A. INTRODUCTION

As discussed in **Chapter 1, "Project Description,"** the Proposed Project would development of a 23-story, 352-foot tall (roof height) commercial building in the South Williamsburg neighborhood of Brooklyn Community District (CD) 2. The Proposed Project would be constructed at 500 Kent Avenue (Block 2023, Lot 10) on an 115,244-sf, irregular-shaped corner lot located on at the southwest corner of the Kent and Division Avenue intersection (the "Project Site"). It is also a waterfront site with shoreline along Wallabout Channel.

This chapter examines the potential effects of the Proposed Action on the terrestrial and aquatic natural resources and floodplains near the Project Site. Per the guidance of the 2021 *City Environmental Quality Review* (CEQR) *Technical Manual*, a natural resources assessment includes a preliminary screening of available information to identify natural and aquatic resources that may be present within the Project Site or in the vicinity of it. The natural resources assessment ultimately is concerned with determining whether there would be potential for the Proposed Action to affect natural resources and, if so, whether any effect would amount to a significant adverse impact to those resources.

In accordance with the *CEQR Technical Manual*, this chapter will include a description of the applicable federal, state and local regulations and programs; an inventory and description of existing conditions; and an assessment of impact as a result the Proposed Action, for the following resources:

- Groundwater
- Surface Water
- Water Quality
- Floodplains/Flood Hazard Areas
- Freshwater/Tidal Wetlands
- Coastal Resources
- Aquatic Biota
- Wildlife
- Threatened & Endangered Species/Habitats

B. PRINCIPAL CONCLUSIONS

The Proposed Action would not result in significant adverse impacts to groundwater, surface water, water quality, floodplains, wetlands, coastal resources, aquatic biota, wildlife or threatened or endangered species within or near the Project Site.

The proposed construction activities would not result in a net increase of fill below Mean High Water (MHW) and Spring High Water (SHW). There would be no net loss to the adjacent New York State Department of Environmental Conservation (NYSDEC) tidal wetlands or aquatic habitat.

Additionally, a State Pollution Discharge Elimination System (SPDES) permit from NYSDEC would be required for stormwater discharges during the construction period because project construction involves more than one acre. The stormwater management measures would improve the quality of the stormwater currently discharged into the East River. As current stormwater runoff is not treated, this is a potential benefit to the adjacent tidal wetlands and associated aquatic resources.

The buildings and associated amenities are being constructed within a site partly within the 100-year floodplain. As a result, construction would comply with New York Building Code requirements related to floodplains. The proposed construction activities would not adversely impact the flood levels or flood risks within the Project Site or the study area.

Therefore, the Proposed Action would not result in significant adverse impacts to natural resources.

C. METHODOLOGY

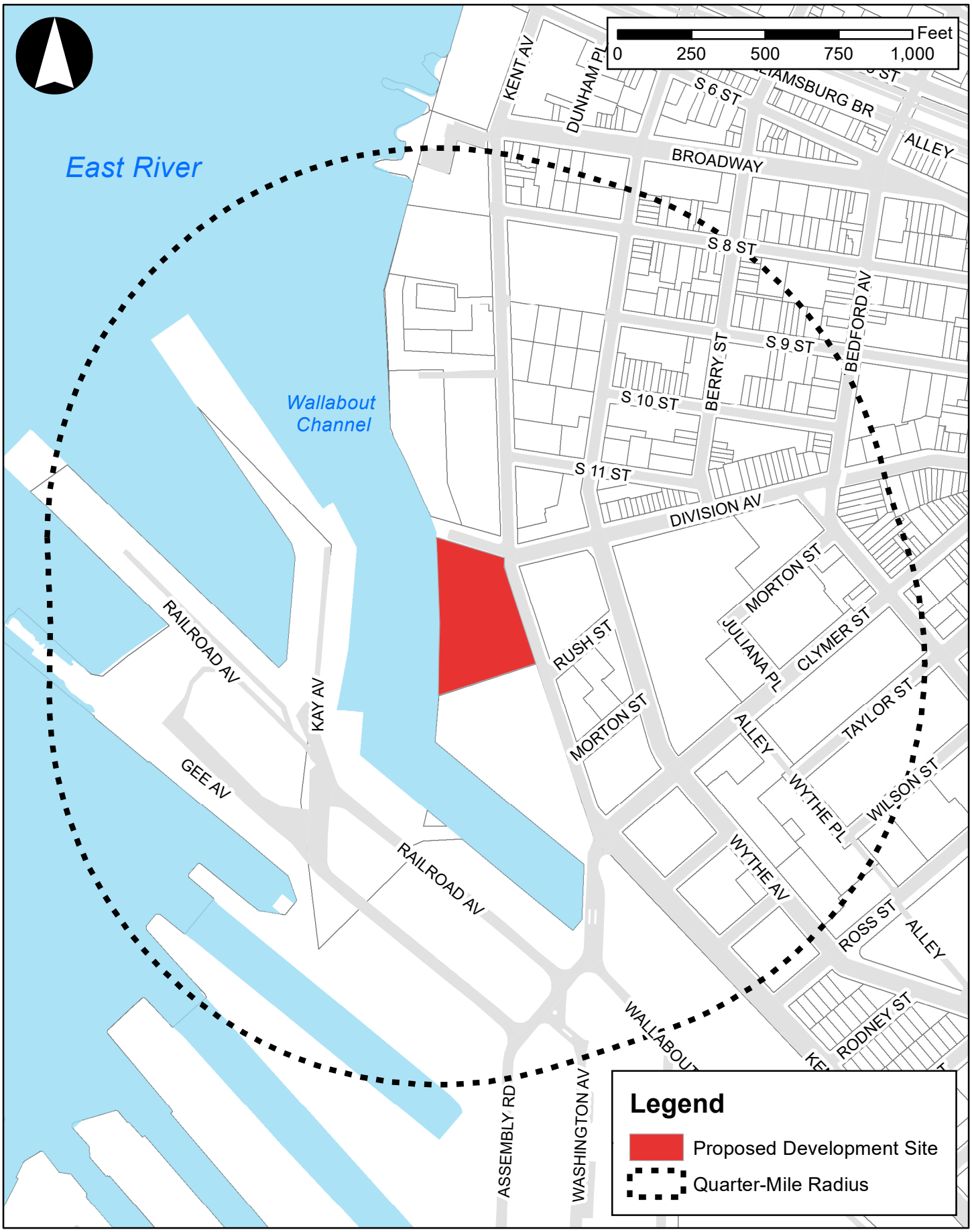
The physical and biological components of the Project Site, including geology and soil composition, groundwater levels, surface water quality, floodplains, wetlands, vegetation, wildlife habitats, and threatened/endangered animals and plants are identified and characterized. Information pertaining to biological resources is obtained from the NYSDEC Natural Heritage program, as well as secondary sources of information for New York City, as identified in the *CEQR Technical Manual*.

The natural resources assessment considers the potential impacts that would be expected to result from proposed changes to the Project Site and surrounding area, including any potential indirect impacts that may result to natural resources off-site, such as surrounding water bodies and naturalized areas that may provide habitat. The natural resources assessment also considers whether the Proposed Project would be compliant with applicable federal, state, and City policies pertaining to natural resources in the vicinity of the Project Site.

Study Area and Data Sources

A primary study area has been defined to include the Project Site and a secondary study area, delineated by a 1/4-mile radius around the Project Site, as identified in **Figure 8-1**. These delineate areas in which to assess potential direct and indirect impacts on- and off-site, respectively. They are also utilized to identify natural resources in the vicinity that either are: related to applicable federal, state, and City policies governing the management of natural resources; or, which potentially could be affected by changes occurring at the site (such as changes to surface water run-off, habitat alteration, etc.) More specifically, the secondary study area facilitates identification

Figure 8-1
Natural Resources Study Area



of ecological communities and significant habitat as part of the broader context of ecologically related natural resources, such as floodplains, water resources, and wetlands.

The natural resources assessment includes a review of publicly available data sources, including United States Geological Survey ("USGS") topographic mapping, United States Department of Agriculture ("USDA") soil surveys, National Wetlands Inventory ("NWI") mapping, New York State Department of Environmental Conservation ("NYSDEC") coastal wetlands mapping, NYSDEC freshwater wetlands mapping, USGS water resource mapping, data from NYSDEC's Environmental Mapper (GIS), Federal Emergency Management Agency ("FEMA") floodplain mapping, and available aerial photography. In addition, coordination with the NYSDEC Natural Heritage Program and the U.S. Fish and Wildlife Service has been conducted to identify potential impacts resulting from the Proposed Action to endangered, threatened, or special concern terrestrial species in the study area.

D. REGULATORY CONTEXT

Various federal and state agencies, as well as local agencies, promulgate programs that relate to the management of natural resources and, as such, provide regulatory context applicable to the assessment of natural resources for the Proposed Project, as presented below:

Federal

- ***Presidential Executive Order 11990*, entitled "Protection of Wetlands,"** requires any projects requiring permits from federal agencies, including the U.S. Army Corps of Engineers, to protect wetlands to the fullest extent possible. This Executive Order has resulted in the promulgation of both state and federal regulations governing disturbance to wetlands.

- ***The Clean Water Act* of 1972** was enacted to restore and maintain the chemical, physical, and biological integrity of the waters of the United States. It regulates point sources of water pollution, such as discharges of municipal sewage, industrial wastewater, and stormwater, and the discharge of dredged or fill material into navigable waters and other waters including wetlands.

- ***Presidential Executive Order 11988* entitled "Floodplain Management"** requires Federal agencies to avoid, to the extent possible, the long-term and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative. FEMA has the primary federal jurisdiction for administration of EO 11988. FEMA guidance for compliance with EO 11988 is found at 44 CFR 9.

- ***Presidential Executive Order 13690* entitled "Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input"** amended EO 11988 and established the Federal Flood Risk Management Standard (FFRMS) to improve the nation's resilience to current and future

flood risks, which are anticipated to increase over time due to the effects of climate change and other threats. EO 13690 reinforces the important concepts outlined in EO 11988, such as avoiding adverse impacts in a floodplain and minimizing potential harm if an action must be located in a floodplain. EO 13690 and the FFRMS expand upon these tenets and concepts by requiring agencies to use a higher vertical flood elevation and corresponding horizontal floodplain than the base flood for federally funded projects to address current and future flood risk and so that projects last as long as intended.

- **The *Endangered Species Act of 1973*** recognizes that endangered species of wildlife and plants are of aesthetic, ecological, educational, historical, recreational, and scientific value to the nation and its people. This Act provides for the protection of critical habitats on which endangered or threatened species depend for survival.

New York State

- **The New York State *Tidal Wetlands Act*** (pursuant to ECL Article 25) applies anywhere tidal inundation occurs on a daily, monthly, or intermittent basis. In New York, tidal wetlands occur along the tidal waters of the Hudson River up to the salt line and along the saltwater shore, bays, inlets, canals, and estuaries of Long Island, New York City, and Westchester County. NYSDEC administers the tidal wetlands regulatory program and the mapping of the state's tidal wetlands. A permit is required for almost any activity that would alter wetlands or their buffer zones, otherwise known as "Adjacent Areas" (up to 150 feet inland within New York City).

- **The New York State *Freshwater Wetlands Act*** (pursuant to ECL Article 24) applies to those non-tidally-influenced wetlands within the State of New York that are identified and mapped by the NYSDEC (generally those wetlands greater than 12.4 acres in size). NYSDEC administers the freshwater wetlands regulatory program and the mapping of the freshwater wetlands in New York. A freshwater wetlands permit is required for almost any activity that would alter freshwater wetlands or their adjacent areas (up to 100 feet inland).

- **The *State Pollutant Discharge Elimination System*** ("SPDES") was created to regulate discharges to the State's waters to protect and maintain surface and groundwater resources. The following activities require SPDES permits constructing or using an outlet or discharge pipe (point source) that discharges wastewater into surface or groundwater of the State; constructing or operating a disposal system (sewage treatment plant); discharge of stormwater; or, any industrial activity. Construction activities that disturb one acre or more also must obtain coverage under the SPDES General Permit for Stormwater Discharges from Construction Activity.

- ***Endangered and Threatened Species of Fish and Wildlife; Species of Special Concern*** *(ECL, Sections 11-0535[1]-[2], 11-0536[2], [4], Implementing Regulations 6 Part NYCRR 182).* The Endangered and Threatened Species of Fish and Wildlife, Species of Special Concern Regulations prohibit the taking, import, transport, possession, or selling of any endangered or threatened species of fish or wildlife, or any hide or other part of these species as listed in 6 NYCRR Part 182.6. Under these regulations, adverse modification of

occupied habitat of endangered or threatened species is prohibited without authorization from NYSDEC.

- ***Waterfront Revitalization of Coastal Areas and Inland Waterways Act*** *(Sections 910-921, Executive Law, Implementing Regulations 6 NYCRR Part 600 Et. Seq).* The Waterfront Revitalization of Coastal Areas and Inland Waterways Act offers local governments the opportunity to participate in the State's Coastal Management Program (CMP), on a voluntary basis, by preparing and adopting local waterfront revitalization programs (LWRP) providing more detailed implementation of the State's CMP through use of existing broad powers such as zoning and site plan review. When an LWRP is approved by the New York State Secretary of State, State agencies' actions must be consistent with the approved LWRP to the maximum extent practicable. When the Federal government concurs with the incorporation of an LWRP into the CMP, Federal agencies' actions must be consistent with the approved addition to the CMP.
    - 19 NYCRR Part 600, 601, 602, and 603 provide the rules and regulations that implement each of the provisions of the Waterfront Revitalization of Coastal Areas and Inland Waterways Act including, but not limited to, the required content of an LWRP, the processes of review and approval of an LWRP, or LWRP amendments.
    - The New York City Waterfront Revitalization Program (WRP) is the City's principal coastal zone management tool. The WRP was originally adopted in 1982 and approved by the New York State Department of State (NYSDOS) for inclusion in the New York State CMP. The WRP encourages coordination among all levels of government to promote sound waterfront planning and requires consideration of the program's goals in making land use decisions. The NYSDOS administers the program at the State level, and DCP administers it in the City. The WRP was revised and approved by the City Council in October 1999. In August 2002, NYSDOS and Federal authorities (i.e., the USACE and the USFWS) adopted the City's ten WRP policies for most of the properties located within its boundaries. In October 2013, the City Council approved revisions to the WRP in order to proactively advance the long-term goals laid out in Vision 2020: The New York City Comprehensive Waterfront Plan, released in 2011. The changes solidify New York City's leadership in the area of sustainability and climate resilience planning as one of the first major cities in the U.S. to incorporate climate change considerations into its Coastal Zone Management Program. They also promote a range of ecological objectives and strategies, facilitate interagency review of permitting to preserve and enhance maritime infrastructure, and support a thriving, sustainable working waterfront. The New York State Secretary of State approved the revisions to the WRP on February 3, 2016. The U.S. Secretary of Commerce concurred with the State's request to incorporate the WRP into the New York State CMP. **Chapter 2, "Land Use, Zoning, & Public Policy,"** includes a discussion of the Proposed Project's consistency with New York City's WRP.

Local

- The New York City Department of Parks and Recreation ("NYCDPR") has implemented the **"Forever Wild" Program** to protect the City's most ecologically

important areas. Through this program, NYCDPR designates "Forever Wild" nature preserves that, as part of the City parks system, typically are available for public enjoyment.

- ***New York City Street Tree Zoning Amendment and Local Law 3 of 2010***. The City of New York passed a zoning text amendment that requires trees to be planted along the curb of City streets following the construction of new buildings and certain types of alterations citywide. All applicants must apply to the New York City Department of Parks and Recreation (DPR) for street tree planting permits. The current zoning requires all new buildings and all enlargements exceeding 20 percent of the floor area to have one tree for every 25 feet of road frontage, including existing trees. Like other zoning rules, these requirements must be satisfied in order for the builder to obtain a Certificate of Occupancy. Species shall be selected from the list of approved street trees for New York City. The methodology used to determine the number and size of trees to be replanted (e.g., caliper replacement method) is determined in consultation with DPR in accordance with this zoning amendment and local law and Chapter 5 Title 56 of the Rules of the City of New York (RCNY).

- ***Flood Resilience Zoning Text Amendment***. In 2021 the City of New York passed a zoning text amendment to encourage flood-resilient building construction throughout designated flood zones. The changes are needed in order to remove regulatory barriers that would hinder or prevent the reconstruction of storm-damaged properties. The amendment enables new and existing buildings to comply with new, higher flood elevations issued by FEMA and new requirements to the New York City Building Code. Building to these new standards will reduce vulnerability to future floods and help avoid higher flood insurance premiums.

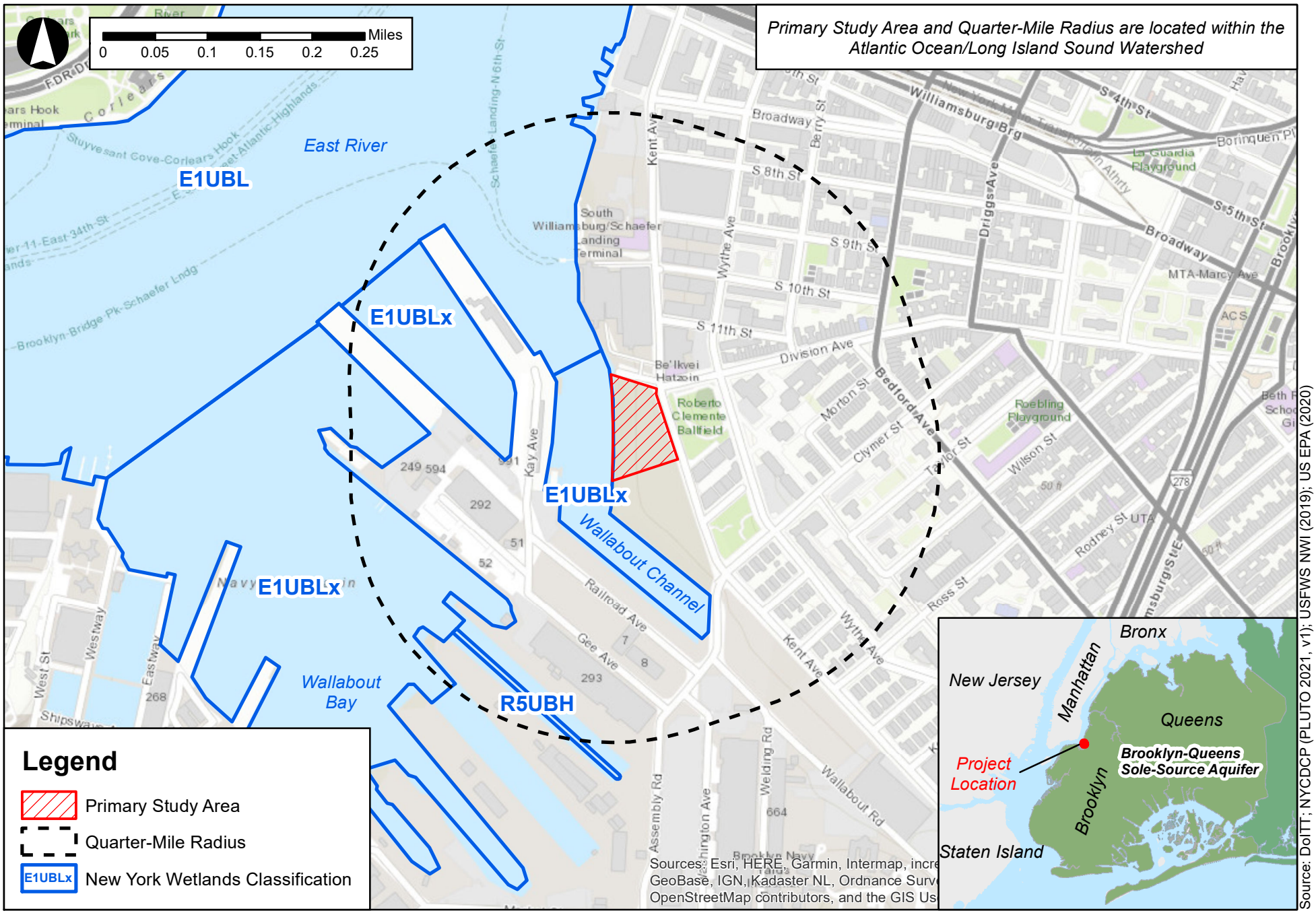
E. EXISTING CONDITIONS

Per the guidance of the *CEQR Technical Manual*, the natural resources assessment considers subsurface and surface conditions in the Project Site and vicinity, including geology, soils, groundwater, surface waters, wetlands, floodplains, vegetative communities, wildlife habitat, as well as threatened and endangered species habitat.

Groundwater and Aquifers

The Brooklyn-Queens Aquifer System, which underlies Brooklyn, is designated by United States Environmental Protection Agency ("USEPA") as a Sole Source Aquifer ("SSA") (refer to the inset map in **Figure 8-2, Water Resources and Wetlands**). By definition, an SSA is an aquifer that supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer and which, if contaminated, would create a significant hazard to public health[1]. More broadly, an

[1] https://www.epa.gov/dwssa/overview-drinking-water-sole-source-aquifer-program#What_Is_SSA



500 Kent Avenue EIS

Figure 8-2
Water Resources and Wetlands

aquifer is defined as a natural underground layer of porous, water-bearing materials (sand, gravel) generally capable of yielding a large supply of water[2].

Although groundwater is not currently utilized for the potable water supply in the study area or in this part of New York City generally, the geographic boundaries of Brooklyn (Kings County) and Queens are within the recharge zone for the aquifers underlying the southeastern portion of Queens County and which are linked to Nassau-Suffolk Counties Sole Source Aquifer System serving those counties as a sole source aquifer[3]. This is the reason for the EPA designation of the Brooklyn-Queens Aquifer System as an SSA.

The average depth to bedrock area typically ranges from 30 to 150 feet. There are no rock outcroppings or unique geological features on the Project Site or in the study area. The predominant soil types present in the area are "Urban land, reclaimed substratum of 0 to 3 percent slopes" (UrA) and "Urban land, till substratum, 3 to 8 percent slopes" (UtA) which are urban soils that are primarily made up of fill soils and tend to be compacted[4].

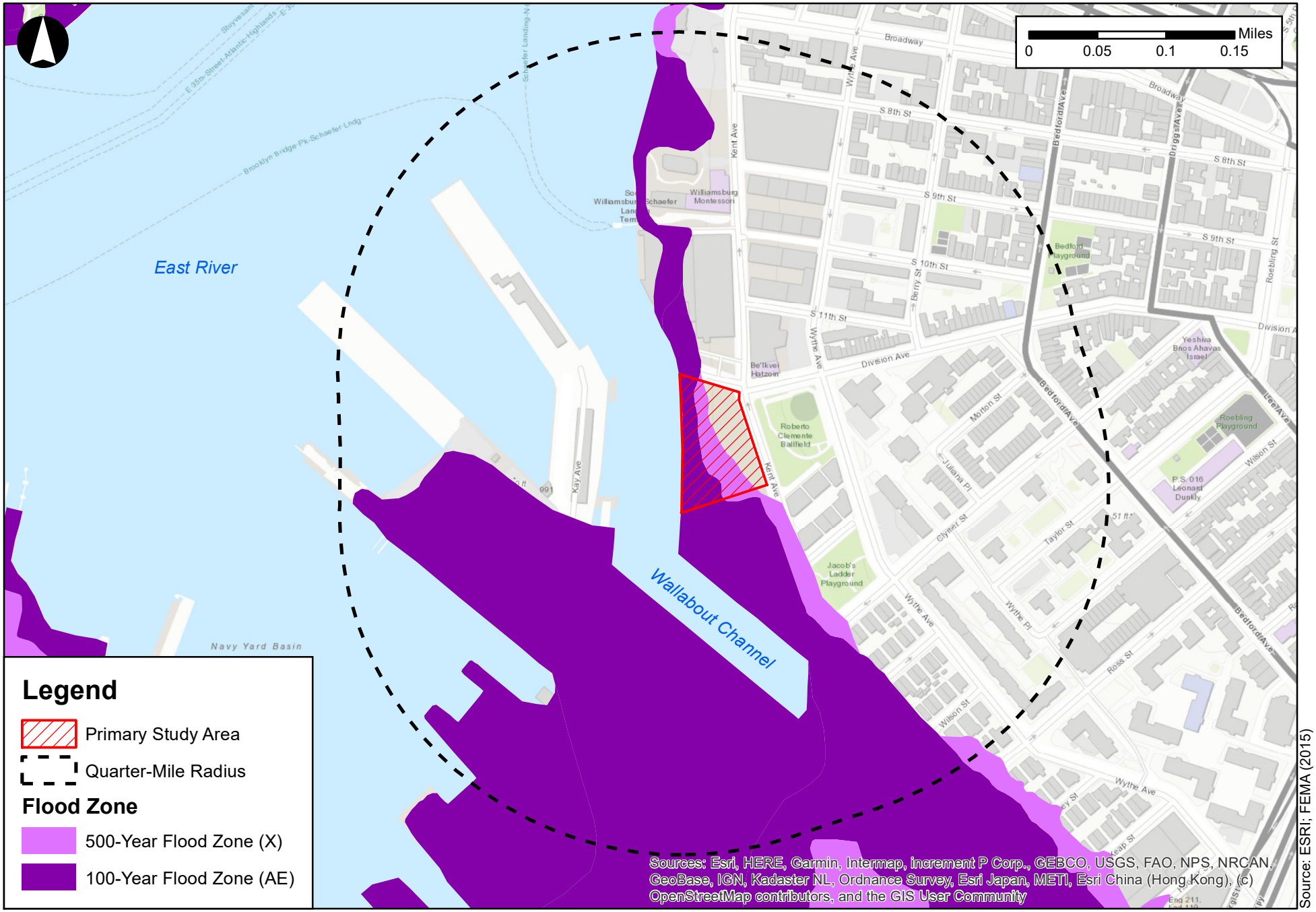
Floodplains

According to the FEMA Flood Insurance Rate Maps (FIRM), portions of the Project Site Area are located within the designated 100- year flood and 500-year flood zone, as shown in **Figure 8-3, Flood Zones.** The 100-year flood zone refers to an area with a one percent chance of flooding every year, whereas the 500-year flood zone identifies areas with a 0.2 percent annual chance of flooding. According to FEMA designations, the 100-year floodplain is Zone AE, which is defined as a high-risk area, and the 500-year flood zone is designated as Zone X. This area has a base flood elevation of 11 feet based on the North American Vertical Datum of 1988 (NAVD88). Refer to **Chapter 2, "Land Use, Zoning, and Public Policy"** for more information.

Surface Waters and Wetlands

The Project Site is located within the Atlantic Ocean/Long Island Sound Watershed, which drains most of the New York City Metropolitan Area and all of Long Island. The nearest NWI/NYSDEC mapped wetlands are located directly west of the Project Site, consisting of the East River and Wallabout Channel, as shown on **Figure 8-2, Water Resources and Wetlands**. Specifically, the East River has a Cowardin classification of "estuarine subtidal wetlands with an unconsolidated bottom (E1UBL)" and Wallabout Channel has a Cowardin classification of "estuarine subtidal wetlands with an unconsolidated bottom excavated (E1UBLx)" according to the U.S. Fish and Wildlife Service National Wetland Inventory (NWI) mapping[5]. Although not adjacent to the Project Site, farther southwest within the Secondary Study Area the remaining portion of the

[2] *In-City Water Supply Resiliency Draft Environmental Impact Statement Final Scope of Work* (CEQR No. 15DEP029Q). October 2017.
[3] *Second Avenue Subway Final Environmental Impact Statement, Appendix L:1, Natural Resources*. 2004
[4] https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx
[5] See also USFWS, National Wetlands Inventory, Wetlands Classification Codes, https://www.fws.gov/wetlands/Data/Wetland-Codes.html



500 Kent Avenue EIS

Figure 8-3
Flood Zones

Wallabout Channel has a Cowardin classification of "riverine of unknown perennials and unconsolidated bottom that is permanently flooded" (R5UBH).

As shown in **Figure 8-4, Aerial Imagery**, aerial photographs show that the Wallabout Channel adjacent to the Project Site is largely developed along the bulkhead covered in weedy vegetation typical of the urban environmental, a condition also commonly found on adjoining properties along the East River shoreline.

The East River has a water quality classification for New York's lakes, rivers, streams, and ponds as Classification I (Marine Waters) according to NYSDEC. Classification I indicates a best usage for secondary contact recreation and fishing. Wallabout Channel is not classified under NYSDEC.

NYSDEC mapping indicate that the East River is classified as Littoral Zone, which is considered a tidal wetland[6]. The littoral zone wetlands are shallow waters that are less than 6 feet in depth at Mean Low Water (MLW). No tidal wetland vegetation is observed within the Project Site.

Water Quality

According to the NYSDEC Mapper, the East River has a Use Classification 1 for marine waters, which identifies the best usage is for secondary contact and fishing. Based on the NYCDEP 2018 New York Harbor Water Quality Report, [7] New York invested more than $12 billion over the preceding decade to improve water quality in the New York Harbor. According to the report, there are 22 Harbor Survey monitoring stations that have been grouped together due to common water uses and functions as well as similarities in point-source loadings. Waters of the Inner Harbor are often continuous, through connecting branches or straits, and cover a large and diverse geographic expanse. Overall water quality in the region has improved in many of the performance metrics.

Aquatic Biota

NYSDOS Office of Planning and Development identifies and maps "Significant Coastal Fish and Wildlife Habitat" (SCFWH) in the State of New York. In order to be listed as a SCFWH, NYSDEC evaluates the significance of coastal fish and wildlife habitat areas and, following a recommendation from NYSDEC, NYSDOS designates and maps specific areas as SCFWH. No SCFWHs are identified on or immediately adjacent to the Project Site.

The shallow shorelines of the East River result in limited habitat for finfish and other aquatic biota for spawning, migration and nursery/foraging areas. There is limited light penetration and

[6] The New York State Tidal Wetland Regulations (6 NYCRR Part 661.4) define littoral zone as: "The tidal wetlands zone, designated LZ on an inventory map, that includes all lands under tidal waters which are not included in any other category, except as otherwise determined in a specific case as provided in section 661.16 of this Part. Provided, there shall be no littoral zone under waters deeper than six feet at mean low water." See https://casetext.com/regulation/new-york-codes-rules-and-regulations/title-6-department-of-environmental-conservation/chapter-x-division-of-water-resources/subchapter-a-general/article-1-miscellaneous-rules/part-661-tidal-wetlands-land-use-regulations/section-6614-definitions

[7] The 2018 report is the most recently available at the time the DEIS was prepared. See https://www1.nyc.gov/assets/dep/downloads/pdf/water/nyc-waterways/harbor-water-quality-report/2018-new-york-harbor-water-quality-report.pdf

Figure 8-4
Aerial Imagery



extensive development along the shorelines of the East River, which results in limited submerged aquatic vegetation (SAV). SAV is a primary habitat for foraging fish, and therefore there are limited species inhabiting the waters adjacent to the Project Site. Phytoplankton and macro-algae have been identified in the East River. The most common varieties of finfish are those that that are typical of coastal estuaries and waterways, such as black sea bass (*Cetropristis striata*), carp (*Cyprinus carpio*), catfish (*Siluriformes*), and white perch (*Morone americana*).

Wildlife

The Project Site and study area are comprised of urban, manmade landscapes. The terrestrial ecology is limited to the defined bulkheads, street front areas and urban lots. Vegetation consists of grasses and plants that grow in dry waste areas and invasive exotic species that thrive in disturbed landscapes.

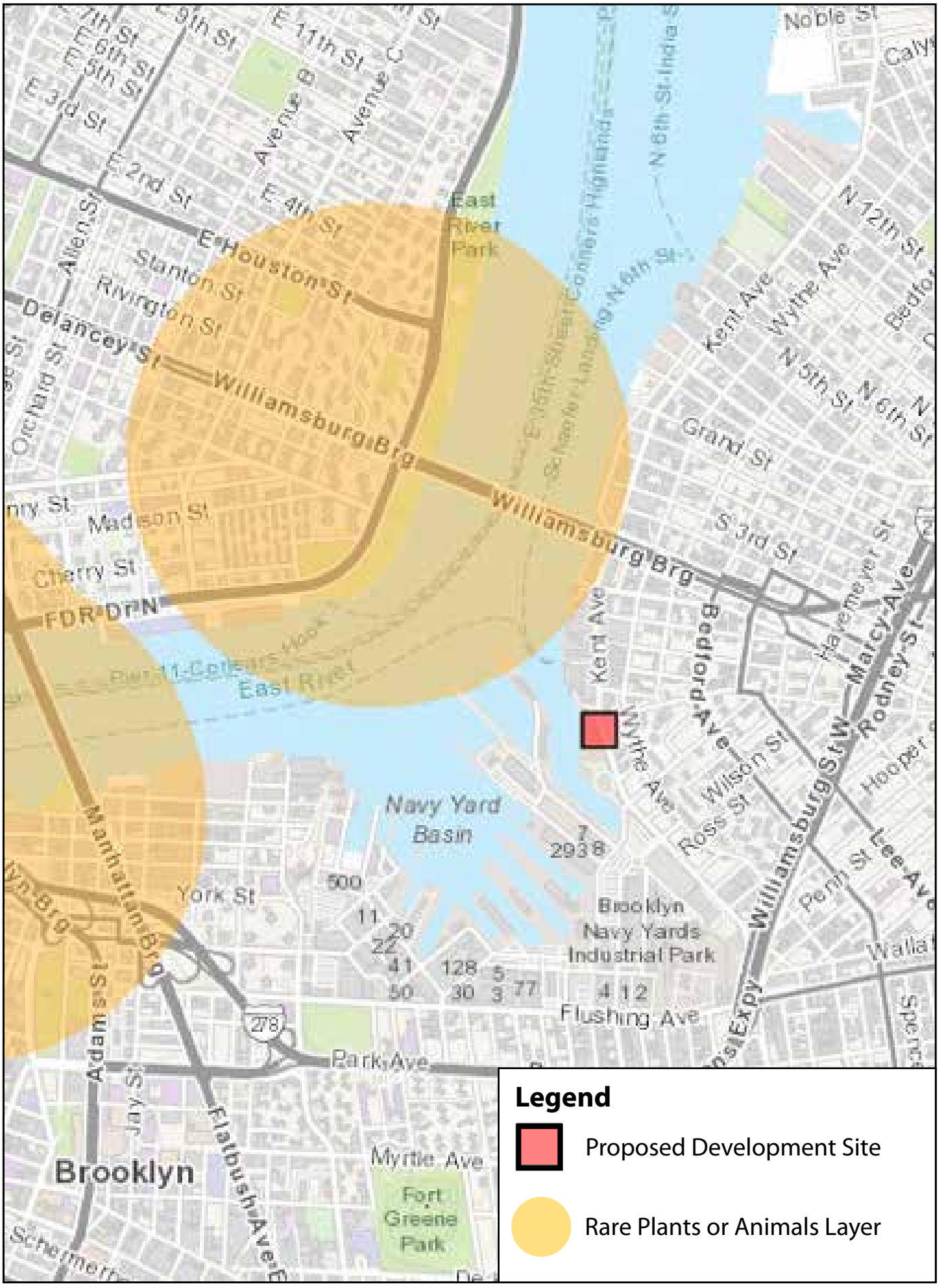
There is no natural wildlife habitat on the Project Site. Species that have adapted to urban conditions, such as raccoons (*Procyon lotor*) and other creatures would be the most likely primary residents in the Project Site and study area. This would apply to bird species as well. With no primary habitat for birds, species such as pigeons (*Columbia* spp.), sparrows (*Passer* spp.) and European starlings (*Sturnus vulgaris*) would be the most likely to be found within the study area.

Threatened, Endangered, and Special Concern Species and Significant Habitat Areas

The USFWS Information, Planning and Consultation (IPaC) website identified the piping plover (*Charadrius melodus,* threatened), red knot (*Calidris canutus rufa,* endangered), roseate tern (*Sterna dougallii*, endangered) and the seabeach amaranth (*Amaranthis pumilus*, threatened) as occurring in or near the Project Site. There are no habitats that would support these species located within the Project Site.

The New York Natural Heritage Program is a program of NYSDEC and is implemented as a partnership between NYSDEC and the State University of New York College of Environmental Science and Forestry (ESF). The Program refers to different types of habitats or ecosystems as "natural ecological communities." It documents only those locations of natural communities where the community type is rare in New York State or, for more common community types, where the community at that location is a high-quality example and meets specific, documented criteria for state significance in terms of size, undisturbed and intact condition, and the quality of the surrounding landscape. These documented natural communities are identified as "Significant Natural Communities of New York State," and may include areas of rare or high-quality wetlands, forests, grasslands, ponds, streams, and other types of habitats, ecosystems, and ecological areas. As shown in **Figure 8-5**, consultation with the NYSDEC Natural Heritage Program website indicated that the Project Site is not located within the Rare Plants and Rare Animals layer or the Significant Natural Communities layer. As a result, coordination with NYSDEC is not necessary and is not being conducted.

Figure 8-5
NYS DEC Environmental Resource Mapper



F. FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION CONDITION)

Under the RWCDS, in the future without the Proposed Action, the Project Site would be developed as-of-right under the existing M3-1 zoning. The No-Action development would have an FAR of 2.0 and be 74 feet tall (roof height) with four stories. The Project Site would be occupied by an approximately 312,599 gsf building, including 58,000 gsf of office space, 181,401 gsf of warehouse space, and 73,198 gsf of accessory parking.

Groundwater and Floodplain

Development that would occur within the Project Site in the future without the Proposed Action would be designed and constructed in accordance with all applicable City and State flooding and erosion regulations, including New York City Administrative Code, Title 28, Section 104.9 ("Coastal Zones and Water-Sensitive Inland Zones"). True floodplain boundaries may extend further inland than currently mapped as a result of projected rises in sea level caused by global climate change, but, overall, floodplains as well as groundwater within the Project Site are expected to remain largely unchanged by the 20204 Build year.

Water Quality and Aquatic Biota

In the No-Action condition, water quality in the East River is expected to continue gradually improving as a result of several initiatives. Examples include the East River and Open Waters Waterbody/Watershed Facility Plan developed as part of the citywide Long Term Control Plan (LTCP) to address combined sewer overflow (CSO) discharges, Vision 2020, and the NYC Green Infrastructure Plan. Improved water quality in the East River that is expected as a result of these and other initiatives should improve living conditions for aquatic biota and potentially allow more pollution-intolerant species to occur in the river. Overall, however, communities of aquatic biota within the East River in the No-Action condition are expected to be largely composed of the same species as at present.

Terrestrial Ecological Communities, Vegetation, and Wildlife

Terrestrial natural resources within the study area are not expected to change in the No-Action condition. Although the Project Site is anticipated to be developed with as-of-right commercial and warehouse uses in the No-Action condition, this area is composed of a vacant lot with dirt areas. As such, no terrestrial natural resources would be disturbed in the No-Action condition.

G. FUTURE WITH THE PROPOSED ACTION (WITH-ACTION CONDITION)

The Proposed Action would result in waterfront redevelopment on the 115,244-sf (2.6-acre) Project Site that would consist of retail and office uses and waterfront open space, located entirely on existing upland areas. There would be no redevelopment of the bulkhead beyond in-kind repairs. The waterfront open space would include approximately 49,453 sf (1.14 acres) of publicly accessible areas including a shore public walkway along the entirety of the site's shoreline and

supplemental public access areas. There also would be 14,301 sf (0.33 acres) of non-public areas open at-grade.

Water Quality

Construction and Operation

The Proposed Project would temporarily affect water quality due to temporary erosion and sedimentation as a consequence of disturbing soil during construction. It would comply with the New York Guidelines for Urban Erosion and Sediment Control. The East River's water quality would be protected from construction activities by protection measures that follow an approved Stormwater Pollution Protection Plan (SWPPP), which is required for the Proposed Project. The SWPPP would address erosion control measures during construction, as well as post-development water quality treatment in accordance with NYSDEC regulations.

Erosion and sediment control and stormwater management measures implemented post-construction would be in accordance with the SWPPP developed for the Proposed Project. Green infrastructure practices, such as bioswales, rain gardens, or rainwater collection and reuse, would be considered for inclusion as part of the SWPPP to the extent practical. Stormwater runoff would be collected and conveyed in accordance with NYCDEC and NYCDEP stormwater management requirements. In the event that construction dewatering is necessary, the recovered groundwater would be treated in accordance with applicable NYSDEC and/or DEP requirements prior to being discharged to the East River or the DEP storm sewer. A Long Island Well Permit would be requested as necessary, depending on the rate of groundwater withdrawal. Accordingly, the Proposed Project would not result in significant adverse impacts to water quality.

Groundwater

Construction and Operation

The development that would occur as a result of the Proposed Action would adhere to all applicable rules and regulations governing groundwater. Because groundwater is not used as a potable water supply in the area, there would be no potential impacts to drinking water supplies. Furthermore, the Proposed Project would not cause any direct discharges into or disturbances to the Brooklyn-Queens Aquifer System, which as noted above serves as a recharge zone for aquifers used for potable water supply.

The Proposed Project would receive municipal potable water and sewer services, as discussed in **Chapter 10**, and thereby avoiding the use of local groundwater and effects on groundwater resources. Consequently, significant adverse impacts to groundwater would not occur as a result of construction or operation of the Proposed Project.

Floodplains

Construction and Operation

As discussed above in "Existing Conditions," portions of the Project Site are located within the designated 100- and 500-year flood zones. As shown in **Figure 8-4, Flood Zones,** a little under half of the Project Site is located within the 100-year flood zone. Because the floodplains within and adjacent to the Project Site are affected by coastal flooding rather than local or fluvial flooding, the construction and operation of the Proposed Project would not exacerbate flooding conditions on or near the Project Site. Coastal floodplains are influenced by astronomic tide and meteorological forces (e.g., northeasters and hurricanes) rather than fluvial flooding and are therefore not affected by the placement of obstructions (e.g., buildings) within the floodplain. Development of the Project Site would not result in significant adverse impacts to flood levels, flood risk, or the flow of flood waters within the Project Site or in other portions of the East River or Wallabout Channel.

The design and construction of the Proposed Project would comply with the current and any future changes in the New York City Building Code requirements, the flood resilience zoning text amendment for construction within the 100-year floodplain for the applicable building category, and any future changes in the floodplain zones designated by FEMA. As discussed in detail in **Chapter 2, "Land Use, Zoning, and Public Policy,"** under the currently contemplated plans, the finished floor elevations for the all residential, retail, and community facility uses and the mechanical/electrical/plumbing spaces for the Proposed Project would be at or above the currently required design flood elevation (DFE). Therefore, the Proposed Action would minimize the potential for public and private losses due to flood damage and reduce the exposure of public utilities to flood hazards. The Proposed Project would be designed and constructed in accordance with all applicable City and State flooding and erosion regulations, including New York City Administrative Code, Title 28, Section 104.9 ("Coastal Zones and Water-Sensitive Inland Zones"). Therefore, the Proposed Project would not result in any significant adverse impacts related to floodplains.

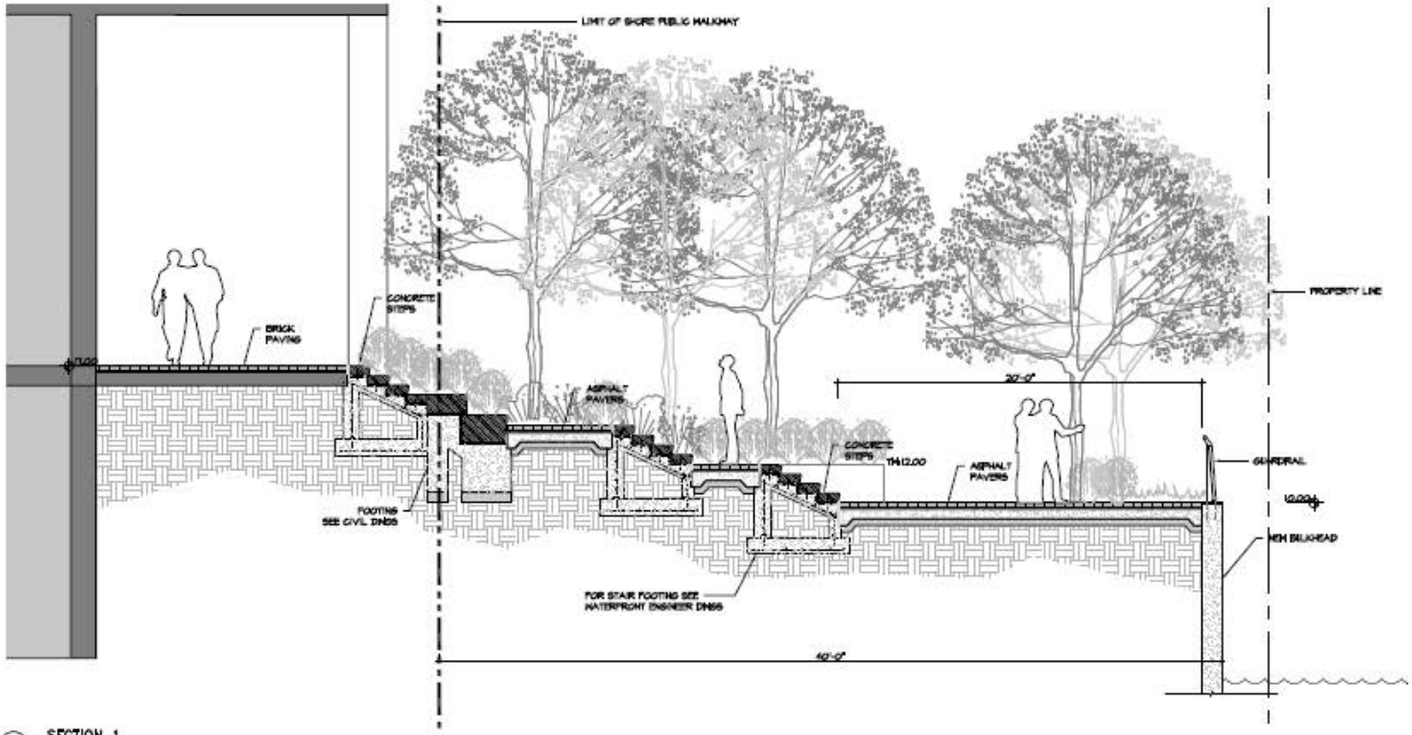
Wetlands and Aquatic Resources

Construction

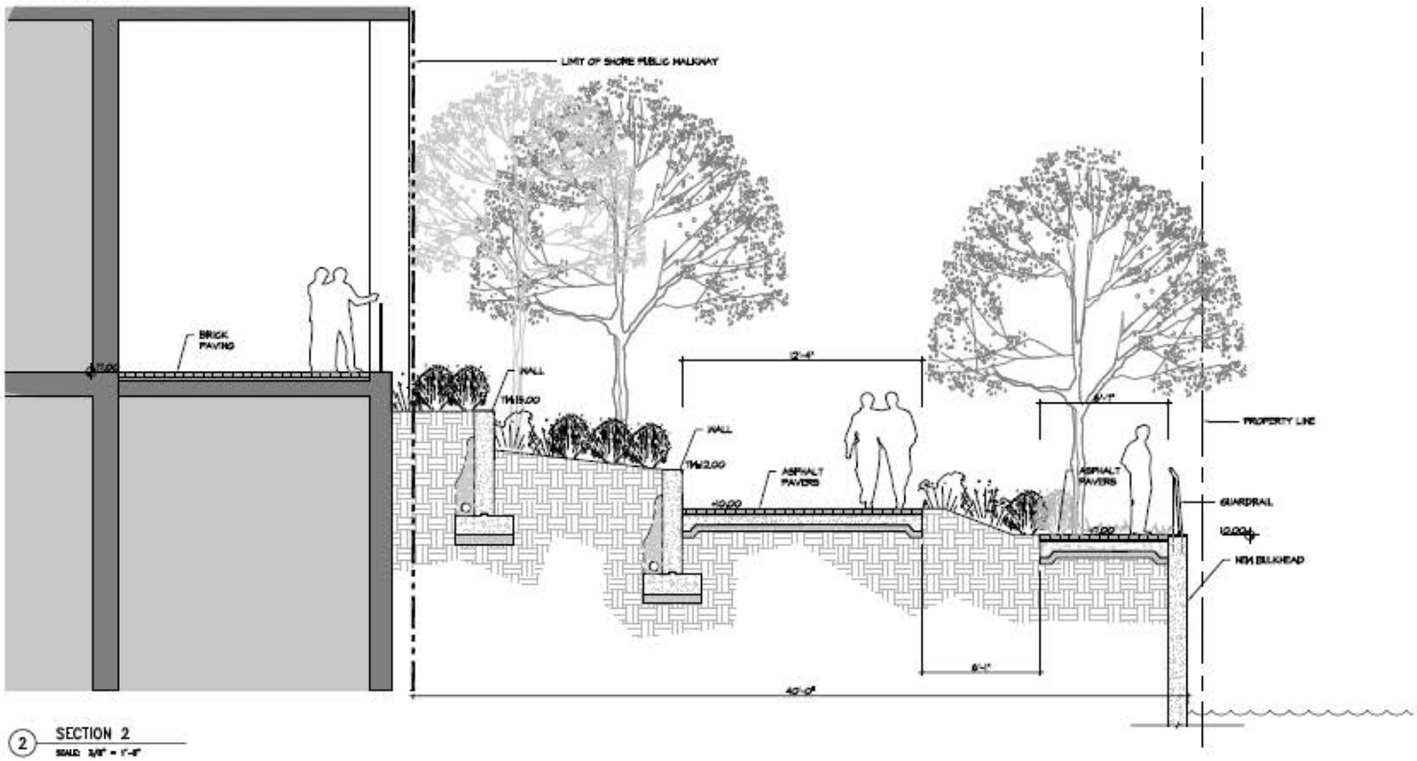
As indicated in **Figure 8-6, Waterfront Public Open Space Sections,** the portions of the proposed waterfront open space that would be located adjacent to designated wetland area, i.e., Wallabout Channel, are limited to a defined bulkhead that would be an in-kind replacement of the existing bulkhead. The Proposed Project would not involve in-water disturbance, excavation, filling, or any other activities beyond the existing bulkhead or shoreline. Construction activities that would be located within the upland area adjacent to tidal wetlands would include: the replacement of the bulkhead with a new reinforced bulkhead capable of containing an esplanade. These activities would not result in a net increase in fill below SHW or MHW or a change in shoreline configuration that would result in loss of NYSDEC littoral zone tidal wetlands. The precise scope of the bulkhead repairs, including construction control measures, i.e., turbidity curtain and pollution control structures, would be determined as project design advances.

Figure 8-6

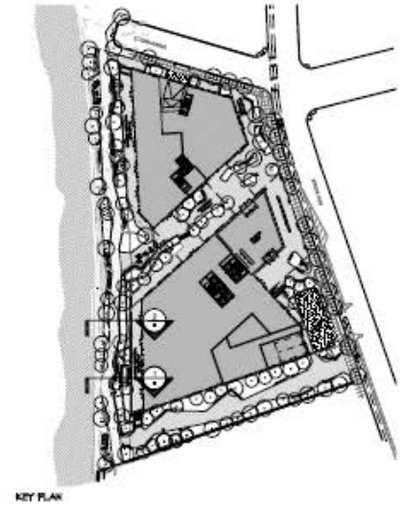
Waterfront Public Open Space Sections



1 SECTION 1



2 SECTION 2



Source: MPFP Landscape Architects

However, such work must be conducted in compliance with all applicable laws and regulations including any permitting requirements. Accordingly, the Proposed Project would not result in significant adverse impacts to NYSDEC littoral zone tidal wetlands, water quality, or aquatic biota.

The Proposed Project would be covered under the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-20-001. To obtain coverage under this permit, a SWPPP would be prepared and a Notice of Intent NOI would be submitted to NYSDEC. The SWPPP would comply with all of the requirements of GP-0-20-001, NYSDEC's technical standard for erosion and sediment control, presented in "New York Standards and Specifications for Erosion and Sediment Control," and NYSDEC's Stormwater Management Design Manual. Implementation of erosion and sediment control measures and stormwater management measures identified in the SWPPP would minimize potential impacts on littoral zone tidal wetlands and aquatic resources along the edges of the Project Site associated with discharge of stormwater runoff during land-disturbing activities resulting from construction of the Proposed Project.

Operation

Operation of the Proposed Project is not expected to result in long-term significant adverse impacts to existing NYSDEC-designated tidal wetland adjacent areas or aquatic resources within Wallabout Channel or the East River. Implementation of the SWPPP developed for the Project Site would minimize potential impacts to existing NYSDEC-designated tidal wetland adjacent area, water quality, and aquatic biota. Some runoff from the Project Site currently directly enters Wallabout Channel untreated. In instances of heavy combined flows (i.e., storm events) a portion of the site's stormwater that drains into storm drains is discharged untreated via existing combined sewer overflow (CSO) outfalls and overland direct discharge. Stormwater management measures implemented as part of the Proposed Project would regulate the rate at which runoff is discharged to adjacent storm sewers and then to the East River. Green infrastructure practices, such as bioswales, rain gardens, or rainwater collection and reuse, would be considered for inclusion in the publicly accessible esplanade and visual corridor and would be part of the SWPPP to the extent practical. Overall, discharge of runoff from the Project Site to the nearby waterbodies due to the Proposed Action would not result in significant adverse impacts to the NYSDEC tidal wetland adjacent areas or aquatic resources, and project operation may slightly improve water quality and habitat conditions for aquatic biota by capturing stormwater that presently enters the waterbodies from the Project Site untreated.

Given the Project Site's waterfront location and generally flat topography which has a gentle slope upland, it is likely that a portion of the stormwater runoff is currently discharged directly to the East River by overland flow and is not treated.

In addition, no shading of the river would occur as a result of the proposed shore public walkway (esplanade) as it would be entirely upland from the existing bulkhead. During operation of the Proposed Project, the shore public walkway would not result in significant adverse impacts to East River water quality, aquatic biota, or areas regulated as littoral zone tidal wetland. As discussed in **Chapter 5, "Shadows,"** the proposed building would cast shadows on Wallabout Channel and the East River. However, as further discussed in **Chapter 5**, no area of the East River would be

permanently cast in shade or shaded to a degree that would impact aquatic biota as a result of incremental shadow coverage. It is important to note that this area of the East River is a degraded natural resource and does not consistently meet standards for good ecological health. Therefore, incremental shadows cast by the Proposed Project would not be large enough in extent or long enough in duration to significantly increase the shading of aquatic habitats and fish populations, and the Proposed Project would not have an adverse shadow impact on this resource.

Terrestrial Ecological Communities and Vegetation

Construction

The Project Site contains vacant land. No terrestrial ecological communities or notable vegetation are present within the Project Site. Therefore, the Proposed Action would not result in the loss of any terrestrial ecological communities or notable vegetation during construction.

Operation

Operation of the Proposed Project would not have any adverse impacts to terrestrial ecological communities or vegetation. A landscaping plan developed for the Proposed Project would incorporate several native plant species that currently do not occur on the Project Site, including a mix of grasses, shrubs and trees. Native plants used in the landscaping plans could benefit some species of wildlife, including insects and songbirds. The proposed landscaping along the shoreline would increase the ecological community and plant diversity on the Project Site by adding coastal plants representative of an estuarine tidal system. In addition to biodiversity, this would also provide aesthetic benefits.

Wildlife

Construction

Construction of the Proposed Project would not have significant adverse impacts to wildlife at either the individual or population level. The terrestrial wildlife habitat in the area is presently extremely limited, as the Project Site consists of vacant land. As such, the Proposed Action would not eliminate or degrade quality wildlife habitat. Overall, construction of the Proposed Project would not have significant adverse impacts to wildlife or wildlife habitat within the Project Site or in the surrounding area.

Operation

Operation of the Proposed Project would not result in significant adverse impacts to wildlife resources. The Proposed Project would result in habitats for wildlife and would thus support native wildlife species. Examples include gray squirrel, rock pigeon, house sparrow, and European starling. Increases in human activity that would occur as a result of the Proposed Action would not be expected to adversely affect wildlife because wildlife in the area is limited to disturbance-tolerant, urban-adapted species. The proposed waterfront landscaping would have the potential to

increase the abundance of the habitat available for urban tolerant wildlife species currently present within the study area.

Bird Collisions

As the Proposed Action would result in the development of one large commercial building located along the water, this could potentially increase the frequency of bird collisions at the Project Site.

Most passerine species migrate at night. Over land, they usually fly at 2,100 to 2,400 feet. Over water, migration takes place at a much higher altitude, from 6,000 to 12,000 feet. Weather conditions often affect the migratory altitude as birds may fly higher or lower to avoid or take advantage of prevailing winds.[8] The Proposed Action would result in a new 352-foot tall building. As such, the proposed building would not extend into the air space commonly used by migrating birds.

Daytime collisions of birds with lower story reflective glass windows of buildings commonly occur throughout New York City.[9] The landscaped habitat that would be available within the Project Site would be used mostly by common, resident bird species (e.g., European starling, house sparrow, rock dove) that seldom collide with windows relative to migrants. The landscaped habitats resulting from the Proposed Action would not represent highly attractive stopover habitat that would concentrate migrants, and, therefore, large numbers of migrants would not be expected to occur in proximity to the proposed building and be at risk of daytime collisions.

Furthermore, the Proposed Project is required to comply with Local Law 15 of 2020, which took effect January 10, 2021.[10] It identifies requirements for "Bird Friendly Building Design" including that new buildings and alterations employ glazing and other materials that reduce bird strike fatalities. This is expected to further minimize the potential for bird collisions.

Threatened, Endangered, and Special Concern Species and Significant Habitat Areas

As discussed under "Existing Conditions," the USFWS Information, Planning and Consultation (IPaC) website identified the piping plover (*Charadrius melodus,* threatened), red knot (*Calidris canutus rufa,* endangered), roseate tern (*Sterna dougallii dougallii*, endangered) and the seabeach amaranth (*Amaranthis pumilus*, threatened) as occurring in or near the Project Site. There are no habitats that would support these species located within the Project Site.

Overall, the Proposed Action would not result in any significant adverse impact to threatened, endangered, and special concern species and significant habitat areas.

[8] http://www.birds.cornell.edu/AllAboutBirds/studying/migration/pathways

[9] Gelb, Y., and N. Delacretaz. 2006. Avian window strike mortality at an urban office building. Kingbird 56(3):190-198. https://www.nybirds.org/Publications/KB56no3_WindowStrike.pdf

[10] NYC Department of Buildings, November 2020. *Bird Friendly Building Design & Construction Requirements Guidance document: Local Law 15 of 2020 ● Version 1.0.*
Accessed via https://www1.nyc.gov/assets/buildings/bldgs_bulletins/bird_friendly_guidance_document.pdf