A. INTRODUCTION

Most of the Project Area for the Proposed Actions is within New York City's coastal zone boundary as outlined by the New York City Department of City Planning (DCP). The portion of the Project Area within the designated coastal zone comprises the areas west of Broadway between West 135th Street and St. Clair Place/West 125th Street (see Figure 13-1). This chapter examines the Proposed Actions' compliance with federal, State, and local coastal zone policies.

This analysis considers a reasonable worst-case development scenario for the Academic Mixed-Use Development, in which each site in the Academic Mixed-Use Area would be developed with a building containing the uses of the Illustrative Plan.

The federal Coastal Zone Management Act (CZMA) of 1972 was enacted to support and protect the distinctive character of the waterfront and to set forth standard policies for reviewing proposed development projects along coastlines. The program responded to City, State, and federal concerns about the deterioration and inappropriate use of the waterfront. The CZMA emphasizes the primacy of State decision-making regarding the coastal zone. In accordance with the CZMA, New York State adopted its own Coastal Management Program (CMP), designed to balance economic development and preservation by promoting waterfront revitalization and water-dependent uses while protecting fish and wildlife, open space and scenic areas, public access to the shoreline, and farmland; and minimizing adverse changes to ecological systems, and erosion and flood hazards. The New York State CMP provides for local implementation when a municipality adopts a local waterfront revitalization program, as is the case in New York City. 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 U.S. Army Corps of Engineers [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.

The policies in the City's WRP include the following:

- Support and facilitate residential and commercial redevelopment in appropriate coastal zone areas;
- Support water-dependent and industrial uses in New York City coastal areas that are well suited to their continued operation;

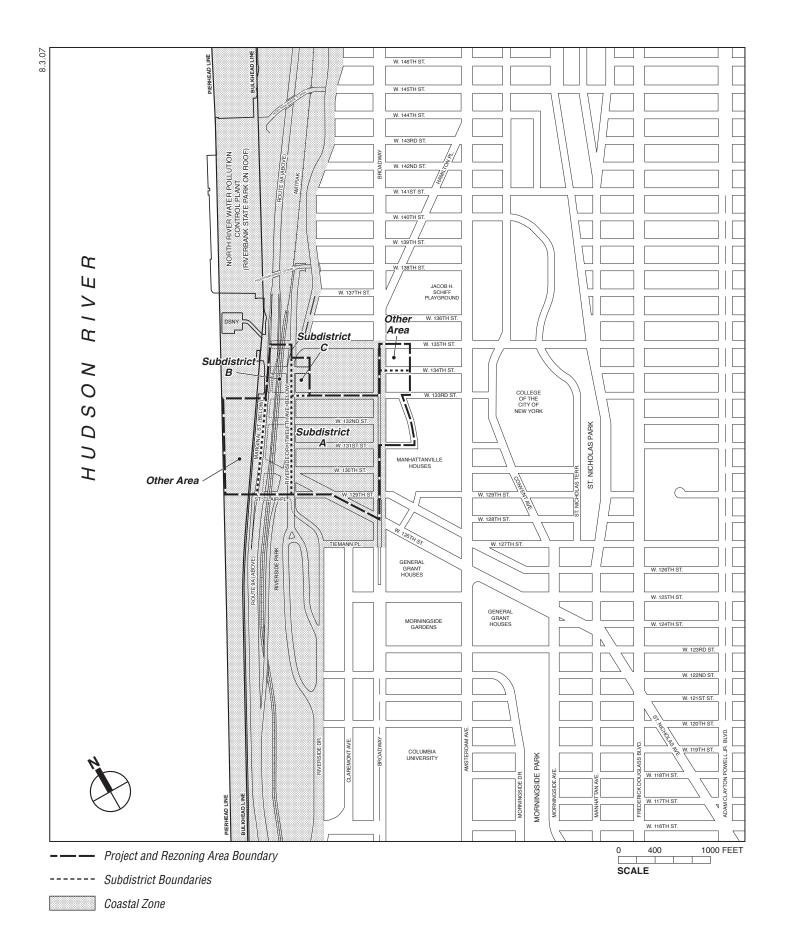


Figure 13-1
Waterfront Revitalization Program:
Coastal Zone Boundary

- Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation centers;
- Protect and restore the quality and function of ecological systems within the New York City coastal area:
- Protect and improve water quality in the New York City coastal area;
- Minimize loss of life, structures, and natural resources caused by flooding and erosion;
- Minimize environmental degradation from solid waste and hazardous substances;
- Provide public access to and along New York City's coastal waters;
- Protect scenic resources that contribute to the visual quality of New York City; and
- Protect, preserve, and enhance resources significant to the historical, archaeological, and cultural legacy of the New York City coastal area.

BACKGROUND

The New York City Economic Development Corporation (EDC) released a study of the Manhattanville area of West Harlem called the West Harlem Master Plan in 2002. The major objective of the Master Plan was to propose a cohesive plan for the economic development of West Harlem that enhances the character of the neighborhood and fulfills the vision of the community. The Proposed Actions would be consistent with several of the recommendations and planning objectives of the West Harlem Master Plan.

The West Harlem Master Plan proposes improvements to the City-owned parking lot on the west side of Marginal Street between St. Clair Place and West 133rd Street to transform the area into a new West Harlem Waterfront park. The Master Plan recommends the development of an attractive waterfront amenity, links to the Manhattan Waterfront Greenway, and construction of two new piers, including an excursion pier to allow docking for recreational excursions and ferry boats. The West Harlem Waterfront park is anticipated to be completed in 2008.

B. PRINCIPAL CONCLUSIONS

As detailed in the assessment below, the Proposed Actions would be consistent with the City's 10 WRP coastal policies and the WRP's goals of enlivening the waterfront and attracting the public to the City's coastal areas. The Proposed Actions would require widened sidewalks in Subdistrict A (except along Broadway, West 125th Street, on the north side of West 131st Street, and the south side of West 132nd Street). Two new significant publicly accessible open spaces with north–south midblock connections would also be created west of Broadway by the Proposed Actions. These features would result in greater and livelier street-level activity, greenery, and enhanced westward views to the Hudson River, making the Project Area more welcoming to pedestrians. Further, these new streetscape features would contribute to an improved pedestrian corridor along West 125th Street to the West Harlem Waterfront park.

As detailed in Chapter 11, "Natural Resources," the Proposed Actions would not result in adverse impacts on terrestrial plants or animals, water quality, or aquatic biota. Construction associated with the Proposed Actions has the potential to result in the removal of some existing street trees. These trees would be removed and replaced in accordance with permits issued by the New York City Department of Parks and Recreation (DPR). In addition, the proposed Special

Manhattanville Mixed-Use Zoning District would have landscaping requirements for all open space areas. This would result in increased vegetation resources within the Academic Mixed-Use Area. The new buildings would be similar in height to the surrounding buildings and are not expected to cause an increased loss of migratory birds from building collisions. The Academic Mixed-Use Development plan and the proposed rezoning of the remaining 18 acres, consisting of 11 acres of land and 7 acres within the Hudson River between the bulkhead and pierhead line (which would support no development), would facilitate the revitalization of Manhattanville, which would be consistent with the City's WRP.

C. METHODOLOGY

The WRP policies for development and use of the waterfront, listed above, provide a framework for evaluating discretionary actions in the coastal zone. This chapter assesses the general consistency of the Proposed Actions with the WRP.

D. EXISTING CONDITIONS

The West Harlem Waterfront park, at the water's edge between St. Clair Place and West 133rd Street, is currently under construction and is expected to be completed in 2008. The Riverside Drive viaduct, which runs above Twelfth Avenue, connects the discontinuous portions of Riverside Park to the north and south of the Project Area. Cyclists and pedestrians traveling along the Manhattan Waterfront Greenway, a 32-mile route that circumnavigates the island of Manhattan, are currently detoured to Twelfth Avenue between West 125th and West 135th Streets. Just north of the Project Area, the North River Water Pollution Control Plant (WPCP) is located along the waterfront between West 137th and West 145th Streets. Built above the North River WPCP is Riverbank State Park, a major 28-acre recreational facility. Since the North River WPCP is built on a reinforced concrete platform over the Hudson River, there is no direct public access to the waterfront from Riverbank State Park.

The early development of industry and shipping uses in the Project Area created relatively low-density development patterns. The north side of West 125th Street is zoned for manufacturing and is thus unable to become an important commercial corridor or a strong pedestrian link to the waterfront. The 125th Street corridor to the riverfront is unwelcoming to pedestrians, handles Henry Hudson Parkway access traffic, and has a wide, confusing intersection with Twelfth Avenue.

Although a visual resource for the Project Area, the Hudson River is mostly inaccessible to pedestrians. Views of the Hudson River through the arches of the Riverside Drive viaduct are available from the side streets. Where the Hudson River is accessible to pedestrians (on Marginal Street next to the river), the waterfront is adjacent to a wide street and the Henry Hudson Parkway viaduct.

E. 2015 FUTURE WITHOUT THE PROPOSED ACTIONS

As described in more detail in Chapter 2, "Procedural and Analytical Framework," the 2015 future without the Proposed Actions condition in the Project Area is expected to be a continuation of existing conditions with the exception of the known projects that are under way or planned. One of these projects is the West Harlem Waterfront park (between St. Clair Place and West 133rd Street), which was recommended in the West Harlem Master Plan. This open space, currently under construction and projected to be completed in 2008, will include walking

and biking paths, an excursion pier to allow docking for excursion and ferry boats, a recreation pier, an ecological platform, and several passive recreation areas, such as lawns and sitting areas. The project will also include traffic calming measures and streetscape improvements on Marginal Street. The park will transform the paved river's edge of Manhattanville into a landscaped open space that will allow direct and active connections to the Hudson River and multiple vantage points for passive viewing of the river vista. It will also provide a partial connection between the two sections of Riverside Park.

In coordination with the master planning effort, the City proposes to improve several intersections in the Project Area along West 125th Street and on Twelfth Avenue. The streetscape improvements (widened sidewalks, plantings, and new street lighting and furniture) will encourage pedestrian access to the West Harlem Waterfront park.

By 2015, Columbia plans to convert and renovate the Studebaker Building at 615 West 131st Street to administrative office uses for the University; collaborate with the City of New York to create a new public secondary school for science, math, and engineering in the Project Area on the east side of Broadway between West 131st and West 132nd Streets; develop administrative space for Columbia University above the new public secondary school; and use the existing former Warren Nash Service Station building at 3280 Broadway for additional administrative office space. As described in Chapter 2, if the Proposed Actions are approved, the new secondary school would not be built in the Project Area, but rather on the south side of West 125th Street west of Broadway on a site controlled by Columbia. The redevelopment/renovation of two sites outside the Project Area for new commercial uses (the northwest corner of West 133rd Street and Twelfth Avenue, and the west side of Twelfth Avenue and West 135th Street) would also occur by 2015.

Outside the Project Area, Columbia will develop the property in its control south of West 125th Street in accordance with current zoning regulations. Columbia currently owns and occupies academic space at Prentis Hall, at 628–644 West 125th Street. The low-rise portion of 560 Riverside Drive along West 125th Street will be renovated by Columbia to provide a building entrance in this location. Columbia also proposes to develop an academic building at the southwest corner of Broadway and West 125th Street.

F. 2015 FUTURE WITH THE PROPOSED ACTIONS

Overall, construction of the Academic Mixed-Use Development by 2015 would occur along the north side of West 125th/West 129th Streets to complement Columbia's as-of-right development on the south side of West 125th Street and to continue to activate the streetscape along West 125th Street. (See Chapter 2 for details of the reasonable worst-case development scenario in the Project Area by 2015.)

This initial phase of development would transform the streetscape of West 125th Street, the main corridor providing access to the new West Harlem Waterfront park. The special urban design controls incorporated into the Special Manhattanville Mixed-Use Zoning District (mandatory streetwalls and setbacks, maximum base and building heights, north—south midblock open areas, widened sidewalks with landscape and streetscape improvements, and open area standards) would enhance pedestrian access to the waterfront. In addition, the proposed rezoning would designate Twelfth Avenue, Broadway, and West 125th Street for active ground-floor uses to provide neighborhood amenities, lively streetscapes, and an enhanced corridor to the West Harlem Waterfront park. The required active ground-floor uses would include a wide range of

retail, institutional, and community service uses, and the zoning would contain glazing and transparency requirements.

As described in Chapter 9, "Urban Design and Visual Resources," to encourage appropriate redevelopment along the Manhattanville waterfront, while enhancing pedestrian access to it, the Special Manhattanville Mixed-Use Zoning District would have urban design requirements for mandatory widened sidewalks in Subdistrict A (except on Broadway, West 125th Street, and the block between West 131st and West 132nd Streets); maximum building heights and mandatory streetwalls throughout the zoning district; designation of Twelfth Avenue, West 125th Street, and Broadway within Subdistricts A and B for special ground-floor uses; transparency requirements on Twelfth Avenue, West 125th Street, and Broadway within Subdistricts A and B; and open area design controls in Subdistrict A. As discussed in Chapter 9, the urban design requirements would enliven the streets through the proposed zoning district, widen views toward the waterfront from Broadway, and provide light and air on the side streets and beneath the Riverside Drive viaduct. They would also ensure a coordinated design for the Academic Mixed-Use Development through building height controls and streetwall requirements. The open area design controls would ensure the quality of and public access to privately owned, publicly accessible open spaces within Subdistrict A that would include north-south midblock open areas, an east-west midblock open area between Broadway and Old Broadway at West 132nd Street, an open space area on the north side of West 129th Street (the Small Square), a throughblock central space between West 130th and West 131st Streets (the Square), and an open area at the western tip of the block bounded by Broadway and West 125th and West 129th Streets (the Grove).

Following the requirements of the Special Manhattanville Mixed-Use Zoning District, the Academic Mixed-Use Development would provide active ground-floor uses along West 125th Street, Broadway, and Twelfth Avenue; keep the streets through the area open, and create widened, landscaped sidewalks on the narrow side streets and Twelfth Avenue to enhance views and make the area pedestrian-friendly; create visually open and accessible space at the bases of the buildings to improve the streetscape and generate street-level activity; locate parking and building services below grade to minimize disruption; and use a coordinated system of building heights and massing to create an overall design for the Academic Mixed-Use Development that reflects the topography of the valley and the heights of certain surrounding buildings and the two viaducts. Overall, the design approach of the Academic Mixed-Use Development aims to create a lively, welcoming urban environment for students, faculty, staff, and the community that would connect the Academic Mixed-Use Development to the surrounding residential neighborhoods and draw views and pedestrians through the Project Area to the West Harlem Waterfront park. Project effects on urban design are described in Chapter 9. Constructed within the existing street pattern and block arrangement, the Academic Mixed-Use Development would be integrated into the Project Area without campus gates or walls, and the arrangement of proposed open spaces would further link the development to the surrounding area.

G. 2030 FUTURE WITHOUT THE PROPOSED ACTIONS

By 2030, the future without the Proposed Actions condition in the Project Area is expected to be a continuation of the 2015 future without the Proposed Actions condition. No specific developments have been identified in the study area for completion by the 2030 analysis year.

H. 2030 FUTURE WITH THE PROPOSED ACTIONS

For this analysis, the entire Academic Mixed-Use Development is conservatively assessed as occurring by 2030. (See Chapter 2 for details of the reasonable worst-case development scenario in the Project Area by 2030.)

The design approach of the Academic Mixed-Use Development, as described above in "2015 Future with the Proposed Actions," would provide street-level visual interest, pedestrian activity, and neighborhood amenities along Twelfth Avenue, Broadway, and West 125th Street. The side streets would become inviting to pedestrians, thereby establishing connections through the Project Area to the waterfront and West Harlem Waterfront park. In addition, the Proposed Actions would widen view corridors to the waterfront through the Project Area.

I. CONSISTENCY OF THE PROPOSED PROJECT WITH THE WRP POLICIES

Policy 1: Support and facilitate commercial and residential development in areas well-suited to such development.

Policy 1.1: Encourage commercial and residential redevelopment in appropriate coastal zone areas.

The Project Area is appropriate for redevelopment per the criteria identified in Policy 1.1, for the following reasons. The Project Area is not located within a Special Natural Waterfront Area or in a Significant Maritime and Industrial Area. The Project Area does not contain any unique or significant natural features. As described in Chapter 3, "Land Use, Zoning, and Public Policy," the Project Area generally comprises auto repair businesses, parking facilities, moving and storage facilities, and sites containing low-density commercial or industrial buildings.

The Project Area is located in close proximity to residential and commercial uses and, as identified in the West Harlem Master Plan, has the potential for strengthening upland residential or commercial areas and for opening up the waterfront to the public. The Proposed Actions would facilitate commercial and residential development in an appropriate area for reuse and therefore would be consistent with this policy.

Policy 1.2: Encourage non-industrial development that enlivens the waterfront and attracts the public.

The Proposed Actions would replace the existing automotive uses, storage facilities, and industrial and manufacturing uses with new community facility and commercial development that would enliven and attract residents and visitors to the Manhattanville waterfront and the new West Harlem Waterfront park. Therefore, the Proposed Actions would be consistent with this policy.

Policy 1.3: Encourage redevelopment in the coastal area where public facilities and infrastructure are adequate or will be developed.

Public facilities—including police stations, firehouses, health care facilities, security services, and libraries—in the Project Area are adequate to handle the demands of the Proposed Actions. Public schools located within the area, including the new public secondary school that will be developed in the future without the Proposed Actions, would have adequate capacity to accommodate the Project Area's future population. (An

assessment of elementary and intermediate schools and an evaluation of impacts are discussed in Chapter 5, "Community Facilities and Services.") As described in Chapter 14, "Infrastructure," although the Proposed Actions would result in an increased demand for drinking water and increased sewage discharge to the North River WPCP, both municipal services have adequate capacity to meet the increased demand. A conceptual amendment to the New York City drainage plan is being developed, which includes upgrades to several sewers in the area, to accommodate existing flows and flows from the Proposed Actions. In addition, to reduce total design flows to the combined sewers, stormwater flows from West 132nd to West 130th Streets between Twelfth Avenue and Broadway would be collected through new storm sewers installed in those streets and conveyed via gravity through a separate stormwater line which would run south along Twelfth Avenue, west along West 125th Street, and south along Marginal Street to an existing CSO outfall at St. Clair Place and the Hudson River. Separating this stormwater from the combined sewers would also reduce flows to the North River WPCP.

Policy 2: Support water-dependent and industrial uses in New York City coastal areas that are well-suited to their continued operation.

Policy 2.1: Promote water-dependent and industrial uses in Significant Maritime and Industrial Areas.

The Project Area is not located in a Significant Maritime and Industrial Area. Therefore, this policy does not apply to the Proposed Actions.

Policy 2.2: Encourage working waterfront uses at appropriate sites outside the Significant Maritime and Industrial Areas.

Port operations are no longer prevalent in the nearby waterfront area, and the demand for such activities is not expected in the future. The Proposed Actions would not directly result in construction or operation of such facilities along nearby waterfront areas, which are not suitable for working waterfront uses. Therefore, this policy does not apply to the Proposed Actions.

Policy 2.3: Provide infrastructure improvements necessary to support working waterfront uses.

The Proposed Actions would not include working waterfront uses. Therefore, this policy does not apply to the Proposed Actions.

Policy 3: Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation centers.

Policy 3.1: Support and encourage recreational and commercial boating in New York City's maritime centers.

The Project Area includes the area being developed as the West Harlem Waterfront park, where recreational boating and ferry transportation will be available. The Proposed Actions would promote the use of this waterfront area by improving pedestrian access to the West Harlem Waterfront park and widening view corridors through the Project Area to the Hudson River. Therefore, the Proposed Actions would be consistent with this policy.

Policy 3.2: Minimize conflicts between recreational, commercial, and ocean-going freight vessels.

The Proposed Actions would not provide facilities for recreational or commercial vessels. Therefore, this policy does not apply to the Proposed Actions.

Policy 3.3: Minimize impact of commercial and recreational boating activities on the aquatic environment and surrounding land and water uses.

The Proposed Actions would not provide facilities for commercial or recreational boating. Therefore, this policy does not apply to the Proposed Actions.

Policy 4: Protect and restore the quality and function of ecological systems within the New York City coastal area.

Policy 4.1: Protect and restore the ecological quality and component habitats and resources within the Special Natural Waterfront Areas, Recognized Ecological Complexes, and Significant Coastal Fish and Wildlife Habitats.

The Project Area is not located within a Special Natural Waterfront Area or Recognized Ecological Complex. The Project Area is adjacent to the lower Hudson River, which has been designated as a Significant Coastal Fish and Wildlife Habitat. For the discharge of stormwater through a connection to an existing outfall, a State Pollutant Discharge Elimination System (SPDES) permit from the New York State Department of Environmental Conservation (DEC) would be required.

The new separate stormwater system would be operational by 2030, and would be designed to divert stormwater from the combined sewer system at a flow rate of up to 42 million gallons per day (mgd)—equivalent to 65 cubic feet per second (CFS). This is an instantaneous flow rate that is not likely to last for a day. Over the course of a year, the proposed stormwater system is expected to divert about 9.9 million gallons of stormwater from the combined sewer system. The 9.9 million gallons per year diverted from the combined sewer system would reduce the volume of combined sewage discharged into the Hudson River by about 1.6 million gallons per year. As presented in Appendix E, discharge of stormwater through the existing CSO outfall at St. Clair Place would not be expected to result in significant adverse impacts on water quality or aquatic biota, or result in adverse impacts on the aquatic habitat enhancement measures implemented as part of the West Harlem Waterfront park project. The new storm sewers would be expected to include measures to contain floatables (e.g., catchbasins with sump and hood), and to trap sediment and oil (e.g., catchbasins with hydrodynamic separators).

The increased sewage discharge projected to occur as a result of the Proposed Actions would not result in significant adverse impacts on water quality or aquatic biota of the lower Hudson River (see Chapter 11 and Appendix E for details.). The frequency of combined sewer overflow (CSO) events is not expected to change with the separate stormwater system in place by 2030. The pollutant loadings from CSOs would be minimal and would not result in water quality conditions that fail to meet the water quality standards that apply to the lower Hudson River. Additionally, the projected average daily flow to the North River WPCP in 2030 with the Proposed Actions would not affect compliance of the effluent with the SPDES permitting conditions or result in water quality conditions within the vicinity of the WPCP that fail to meet the water quality standards that apply to the lower Hudson River. Therefore, the Proposed Actions would be consistent with this policy.

Policy 4.2: Protect and restore tidal and freshwater wetlands.

The only portion of the Project Area with the potential to contain DEC tidal wetlands is the Other Area west of Marginal Street along the Hudson River. This portion of the Project Area is being developed for the West Harlem Waterfront park independent of the Proposed Actions. The park has undergone separate environmental review and permitting. Therefore, the Proposed Actions would be consistent with this policy.

Policy 4.3: Protect vulnerable plant, fish, and wildlife species, and rare ecological communities. Design and develop land and water uses to maximize their integration or compatibility with the identified ecological community.

Requests for information on rare, threatened, or endangered species within the immediate vicinity of Project Area were submitted to USFWS, the DEC Natural Heritage Program (NYNHP), and National Marine Fisheries Service (NMFS). As described in Chapter 11, no federally listed or proposed endangered or threatened species under the authority of the USFWS are known to exist in the vicinity of the Project Area. The discharge of stormwater through the existing outfall would not be expected to result in significant adverse impacts on water quality or aquatic biota. Therefore, no adverse impacts would occur to the New York State- and federally listed endangered shortnose sturgeon identified by the NYNHP and NMFS as occurring within the Hudson River in the vicinity of the Project Area. According to DEC (see Chapter 11), the active New York State-listed endangered peregrine falcon nest identified by NYNHP as present in the vicinity of the Project Area is far enough away, within 2,000 feet (or 0.4 miles, or 0.6 kilometers), that it would not be affected by the Proposed Actions. Therefore, the Proposed Actions would be consistent with this policy.

Policy 4.4: Maintain and protect living aquatic resources.

The Proposed Actions would <u>not involve any</u> in-water activities and, as described in Chapter 11 and the response to Policy 4.1, would not result in adverse impacts on water quality or aquatic biota. Therefore, the Proposed Actions would be consistent with this policy.

Policy 5: Protect and improve water quality in the New York City coastal area.

Policy 5.1: Manage direct or indirect discharges to waterbodies.

The Project Area is within the drainage area for the North River WPCP. As described in Chapter 14, all sewage generated by the Proposed Actions would be treated at the North River WPCP before being discharged to the Hudson River. Because the Project Area is already covered by impervious surfaces, stormwater discharge to the combined sewer system would not be expected to increase as a result of the Proposed Actions and would have the potential to decrease as a result of the stormwater flows diverted to the new separate storm sewers constructed as part of the Proposed Actions.

In 2015 and 2030, the components of the Proposed Actions expected to be completed and operating would result in small increases in sewage discharge to the combined sewer system (see Chapter 14). As discussed in the response to Policy 4.1, the projected average daily flow to the North River WPCP with the Proposed Actions would not affect compliance of the effluent with the SPDES permitting conditions or lead to water quality conditions within the vicinity of the WPCP that fail to meet the water quality standards that apply to this portion of the lower Hudson River (see Chapter 11 and Appendix E). Additionally, as discussed in the response to Policy 4.1, pollutant loadings to the Hudson River from CSOs in 2030 from the Proposed Actions would be minimal and would not be expected to result in

significant adverse impacts on water quality or aquatic biota; nor would the discharge of stormwater through the <u>existing CSO</u> outfall <u>at St. Clair Place</u> be expected to result in adverse impacts on water quality of aquatic biota. Therefore, the Proposed Actions would be consistent with this policy.

Policy 5.2: Protect the quality of New York City's waters by managing activities that generate non-point source pollution.

All stormwater originating within the Project Area would be discharged to the municipal combined sewer system or the new storm sewers that would be constructed within West 130th, West 131st, and West 132nd Streets. The Project Area is currently covered by impervious surfaces. Therefore, stormwater generated within the Project Area would not be expected to increase as a result of the Proposed Actions in 2015 or 2030. The proposed separate stormwater system would divert about 9.9 million gallons per year from the combined sewer system in 2030 with the Proposed Actions, and increases in pollutant loadings through CSOs would be minimal when compared with the 2030 future without the Proposed Actions. Therefore, the Proposed Actions would be consistent with this policy.

Policy 5.3: Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes, or wetlands.

The Proposed Actions would <u>not</u> involve <u>any</u> in-water activities in 2015 or at completion in 2030. Therefore, the Proposed Actions would be consistent with this policy.

Policy 5.4: Protect the quality and quantity of groundwater, streams, and the sources of water for wetlands.

The Project Area does not contain any potable groundwater, nor does it contain streams or the source of water for wetlands. The construction and operation of the facilities within the Academic Mixed-Use Area in 2015 and 2030 would not result in adverse changes to groundwater quality or significant adverse changes to flow pattern. Concentrations of metals, organic compounds, and other contaminants detected in groundwater samples collected within the Academic Mixed-Use Area are likely associated with urban fill placed within the Project Area rather than specific past or current uses. Construction of the Columbia facilities within the Academic Mixed-Use Area would result in the removal or capping of contaminated soils and historic fill within this portion of the Project Area, minimizing the potential for adverse impacts on groundwater quality. Although the construction of the slurry walls would modify the groundwater flow pattern in the vicinity of the wall, it would not adversely affect groundwater discharge to the Hudson River.

As described in Chapter 12, "Hazardous Materials," potential contaminants identified in the Academic Mixed-Use Area on lots owned by Columbia University at the time the proposed zoning is approved would be remediated (cleaned up) as part of the development of this area by Columbia University. Restrictive Declarations will be placed against the Columbia-owned properties to require remediation. Potential impacts during construction and development activities would be avoided by implementing a construction health and safety plan (CHASP). The CHASP would ensure that there would be no significant adverse impacts on public health, workers' safety, or the environment as a result of potential hazardous materials exposed by or encountered during construction. In addition, a remedial action plan (RAP) would be prepared to address the remediation of known or potential environmental conditions that may be encountered during proposed construction. Both the

RAP and CHASP would be approved by the New York City Department of Environmental Protection (DEP) and, if necessary, by DEC.

An E-designation would be placed on all lots in the Academic Mixed-Use Area not owned by Columbia University at the time the proposed zoning is approved and for the remainder of the Project Area, pursuant to Section 11-15 of the New York City Zoning Resolution. The owner and developer of a lot with an E-designation must prepare a Phase I Environmental Site Assessment (Phase I ESA) and implement a testing and sampling protocol to the satisfaction of DEP before the New York City Department of Buildings (DOB) issues a building permit. Based on the results of the sampling protocol, if remediation is necessary, an RAP and a CHASP must be submitted and approved by DEP. With these measures in place, groundwater quality would be protected from hazardous materials impacts. Therefore, the Proposed Actions would be consistent with this policy.

Policy 6: Minimize the loss of life, structures, and natural resources caused by flooding and erosion.

Policy 6.1: Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the condition and use of the property to be protected and the surrounding area.

Subdistrict B and the Other Area west of Marginal Street containing the West Harlem Waterfront park are the only portions of the Project Area located in the 100-year floodplain (see Figure 13-2). All structures constructed as a result of the Proposed Actions would be designed and constructed consistent with the need to minimize flood damage within the 100-year floodplain. In addition, because the Proposed Actions would not increase the amount of impervious surface in the Project Area as compared with the existing condition or in the future without the Proposed Actions, it would not result in an increased exposure to flood hazards in or near the Project Area. Therefore, the Proposed Actions would be consistent with this policy.

Policy 6.2: Direct public funding for flood prevention or erosion control measures to those locations where the investment will yield significant public benefit.

The Proposed Actions would not involve the use of public funding for such measures. Therefore, this policy does not apply to the Proposed Actions.

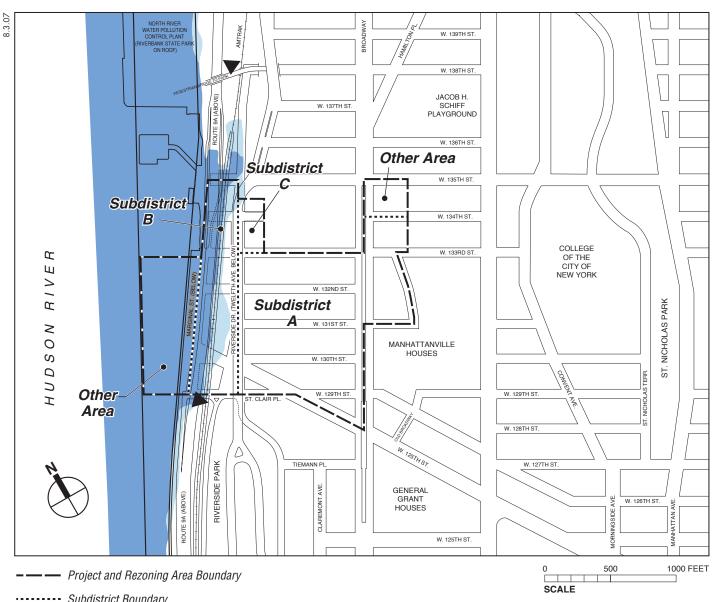
Policy 6.3: Protect and preserve non-renewable sources of sand for beach nourishment.

There are no non-renewable sources of sand near the Project Area. Therefore, this policy does not apply to the Proposed Actions.

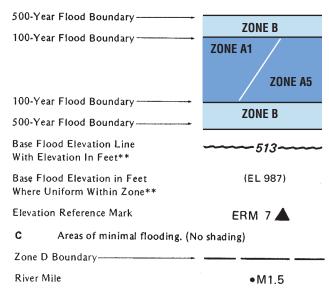
Policy 7: Minimize environmental degradation from solid waste and hazardous substances.

Policy 7.1: Manage solid waste material, hazardous wastes, toxic pollutants, and substances hazardous to the environment to protect public health, control pollution, and prevent degradation of coastal ecosystems.

The solid waste generated by the Proposed Actions would be collected by New York City Department of Sanitation (DSNY)'s trucks and private carters, and disposed of at out-of-City locations, as is the practice for managing solid waste currently generated within the Project Area. Municipal and commercial solid waste collection disposal is discussed in greater detail in Chapter 15, "Solid Waste and Sanitation Services." DSNY would be



·---- Subdistrict Boundary



^{**}Referenced to the National Geodetic Vertical Datum of 1929

responsible for the handling and disposal of solid waste in a manner that would protect the public and coastal areas.

Any toxic or hazardous waste encountered during construction activities associated with the Proposed Actions would be handled in accordance with DEP, DEC, U.S. Occupational Safety and Health Administration (OSHA), and U.S. Environmental Protection Agency (EPA) requirements. Potential impacts during construction and development activities would be avoided by implementing a CHASP. The CHASP would ensure that adverse impacts on public health, workers' safety, or the environment would not occur as a result of potential hazardous materials exposed by or encountered during construction. Following construction, any remaining contamination would be isolated from the environment and there would be nor further potential for exposure (see Chapter 12) Therefore, the Proposed Actions would be consistent with this policy.

Policy 7.2: Prevent and remediate discharge of petroleum products.

Petroleum products encountered during construction activities associated with the Proposed Actions would be managed and mitigated according to pertinent DEP, DEC, OSHA, and EPA requirements. Storage and handling of petroleum products would follow applicable regulations. Transportation, storage, and handling of petroleum products would not occur on the Hudson River waterfront. (See Chapter 12 for detailed discussion of petroleum products management.) Therefore, the Proposed Actions would be consistent with this policy.

Policy 7.3: Transport solid waste and hazardous substances and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.

See Policy 7.1, above.

Policy 8: Provide public access to and along New York City's coastal waters.

Policy 8.1: Preserve, protect and maintain existing physical, visual, and recreational access to the waterfront.

The Proposed Actions would require widened sidewalks in Subdistrict A (except on Broadway, West 125th Street, and the block between West 131st and West 132nd Streets), and active ground-floor uses along West 125th Street, Broadway, and Twelfth Avenue within Subdistricts A and B. Two new significant publicly accessible open spaces with north–south midblock connections would also be created west of Broadway by the Proposed Actions. These features would result in greater and livelier street-level activity, greenery, and enhanced westward views to the Hudson River, making the Project Area more welcoming to pedestrians. Further, these new streetscape features would improve the pedestrian corridor along West 125th Street and encourage pedestrian movement to the West Harlem Waterfront park. Therefore, the Proposed Actions would be consistent with this policy.

Policy 8.2: Incorporate public access into new public and private development where compatible with proposed land use and coastal location.

See Policy 8.1.

Policy 8.3: Provide visual access to coastal lands, waters, and open space where physically practical.

See Policy 8.1.

Policy 8.4: Preserve and develop waterfront open space and recreation on publicly owned land at suitable locations.

The only portion of the Project Area that is along the waterfront is to be developed for the West Harlem Waterfront park as part of a separate action. The West Harlem Waterfront park is being constructed on City-owned property. The Proposed Actions would improve pedestrian access to the West Harlem Waterfront park and result in improved views of the waterfront. Therefore, the Proposed Actions would be consistent with this policy.

Policy 8.5: Preserve the public interest in and use of lands and waters held in public trust by the State and City.

The Proposed Actions would not hinder current accessibility to the waterfront or interfere with the continued use or ownership of land and waters held in the public trust. The corridor access to the West Harlem Waterfront park would improve movement of residents, workers, and visitors to the waterfront. Thus, the public interest in the use of lands and water held in public trust would be encouraged and preserved. Therefore, the Proposed Actions would be consistent with this policy.

Policy 9: Protect scenic resources that contribute to the visual quality of the New York City coastal area.

Policy 9.1: Protect and improve visual quality associated with New York City's urban context and the historic and working waterfront.

The visual character of the Hudson River waterfront consists of an urban landscape with manufacturing, industrial buildings, and paved surfaces. The Proposed Actions would enhance the streetscapes leading to the waterfront and along the waterfront. The developments in the Project Area would be in character with and would be consistent with protecting and enhancing the existing visual resources and character of the area, as discussed in Chapter 9. Therefore, the Proposed Actions would be consistent with this policy.

Policy 9.2: Protect scenic values associated with natural resources.

With the exception of the Hudson River, natural resources are limited within the Project Area. The Hudson River waterfront within the Project Area would be enhanced through the proposed West Harlem Waterfront park, which is separate from the Proposed Actions. The Proposed Actions would not affect the current scenic values associated with the Hudson River within the Project Area and would not affect the scenic values afforded by the West Harlem Waterfront park after its completion in 2008. Therefore, the Proposed Actions would be consistent with this policy.

Policy 10: Protect, preserve, and enhance resources significant to the historical, archaeological, and cultural legacy of the New York City coastal area.

Policy 10.1: Retain and preserve designated historic resources and enhance resources significant to the coastal culture of New York City.

In accordance with City Environmental Quality Review (CEQR), the State Environmental Quality Review Act (SEQRA), and the New York State Historic Preservation Act of 1980, properties in the Project Area and surrounding area that are listed on or appear to meet criteria for listing on the State and National Registers of Historic Places (S/NR) or are designated as or appear to meet criteria for designation as New York City Landmarks have been identified. The Project Area contains 10 architectural resources dating from the late

19th century and early to mid-20th century. Eight of these are located within the coastal zone. As detailed in Chapter 8, "Historic Resources," three of the eight are on the S/NR (the Manhattan Valley IRT viaduct, the IRT 125th Street Subway Station, and the former Sheffield Farms Stable), and five are determined eligible for S/NR listing (the Riverside Drive viaduct, the Studebaker Building, the West Market Diner, the former New York Central Railroad Substation No. 11, and the former Lee Brothers Storage Building).

The architectural resources in the Project Area would be retained, except for two: the former Sheffield Farms Stable (currently a moving and storage building), located at 3229 Broadway between West 129th and 130th Streets; and the West Market Diner (now vacant), at 659 West 131st Street. The Proposed Actions would develop academic research buildings along the west side of Broadway, and a proposed academic research building would be located on the site of the former Sheffield Farms Stable between West 129th and West 130th Streets at 3229 Broadway. As part of the Proposed Actions, a study to evaluate the feasibility of reusing the former Sheffield Farms Stable at 3229 Broadway in the Academic Mixed-Use Area was prepared and submitted to OPRHP for review to determine: (1) if the physical characteristics of the building, presently at 3229 Broadway, allow for conversion to academic research use; (2) if alterations to convert the building would impact its historic character; and (3) whether retaining the building would allow Columbia University to meet its academic research space needs. The study and further analysis responding to a comment from OPRHP conclude that it is not feasible to retain and adaptively reuse the former Sheffield Farms Stable. Measures that would partially mitigate the significant adverse impact resulting from the demolition of the building for the initial (2015) phase of development are described in Chapter 23, "Mitigation."

Removing the 1948 dining car of the West Market Diner (only the 1948 dining car of the West Market Diner retains significant original features) and relocating it would not constitute a significant adverse impact. Columbia University would relocate the 1948 dining car to a new site in the Project Area or study area and restore the diner to the extent practicable, in consultation with OPRHP.

The former Sheffield Farms Stable does not have a coastal relationship or significance to the coastal culture of New York City. The historic use of this resource (a stable for a large milk processing plant, further described in Chapter 8) does not relate to the historical use and development of the waterfront. Therefore, the Proposed Actions would be consistent with this policy.

Policy 10.2: Protect and preserve archaeological resources and artifacts.

There are no documented archaeological resources within the coastal zone of the Project Area. The New York City Landmarks Preservation Commission (LPC) reviewed the Project Area and identified one site within the coastal zone that required archaeological evaluation in the form of a documentary study. Another site was identified east of Broadway outside the coastal zone. A documentary study prepared by Historical Perspectives, Inc. determined that the site does not have the potential to contain archaeological resources, and, therefore, the Proposed Actions would have no adverse impacts on archaeological resources (see Chapter 8). The conclusions of this report were reviewed and accepted by OPRHP and LPC. Therefore, the Proposed Actions would be consistent with this policy.