronting on Lexington Avenue as well as additions and renovations to portions of the existing hospital complex on Projected Development Site 1. This EIS also considers the as-of-right development of Projected Development Site 1a as part of the Proposed Project. Projected Development Site 1a would be connected to Projected Development Site 1 by a utility tunnel under East 77th Street. In addition, the Applicant proposes to provide improvements to the 77th Street subway station of the Lexington Avenue (No. 6) line.

SANITARY FLOWS

As shown in **Table 9-4**, in the With Action condition, wastewater generated on the Project Site would total 224,367 gpd, an incremental increase of 16,551 gpd compared with the No Action condition. The incremental increase in sewage generation would not be substantial considering the Wards Island WRRF's average daily flow of 202 mgd and would not result in an exceedance of the WRRF's permitted capacity of 275 mgd. In addition, in accordance with the NYC Plumbing Code (Local Law 33 of 2007), all developments on the Project Site would be required to utilize low-flow plumbing fixtures, which would help to further reduce sanitary flows to the WRRF.

Table 9-4
With Action Condition Water Consumption and Wastewater Generation

Land Use[1]	Area	Wastewater Generation (gpd)	Water Demand (gpd)
Hospital (Projected Development Site 1)[2]	1,398,000 gsf	219,767	231,333
Hospital Support (Projected Development Site 1a)[3]	46,000 gsf	4,600	12,420
Total		**224,367**	**243,753**
No Action to With Action Increment		**16,551**	**21,177**

Notes:
Totals may not sum due to rounding.
gpd = gallons per day; gsf = gross square feet
[1] Consumption rates from *CEQR Technical Manual* Table 13-2, "Water Usage and Sewage Generation Rates for Use in Impact Assessment," unless otherwise noted.
[2] With Action condition water consumption and sanitary generation for the LHH facility on Projected Development Site 1 provided by the Applicant based on the LHH facility's utility usage rates; adjusted for projected With Action condition population.
[3] Hospital support space on Projected Development Site 1a assumed to have water demand and sewage generation at the rates of office space: 0.10 gpd/sf for sanitary sewage and 0.17 gpd/sf for air conditioning.

Connecting to the City's sewer system requires certification from DEP as part of the building permit process, which is not a discretionary approval. The Applicant would be required to file an SCP Application for approval from DEP to tie into the sewer system. In this process, before a building permit can be issued, SCPs must be certified for sewer availability by DEP. The Applicant would be required to demonstrate that the existing sanitary system could handle the site-specific sanitary flows from the proposed development. Because the City's sewers are sized and designed based on the designated zoning of an area and related population density and surface coverage characteristics, the Proposed Project may result in development that is inconsistent with the design of the existing built sewer system, rendering it subject to additional consultation with DEP. As noted in a DEP comment letter dated August 22, 2023 (see **Appendix D**), a site-specific hydraulic analysis of the existing sewer system would likely be required to determine whether the existing sewer system is able to support the new development and related increases in wastewater flows. Sewer upgrades, including upgrades to the existing regulators, may be required at the time of the SCP to accommodate the projected flows from the new development. In addition, as noted in the DEP comment letter, the existing drainage plan may need to be amended based on the hydraulic analysis.

As noted above, the Proposed Project would include construction of a utility tunnel under East 77th Street connecting the support building on Projected Development Site 1a to the main hospital. Although the utility tunnel is not expected to affect any existing utilities in East 77th Street, the need for relocation or rerouting of any existing water and sewer lines will be confirmed in consultation with DEP. If determined to be necessary, this work would be incorporated into the drainage plan and performed at the time of development in order to prevent any interruption in water and sewer service to buildings in the area.

As the Proposed Project is not expected to result in a significant increase in dry weather flows to the combined sewer system and the Wards Island WRRF, there would be no significant adverse impacts to sanitary sewage conveyance and treatment infrastructure.

STORMWATER FLOWS

In the With Action condition, the new building footprints on Projected Development Site 1 and Projected Development Site 1a are both expected to fully occupy the sites; therefore, as with the existing buildings, the surface area of both sites would remain fully rooftop space. Surface coverage and the weighted runoff coefficients of the Projected Development Sites would remain as in existing conditions, discussed above and shown in **Table 9-2**.

Using the With Action condition sanitary and stormwater flow calculations, the DEP Volume Calculation Matrix was utilized to determine flows for the With Action condition. The calculations from the Volume Calculation Matrix helped to determine the change in wastewater volumes to the combined sewer system from existing conditions to the With Action condition and include four rainfall runoff volume scenarios with varying durations.[4] The drainage analysis assumes that all stormwater runoff from the Project Site would flow via the existing combined sewer infrastructure serving the area. The summary of the Volume Calculation Matrix is included in **Table 9-5**.

Table 9-5
DEP Volume Calculation Matrix:
Existing and With Action Conditions Volume Comparison

Rainfall Volume (in)	Rainfall Duration (hr)	Runoff Volume to SS (MG)	Runoff Volume to CSS (MG)*	Sanitary Volume to CSS (MG)	Total Volume to CSS (MG)	Runoff Volume to SS (MG)	Runoff Volume to CSS (MG)*	Sanitary Volume to CSS (MG)	Total Volume to CSS (MG)	Increased Total Volume to CSS (MG)*
WI-R2A/WI-R-2B		Existing				With Action				WI-R2A/WI-R-2B Increment
		90,419 sf (2.08 acres)				90,419 sf (2.08 acres)				
0.00	3.80	0.00	0.00	0.05	0.05	0.00	0.00	0.04	0.04	-0.01
0.40	3.80	0.00	0.02	0.05	0.07	0.00	0.02	0.04	0.06	-0.01
1.20	11.30	0.00	0.07	0.14	0.20	0.00	0.07	0.11	0.17	-0.03
2.50	19.50	0.00	0.14	0.23	0.37	0.00	0.14	0.18	0.32	-0.05

Notes:
Totals may not sum due to rounding.
*Assumes no on-site detention or Best Management Practices (BMPs) for purposes of calculations.
SS = Storm Sewer; CSS = Combined Sewer System; MG = Million Gallons

As shown in **Table 9-5**, the total rainfall and sanitary sewage volume under the With Action condition in all rainfall scenarios would be comparable to or lower than the existing condition volumes, as there would be a minor decrease in sanitary sewage generation and no change to stormwater runoff (the Project Site would be fully impervious rooftop space under both existing and With Action conditions). The volume matrix calculations presented above do not reflect the use of any sanitary and stormwater source control BMPs to reduce sanitary volume and stormwater runoff volumes to the combined sewer system. As noted above, the development on the Project Site would incorporate low-flow plumbing fixtures to reduce sanitary flow, as required by the NYC Plumbing Code. In addition, stormwater detention would be required as part of the DEP SCP Application process for new buildings connecting to the City's sewer system. As noted in the DEP comment letter dated August 22, 2023 (see **Appendix D**), as part of the SCP permit approval processes, the proposed developments must be in compliance with the required on-site stormwater volume requirements and stormwater release rate as detailed in the Unified Stormwater Rule. The performance standard is intended to reduce peak discharges to the City's sewer system during rain

[4] Consistent with the guidance of the *CEQR Technical Manual* and the DEP Volume Calculation Matrix, With Action condition flows are compared with existing conditions rather than No Action conditions.

events by requiring greater on-site storage of stormwater runoff and slower release to the sewer system. The implementation of DEP's stormwater performance standard over time is expected to provide additional capacity to the existing sewer system, thereby improving its performance. The performance standard is a key element of the NYC Green Infrastructure Plan to promote green infrastructure and improve water quality in the City's surrounding waterbodies. Specific BMP measures for the proposed developments would be determined in the future in consultation with DEP when specific designs are advanced and may include stormwater detention tanks and rainwater reclamation systems.

In addition, coverage under the DEC SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-10-001) is required for any development that would involve soil disturbance of one or more acres. Therefore, a SWPPP for the Proposed Project would be required of the Applicant. The SWPPP would include both temporary erosion and sediment controls and post-construction stormwater BMPs.

Because the City's sewers are sized and designed based on the designated zoning of an area and related population density and surface coverage characteristics, the Proposed Project may result in development that is inconsistent with the design of the existing built sewer system, rendering it subject to additional consultation with DEP. If necessary, subject to additional consultation with DEP, an Amended Drainage Plan (ADP) would be prepared for the Project Site. In addition, a hydraulic analysis of the existing sewer system may be required as part of the SCP permit approval process. The hydraulic analysis calculations would inform the ADP process as necessary. Sewer improvements and/or incorporation of BMPs may also be required of the Applicant at the time of the SCP.

The Proposed Project would result in similar flows to the City's combined sewer system as under existing conditions, and therefore is not expected to result in an increase in CSO volumes or frequencies during rain events. Because of the available capacity of the Wards Island WRRF, the projected flows to the combined sewer system would not have a significant adverse impact on water quality. In addition, with the incorporation of BMPs to meet the City's site connection requirement, the Proposed Project would not result in a significant increase in stormwater runoff. Therefore, it is concluded that the Proposed Project would not result in significant adverse impacts to local water supply or wastewater and stormwater conveyance and treatment infrastructure. ✶