A. INTRODUCTION

New York City (City) Department of Environmental Protection (DEP) is issuing this ~~Draft~~ Final Environmental Impact Statement (~~D~~FEIS) pursuant to the New York State Environmental Quality Review Act (SEQRA), City Environmental Quality Review (CEQR), and the Uniform Land Use Review Procedure (ULURP). In accordance with SEQRA and CEQR, DEP is examining the potential for significant adverse environmental impacts that could occur as a result of the Newtown Creek Combined Sewer Overflow (CSO) Storage Tunnel project (the "Proposed Project").

B. PROJECT OVERVIEW

Newtown Creek, located on the border of Brooklyn and Queens, is a tidal creek that flows into the East River (see **Figure S-1**). Under typical wet-weather conditions, there are 21 CSO outfalls that discharge to Newtown Creek. More than 90 percent of the total CSO discharge to Newtown Creek, however, is from the four largest CSO outfalls: Bowery Bay (BB)-026, Newtown Creek Queens (NCQ)-077, Newtown Creek Brooklyn (NCB)-083, and NCB-015 (see **Figure S-2**). As part of an Order on Consent to reduce CSOs, DEP prepared the Newtown Creek CSO Long-Term Control Plan (LTCP), which the New York State Department of Environmental Conservation (NYSDEC) approved in June 2018. Pursuant to the CSO Order on Consent and the LTCP (and recently approved modifications to the LTCP-recommended project), DEP is proposing a 3.26-mile-long tunnel with a storage volume of 50 million gallons (MG) to divert overflows at the four largest CSO outfalls. The Proposed Project includes construction of diversion facilities for the four outfalls to convey wet-weather flows to the tunnel, a gravity diversion sewer to connect the diversion facility at outfall BB-026 to the tunnel, and a tunnel dewatering pump station (TDPS) and discharge pipe to convey stored sewer overflows to the Newtown Creek Wastewater Resource Recovery Facility (WRRF), located in the Greenpoint neighborhood of Brooklyn.

C. BACKGROUND INFORMATION

NEWTOWN CREEK AND WATERSHED

The current conditions of Newtown Creek and its drainage area are considerably different than its pre-urbanized condition. Newtown Creek was originally a stream that drained the uplands of western Long Island, and was served by five tributaries: Dutch Kills, Whale Creek, Maspeth Creek, English Kills, and the East Branch (shown on **Figure S-1**). As New York City developed, Newtown Creek was dredged, straightened, and bulkheaded as the surrounding area was drained, urbanized, and industrialized. By 1930, Newtown Creek had been transformed to a condition similar to its present configuration and served as a major industrial waterway through which materials were brought to and

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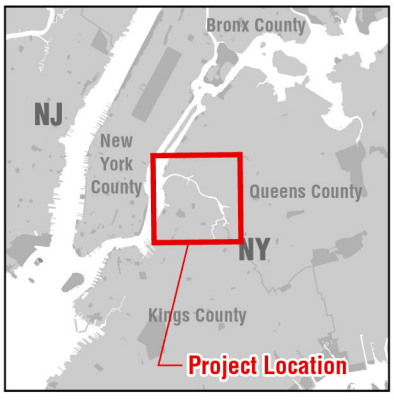

Newtown Creek

NEWTOWN CREEK CSO STORAGE TUNNEL PROJECT

Figure S-1

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Newtown Creek-Principal CSO Outfalls

NEWTOWN CREEK CSO STORAGE TUNNEL PROJECT

Figure S-2

from area industries, including major oil refineries and terminals, smelting operations, manufactured gas plants, and other heavy industries. During World War II, Newtown Creek was one of the busiest ports in the nation.

By that time, the surrounding area had been fully urbanized and industrialized, sewage and industrial wastes were discharging directly to Newtown Creek without treatment, and natural marshlands and freshwater streams had been filled or damaged. The urbanization of the surrounding drainage area, with natural areas replaced by buildings and pavement, resulted in an estimated 500 percent increase in impervious surfaces, and the loss of natural stormwater drainage resulted in a doubling of the annual runoff volume to Newtown Creek. The impact of runoff to Newtown Creek was exacerbated by the loss of marshland and natural freshwater flow, which deprived Newtown Creek of natural response mechanisms that may have absorbed the increased hydraulic and pollutant loads. Newtown Creek's limited circulation and exchange with the East River allowed pollutants to build up, resulting in a significant deterioration of water quality.

Efforts to address water quality in Newtown Creek date back to the 1960s. New York City constructed WRRFs to treat sewage and industrial wastes during dry weather and to capture a portion of the combined sewage generated during wet-weather events. Two WRRFs service the Newtown Creek drainage area: the Bowery Bay WRRF, which began operating in 1938, and the Newtown Creek WRRF, which began operating in 1967.

The Newtown Creek watershed is comprised of approximately 6,815 acres: the majority of the watershed (5,920 acres) is served by the Newtown Creek WRRF, and a smaller portion (895 acres) on the northern shore is served by the Bowery Bay WRRF (see **Figure S-3**). The Newtown Creek WRRF serves a total area of 15,033 acres in the boroughs of Manhattan, Brooklyn, and Queens. Similarly, the Bowery Bay WRRF, which is located in the Astoria neighborhood in northern Queens, serves a total area of approximately 15,203 acres in the northern portion of Queens.

During dry weather, the combined and sanitary sewer systems convey sewage to the Newtown Creek and Bowery Bay WRRFs for treatment. The State Pollutant Discharge Elimination System (SPDES) permit for the Newtown Creek WRRF requires a wet-weather treatment capacity of 700 million gallons per day (mgd). The SPDES permit for the Bowery Bay WRRF requires a wet-weather treatment capacity of 300 mgd. During wet-weather events, combined sewage flow that exceeds the capacity of the WRRFs and the combined sewer system may discharge to Newtown Creek and its tributaries through one or more of the 21 SPDES-permitted CSO outfalls. Approximately 90 percent of the average annual CSO volume to Newtown Creek is attributable to four CSO outfalls: three CSO outfalls that provide wet-weather relief to the combined sewer system tributary to the Newtown Creek WRRF (NCQ-077, NCB-083, and NCB-015); and one CSO outfall that provides wet-weather relief to the combined sewer system tributary to the Bowery Bay WRRF (BB-026). In addition, 12 stormwater outfalls that are permitted under New York City's MS4 SPDES permit discharge to Newtown Creek.

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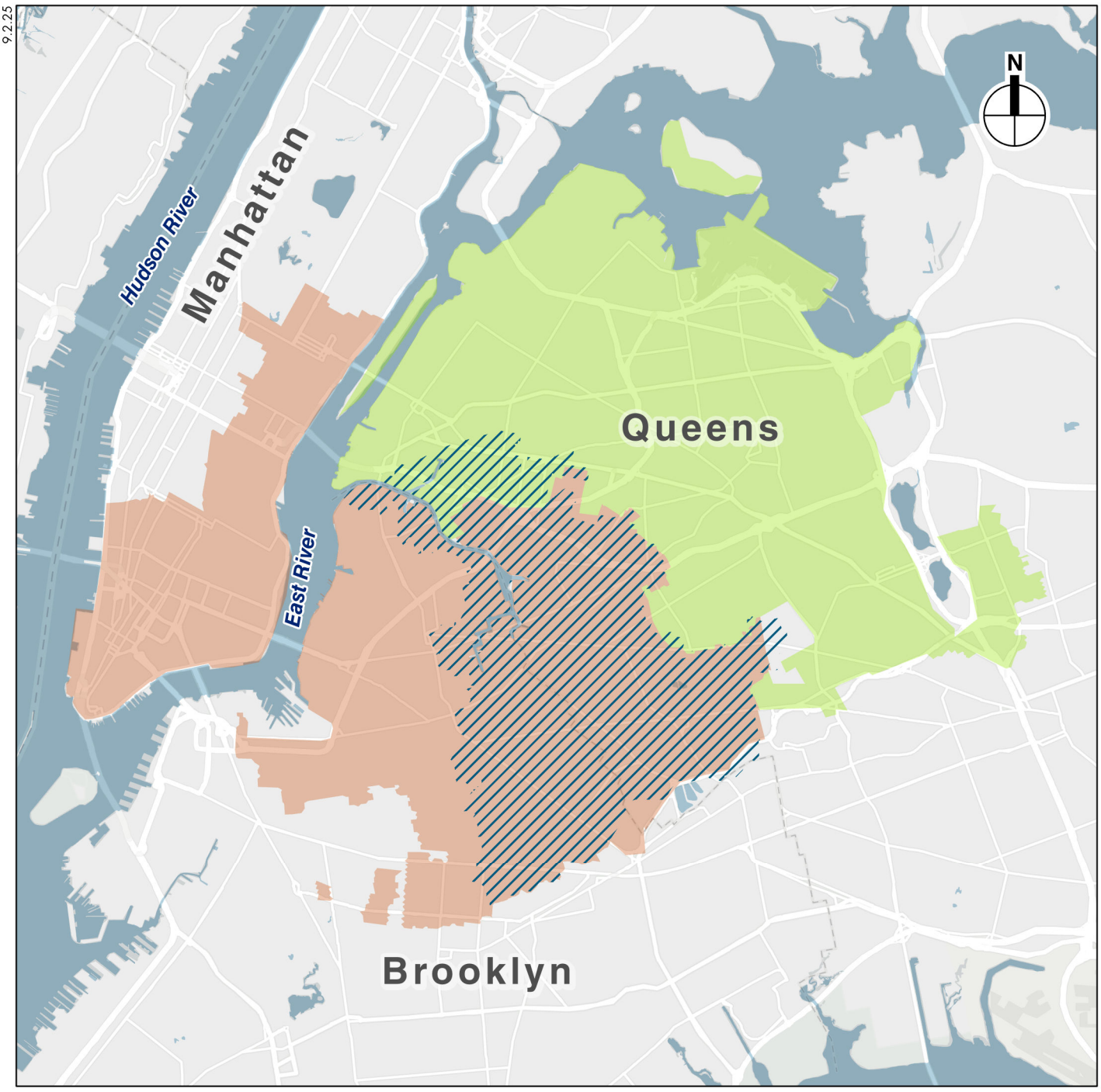


*Approximate area contributing to Newtown Creek CSOs

Newtown Creek WRRF and
Bowery Bay WRRF Drainage Areas

NYSDEC CONSENT ORDER AND LONG-TERM CONTROL PLAN

In 2005, the City of New York and NYSDEC entered into an Order on Consent[1] to address CSOs in New York City, and over the past 20 years, DEP has implemented several specific projects to improve water quality in Newtown Creek.

The projects have included upgrades to the Newtown Creek WRRF, installation of bending weirs at the four major CSO outfalls, and construction of aeration facilities at several locations along Newtown Creek (including English Kills and the East Branch). DEP has also included Newtown Creek as a priority watershed for the Green Infrastructure (GI) Program, which seeks to install GI to reduce CSO volumes. These GI improvements have included right-of-way (ROW) practices, public property retrofits, and GI implementation on private properties. In connection with these projects, DEP has worked to restore natural resources and provide community benefits along the Creek, including creation of a public waterfront open space (the Newtown Creek Nature Walk) near the Newtown Creek WRRF and Whale Creek, as well as salt marsh plantings. In 2011, NYSDEC and DEP identified numerous modifications to the 2005 Order, including integration of green infrastructure and substitution of more cost-effective grey infrastructure, which were included in a modified Order on Consent issued in 2012.[2] The 2005 and 2012 Orders and subsequent minor modifications are collectively referred to as the "CSO Order."

Per the CSO Order, DEP agreed to develop 10 waterbody-specific LTCPs and one citywide LTCP to reduce CSOs and improve water quality in the City's waterbodies and waterways. Newtown Creek was identified in the CSO Order as one of the 10 waterbodies in New York City requiring an LTCP to identify, with public input, appropriate CSO controls necessary to reduce the frequency and volume of CSO discharges resulting in improved water quality within Newtown Creek. The Newtown Creek LTCP was prepared by DEP and submitted to NYSDEC in 2017, and the plan was approved by NYSDEC in 2018.

As part of the development of the LTCP, DEP evaluated several alternative CSO control measures, focusing on the four largest CSO outfalls: BB-026, NCQ-077, NCB-083, and NCB-015. The LTCP considered one set of measures to control CSOs for outfalls NCQ-077, NCB-083, and NCB-015, and a separate set of measures to control CSOs at outfall BB-026, which is much closer to the Newtown Creek WRRF and closer to DEP's Borden Avenue Pump Station, a facility that was planned for improvements.

For outfalls NCQ-077, NCB-083, and NCB-015, the LTCP considered alternatives—individual storage tanks or various tunnel storage options; for outfall BB-026, the LTCP considered alternatives that included diverting overflow from outfall BB-026 to the Borden Avenue Pump Station and providing additional wet-weather pumping capacity, along with a new forcemain to convey wet-weather flow from the pump station to a location just upstream of the Newtown Creek WRRF. Through a detailed evaluation of the alternatives based on multiple considerations, including public input, environmental

[1] NYSDEC Case No. C02-20000107-8

[2] NYSDEC Case No. C02-20110512-25

and water quality benefits, and costs, the LTCP determined that the preferred alternative should include a 39-MG CSO storage tunnel for outfalls NCQ-077, NCB-083, and NCB-015, and that the preferred alternative for outfall BB-026 should include a 26-mgd wet-weather expansion of the Borden Avenue Pump Station and a new forcemain that would run under Newtown Creek that would convey wet-weather flow to the Newtown Creek WRRF.

Following the completion of the LTCP, the two projects entered preliminary design and planning, during which a conceptual design was developed to combine the projects by diverting CSOs from outfall BB-026 by gravity into the CSO storage tunnel serving the other three outfalls and increasing the tunnel's storage volume from 39 MG to 50 MG. This change was determined to have several benefits: eliminating the need to expand the Borden Avenue Pump Station, eliminating the need to construct a forcemain to the Newtown Creek WRRF, and providing a greater overall reduction of CSO discharge volumes. DEP began discussing this proposed modification request with NYSDEC in 2023 and met with both NYSDEC and the U.S. Environmental Protection Agency (EPA) regarding this modification request. EPA indicated that the proposed modification was consistent with the Record of Decision (ROD) that required a CSO reduction target and that this modification would exceed that target (discussed below). Afterwards, DEP met with stakeholders and elected officials regarding this proposed modification and submitted the official modification request to NYSDEC on July 1, 2024. On October 10, 2024, NYSDEC issued a letter notifying DEP of its concurrence with the proposed modification; following a public noticing period, NYSDEC issued a letter approving the modification on December 23, 2024.

EPA SUPERFUND REMEDIATION OF NEWTOWN CREEK

In September 2010, Newtown Creek was designated a federal Superfund site by EPA under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA, commonly known as Superfund) and placed on the National Priorities List (NPL). In July 2011, EPA issued an Administrative Order to six Potentially Responsible Parties (PRPs) for a remedial investigation and feasibility study of Newtown Creek; the City of New York was identified as one of the PRPs, related to CSO discharges into Newtown Creek. In April 2021, EPA issued a ROD concluding that "the volume reduction set forth in the LTCP will be sufficient for the purposes of a CERCLA response action regarding current and reasonably anticipated future discharges from the CSOs to the Newtown Creek Study Area" and that "to ensure that the assumptions made in reaching this conclusion remain valid, monitoring will be required at least until it is subsumed by the monitoring requirements of a future remedial decision document for the site."

As of 2025, independent of the Proposed Project, EPA has selected a remedy for the East Branch (near outfall NCB-083) of Newtown Creek. This remedy includes dredging to allow the placement of a cap, which would stabilize the contaminants in the bed of Newtown Creek, with localized deeper dredging. Elsewhere in Newtown Creek, EPA is investigating the prevalence of contaminated materials and considering remediation measures.

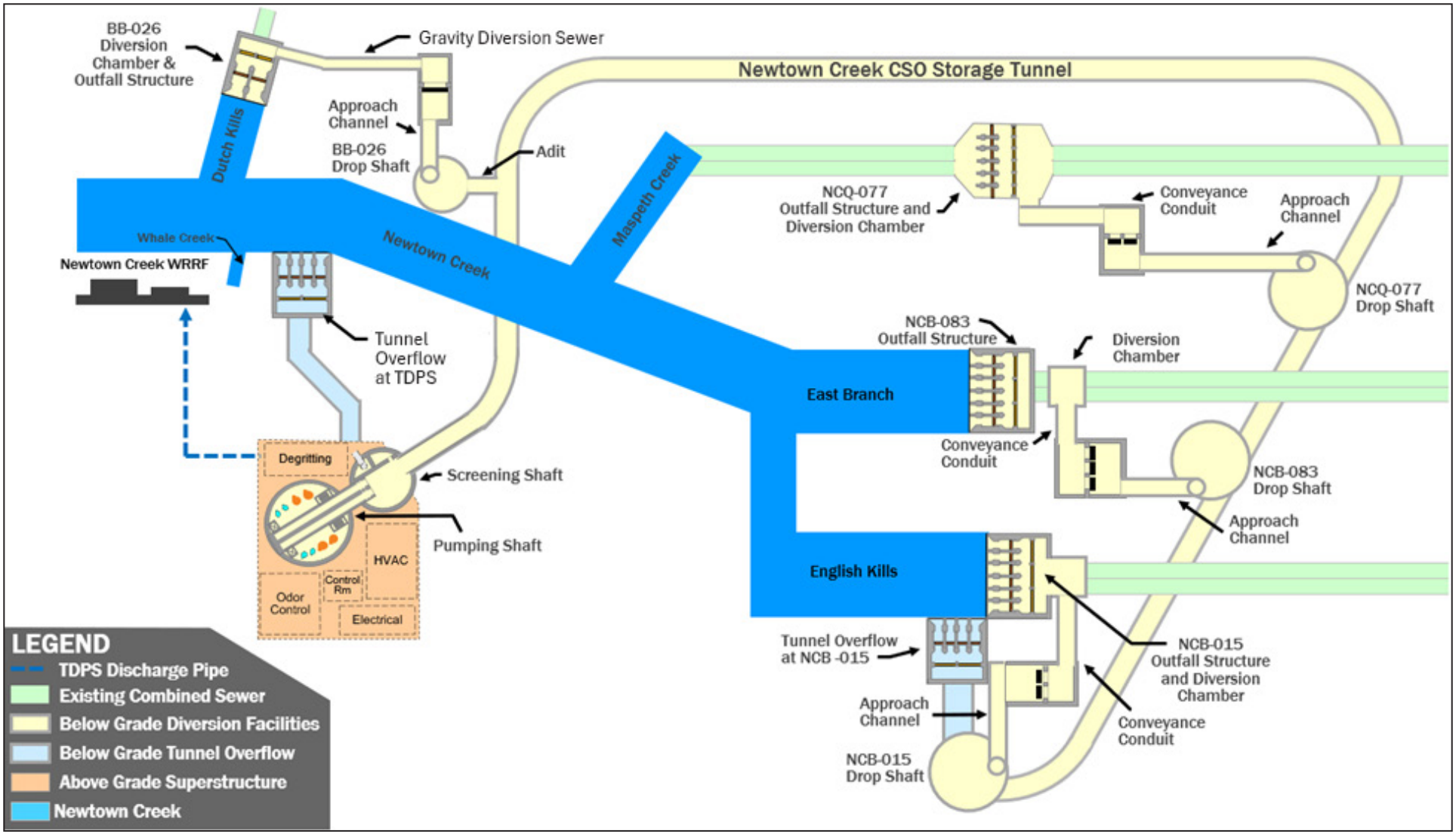
D. DESCRIPTION OF THE PROJECT

The Proposed Project, which includes the construction of a 50-MG CSO storage tunnel along with the TDPS, diversion chambers, drop shafts, conveyance sewers, outfall structures, and odor control systems, would control CSO discharges from outfalls BB-026, NCQ-077, NCB-083, and NCB-015. During wet-weather events, the CSO storage tunnel facilities would divert and store CSOs from the combined sewer system at the four outfall locations, which currently discharge to Newtown Creek. The CSOs stored in the tunnel would be pumped to the Newtown Creek WRRF for treatment after the wet-weather event. A schematic illustration of the Proposed Project is provided in **Figure S-4**.

The proposed CSO storage tunnel would be approximately 26 feet in outer diameter and at a depth ranging from 80 to 130 feet below existing ground surface; the tunnel mining operation would start in bedrock at the TDPS site, and then transition to a mixed face condition before ending in soil. The downstream terminus of the tunnel is located at the end of Kingsland Avenue in Brooklyn (on the southern side of Newtown Creek) near Whale Creek and the Newtown Creek WRRF; this site is controlled by the New York City Department of Sanitation (DSNY). This site would contain a TDPS that would operate to remove the stored combined sewage from the tunnel on an intermittent basis following wet-weather events, as well as to remove inflow and infiltration in the tunnel as needed during dry weather, when the Newtown Creek WRRF has capacity to receive tunnel dewatering flows. The TDPS may also operate at the beginning of a storm to remove flow from the tunnel when the Newtown Creek WRRF has capacity, thereby maximizing the CSOs diverted and stored during a wet-weather event. Wet-weather events requiring TDPS operation are anticipated to occur between three and seven times per month.

From the TDPS on the south side of Newtown Creek, tunnel construction would follow an alignment east under the Creek into the Blissville neighborhood of Queens. At this location north of Newtown Creek, a new gravity diversion sewer would be constructed to connect outfall BB-026 to the tunnel. Beginning at the BB-026 diversion facility, the new gravity diversion sewer would run along 47th Avenue and 30th Street, to Borden Avenue, where it would run west and south to connect to the Borden Avenue Pump Station. This initial section of the gravity diversion sewer would be constructed prior to the completion of the tunnel and would allow for diversion of CSO flows from BB-026 in the interim period before the tunnel is operational: CSOs would be stored in the gravity diversion sewer during a wet-weather event, and then removed from the gravity diversion sewer by the pump station and conveyed to the Bowery Bay WRRF. Modifications would be made to the Borden Avenue Pump Station to construct the connection to the gravity diversion sewer. From the Borden Avenue Pump Station, the gravity diversion sewer would run south along Review Avenue and would connect to the tunnel at a drop shaft to be constructed near Newtown Creek at Review Avenue and 35th Street (two potential locations for the drop shaft near the intersection of Review Avenue and 35th Street are currently under consideration). Once the tunnel, TDPS, and drop shaft are complete, CSO flows would be diverted from the Borden Avenue Pump Station and conveyed to the tunnel.

The tunnel alignment would continue south and east along Review Avenue and the Kosciuszko Bridge toward the Maspeth neighborhood of Queens, where it would connect to outfall NCQ-077. From outfall NCQ-077, the tunnel alignment would curve south and then west into Brooklyn, to connect to outfall



NOTE: Schematic design; not to scale

Proposed Project – Newtown Creek CSO Facility Overview

NCB-083. Finally, the tunnel alignment would continue south and connect to outfall NCB-015, located near English Kills. The tunnel would be constructed at a constant slope to allow gravity flow from the eastern extent of the tunnel at outfall NCB-015 to the TDPS site at Whale Creek.

Facilities would be constructed at outfalls BB-026, NCQ-077, NCB-083, and NCB-015 to divert flow from the outfalls to the tunnel. During a wet-weather event, combined sewer flows that exceed the capacity of the existing dry-weather regulator would flow into the diversion chamber at each facility and would then be conveyed from the diversion chamber to the conveyance conduits. The conveyance conduits would deliver wet-weather flow to the approach channel and drop shaft, which would connect to the tunnel. The diversion facilities at NCQ-077, NCB-083, and NCB-015 would include ventilation systems at the drop shafts to manage airflow in the tunnel (this would include odor control systems, except at the facility at BB-026, which would not need odor control because the connection would be via an approach channel and adit,[3] thereby limiting air exchange). The existing outfalls at NCB-015 and BB-026 would be modified by removing the existing bending weirs and flap gates. At all four diversion facilities, new outfall structures, including bending weirs and flap gates, would be constructed downstream of each diversion chamber to allow overflow to discharge to Newtown Creek when the tunnel is full or when flow rates exceed the facilities' design flow rates. In addition, at the TDPS, a discharge pipe would be constructed along Kingsland Avenue and Greenpoint Avenue to connect the TDPS to the Newtown Creek WRRF. Finally, at the TDPS and the NCB-015 site, tunnel overflow structures would be constructed to mitigate the risk of flooding associated with a surge or a transient wave within the tunnel when it is filling.

The proposed tunnel alignment and location of the proposed diversion facilities are shown on **Figure S-5**.

E. PURPOSE AND NEED FOR THE PROPOSED PROJECT

The Proposed Project would reduce CSO discharges to Newtown Creek in furtherance of the goals of the Newtown Creek LTCP and the CSO Consent Order. Specifically, the Proposed Project would result in a significant reduction in CSOs from four outfalls—BB-026, NCQ-077, NCB-083, and NCB-015—which contribute the majority of the CSO discharges to Newtown Creek. As outlined in the LTCP, the proposed CSO storage tunnel and related infrastructure would provide appropriate CSO controls to reduce the volume and frequency of overflow events and fulfill the requirements of the Consent Order entered into by New York City and NYSDEC to address CSOs (discussed above). The reduction of CSO volume resulting from the Proposed Project, combined within the removal of accumulated sediments to improve flow at the outfall sites, would help to improve water quality and aquatic habitat within Newtown Creek. By improving water quality, the Proposed Project would also meet some of the goals of the Superfund remediation of Newtown Creek, as outlined in the EPA ROD related to CSO discharges.

[3] An "adit" is a horizontal underground passageway used for access, drainage, or ventilation.

Proposed Project – Tunnel Alignment and Diversion Facilities

NEWTOWN CREEK CSO STORAGE TUNNEL PROJECT **Figure S-5**

To facilitate the Proposed Project, DEP must lease or acquire several parcels located near the four outfalls to construct the diversion facilities that would convey flow to the proposed CSO storage tunnel; each diversion facility would include a diversion chamber, outfall structure, conveyance conduits, approach channel, and drop shaft.[4] DEP must record permanent surface and subterranean easements on parcels along the proposed tunnel and gravity diversion sewer alignments for security concerns and long-term maintenance. Temporary surface easements are also necessary to facilitate construction on select properties. The properties needed for fee simple acquisition and acquisition of permanent and temporary easements are provided in **Appendix A**.

F. PROJECT APPROVALS AND COORDINATION

Implementation of the Proposed Project would require federal, state, and local permits/approvals. DEP would closely coordinate with EPA, the U.S. Army Corps of Engineers (USACE), NYSDEC, New York State Department of State (NYSDOS), New York State Historic Preservation Office (NYSHPO), and New York City agencies, as necessary, for the Proposed Project.

To facilitate the Proposed Project, discretionary land use approvals are required that are subject to review under ULURP, including site selection of a capital project and acquisition of property. The Proposed Project is a major capital project, which involves site selection of all properties affected by the Proposed Project under the New York City Charter. Currently, construction of the Proposed Project is expected to require full fee simple acquisition of up to four properties to facilitate construction of the proposed diversion facilities at NCQ-077, NCB-083, and NCB-015. Construction of the diversion facility at BB-026 would be facilitated by the acquisition of easements. Acquisition of the TDPS site would not be required since it is a City-owned property (currently being used by DSNY).

In addition, the Proposed Project is expected to require property leasing during various stages of construction. The acquisition of permanent surface and subterranean easements is also expected to be required at several properties for long-term maintenance and security. In total, the Proposed Project would affect up to 99 properties: 9 properties are City-owned and require only site selection approval, and 90 properties are privately owned and require both site selection and acquisition approval. Of the up to 90 properties requiring both site selection and acquisition approval, 4 require fee simple acquisition (for the diversion facilities at NCQ-077, NCB-083, and NCB-015, noted above), up to 83 require subterranean easements along the proposed tunnel and gravity diversion sewer alignments (including one property that also requires both acquisition of a permanent surface easement and a temporary construction easement, and one property that also requires acquisition of a temporary construction easement), and 3 properties require both acquisition of permanent surface and temporary construction easements (but no subterranean easement). The fee simple acquisition, property leasing, and establishment of subterranean and surface easements would be facilitated by the proposed acquisition action under ULURP. Given the early stage of design at the time of CEQR and ULURP, additional subterranean easement properties are included in the land use application in the event that

[4] The TDPS, which would convey stored CSOs to the Newtown Creek WRRF, would be located on a City-owned parcel; therefore, property leasing/acquisition is not required for this facility.

the tunnel alignment changes slightly. The properties currently expected to be subject to the proposed site selection and acquisition approvals are provided in **Appendix A.**

At each property where a subterranean easement is proposed, the easement would restrict below-ground work within the easement zone (e.g., deep excavation or pile foundations). Future development, renovation, and/or redevelopment on the sites receiving a subterranean easement would not be prohibited. The subterranean easement would allow these activities above and around the subterranean easement zone. However, when development activities include construction such as foundations or basements within 55 feet of the tunnel crown, coordination with DEP would be required to protect the tunnel. Foundations and excavations within the subterranean zone (25 feet above the crown and 18 feet on either side) would not be allowed; a typical cross section with the approximate dimensions of the easement zone below the ground surface is shown in **Figure S-6**. Due to the depth of the tunnel, the subterranean easement is not expected to interfere with piles for existing buildings or new construction, which are unlikely to extend to the depth of the easement zone; however, should development need deep pile foundations, there are options to modify the design of the foundation to avoid the subterranean easement and facilitate the proposed construction.

Table S-1 summarizes the major permits and approvals that may be required for the Proposed Project.

Table S-1
Potential Major Permits, Approvals and Coordination

Agency/Entity	Permit/Approval/Consultation/Coordination
FEDERAL	
U.S. Environmental Protection Agency (EPA)	CERCLA coordination and consultation
Coastal Zone Management Act	Projects affecting New York's coastal zone must be consistent with the Coastal Zone Management Act, through the New York State Department of State's Coastal Management Program and approved Local Waterfront Revitalization Plans
U.S. Army Corps of Engineers (USACE)	Permits under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, including Nationwide Permit 7 "Outfall Structures" and Nationwide Permit 3 "Maintenance," as applicable
	Approval under Section 408 of the Rivers and Harbors Act for tunnel crossings of Newtown Creek in areas under USACE jurisdiction
United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS)	Consultations under Section 7 of the Endangered Species Act
Advisory Council on Historic Preservation	Consultation under Section 106 of the National Historic Preservation Act of 1966
STATE	
New York State Department of State (NYSDOS)	Coastal Zone Management Consistency
New York State Office of General Services (NYSOGS)	Potential easement(s) for tunnel alignment under portions of Newtown Creek that are under State jurisdiction
New York State Department of Environmental Conservation (NYSDEC)	State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity - GP-0-10-001: erosion and sediment control and post-construction stormwater management in accordance with the stormwater pollution prevention plan (SWPPP)
	Water Withdrawal Permits for dewatering that may occur during construction of underground infrastructure
	Individual SPDES Permit or Application Form NY-2C for Industrial Facilities (Dewatering activities requiring discharge to surface water)
	Tidal Wetlands Permit for construction activities in tidal wetlands and their adjacent areas
	Long Island Well Permit for dewatering activities in Queens and Brooklyn
	Protection of Waters Permit Navigable Waters (Excavation or Fill)

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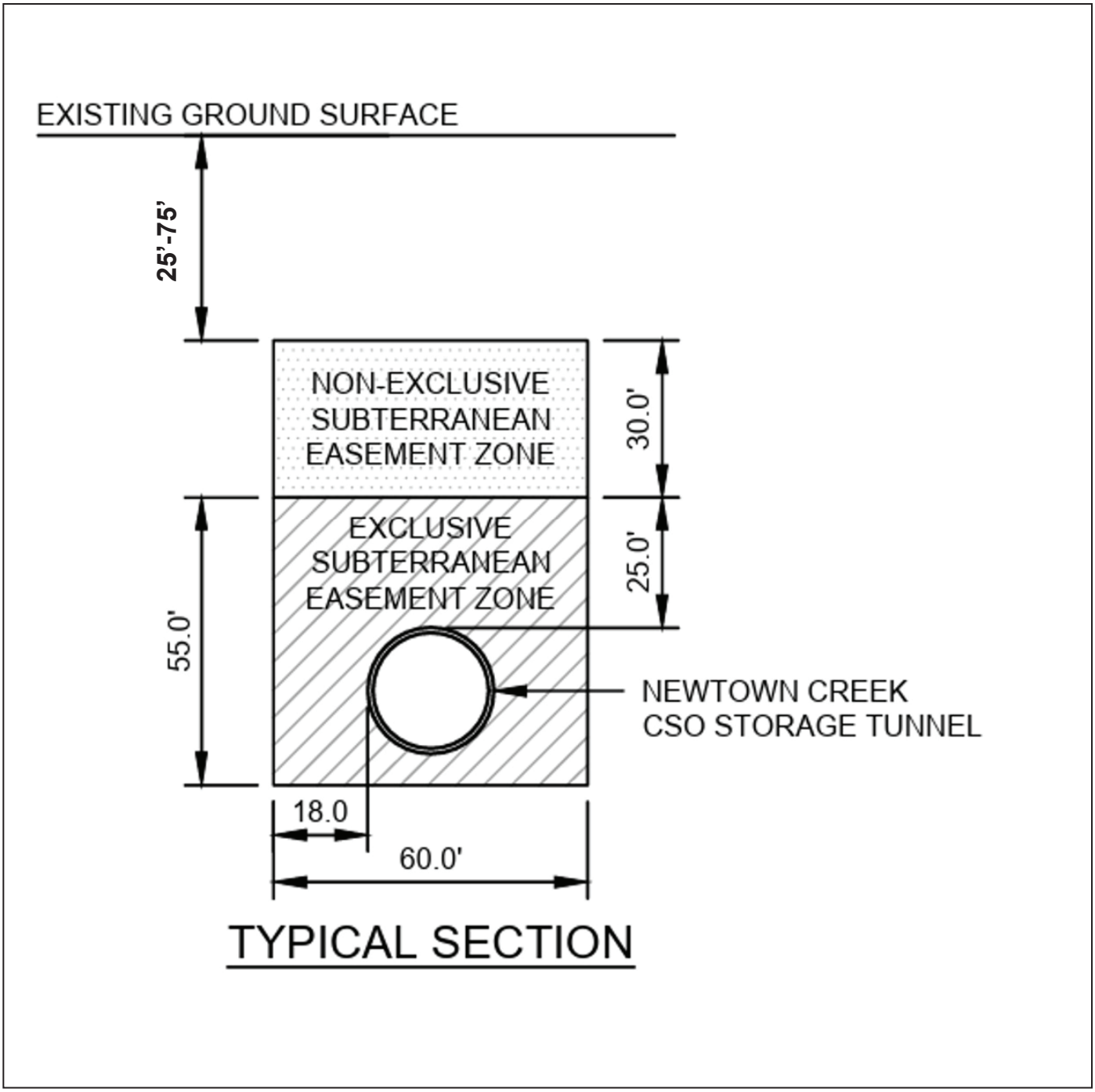

Subterranean Easement Zone

Table S-1
Potential Major Permits, Approvals and Coordination

Agency/Entity	Permit/Approval/Consultation/Coordination
	Section 401 Water Quality Certification
	Natural Heritage Program database review to determine potential presence of threatened or endangered species listed in New York State
New York State Historic Preservation Office (SHPO)	Consultation to determine potential archaeological significance and/or the presence of historic resources and determine project's potential effects
Metropolitan Transportation Authority (MTA)	Approval of easements affecting MTA-controlled property
NEW YORK CITY	
New York City Planning Commission (CPC) / New York City Department of City Planning (DCP)	ULURP for property acquisition and site selection New York City Waterfront Revitalization Program—Consistency Assessment
New York City Department of Environmental Protection (DEP)	Rulemaking pursuant to City Administrative Procedure Act (CAPA) to establish process for coordination along proposed tunnel alignment.
New York City Landmarks Preservation Commission (LPC)	Consultation to determine potential archaeological significance and/or the presence of historic resources
New York City Public Design Commission	Review of design for above-grade facilities and public amenities, including architecture and landscape architecture.
New York City Department of Transportation (DOT) Office of Construction Mitigation and Coordination (OCMC)	Street closure and roadway construction permits

G. ANALYSIS FRAMEWORK

The ~~D~~FEIS considers both the construction and operational impacts of the Proposed Project, as well as its potential benefits. As the Proposed Project would involve a substantial multi-year construction effort related to various project elements over several sites around Newtown Creek, with relatively limited operational impacts anticipated, the ~~D~~FEIS includes a modified analytical approach. The ~~D~~FEIS impact analysis chapters focus primarily on the construction of the Proposed Project, with potential operational impacts addressed in each chapter as warranted.

For each impact category, the ~~D~~FEIS discusses existing conditions, conditions in the future without the Proposed Project (the "No Action" condition), and conditions in the future with the Proposed Project (the "With Action condition"). The technical analysis and identification of potential significant adverse impacts is focused on the incremental change that the Proposed Project would potentially create as compared with the future No Action condition.

The ~~D~~FEIS analysis framework is as follows:

EXISTING CONDITIONS

Each technical analysis describes the existing condition in the relevant study area for that analysis in order to establish a baseline against which future conditions can be projected.

FUTURE WITHOUT THE PROPOSED PROJECT

Using existing conditions as a baseline, conditions known to occur or expected to occur in the future regardless of the Proposed Project, will be evaluated for the Proposed Project's analysis year. This No

Action condition is the baseline condition against which the effects of the future with the Proposed Project are measured.

In the No Action condition, it is assumed that the Proposed Project would not be constructed, and the sewer infrastructure in the area of Newtown Creek would remain in its existing condition. The sites that would be affected by the Proposed Project for construction of the diversion facilities (discussed in Chapter 1, "Project Description") would also remain in their existing condition. The TDPS site would be vacated by DSNY. There would be no reduction in CSO volumes discharged to Newtown Creek from outfalls BB-026, NCQ-077, NCB-083, and NCB-015.

Where relevant, the technical analysis includes a discussion of projects expected to be completed independent of the Proposed Project by the proposed analysis year in the relevant study area(s), in addition to baseline growth for each applicable technical area.

FUTURE WITH THE PROPOSED PROJECT

Using the No Action condition as a baseline, conditions known to occur or expected to occur in the With Action condition are evaluated for the Proposed Project's analysis year.

In the With Action condition, the Proposed Project, which includes the construction of a 50-MG CSO storage tunnel along with the TDPS, diversion chambers, drop shafts, conveyance sewers, outfall structures, and odor control systems, would control CSO discharges from outfalls BB-026, NCQ-077, NCB-083, and NCB-015, as described in Chapter 1, "Project Description."

ANALYSIS YEAR

The analysis year refers to the future year when a Proposed Project is likely to affect its environmental setting. The analysis year is representative of the anticipated completion date of the Proposed Project's major construction. The Proposed Project's expected year of completion is 2040.

PROBABLE IMPACTS OF THE PROPOSED PROJECT

Potential changes resulting from temporary construction or operation of the Proposed Project (the With Action condition) are compared to the No Action condition to assess the potential for significant adverse impacts. This comparison provides for an understanding of the potential impacts that could result with the Proposed Project. Future conditions are evaluated and represent a "reasonable worst-case scenario" in order to determine the probable impacts of the Proposed Project.

Each technical analysis in the ~~D~~F~~F~~EIS begins with an assessment of the Proposed Project's potential to result in significant adverse impacts based on the screening criteria presented in the *City Environmental Quality Review (CEQR) Technical Manual.* Where it is determined that the Proposed Project would not exceed the relevant screening criteria, it is concluded that the Proposed Project would not result in a significant adverse impact, and additional analysis is not warranted. Where it is determined that the Proposed Project would exceed the relevant screening criteria, more detailed analysis is performed following the methodology outlined in the *CEQR Technical Manual.* Through that detailed analysis, it is determined whether the effects of the Proposed Project would exceed the criteria presented in the

CEQR Technical Manual for effects that are considered significant adverse impacts, which are described below by technical area (see below in "Probable Impacts of the Proposed Project").

Where significant adverse impacts are identified for the Proposed Project, measures to mitigate those impacts are identified and described (see below in "Mitigation"). Where impacts cannot be practicably mitigated, they are disclosed as unavoidable adverse impacts (see below in "Unavoidable Adverse Impacts").

H. PROBABLE IMPACTS OF THE PROPOSED PROJECT

LAND USE, ZONING, AND PUBLIC POLICY

The analysis concludes that the Proposed Project would be compatible with existing land use in the surrounding area and that construction and operation of the Proposed Project would not result in any significant adverse impacts to land use, zoning, or public policy. The Proposed Project would include new infrastructure that would primarily be underground, and which would not result in changes to land use at the affected properties; changes to land use would occur at the diversion facility sites, which currently contain primarily surface parking, vacant land/buildings, and manufacturing uses. However, the Proposed Project's facilities would be part of the extensive sewer infrastructure system present in the study area and would be compatible with the existing sewer infrastructure and other uses in the study area. The Proposed Project would meet all applicable zoning requirements and would be consistent with and supportive of the public policies applicable to the Proposed Project sites and the study area, including the New York City Waterfront Revitalization Program (WRP).

SOCIOECONOMIC CONDITIONS

The Proposed Project would affect 11 parcels, two of which are City-owned. Use of City-owned lots would not result in displacement of businesses or employees. Therefore, the Proposed Project involves acquisition of nine sites, including eight proposed for permanent acquisition and one proposed for temporary acquisition during construction.[5] Permanent acquisition of the eight parcels would displace the current uses on these lots, and is expected to result in the permanent displacement of up to approximately eight businesses and 85 employees working on these lots. ~~However, because one of the lots proposed for permanent acquisition is vacant and three are used for storage and/or parking, which would not displace employees or businesses, the Proposed Project is only expected to result in the permanent displacement of 35 employees and 3 businesses on the remaining four sites: (1) SRM Concrete, (2) FedEx, and (3) MetroExpress.~~[6]

[5] Of the eight permanent acquisition sites, four would only require permanent acquisition easements.

[6] While the Proposed Project would require permanent acquisition of two lots owned by Patriot Maspeth GP, LLC, these lots are used for storage and parking and are not expected to displace the overall business operating on these lots—F.W. Webb, which has its warehouse and additional parking and storage areas on an adjacent lot. The temporary acquisition of one lot owned by Feldman Metropolitan Realty, LLC is not expected to result in the direct displacement of any businesses.

Based on the screening analysis that was conducted, the Proposed Project would not displace any residents and would not result in adverse effects on specific industries; however, the Proposed Project could potentially displace a business that could be considered unusually important and would be difficult to relocate (i.e., SRM Concrete). Therefore, a Preliminary Assessment was conducted to assess the Proposed Project's potential to result in significant direct or indirect business displacement. The Preliminary Assessment found that individually and collectively, the ~~three~~ approximately eight businesses and ~~35~~ 85 employees that could be directly displaced do not provide products or services essential to the local economy that would no longer be available to local residents or businesses in their "trade areas" due to the difficulty of either relocating the businesses or establishing new, comparable businesses. The ~~three~~ potentially displaced businesses are also not in a category of businesses or institutions that may be the subject of other regulations or publicly adopted plans to preserve, enhance, or otherwise protect them. Their displacement would not significantly affect business conditions in any industry or any category of business within or outside the study area. In addition, the Proposed Project would not introduce any residential or commercial development that could lead to indirect displacement. Therefore, the Proposed Project would not result in any significant adverse socioeconomic impacts.

COMMUNITY FACILITIES AND SERVICES

The Proposed Project would not have a direct effect on community facilities because there are no community facilities at the Proposed Project sites.[7] Therefore, the CSO tunnel, gravity diversion sewer, TDPS, and diversion facility sites would not physically displace or alter any on-site community facilities.

Concerning the Proposed Project's potential effects on community facilities due to construction, no community facilities (i.e., public or publicly funded schools, libraries, child care centers, health care facilities, and fire and police stations) would be directly affected by construction activities. Overall, the Proposed Project would not result in any significant adverse impacts to community facilities.

OPEN SPACE

Overall, the Proposed Project would not result in the permanent loss of or alteration to any existing open space, and operation of the Proposed Project would not result in any permanent effects from noise, air pollutants, odors, or shadows which would adversely affect the usefulness of the adjacent open spaces or recreational resources. Although construction of the Proposed Project at the TDPS site would result in significant adverse noise impacts at the Newtown Creek Nature Walk and North Henry Street Restoration open spaces, the construction noise, while noticeable and potentially intrusive during the most intensive construction activities, would not significantly affect the usability of the open spaces. Furthermore, at the TDPS site and four diversion facility sites, the surface layouts of the sites are

[7] The TDPS site (Brooklyn Block 2508, Lot 1) and one of the properties that would contain the diversion facility at outfall NCQ-077 (Queens Block 2575, Lot 26) are City-owned, controlled by DSNY and DEP, respectively. However, these sites do not contain any community facility uses as defined by the *CEQR Technical Manual*; therefore, analysis of these sites is not warranted.

currently being designed, and use of the sites would be determined as the design is refined. The inclusion of potential publicly accessible spaces would be determined as the Proposed Project design advances in consideration of the functional and operational needs of the Proposed Project. Therefore, construction and operation of the Proposed Project would not result in direct impacts on open space and recreational resources.

SHADOWS

The Proposed Project at the TDPS site would result in new shadows on several nearby sunlight-sensitive resources, including sections of the Newtown Creek Nature Walk, the planned North Henry Street Restoration Project, and the adjacent tributaries of Newtown Creek. However, the new shadows would be limited in extent and duration and would not cause significant adverse shadow impacts to these resources.

HISTORIC AND CULTURAL RESOURCES

ARCHAEOLOGICAL RESOURCES

Pursuant to CEQR and Section 106 of the National Historic Preservation Act (NHPA), consultation was initiated with the New York City Landmarks Preservation Commission (LPC) and the New York State Historic Preservation Office (SHPO). Based on LPC and SHPO feedback, a Phase 1A Archaeological Documentary Study (Phase 1A Study) of the area identified by LPC was prepared by AKRF in March 2025. The study area for the Phase 1A Study ("Phase 1A Study Area") includes that portion of the tunnel alignment that extends through Block 2520, Lots 6, 22, and 30, and Block 2508, Lot 1. The Phase 1A Study concluded that the Proposed Project would not affect archaeological resources or remains within Calvary Cemetery. In comment letters issued on April 1, 2025 and May 5, 2025, respectively, LPC and SHPO concurred with the conclusions of the Phase 1A Study and determined that no further archaeological analysis is required. Further, in a comment letter issued on August 7, 2025, SHPO determined that the Proposed Project "will have No Adverse Effect on historic or archaeological resources" (see **Appendix D**). Therefore, the Proposed Project would not result in significant adverse impacts on archaeological resources.

ARCHITECTURAL RESOURCES

There are no known or potential historic architectural resources on the project sites; therefore, the Proposed Project would not result in any significant adverse impacts to historic architectural resources on the project sites. In its August 7, 2025 comment letter, SHPO determined that the Proposed Project "will have No Adverse Effect on historic or archaeological resources" with the following conditions:

1. Provide a Construction Protection Plan (CPP) for work taking place adjacent to the industrial building and garage at 47-09 30th Street, a contributing building within Degnon Terminal Historic District (State/National Register of Historic Places-eligible [S/NR-eligible]) and the Miller Building (S/NR-eligible) at 425 Greenpoint Avenue;
2. Provide design drawings for the above-ground structures being constructed within 90 feet of any historic resources for SHPO's continued review (see **Appendix D**).

There are two known architectural resources in the study areas. The industrial building and garage complex at 47-09 30th Street is located within the S/NR-eligible Degnon Terminal Historic District. This resource is located in the study area of the gravity diversion sewer segment between the BB-026 diversion facility site and the Borden Avenue Pump Station. A CPP would be prepared and implemented during project construction to protect this architectural resource from inadvertent construction-related damage. The S/NR-eligible Miller Building at 425 Greenpoint Avenue is located within 90 feet of the gravity discharge pipe. Should the portion of the gravity discharge pipe be constructed using a cut and cover method within 90 feet of the Miller Building, a CPP would also be prepared and implemented to protect the Miller Building from any unintended construction-related impacts (e.g., vibration effects) to this architectural resource. With the implementation of a CPP, there would be no significant adverse impacts on these historic architectural resources. There are no other known or potential architectural resources in any study areas; therefore, the Proposed Project would not result in any significant adverse impacts on historic architectural resources.

URBAN DESIGN AND VISUAL RESOURCES

The Proposed Project would comply with applicable zoning regulations regarding bulk and built form and would result in physical and visual changes consistent with zoning regulations along Newtown Creek. Therefore, the Proposed Project is not anticipated to result in any significant adverse impacts to urban design and visual resources or the pedestrian's experience of these characteristics of the built and natural environment and no detailed analysis beyond a preliminary analysis is warranted.

NATURAL RESOURCES

Construction of the Proposed Project would not result in any significant adverse impacts to natural resources. Potential impacts due to suspended sediment resulting from dredging, placement of temporary stone fill, and installation and removal of the temporary cofferdams would be minimized by turbidity curtains and best management practices. These impacts are expected to be minimal, localized to the vicinity of sheet pile installation. Any resuspended sediment would settle over similar substrate within a short period of time and, therefore, would not result in significant adverse impacts to water quality, sediment quality, or aquatic biota. Underwater noise increases would intermittently and temporarily result in avoidance behavior by fish and excluding them from potential foraging habitat near the Proposed Project sites. However, this temporary loss of some foraging habitat would not result in significant adverse impacts to fish populations within Newtown Creek, and fish would be expected to return to the area during breaks in pile installation and after the temporary cofferdams are in place. Because most of the upland habitats are developed areas with limited vegetation, upland disturbance would have limited potential to adversely affect terrestrial resources, which comprise generalist and urban-tolerant plants and wildlife species.

Operation of the Proposed Project would not result in significant adverse impacts to natural resources, and would ultimately contribute to improvements in water quality, sediment quality, and aquatic habitat within Newtown Creek through the reduction of CSO volume. The minimal alteration of unvegetated littoral zone tidal wetlands and aquatic habitat where the removal of bottom material in front of the outfalls would result in deeper water, would not result in significant adverse impacts to habitat or

aquatic biota. The deepened portions in front of the outfalls would improve flow at the head of the tributaries within Newtown Creek at the outfall sites, leading to water quality and sediment quality improvements from improved tidal flushing. The permanent loss of trees and vegetation along certain sections of shoreline would be minimal and limited to generalist and invasive plant species and would not result in significant adverse impacts to terrestrial habitat.

HAZARDOUS MATERIALS

A review of historic resources including Sanborn maps, aerial photographs, topographic maps and previously prepared environmental assessments revealed widespread contamination throughout the vicinity of the Project Area. Many of the contaminants documented are associated with numerous remedial efforts across several regulatory programs. These programs include the Federal Superfund, State Superfund (Registry of Inactive Hazardous Waste Disposal Sites [SHWS]), the Voluntary Cleanup Program (VCP), and the NYSDEC Brownfield Cleanup Program (BCP), among others. Several high priority remediation sites characterized as part of this analysis are located directly within, adjacent to, or proximate to the CSO tunnel corridor and gravity diversion sewer. Remediation sites in regulatory programs are similarly located adjacent and/or proximate to the TDPS site, discharge pipe, and diversion facility parcels. Further, certain parcels associated with two of the four diversion facilities (Block 2984 Lot 85 at the NCB-083 diversion facility site and Block 2575 Lot 26 at the NCQ-077 diversion facility site) are participating in remedial regulatory programs which have specific regulatory requirements that must be followed. Based on this review, contamination may be, or is likely present in the soil and groundwater, which could be encountered during construction at all locations (i.e., along the CSO tunnel corridor, along the gravity diversion sewer, and at the TDPS site, discharge pipe, and all diversion facility parcels).

To address any hazardous materials located within the Project Areas during construction, supplemental investigations would be conducted to properly characterize subsurface conditions within the limits of disturbance. The potential for exposure to hazardous materials would be minimized during construction based upon the requirement to investigate and remediate potential hazardous materials within the Project Area in accordance with Remedial Action Plans (RAPS) or Remedial Action Work Plans (RAWPs) that would be prepared and approved by the respective agency that maintains oversight of the respective portions of the Project Areas (i.e., by DEP for the majority of the Project Areas, or NYSDEC for parcels participating in the ERP and BCP). Construction Health and Safety Plans (CHASPs) would be implemented to protect construction workers and occupants during construction. In addition, any suspect asbestos-containing material (ACM), lead-based paint (LBP), and mercury- and/or polychlorinated biphenyl (PCB)-containing building materials, if encountered during construction on the diversion facility parcels subject to regulatory program requirements, would be evaluated and abated in accordance with applicable local, state and federal regulatory requirements as part of standard demolition procedures.

Beyond construction, all post-remedial requirements during operation, including potential future institutional controls (ICs) or engineering controls (ECs) placed within the Project Area would be followed in accordance with regulatory agency-approved Site Management Plans (SMPs).

With the measures described above, no significant adverse construction or operational impacts relating to hazardous materials would result from the Proposed Project.

WATER AND SEWER INFRASTRUCTURE

The Proposed Project would meet the goals of the NYSDEC Consent Order and the EPA ROD, and would not adversely affect wastewater treatment performance at the Newtown Creek and Bowery Bay WRRFs or sanitary and stormwater drainage and management. Therefore, the Proposed Project would not result in any adverse impacts on water and sewer infrastructure.

SOLID WASTE AND SANITATION

Operation of the Proposed Project would result in a level of solid waste generation that would be easily accommodated by existing waste transfer operators serving the Proposed Project sites and the surrounding neighborhood. Therefore, the Proposed Project would not result in any adverse impacts on solid waste and sanitation services.

ENERGY

Operation of the Proposed Project is expected to result in an energy demand of approximately 13,137 million British thermal units (MMBtu) of energy per year (approximately 0.006 percent of New York City's forecast future total annual energy demand). During construction of the Proposed Project, the use of an electric-power tunnel boring machine (TBM) is estimated to result in a temporary demand of up to 596,057 kilowatt-hours (kWh) (2,034 MMBtu) of electricity within a single year—less than the total projected energy consumption during operation of the Proposed Project. Consequently, construction and operation of the Proposed Project would generate incremental increases in energy demand that would be considered negligible when compared with the overall demand within the Consolidated Edison (Con Edison) New York City and Westchester County service area. Therefore, the Proposed Project would not result in any significant adverse impacts related to energy.

TRANSPORTATION

While the operation of the completed Proposed Project would generate minimal travel activities and no disruptions to the surrounding transportation network, there would be construction worker and truck activities at each outfall and diversion facility, as well as temporary disruptions to the surrounding roadways and pedestrian facilities, during construction of the Proposed Project. To assess the anticipated effects from these activities, detailed construction period analyses were prepared for vehicular traffic, pedestrians, street user safety, and parking. These analyses concluded that potential significant adverse impacts would be expected for 11 lane groups at four traffic intersections over one or more of the eight analysis time periods, as shown in **Table S-2**. Conclusions from the construction-period pedestrian analyses are that there would not be any significant adverse impacts to pedestrian elements (sidewalks, corner reservoirs, and crosswalks). Since a detailed transit analysis was determined to not be warranted, the Proposed Project would also not result in any significant adverse transit impacts. In addition to the traffic and pedestrian impact analyses, street user safety and parking assessments were prepared to identify high crash locations and disclose the potential for project-

induced parking shortfalls. Neither of these assessments concluded the potential for additional transportation-related impacts.

Table S-2
Summary of Significant Adverse Traffic Impacts

Analysis Peak Hour	No. of Impacted Intersections/Lane Groups
Construction Analysis Peak Hour	
Weekday 6-7 AM	~~12~~/23~~3~~
Weekday 7-8 AM	3/7~~6~~
Weekday 2-3 PM	2/6~~5~~
Weekday 3-4 PM	2/7~~5~~
Total During Any Construction Analysis Peak Hour	3/9~~8~~
Typical Analysis Peak Hour	
Weekday AM	~~4/8~~2/5
Weekday Midday	~~3/8~~2/5
Weekday PM	3/64~~/8~~
Saturday Afternoon	1/1
Total During Any Typical Analysis Peak Hour	~~4/10~~3/7
Total During Any Analysis Peak Hour	**4/11**

Between DEIS and FEIS, continuing consultations with DOT led to the incorporation of planned capital improvements into the traffic analyses and refinements of the presented parking supply and utilization statistics. Although these changes resulted in some different analysis results from those presented in the DEIS, the overall conclusions made above have remained the same.

AIR QUALITY

OPERATIONAL AIR QUALITY

The Proposed Project's odor control units would not result in an exceedance of the 1 parts per billion (ppb) significant odor threshold for sensitive receptors or the 10 ppb New York State Ambient Air Quality Standard (NYSAAQS) in ambient air. There would be no on-site combustion sources and no regular traffic generated by the operation of the Proposed Project. Therefore, the Proposed Project would not result in significant adverse operational air quality impacts.

CONSTRUCTION AIR QUALITY

An emissions reduction program would be implemented to minimize the effects of construction activities on the surrounding community. Measures would include dust suppression measures, use of ultra-low sulfur diesel (ULSD) fuel, idling restrictions, diesel equipment reduction, and best available technologies as required by New York City Local Law 97 of 2003. With the implementation of these emission reduction measures, the dispersion modeling analysis of construction-related air emissions for both nonroad and on-road sources determined that particulate matter (PM is regulated in two size categories: particles with an aerodynamic diameter of less than or equal to 2.5 micrometers [$PM_{2.5}$] and particles with an aerodynamic diameter of less than or equal to 10 micrometers [PM_{10}, which includes $PM_{2.5}$]), nitrogen dioxide (NO_2), and carbon monoxide (CO) concentrations would be below their

corresponding *de minimis* thresholds and/or National Ambient Air Quality Standard (NAAQS), respectively, from activities at the TPDS site and at the BB-026, NCB-083, and NCB-015 diversion facility sites. PM_{10}, NO_2, and CO concentrations from construction sources at the NCQ-077 diversity facility site were also determined to be below the applicable NAAQS. However, the $PM_{2.5}$ concentrations from construction sources at the NCQ-077 diversion facility site were determined to exceed the short-term and annual $PM_{2.5}$ *de minimis* thresholds at limited sidewalk receptor locations immediately adjacent to the site, but all concentrations were below the NAAQS. Based on the magnitude of the predicted concentrations, the duration of the impact on the sidewalk locations adjacent to the NCQ-077 diversion facility site, and that the predicted $PM_{2.5}$ concentrations are below the NAAQS, these impacts are considered temporary and transient in nature and would not result in significant adverse construction air quality impacts.

The predicted non-criteria pollutant concentrations from the groundwater treatment systems would not exceed the applicable Short-term Guideline Concentrations (SGCs) and the Annual Guideline Concentrations (AGCs). Finally, to mitigate odors to the greatest extent practicable, DEP would implement an odor control program during construction and all necessary means would be employed to prevent on- and off-site odor nuisances. The Proposed Project would implement a Community Air Monitoring Program (CAMP) during soil disturbance activities to monitor applicable threshold levels and to implement any corrective actions if necessary. If applicable threshold levels in the CAMP are exceeded, to minimize and control on- and off-site odor nuisances, the Proposed Project would implement odor control measures during construction that could include wet suppression, daily cover foams/shells, covered conveyors, and activated carbon scrubbers. Therefore, no significant adverse air quality impacts are anticipated from the construction of the Proposed Project.

GREENHOUSE GAS EMISSIONS (GHG) AND CLIMATE CHANGE

While the Proposed Project would include permanent buildings to house TDPS pumping, screening, and degritting facilities for CSO stored in the tunnel, the buildings will be designed to utilize fully electric systems and would not represent a substantial increase in energy demand. Additionally, the Proposed Project would result in the construction of facilities that require electricity use at the diversion facilities but would not include permanent buildings. Therefore, the Proposed Project would be consistent with the efficient buildings goal, and clean power goal defined in *CEQR Technical Manual* as part of the City's GHG reduction goal. The total fossil fuel use in all forms associated with construction under the Proposed Project would result in up to approximately 39,489 metric tons of carbon dioxide equivalent (CO_2e) emissions. Under high-end (90th percentile) estimated flood levels, the Proposed Project would be resilient to anticipated future flood elevations for the TDPS building's lifetime considering anticipated future flood levels and would be resilient to projected flood increases through about the end-of-the-century. Consequently, the Proposed Project would be resilient to future climate conditions.

NOISE

OPERATIONAL NOISE

Noise resulting from operation of the Proposed Project would not result in any exceedances of the *CEQR Technical Manual* noise impact criteria or the New York City Noise Control Code noise level limits for circulation devices. Additionally, the Proposed Project would introduce minimal traffic within the surrounding areas once complete. Consequently, operation of the Proposed Project would not result in any significant adverse noise impacts.

CONSTRUCTION NOISE

Construction of the Proposed Project is predicted to result in elevated noise levels at several of the analyzed receptors, which represent the residences, hotels, and publicly accessible open spaces.

Specifically, at the Newtown Creek Nature Walk and future North Henry Street Restoration open spaces, construction of the TDPS is predicted to result in potential temporary significant adverse construction noise impacts. Construction of the TDPS would result in noticeable and potentially intrusive increases in noise levels at the Newtown Creek Nature Walk and the future North Henry Street Restoration open spaces and total noise levels that would be considered "clearly unacceptable" at the future North Henry Street Restoration open space. Potentially intrusive noise level increases at the Nature Walk are predicted to occur for a duration of 12 consecutive months. Potentially intrusive noise level increases are predicted to occur for a duration of 110 months at the North Henry Street Restoration project, with "clearly unacceptable" noise levels predicted to occur for up to 16 of those months.

CONSTRUCTION VIBRATION

Historic buildings and other structures located within 90 feet of the Proposed Project sites, as appropriate, would incorporate vibration monitoring, and peak particle velocity (PPV) during construction would not be permitted to exceed the 0.50 inches/second threshold. Vibration-producing equipment would not operate in proximity to non-historic structures such that it could potentially result in damage to these structures, which are less-vibration sensitive than historic structures. Furthermore, construction of the Proposed Project would not result in extended periods of perceptible or annoying vibration at surrounding receptors. Blasting would be carefully controlled to conform to Federal and NYC standards and monitored by the Fire Department of New York (FDNY) with explosives being detonated sequentially, breaking the rock while spreading the release of energy from the explosives over a period of approximately 5 seconds so as not to compromise the integrity of the surrounding structures (e.g., the shafts) due to vibrations. Notification would be provided in advance of planned work and a warning horn would be sounded prior to each blast to alert the surrounding community. Therefore, construction of the Proposed Project would not have the potential to result in significant adverse vibration impacts.

PUBLIC HEALTH

Although the Proposed Project would result in significant adverse noise impacts during construction, these impacts would not have a significant effect on public health. As the significant adverse noise

impacts would only occur during construction, they would be temporary and would not affect a significant population. In addition, the significant adverse noise impacts would not exceed standards related to health outcomes. Therefore, the Proposed Project would not result in a significant adverse impact to public health.

NEIGHBORHOOD CHARACTER

The defining features of the neighborhood around the Proposed Project include the neighborhood's low-scale industrial land uses, industrial history, and waterfront location along Newtown Creek. A preliminary assessment did not identify any potentially significant adverse impacts to neighborhood character either singularly, or in combination with potential impacts in other relevant technical areas. Many of the Proposed Project's components are below ground, which limits their ability to impact neighborhood character. The Proposed Project's above-ground components are consistent with the neighborhood's low-scale industrial land uses and existing water and sewer infrastructure. Although the Proposed Project would result in potential temporary significant adverse noise impacts during construction, these impacts would be limited to the construction period and would only occur at open space receptors immediately adjacent to the TDPS; therefore, they would not result in widespread noise impacts affecting the area's neighborhood character. Additionally, while the Proposed Project would result in significant adverse traffic impacts at four intersections during construction, the temporary impacts would be limited to portions of the construction period, for approximately as little as 2 years to no longer than 6 years in duration and would occur in areas that already experience high levels of truck and other industrial traffic, and a detailed neighborhood character analysis is not necessary.

Overall, the Proposed Project would be consistent with the existing low-scale industrial land uses and water and sewer infrastructure in the neighborhood and would not detract from any of the neighborhood's defining features.

ENVIRONMENTAL JUSTICE

The analysis of effects on Disadvantaged Communities (DACs) and minority and low-income communities (collectively, "environmental justice communities") concluded that the Proposed Project would not result in disproportionate impacts on environmental justice communities, nor would it cause or increase a disproportionate pollution burden.

MITIGATION

Significant adverse impacts resulting from the Proposed Project have been identified for transportation and noise during construction.

Potential improvement measures (i.e., signal timing adjustments) have been recommended for DOT consideration to mitigate significant adverse traffic impacts identified at one of the four impacted intersections. At all four impacted intersections, the identified impacts during one or more analysis peak hours would remain unmitigated and would be unavoidable significant adverse impacts of the Proposed Project. Additional mitigation strategies, such as the deployment of Traffic Enforcement Agents (TEAs) and the placement of Variable Message Signs (VMSs) could be considered at intersections

where identified impacts could not be readily mitigated with typical mitigation measures (e.g., signal timing adjustments) to potentially improve traffic operations during construction. Between Draft and Final Environmental Impact Statement, DEP committed to fund the deployment of Traffic Enforcement Agents (TEAs) during peak travel periods at the two impacted intersections listed below to alleviate traffic congestion, facilitate cyclist and pedestrian passage, and ensure roadway safety. The duration and circumstances during construction under which the TEA deployment is warranted will be determined in coordination with DOT.

- Greenpoint Avenue and Kingland Avenue
- Greenpoint Avenue/Van Dam Street and Review Avenue

Construction activities would result in noise levels at Newtown Creek Nature Walk and future North Henry Street Restoration open spaces that would constitute a significant adverse noise impact. No practical and feasible mitigation measures have been identified that could be implemented to reduce noise levels below the applicable threshold. Therefore, at these receptors, the significant adverse construction noise impacts would be unavoidable.

ALTERNATIVES

NO ACTION ALTERNATIVE

The No Action Alternative is the No Action condition, as discussed in Chapter 2, "Analysis Framework," and analyzed in this EIS. Under the No Action Alternative, the Proposed Project would not be constructed: the sites that would be affected by the Proposed Project for construction of the diversion facilities would remain in their existing condition, the TDPS site would be vacated, and there would be no reduction in CSO volumes discharged to Newtown Creek from outfalls BB-026, NCQ-077, NCB-083, and NCB-015.

The No Action Alternative would not result in any significant adverse impacts; in particular, it would avoid the significant adverse impacts to traffic and noise that would occur during construction of the Proposed Project. However, as the No Action Alternative would not provide a reduction in CSO volumes, it would not have the beneficial effect that would occur with the Proposed Project (particularly improvements in water quality, sediment quality, and aquatic habitat within Newtown Creek), and unlike the Proposed Project, it would not further the goals of the LTCP and the NYSDEC CSO Consent Order.

NO UNMITIGATED IMPACT ALTERNATIVE

The No Unmitigated Impact Alternative considers an alternative that would eliminate the Proposed Project's unmitigated significant adverse impacts. The EIS analyses identified significant adverse impacts for which no practicable mitigation has been identified to fully mitigate the impacts in the areas of traffic and noise during the construction period.

There is no practicable alternative that could be developed to avoid all of the unmitigated significant adverse impacts of the Proposed Project. In order to eliminate the Proposed Project's unmitigated significant adverse impacts in the areas of traffic and noise during construction, the Proposed Project

would have to be modified to a point where it would not realize the goals and objectives of the Proposed Project, which include reducing CSO discharges to Newtown Creek in furtherance of the goals of the Newtown Creek LTCP and the CSO Consent Order. Therefore, there is no practicable alternative that could be developed to avoid the unmitigated significant adverse impacts of the Proposed Project.

UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS OF THE PROPOSED PROJECT

As described above in "Mitigation," the Proposed Project would result in significant adverse transportation and noise impacts during construction. To the extent practicable, mitigation has been proposed for the identified significant adverse impacts. However, no practicable mitigation was identified to fully mitigate the significant adverse construction transportation and noise impacts; therefore, they would constitute unavoidable significant adverse impacts.

GROWTH-INDUCING ASPECTS OF THE PROPOSED PROJECT

While the Proposed Project would include the construction of new infrastructure, it would not result in an expansion of the sewer infrastructure capacity and is not anticipated to induce additional development.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The Proposed Project would utilize a minimum amount of land and would result in a negligible commitment of other resources such as labor, energy, and building materials; and would reduce CSO discharges to Newtown Creek in furtherance of the goals of the Newtown Creek LTCP and the CSO Consent Order.