A. INTRODUCTION

This chapter examines the potential impacts from the Proposed Action on terrestrial and aquatic natural resources and floodplains near the project site on the Halletts Point peninsula in Astoria, Queens. According to *City Environmental Quality Review* (CEQR) *Technical Manual* guidelines, a natural resources assessment considers species in the context of the surrounding environment, habitat or ecosystem and examines a project's potential to impact those resources. As discussed in Chapter 1, "Project Description," the Proposed Action would facilitate development of five buildings on an 8.7-acre project site. In accordance with the *CEQR Technical Manual*, this chapter describes:

- The regulatory programs that protect groundwater, floodplains, wildlife, threatened or endangered species, aquatic resources, and/or other natural resources within the project site;
- The current condition of the groundwater, floodplains, and natural resources within the project site and study area, including water quality, aquatic and terrestrial biota, and threatened or endangered species and species of special concern;
- The groundwater, floodplains, water quality, and natural resources conditions in the future without the Proposed Action (the No-Action condition); and
- The potential impacts of the Proposed Action on the groundwater, floodplains, water quality, and natural resources (the With-Action condition).

B. PRINCIPAL CONCLUSIONS

The Proposed Action would not result in significant adverse impacts to groundwater, floodplains, water quality, aquatic biota, wetlands, terrestrial natural resources, or threatened or endangered species within and near the project site. Project construction would not result in a net increase in fill below mean high water (MHW) and spring high water (SHW) or a change in the shoreline configuration that would result in loss of New York State Department of Environmental Conservation (NYSDEC) tidal wetland adjacent area or aquatic habitat. New stormwater outfalls would be constructed above SHW and would not result in loss of tidal wetland or disturbance to the river bottom. Further discussions will be held with the NYSDEC during the NYSDEC application process. At that time, additional measures may be incorporated either on- or off-site to eliminate the potential for significant adverse impacts to NYSDEC littoral zone tidal wetlands, if deemed necessary. With the implementation of such measures, there would be no significant adverse impacts to NYSDEC littoral zone tidal wetlands, water quality, or aquatic biota from construction of the esplanade.

Stormwater management measures implemented as part of the proposed project would improve the quality of stormwater discharged to the East River. This would benefit NYSDEC tidal wetland adjacent area and aquatic resources adjacent to the project site, as discharge of runoff from the project site is currently untreated. Stormwater management measures implemented as part of the proposed project would regulate the rate at which runoff is discharged to adjacent storm sewers, in accordance with the DEP allowable rate, and then to the East River through the proposed outfalls. Discharge of stormwater

runoff to the DEP storm sewer at the rate allowed by DEP would not be expected to contribute to street flooding due to storm sewer capacity exceedances.

Because floodplains within and adjacent to the project site are affected by coastal flooding rather than local or fluvial flooding, the proposed project would not result in increased flooding on or adjacent to the project site. The design and construction of the buildings within the project site would comply with current and any future changes to the New York City Building Code requirements for construction within the 100-year floodplain and any future changes in the floodplain zones designated by the Federal Emergency Management Agency (FEMA). Development of the proposed project 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 Halletts Point peninsula. Construction of the proposed project would require minimal tree removal and would not eliminate or degrade valuable wildlife habitat. No threatened or endangered terrestrial species are known to occur or have the potential to occur on or in the vicinity of the project site.

C. METHODOLOGY

Study Area

The project site represents the study area for groundwater, floodplains, and terrestrial natural resources (see Figure 1-1 in Chapter 1, "Project Description"). Threatened and endangered species were evaluated for a distance of a half mile from the project site. The study area for water quality and aquatic biota includes the overall aquatic resources of the East River.

Existing Conditions

Existing conditions for floodplains and natural resources within the study area were summarized using:

- Existing information obtained from the following governmental and nongovernmental sources: DEP Harbor Water Quality Surveys; New York/New Jersey Harbor Estuary Program (NY/NJHEP) Harbor-Wide Water Quality Reports; U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps and Information, Planning and Consultation system for federally threatened and endangered species (http://ecos.fws.gov/ipac); National Marine Fisheries Service (NMFS) Essential Fish Habitat (EFH) designation areas; records of wetlands, significant natural communities, and threatened and endangered species identified by the New York Natural Heritage Program (NYNHP) Environmental Resource Mapper; correspondence with New York State Department of Environmental Conservation (NYSDEC); New York State Breeding Bird Atlas results for Block 5851D; NYSDEC Herp Atlas Project results for the 'Central Park' quadrant, and FEMA flood insurance rate maps.
- Information identified in peer-reviewed literature pertaining to the natural resources of Queens County and the East River.
- Observations made by Great Ecology[1] during a November 15, 2013 vegetation reconnaissance survey within the study area.

[1] Great Ecology is an ecological consulting firm that specializes in vegetation surveying - http://greatecology.com/

D. REGULATORY CONTEXT

The following sections identify the Federal, State, and local legislation and regulatory programs that pertain to coastal areas, surface waters, floodplains, wetlands, and protected species that would apply to the proposed project.

Federal

National Flood Insurance Act of 1968 (44 CFR § 59) and Floodplain Management Executive Order 11988 (42 FR 26951)

Development in floodplains defined by FEMA mapping is regulated at the Federal level by the Floodplain Management Executive Order 11988 and National Flood Insurance Act of 1968 (44 CFR § 59). Executive Order 11988 requires Federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

Executive Order 11990, Protection of Wetlands

In accordance with Executive Order 11990, "Protection of Wetlands," Federal agencies must avoid undertaking or providing assistance for new construction in wetlands unless there is no practical alternative to such construction and the proposed action includes all practicable measures to minimize harm to the wetland.

Clean Water Act (33 USC §§ 1251-1387)

The objective of the Clean Water Act, also known as the Federal Water Pollution Control Act, is 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 runoff; the discharge of dredged or fill material into navigable waters and other waters; and non-point source pollution (e.g., runoff from streets, construction sites, etc.) that enter water bodies from sources other than the end of a pipe. Applicants for discharges to navigable waters in New York must obtain a Water Quality Certificate from the NYSDEC.

Section 1424(E) of the Safe Drinking Water Act. Section 1424(E) of the Safe Drinking Water Act of 1974 [P.L. 93-523]

This section of the Safe Drinking Water Act (Act) authorizes the Administrator of the U.S. Environmental Protection Agency (EPA) to designate an aquifer for special protection if it is the sole or principal drinking water resource for an area (i.e., supplies 50 percent or more of the drinking water in a particular area), and if its contamination would create a significant hazard to public health. No commitment for Federal financial assistance may be entered into for any project that the Administrator determines may contaminate such a designated aquifer so as to create a significant hazard to public health. The project site is within the Brooklyn-Queens Aquifer System, a sole source aquifer system identified by the EPA under the Act.

National Wild and Scenic Rivers Act of 1968 (16 USC §§ 1271-1287)

Under Section 7 of the National Wild and Scenic Rivers Act, Federal agencies with "water resources" projects (defined as those that would affect the free-flowing nature of the river)—including projects that

require permits from the U.S. Army Corps of Engineers (USACE)—must consult with the river-administering agency regarding effects to rivers that are part of the National Wild and Scenic Rivers System, designated as Study Rivers under Section 5(a) of the National Wild and Scenic Rivers Act, or listed on the Nationwide Rivers Inventory. However, no portion of the East River is classified as a National Wild and Scenic River.

Endangered Species Act of 1973 (16 USC §§ 1531-1544)

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. The Act provides for the protection of critical habitats on which endangered or threatened species depend for survival. The Act also prohibits the importation, exportation, taking, possession, and other activities involving illegally taken species covered under the Act, and interstate or foreign commercial activities. Species protected under the Act have the potential to occur in the study area.

State

State Pollutant Discharge Elimination System (SPDES) (N.Y. ECL Article 3, Title 3; Article 15; Article 17, Titles 3, 5, 7, and 8; Article 21; Article 70, Title 1; Article 71, Title 19; Implementing Regulations 6 NYCRR Articles 2 and 3)

Title 8 of Article 17, ECL, Water Pollution Control, authorized the creation of SPDES to regulate discharges to New York State's waters. Activities requiring a SPDES permit include point source discharges of wastewater into surface or groundwater of the state, including the intake and discharge of water for cooling purposes, constructing or operating a disposal system (sewage treatment plant), discharge of stormwater, and construction activities that disturb one or more acres. The proposed project would require the management of stormwater and would involve construction on a site over one acre in size. Soil disturbing activities resulting from the proposed project would be conducted in accordance with the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-10-001). To obtain coverage under this permit, a Storm Water Pollution Prevention Plan (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-0-10-001, NYSDEC's technical standard for erosion and sediment control, presented in "New York Standards and Specifications for Erosion and Sediment Control," and NYSDEC's technical standard for post-construction stormwater control practices presented in the *New York State Stormwater Management Design Manual*.

Tidal Wetlands Act, Article 25, ECL, Implementing Regulations 6 NYCRR Part 661.

Tidal wetlands regulations apply 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 the adjacent areas (up to 300 feet inland from wetland boundary or up to 150 feet inland within New York City). NYSDEC-regulated tidal wetland adjacent areas may exist along the East River shoreline within the project site.

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 NYCRR Part 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 §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 a 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 Parts 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. 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 U.S. Fish and Wildlife Service [USFWS]) adopted the City's 10 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 will 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 will 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 revisions to the WRP are currently pending State and Federal approval in order to go in to effect. Chapter 2, "Land Use, Zoning, & Public Policy," includes a discussion of the Proposed Action's consistency with New York City's WRP.

Local

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

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 the Federal Emergency Management Agency (FEMA) and new requirements in Building Code. Building to these new standards will reduce vulnerability to future floods and help avoid higher flood insurance premiums.

E. EXISTING CONDITIONS

Groundwater

The project site is within the area designated for the Brooklyn-Queens Sole Source Aquifer. However, groundwater is not used as a potable water supply in Queens and non-potable use is limited. Potable water in Queens is provided primarily by New York City's public water supply, which comprises a system of upstate reservoirs.

As presented in Chapter 10, "Hazardous Materials," based on surface water elevation observed at Pot Cove, depth to the groundwater in the vicinity of the project site is not expected to exceed approximately 5 feet below grade. Results of groundwater sampling conducted on the project site indicated some evidence of elevated volatile organic compounds (likely from a historical on- or off-site release), but generally only concentrations typical of urban fill materials.

Floodplains

FEMA released new preliminary Flood Insurance Rate Maps (FIRMs) in December 2013 that precede the future publication of new duly adopted FIRMs, which represent the Best Available Flood Hazard Data (BAFHD) at this time. FEMA encourages communities to use the BAFHD when making decisions about floodplain management and post-Hurricane Sandy recovery efforts. In addition, the New York City Zoning Resolution is currently proposed to be amended to allow projects to account for higher base flood elevations (BFEs) set forth in the preliminary FIRMs for height and other zoning requirements. These BFEs would be higher than currently permitted under the current definition of base plane and base flood

elevation in the Zoning Resolution, which refer to the existing 100-year floodplain as set forth in the existing FEMA FIRMs.

As indicated in Figure 9-1, small portions of the project site are located in the existing 100- and 500-year floodplain zones (the areas with a one percent and 0.2 percent chance of flooding each year, respectively). The currently applicable 100-year floodplain is defined as a high risk area (Zone AE) and has a flood elevation of 12 and 14 feet based on the North American Vertical Datum of 1988 (NAVD88), which approximates mean sea level, and a flood elevation of -1.652 feet based on the Queens Datum.

Specific areas of the project site that are within the 100-year floodplain include a small area of Building 1 and small portions of the waterfront esplanade. A portion of Building 1 is also located within the 500-year floodplain (defined as a moderate risk area) (Zone X Shaded). A small portion of the esplanade area associated with Buildings 2 and 3 would fall within the currently applicable 100-year floodplain (Zone AE14). No other area of the project site is located within a floodplain.

Wetlands

The East River is classified on NWI maps as "estuarine subtidal unconsolidated bottom wetland" (E1UBL1) (Figure 9-2). Subtidal areas are continuously submerged, and unconsolidated bottoms have at least 25 percent cover of particles smaller than seven centimeters and less than 30 percent vegetative cover. The entire shoreline of the project site is rip-rapped, and no vegetated tidal wetlands are present. NYSDEC designates the East River as littoral zone tidal wetlands (shallow waters six feet or less in depth at mean low water [MLW] that are not included in other NYSDEC tidal wetland categories). Fleming Lee Shue Environmental Management & Consulting conducted an assessment of the 1974 Tidal Wetland Adjacent Boundary Map, which presents the location of the NYSDEC jurisdiction line based upon the standards set forth in the Tidal Wetland Regulations (NYCRR Part 661) and aerial photos of the project site from 1974 to today. Based on their assessment, it was determined that the NYSDEC has jurisdiction to an elevation of ten feet above mean high tide (NVDG), which corresponds to the top of the project site's waterfront embankment.[2]

There are no NWI- or NYSDEC-mapped freshwater wetlands present within the project site.

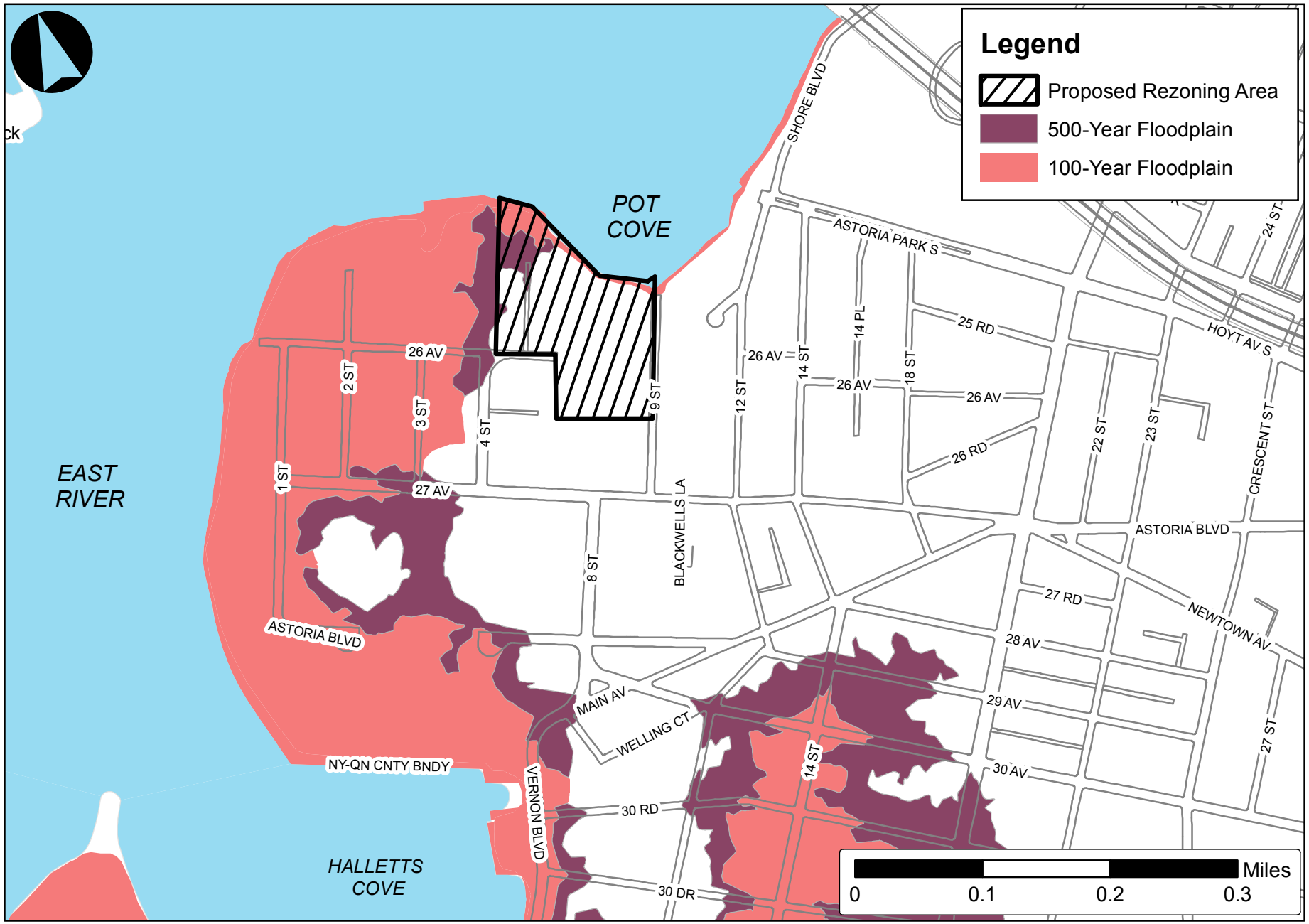
Water Quality

The East River is a tidal strait connecting western Long Island Sound with upper New York Harbor. It is classified by NYSDEC as Use Classification I. Recommended uses for Class I waters are secondary contact recreation and fishing, and water quality should be suitable for fish propagation and survival.

DEP monitors water quality in New York Harbor, including the East River, through its annual Harbor Survey. The results of the most recent annual State of the Harbor report (2012) show that water quality has improved significantly as a result of measures undertaken by the City. These measures include continued investment in wastewater infrastructure improvements. Harborwide, seven of the eight performance metrics demonstrate year-over-year improvements from 2011, and six of the eight show long-term improvement over the last quarter century.[3] In 2012, the Upper East River–Western Long Island Sound region of the DEP Harbor Survey demonstrated improvement in six of the eight performance metrics. Fecal coliform and enterocci counts (an indicator of untreated sewage discharge)

[2] Refer to Appendix F.

[3] DEP uses eight metrics to evaluate harbor water health including dissolved oxygen, bacteria, Secchi transparency, total suspended solids, chlorophyll 'a,' total nitrogen, removal efficiency, and plant flow. Source: NYCDEP, *The State of the Harbor 2012.*



Astoria Cove

Figure 9-1

U.S. Federal Emergency Management Agency Flood Hazard Areas

Flood Hazard Areas Data Source:
United States Federal Emergency Management Agency.
NYC Preliminary Work Maps: December, 2013.

Notes:
This map is for advisory purposes only. It uses the most current data available and is deemed accurate, but is not guaranteed.



Source: http://www.fws.gov/wetlands/Wetlands-Mapper.html

Project Site

Estuarine and Marine Deepwater

Astoria Cove

Figure 9-2

National Wetlands Inventory- Mapped Wetlands

decreased between 2011 and 2012. Average dissolved oxygen (DO) concentrations were relatively even compared to 2011, declining less than one percent to 5.34 mg/L at the surface and 4.61 at the bottom. In 2012, nitrogen discharge decreased by 17 percent to 53,800 pounds per day. As a result, chlorophyll 'a' concentrations continued declining to the lowest levels since 1987, with a decrease of 80 percent since their peak in 1996.

Aquatic Biota[4]

The Upper New York Harbor, which includes the East River, provides a variety of habitats that support a diverse and productive aquatic community. Aquatic organisms include phytoplankton, submerged aquatic vegetation, benthic macroalgae, zooplankton, benthic invertebrates (including shellfish), and fish, as well as occasional marine mammals and sea turtles.

Phytoplankton sampling in Upper New York Harbor over a ten year period between 1991 and 2000 documented 90 taxa, with *Nannochloris atomus*, *Skeletonema costatum*, *Prorccentrum redfieldii*, and *Rhizosolenia delicatula* being the most dominant. Submerged aquatic vegetation (SAV), which consists of rooted aquatic plants that are often found in shallow areas of estuaries and provide nursery and refuge habitat for fish, is very limited in the East River due to limited light penetration, extensive shoreline development, and swift currents. Benthic macroalgae are primary producers that require light as their primary source of energy and, as such, only occur in the East River's most shallow waters where light penetration is sufficient. Common macro-algae that are known to occur within the Harbor Estuary include the Phaeophyte species *Fucus vesiculosus* (brown algae) and the Chlorophyte species *Ulva lactuca* (sea lettuce).

Crustacean taxa dominate the zooplankton community within the New York Harbor (e.g., copepods *Acartia tonsa*, *Acartia hudsonica*, *Eurytemora affinis*, and *Temora longicornis)*, with the dominant species changing seasonally. Zooplankton sampling in the Upper New York Bay between 1991 and 2000 documented 19 taxa, with *Tintinnopsis spp*., nauplius of copepods, and *Eutreptia spp*. being most common. The major groups of benthic invertebrates that occur in the Harbor Estuary include aquatic earthworms (oligochaetes), segmented worms (polychaetes), snails (gastropods), bivalves, barnacles, cumaceans, amphipods, isopods, crabs, and shrimp. Dominant benthic species within the Upper New York Bay include *Streblospio beredicti*, *Mediomastus*, *Mulina lateralis*, *Sabellaria vulgaris*, and *Heteromastus filformis.*

The finfish community in New York Harbor and East River is typical of large coastal estuaries and inshore waterways along the Mid-Atlantic Bight, supporting a variety of estuarine, marine, and anadromous fish species that use this area for spawning habitat, a migratory pathway, and as a nursery/foraging area. Hogchoker (*Tinectes maculates*), tomcod (*Microgadus tomcod*), winter flounder (*Pseadopeuronectes americanus*), white perch (*Morone americana*), bay anchovy (*Anchoa mitchilli*), Atlantic menhaden (*Brevoortia tyrannus*) and striped bass (*Morone saxatilis*) are examples of fish found within the Upper New York Harbor and lower East River. Atlantic silverside (*Menidia menidia*), mummichog (*Fundulus heteroclitus*), striped killifish (*Fundulus majalis*), and three-spined stickleback (*Gasterosteus aculeatus*) are common estuarine species that occur year round. Blueback herring (*Alosa aestivalis*), alewife (*Alosa pseudoharengus*), American shad (*Alosa sapidissima*), hickory shad (*Alosa mediocris*), striped bass, tomcod, Atlantic sturgeon (*Acipenser oxyrhynchus*), and rainbow smelt (*Osmerus mordax*) are anadromous fish that pass through the harbor during migration to and from spawning areas in the upper Hudson River. Examples of marine species found from spring through fall include bluefish (*Pomatomus saltatrix*), scup (*Stenotomus chrysops*), black sea bass (*Centropristis striata*), tautog (*Tautoga onitis*), and weakfish (*Cynoscion regalis*). Overall, the harbor's fish community

[4] *Halletts Point Rezoning FEIS,*2013.

is very spatially and seasonally dynamic. Transient shortnose sturgeon (*Acipenser brevirostrum*) and Atlantic sturgeon (*Acipenser oxyrinchus*) may occasionally be present in New York Harbor and East River.

Terrestrial Ecological Communities and Vegetation

The project site largely comprises manmade landscapes including both unoccupied and occupied industrial lots (see Figures 9–3a and 9–3b). These areas are best described as "terrestrial cultural" communities, which are defined as "communities that are either created and maintained by human activities, or are modified by human influence to such a degree that the physical conformation of the substrate, or the biological composition of the resident community is substantially different from the character of the substrate or community as it existed prior to human influence."[5]

Vegetated terrestrial cultural communities that are present within the project site include urban vacant lot, urban structure exterior, and riprap/artificial lake shore.[6] The urban structure exterior and urban vacant lot make up the majority of the project site, while the riprap/artificial lake shore represents a minor component of the project site.

The waterfront portion of the project site contains active industrial/warehouse/commercial space. The upland portion of the project site contains asphalt/unpaved lots used for vehicle storage. The vegetation found in these different parcels is similar. The project site contains Sycamore maples (*Acer pseudoplatnus*), tree of heaven (*Ailanthus altissima*), eastern cottonwood (*Populus deltoids*), princess-tree (*Paulownia tomentosa*), black locust (*Robina pseudoacacia*), white mulberry (*Morus alba*), red mulberry (*Morus rubra*), Norway maple (*Acer platanoides*), Sycamore maples (*Acer pseudoplatnus*), Silver maple (Acer *saccharinum*), crab apple (*Malus* sp.), and American elm (*Ulmus Americana*). The herbaceous layer includes panic grass (*Panicum* sp.), redroot pigweed (*Amaranthus retroflexus*), mugwort (*Artemsia vulgaris*), Queen Anne's lace (*Caucus carota*). The riprap/artificial lake shore community is located within the waterfront portion of the project site adjacent to the East River. The dominant vegetation in this area is Japanese knotweed (*Polygonum cuspidatum*) and common reed (*Phragmites australis*).

A complete list of the plant species observed within the project site during a November 2013 reconnaissance investigation is provided in Appendix F.

Wildlife

The habitat available to terrestrial wildlife in the study area primarily consists of building exteriors and trees. There is no woody understory beneath the mature trees, and herbaceous ground cover consists of unpaved dirt areas for vehicle storage. Most of the area is covered by buildings, roads, and other impervious surfaces. As such, wildlife occurring in the study area is largely limited to urban-adapted species that tolerate degraded environments and high levels of human activity.

Birds

The Breeding Bird Atlas is a periodic census of the distribution of breeding birds across New York State. The most recent census was conducted from 2000-2005 and documented eleven species as confirmed or

[5] Edinger, G.J., D.J. Evans, S. Gebauer, T.G. Howard, D.M. Hunt, and A.M. Olivero (editors). 2002. *Ecological Communities of New York State*. Second Edition. A revised and expanded edition of Carol Reschke's *Ecological Communities of New York State*. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.

[6] Edinger, G.J., D.J. Evans, S. Gebauer, T.G. Howard, D.M. Hunt, and A.M. Olivero (editors). 2002. *Ecological Communities of New York State*. Second Edition. A revised and expanded edition of Carol Reschke's *Ecological Communities of New York State*. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.



1. View of waterfront site looking north east from 26th Avenue


2. View of upland lots from 26th Avenue looking south east


3. North view from 8th Street and 27th Avenue


4. West view from 9th Street and 26th Avenue

Astoria Cove

Figure 9-3a
Existing Conditions-Project Site



5. North view from 4th Street and 26th Avenue



6. Drive-through view on 26th Avenue between 4th and 9th Streets



7. Waterfront view from 9th Street's dead-end



8. Northeast view from 4th Street and 26th Avenue

probable/possible breeders in the survey block in which the study area is located.[7] This survey block encompasses a larger and more diverse area of habitat (e.g., Astoria Park) than what is present on the Astoria Cove project site. Therefore, many bird species that appear in the atlas block are unlikely to breed in the study area. The following three of the eleven species listed in the atlas block are considered to have the potential to breed in the study area on the basis of their habitat requirements: Rock pigeon (*Columbia livia*), European starling (*Sturnus vulgaris*), and house sparrow (*Passer domesticus*). These are disturbance tolerant, generalist species that have small area requirements and thrive in heavily developed, urban environments.

Many of the birds that likely occur in the study area during the breeding season are also year-round resident species that remain at northern latitudes during winter. Examples of species expected to occur in the terrestrial habitats of the study area during winter include urban-adapted species (e.g., European starling, house sparrow, and mourning dove).

Although the terrestrial resources in the study area provide breeding and wintering habitat for only a very limited number of bird species, they may be occasionally used as a stopover site by additional species migrating through the region. Most bird species are more generalistic in their habitat preferences during migration than during the non-migratory periods, and thus, more species may occur in the study area during spring and fall than at other times of year.

Mammals

Similar to the bird community, the terrestrial resources available in the study area limit the mammal community to species associated with small and disturbed patches of green space within urban landscapes. Mammals expected to occur in the study area include raccoon (*Procyon lotor*), house mouse (*Mus musculus*), gray squirrel (*Sciurus carolinensis*), Norway rat (*Rattus norvegicus*), and domestic cat (*Felis catus*).

Reptiles and Amphibians

The NYSDEC Herp Atlas Project identified ten species as occurring within the atlas block that covers the study area (*Central Park* USGS quadrangle): northern redback salamander (*Plethodon cinereus*), bullfrog (*Rana catesbeiana*), green frog (*Rana clamitans*), common snapping turtle (*Chelydra serpentina*), eastern box turtle (*Terrapene carolina*), red-eared slider (*Trachemys scripta*), painted turtle (*Chrysemys picta*), Italian wall lizard (*Podarcis sicula*), northern brown snake (*Storeria dekayi*), and common garter snake (*Thamnophis sirtalis*).

However, the atlas block spans a large geographic area (most of Manhattan and south Bronx) that includes larger and more diverse areas of habitat than what is present at the Astoria Cove project site, and on the basis of their habitat requirements, none of these species is expected to occur in the study area.

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

Federally-listed species noted by the USFWS Information, Planning and Consultation system as occurring in Queens County include piping plover (*Charadrius melodus*; threatened), roseate tern (*Sterna dougalli*; endangered), and seabeach amaranth (*Amaranthus pumilus*; threatened).[8] The Queens County population of piping plovers is limited to the Gateway National Recreation Area's beachfronts including Breezy

[7] Block 5851D; http://www.dec.ny.gov/cfmx/extapps/bba/index.cfm?RequestTimeout=250
[8] http://ecos.fws.gov/ipac/wizard/trustResourceList!prepare.action

Point, Jacob Riis Park, and Rockaway Beach[9] . As the study area lacks wide, open expanses of unvegetated beach that the piping plover uses for habitat, this species is not considered to have the potential to occur within the study area. Further, roseate terns were not recorded in Queens County or any neighboring counties by the 2000-2005 Breeding Bird Atlas. The study area lacks suitable habitat for roseate terns and the species is not considered to have the potential to occur. Seabeach amaranth is found along sandy beaches of the Atlantic coast, where it grows on shifting sands between dunes and the high tide mark. As such, suitable habitat for seabeach amaranth is not present and the species is not considered to have the potential to occur in the study area.

Federally threatened aquatic species indicated by the NMFS as maybe occurring in the waters of the East River include the Gulf of Maine Distinct Population Segment (DPS) of Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*). Federally endangered aquatic species indicated by NMFS as maybe occurring in the waters of the East River include New York Bight DPS of Atlantic sturgeon, Chesapeake Bay DPS of Atlantic sturgeon, Carolina DPS of Atlantic sturgeon, and South Atlantic DPS of Atlantic sturgeon. The NMFS has indicated that although ESA-listed species of Atlantic sturgeon may occur in the East River, it is not expected that ESA-listed species occur in the vicinity of Pot Cove and thus, no species listed under NMFS jurisdiction is likely to be exposed to any direct or indirect effects of the Proposed Action and no further coordination is needed with NMFS.[10]

The NYNHP identified the peregrine falcon (*Falco peregrinus*; New York State endangered) as the only threatened or endangered or special concern species for which it has records in the area.[11] Peregrine falcon is also the only federally or state-listed bird species documented by the 2000-2005 Breeding Bird Atlas in the census block in which the project site is located.

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

Groundwater and Floodplain

In the future without the Proposed Action (the No-Action condition), it is anticipated that the waterfront portion of the project site will continue to be occupied by existing uses, and the upland portion of the project site would be developed with residential uses per the existing R6 residential zoning district. Therefore, as the upland portion of the project site is not located within the 100-year or 500-year floodplains, groundwater and floodplains would be unlikely to differ from their existing condition. 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.

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, the NYC Green Infrastructure Plan, and PlaNYC. The *Vision 2020: New York City Comprehensive Waterfront Plan* (Vision 2020) was developed by New York City Department of City Planning (DCP) to establish goals for the City's waterfront, with the intention of

[9] New York City Audubon March-April 2011 newsletter
[10] Correspondence between Philip Habib & Associates and NMFS, November 2013; copy provided in Appendix F.
[11] Correspondence between Philip Habib & Associates and NYNHP, October 2013; copy provided in Appendix F.

promoting various ecological objectives and enhancing sustainability and climate resilience planning through the incorporation of climate change considerations, among other goals. Revisions to the City's WRP were recently adopted to proactively advance the long-term goals laid out in Vision 2020. The plan seeks to make improvements to water quality and aquatic resources through measures such as additional nitrogen reduction at the Bowery Bay, Tallman Island, Hunts Point, and Wards Island wastewater treatment plants, additional reduction in CSOs with the increased capture of stormwater runoff through implementation of the NYC Green Infrastructure Plan, improved flushing of constrained water bodies, and optimization of existing sewer systems through improvements to drainage, interceptors, and tide gates. PlaNYC is a planning agenda that targets a wide range of improvements to New York City in the coming decades. In addition to reducing nitrogen discharges from wastewater treatment plants, PlaNYC goals that would result in improvements to water quality and aquatic resources include construction of grey infrastructure projects to reduce the discharge of untreated water to the East River and other waterways, and the reintroduction of oysters and eel grass.

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 future 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. The waterfront portion of the project site would continue to be occupied by existing uses, and would continue to be used by the same suite of urban-adapted, disturbance-tolerant plant and wildlife species as under existing conditions. Although the upland portion of the project site is anticipated to be developed with residential uses, this area is composed of vacant asphalt/dirt areas utilized for vehicle storage. As such, no terrestrial natural resources would be disturbed in the No-Action condition.

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

If the Proposed Action is approved, the proposed project is expected to be complete by 2023. It would result in waterfront redevelopment that would consist of multiple high-rise and low-rise buildings with residential and retail space, parking garages, publicly accessible open space, and infrastructure improvements, including installation of two new stormwater outfalls, new sanitary and storm sewers, and construction of a waterfront esplanade. The new stormwater outfalls would convey runoff from the project site to the East River following treatment for quality. Treatment methods would be designed to meet NYSDEC requirements for water quality (e.g., removal of at least 80 percent of total suspended solids) for discharge of stormwater to the East River. Examples of methods that would be considered include gravel infiltration beds beneath the boardwalk, hydrodynamic separators, and in-line filters. The location of the proposed outfalls and the areas they would serve are discussed in further detail in Chapter 11, "Water and Sewer Infrastructure," and illustrated in Figure 11-2.

Erosion and sediment control and stormwater management measures implemented post-construction would be in accordance with the SWPPP developed for the 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. Construction would require removal of trees and other vegetation within the project site. In the event that construction dewatering is necessary, the recovered groundwater would be treated in accordance with 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.

Groundwater

Construction and Operation

The proposed project would adhere to all applicable rules and regulations governing groundwater. Consequently, significant adverse impacts to groundwater would not occur as a result of construction or operation of the proposed project. Because groundwater is not used as a potable water supply in the area, there would be no potential impacts to drinking water supplies. The project would also receive local drainage and runoff approvals for use of municipal water and sewer.

As discussed in Chapter 10, "Hazardous Materials," due to the potential for underground storage tanks and past historic on- or off-site releases as well as the presence of urban fill material, a Phase II Environmental Site Assessment (ESA) will be conducted in accordance with the DEP-approved Work Plan for the project site to determine whether past or present, on-site or off-site activities have affected subsurface conditions; all Phase II work will be conducted in accordance with the DEP-approved Health and safety Plan (HASP). Following implementation of this Phase II investigation and based on its findings, a Remedial Action Plan (RAP) and associated Construction Health and Safety Plan (CHASP) will be prepared and submitted to the Mayor's Office of Environmental Remediation (OER) for implementation during the project's construction. Implementation of the measures during construction activities would minimize the potential for significant adverse impacts to groundwater quality.

Floodplains

Construction and Operation

As discussed above in "Existing Conditions," the project site is located within three flood zones. The western portion of the project site (i.e., a portion of Building 1) is located within the currently applicable 100-year floodplain (Zone AE12) and the currently applicable 500-year (Zone X Shaded) floodplain. A small portion of the esplanade area associated with Buildings 2 and 3 would fall within the currently applicable 100-year floodplain (Zone AE14). The remainder of the project site is not located within a floodplain. 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 proposed project 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 Halletts Point peninsula.

As discussed in Chapter 11, "Water and Sewer Infrastructure," stormwater runoff generated on the project site would be discharged to the East River through two new stormwater outfalls constructed as part of the proposed project. Post-construction stormwater management measures that would be integrated into the project as part of the SWPPP prepared for the waterfront portion of the project site would be designed to treat stormwater for quality. Stormwater management Best Management Practices (BMPs) would be required as part of the DEP site approval process to control the rate at which stormwater is discharged to the storm sewers. These BMPs would include on-site detention facilities (e.g., rooftop detention, underground storage tanks, or tanks within buildings) and potential green infrastructure (e.g., bioswales, rain gardens, or rainwater collection and reuse), consistent with the waterway initiatives of PlaNYC.

The design and construction of the project site buildings would comply with the current and any future changes in the New York City Building Code requirements, the recently adopted 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 (including the preliminary FIRMs). Under the currently contemplated plans, the finished floor elevations for the all residential and retail uses and the mechanical/electrical/plumbing spaces proposed for Building 1 along the East River would be about three feet above the currently applicable FEMA FIRMs 100-year flood elevation. The slab of the below-grade parking level for Building 1 would be below the 100-year flood elevations, and the basement structures would be designed in accordance with Appendix G of the New York City Building Code. 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.

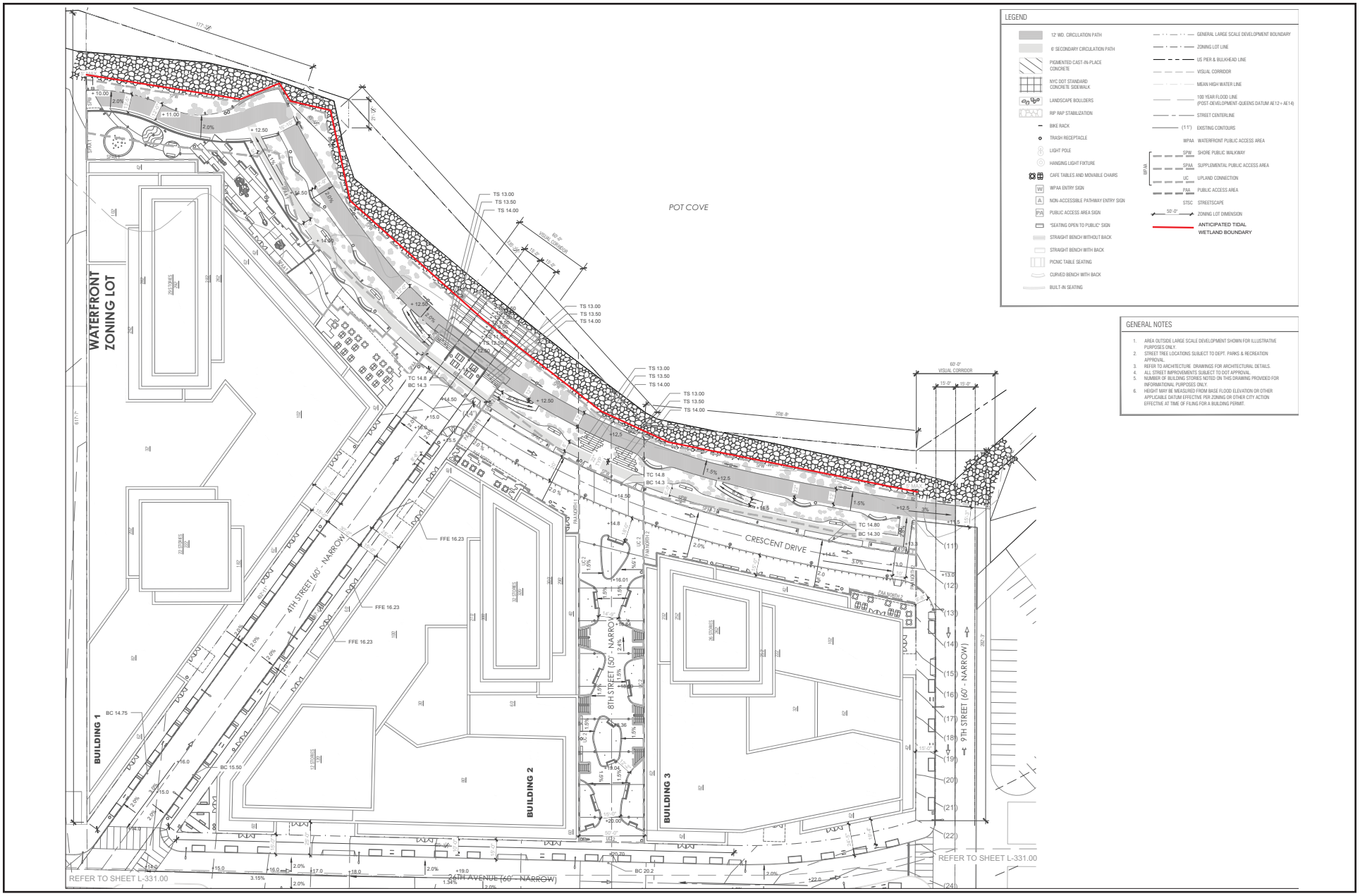
Wetlands and Aquatic Resources

Construction

As discussed above under "Existing Conditions," Fleming Lee Shue Environmental Management & Consulting has determined the extent of the NYSDEC tidal wetland adjacent area in relation to the project site as described above under "Existing Conditions." As indicated in Figure 9-4, the portions of the project site waterfront open space that would extend into the tidal wetland adjacent area are limited to the proposed get-down at the northern terminus of 4th Street and the shoreline riprap (see Figure 9-4). Proposed construction activities that would be located within the tidal wetlands adjacent area include: construction of two new stormwater outfalls, construction of portions of the waterfront esplanade and landscaped open space areas, and the replacement of portions of the existing rip-rap in-kind, as necessary. 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. No net fill would be involved in the construction of the proposed get-down at the northern terminus of 4th Street, or the replacement of the existing rip-rap—the two portions of the project site that fall within the tidal wetland adjacent area. In addition, the new stormwater outfalls would be constructed above the SHW elevation and would not have the potential to adversely affect aquatic resources.

Further discussions will be held with the NYSDEC during the NYSDEC application process. At that time, additional measures may be incorporated either on- or off-site to eliminate the potential for significant adverse impacts to NYSDEC littoral zone tidal wetlands, if deemed necessary. With the implementation of such measures, there would be no significant adverse impacts to NYSDEC littoral zone tidal wetlands, water quality, or aquatic biota from construction of the esplanade.

The proposed project would be covered under the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-10-001. To obtain coverage under this permit, a SWPPP would be prepared and an NOI would be submitted to NYSDEC. The SWPPP would comply with all of the requirements of GP-0-10-001, 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.



Prepared by Fleming-Lee Shue, Environmental Management & Consulting

NYS DEC Tidal Wetland Adjacent Boundary

Astoria Cove

Figure 9-4

NYS DEC Tidal Wetland Adjacent Boundary

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 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 waterfront portion of the project site currently enters the East River untreated as undirected sheet flow off impervious surfaces, with the remainder going to an existing combined sewer and separate storm sewer. The new stormwater outfalls would convey runoff from the waterfront portion of the project site to the East River following treatment for quality, reducing the potential impacts to NYSDEC tidal wetland adjacent area and aquatic resources due to the discharge of runoff from the project site. Stormwater management measures implemented on the project site would regulate the rate at which runoff is discharged to adjacent storm sewers and then to the East River through the proposed outfalls. 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. Overall, discharge of runoff from the project site to the East River due to the proposed project would not result in significant adverse impacts to 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 river from the project site untreated.

In addition, no shading of the river would occur as a result of the proposed esplanade. During operation of the proposed project, the esplanade 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 6, "Shadows," the proposed buildings would cast shadows on the East River. However, as further discussed in Chapter 6, the East River experiences only limited utilization by fish at various times of the year due to its swift currents, lack of shoals and protected habitat, and poor water quality. Therefore, incremental shadows cast by the proposed buildings 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

Terrestrial ecological communities present on the project site, as noted above under "Existing Conditions," are characteristic of an urbanized landscape and highly ubiquitous throughout New York City. The waterfront portion of the project is predominantly comprised of urban structure exterior and paved asphalt areas. The upland portion of the project site is comprised of asphalt paved areas and well as unpaved areas utilized for vehicle storage. These ecological communities are not of high ecological value or uncommon in the surrounding area. Therefore, loss of some areas of these communities within the project site due to clearing activities would not result in a significant adverse impact to these or other ecological communities at a local or regional scale.

Construction of the proposed project would require tree removal on the project site as well as the 9th Street sidewalk located along the project site boundaries. However, as part of the proposed project, trees would be planted along the sidewalks and within the project site (see Figure 9-5). As currently proposed (subject to DPR approval), trees planted along the 9th Street sidewalk (fronting along the project site), 26th Avenue sidewalks and 4th Street sidewalks would include thornless honey locust, Kentucky coffeetree, and sweetgum trees, respectively. Trees planted along the 8th Street Mews would include black tupelo, common alder, and serviceberry autumn brilliance trees. Trees planted along the waterfront esplanade



For Illustriative Purposes Only
Source: Workshop: Ken Smith Landscape Architect

would include swamp white oak, shingle oak, chinkapin oak, sandcherry, beach plum, serviceberry autumn brilliance, and eastern redbud trees.

Operation

Operation of the proposed project would not have any adverse impacts to terrestrial ecological communities or vegetation. In addition to tree replacement and protection, a landscaping plan developed for the proposed project would incorporate several native plant species that currently do not occur on the project site. 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.

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 primarily consists of buildings, roads, and parking lots. The proposed buildings and other structures would be constructed on existing paved lots or by redeveloping lots with existing buildings, and as such, would not eliminate or degrade quality wildlife habitat. As previously stated, some tree removal would be required to redevelop the project site. However, the loss of these trees would not significantly degrade or reduce the amount of habitat available to the generalist species of wildlife present in the study area. 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 similar to existing conditions and would thus support the same 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 and, on occasion, may attract some migrating songbirds in search of stopover habitat during spring and fall.

Bird Collisions

As the Proposed Action would result in the development of three large residential towers 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.[12] The proposed project would include new buildings located amongst numerous existing buildings

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

and ranging in height from 60 to 320 feet. As such, none of the proposed buildings would 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.[13] The landscaped habitat that would be available on 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 project 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 buildings and be at risk of daytime collisions.

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

The Federally or State-listed species with the potential to occur within the study area include Atlantic sturgeon and the peregrine falcon. As discussed under "Existing Conditions," the NMFS determined that Atlantic sturgeon is not expected to occur in the vicinity of Pot Cove and thus, no species under their jurisdiction is likely to be exposed to any direct or indirect effects of the proposed project. The proposed project would likewise have no significant adverse impact to EFH within the East River.

Peregrine falcons have become increasingly common in urban areas since the 1980s and presently nest in several locations throughout the New York metropolitan area. Although the peregrine falcon was documented by the 2000-2005 Breeding Bird Atlas in the census block in which the project site is located, the nearest known recently-active peregrine falcon nests are located along Wall Street, east of Broadway, the Met Life Building, and various area bridges.[14] Occurrence of peregrine falcons in the study area would be limited to migrants passing through the region or individuals from nest sites elsewhere in the City. As such, the proposed project would not eliminate or degrade nesting habitat for the species. Hunting opportunities in the project area for migrant peregrine falcons or individuals from nests elsewhere in the City would remain the same in the future With-Action condition as it would in the future No-Action condition. Urban peregrine falcons primarily eat pigeons, starlings, blackbirds, flickers, blue jays, and other birds that live in the area or fly through during the migratory season,[15] whose abundance would not change as a result of the proposed project. Therefore, the proposed project would not result in significant adverse impacts to the peregrine falcon.

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

[13] Gelb, Y., and N. Delacretaz. 2006. Avian window strike mortality at an urban office building. Kingbird 56(3):190-198.
[14] http://www.nyc.gov/html/dep/html/news/falconfaq.shtml
[15] http://www.nyc.gov/html/dep/html/news/falcon.shtml