

## **Chapter 16: Coastal Zone Consistency**

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### **16.1 INTRODUCTION**

This chapter presents the coastal zone consistency analysis of the No Action Alternative and the Preferred Alternative in accordance with New York coastal zone policies. The analysis also presents FRA's identification of potential impacts of both the Preferred Alternative and the No Action Alternative on coastal resources under the framework of New York City's Waterfront Revitalization Program (WRP) policies.

### **16.2 REGULATORY CONTEXT**

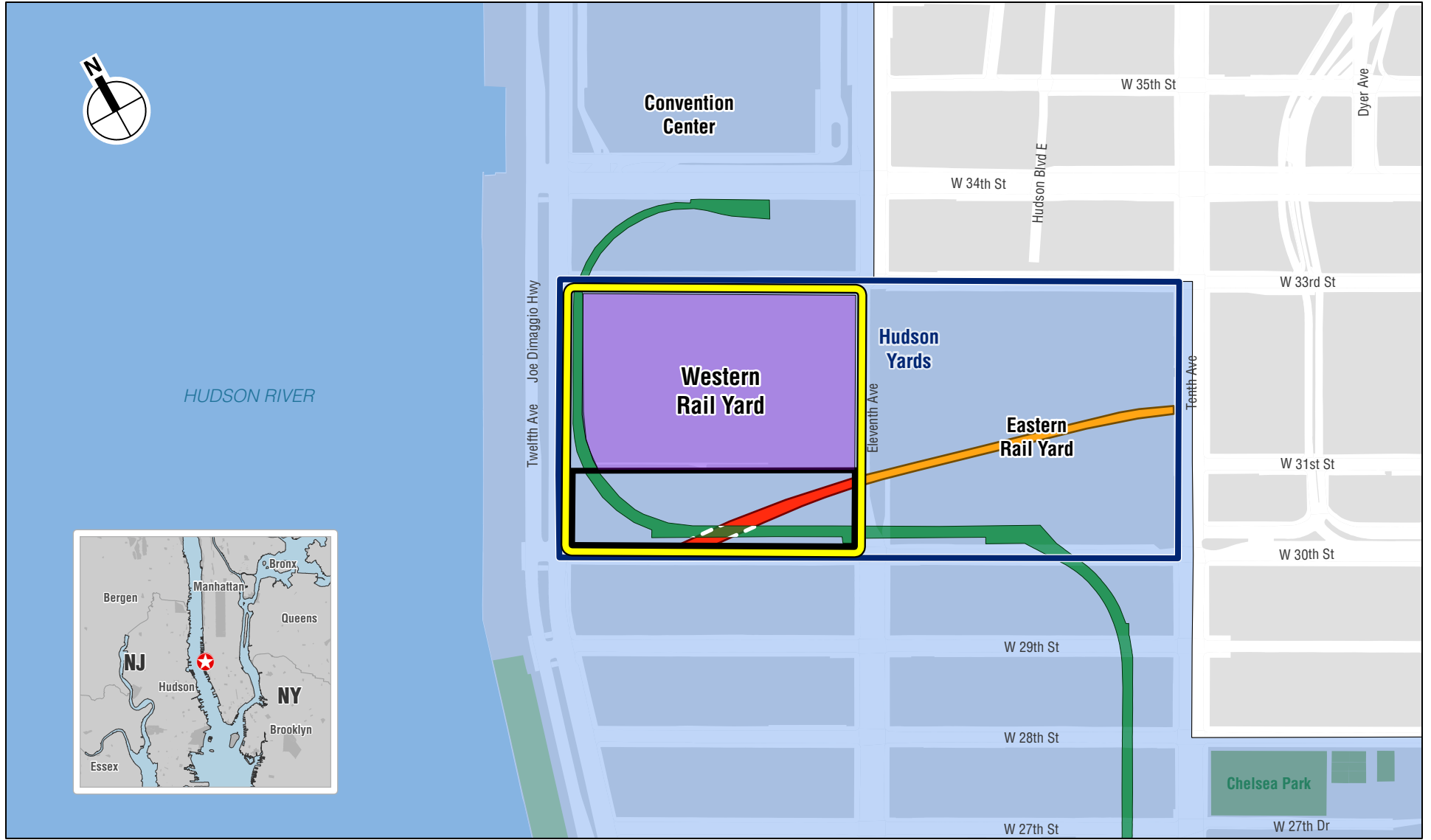
FRA conducted the analysis for coastal zone consistency in accordance with the Coastal Zone Management Act (CZMA) of 1972 and 15 CFR Part 923. NYSDOS administers the Coastal Management Program (CMP) in New York, and NYCDOP administers the WRP. Because the Project is located within New York City's Coastal Zone Boundary, FRA reviewed it for consistency with the WRP policies. Chapter 13 of **Appendix B**, "Methodology Report," describes the regulatory context for this resource category in detail.

### **16.3 ANALYSIS METHODOLOGY**

FRA developed an *Effects Assessment Methodology Report* which describes the methods FRA used in this EIS to evaluate the consistency of the No Action Alternative and the Preferred Alternative with the New York City Coastal Zone policies (see **Appendix B**). The Study Area for the coastal zone consistency analysis comprised all portions of the Project Site located within the New York coastal zone boundary based on *CEQR Technical Manual* guidelines (see **Figure 16-1**). The Study Area is consistent with study areas for the environmental analysis of similar projects in New York City.

### **16.4 NEW YORK COASTAL ZONE CONSISTENCY ASSESSMENT OF THE NO ACTION ALTERNATIVE**

The No Action Alternative includes only those projects that are necessary to keep the Western Rail Yard and the associated LIRR facilities in service and provide continued maintenance. Because the No Action Alternative does not involve any new development on the Project Site, the No Action Alternative would either be consistent with WRP policies, or the policies would not be applicable. Therefore, FRA has not conducted a detailed coastal zone consistency assessment for the No Action Alternative that addresses each individual policy.



- Project Site (Western Rail Yard)
- Hudson Yards
- Approximate Terra Firma Area
- Proposed Platform
- Existing Concrete Encasement
- Proposed Tunnel Encasement
- Existing High Line Park (Remains Unaltered)
- Coastal Zone Boundary



**WESTERN RAIL YARD INFRASTRUCTURE PROJECT**

NYC Coastal Zone Boundary  
**Figure 16-1**

## 16.5 NEW YORK COASTAL ZONE CONSISTENCY ASSESSMENT OF THE PREFERRED ALTERNATIVE

### 16.5.1 OVERVIEW

New York City's Local WRP consists of 10 major policies focusing on the goals of improving public access to the waterfront; reducing damage from flooding and other water-related disasters; protecting water quality, sensitive habitats (e.g., wetlands), and the aquatic ecosystem; reusing abandoned waterfront structures; and promoting development with appropriate land uses.

### 16.5.2 NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM POLICIES

An assessment of the Preferred Alternative's consistency with the revised WRP's applicable policies is provided below, organized by WRP policy. **Appendix L** contains the WRP Consistency Assessment Form along with the documentation that was submitted to NYSDOS to request concurrence with the consistency determination. Any policies that were determined to be not applicable to the Preferred Alternative, as identified on the WRP Consistency Assessment Form, are not discussed in this section.

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

*Policy 1.1: Encourage commercial and residential redevelopment in appropriate Coastal Zone areas.*

The Preferred Alternative would support the ongoing initiatives to redevelop the waterfront. When MTA redeveloped the Hudson Yards in 1986, the tracks and other facilities were laid out to accommodate the columns that would be required to support a Platform to cover the rail yard, which would support future private development. Currently, there is no capacity for development over the Western Rail Yard without construction of the Platform. The 2005 Hudson Yards rezoning project instituted a major rezoning of the entire Hudson Yards area, to accommodate a mix of uses and densities throughout the Far West Side, the provision of new open space, and an extension of the No. 7 subway line. The 2005 Hudson Yards Rezoning provided new and closer access to the subway system in this area, which made private development considerably more attractive and viable in this part of Manhattan. The Platform will provide additional new capacity for real estate development in an area that is primed for such development.

Although the Project Site is located within the Coastal Zone, it is not located on the waterfront, and the Preferred Alternative would not displace any waterfront use or affect public access to the waterfront. The Preferred Alternative would be consistent with surrounding land uses and is in an area suitable for residential, commercial, and light industrial development. Therefore, the Preferred Alternative would promote this policy.

*Policy 1.2: Encourage non-industrial development with uses and design features that enliven the waterfront and attract the public.*

The Project Sponsor would build the Preferred Alternative in accordance with the New York City Zoning Resolution's existing zoning controls. While the rail yard is not suitable for non-industrial development, the Preferred Alternative would include construction of a Platform over the Western Rail Yard, which would provide a location for private mixed-use development, which would be supportive of this policy. Therefore, the Preferred Alternative would indirectly promote this policy.

*Policy 1.3: Encourage redevelopment in the Coastal Zone where public facilities and infrastructure are adequate or will be developed.*

As stated above in Policy 1.1, the 2005 Hudson Yards Rezoning instituted a major rezoning of the entire Hudson Yards area. A result of this rezoning, there is new and closer access to the subway system in this area, which makes private development considerably more attractive and viable in this part of Manhattan. The Preferred Alternative would allow for an as-of-right development that would be supported by public facilities and infrastructure such as water and sewer. The Tunnel Encasement would preserve underground right-of-way in Hudson Yards to maintain opportunities to expand rail services, meet future demand, and improve inter-city and commuter rail system safety and reliability. The preservation of the right-of-way is necessary to ensure the Platform construction would not eliminate the possibility of future rail development and expansion through Hudson Yards and into New York Penn Station. While the new LIRR buildings would generate sanitary sewage, the sanitary sewer systems would continue to discharge to the NYCDEP combined sewer in West 30th Street and be conveyed to the North River WWTP. The incremental increase in sanitary sewage discharge to the North River WWTP would not result in an exceedance of the WWTP's permitted capacity (see Chapter 13, "Utilities and Energy," for additional detail), and the LIRR buildings would be required to use low flow plumbing fixtures that would reduce sanitary flows. Stormwater collected on the Western Rail Yard currently discharges directly to the Hudson River through on-site drainage structures and piping connected to a private storm sewer (LIRR storm sewer) on the Project Site. Stormwater collected on the Platform would be primarily detained on-site for reuse. Any overflow of stormwater collected on the Platform would be conveyed to the sewer infrastructure in West 33rd Street. On portions of the Project Site that would not be covered by Platform, stormwater would continue to be conveyed to the existing LIRR storm sewer that drains to the Hudson River. The LIRR storm sewer would continue to meet the requirements of the existing NYCDEP MS4 permit for stormwater discharge. Therefore, the Preferred Alternative would promote this policy.

*Policy 1.5: Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development, pursuant to WRP Policy 6.2.*

As described further below under Policy 6.2, the Preferred Alternative would incorporate measures to provide resiliency from climate change and sea level rise. The Project Sponsor would construct the Platform at approximately +33 feet NAVD88 and would remain above the 1 percent annual chance BFE over the entire lifespan of the project under all sea level rise projections. While the Platform's structural support system would extend through the floodplain, it would be designed for the wave, stream flow and other forces applied to the platform supporting elements by the potential flood event. The Tunnel Encasement would be constructed below grade, would be fully enclosed, and flood proofed. Therefore, the Preferred Alternative would promote Policy 1.5.

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

*Policy 4.3: Protect designated Significant Coastal Fish and Wildlife Habitats.*

NYSDEC designated the Lower Hudson River Estuary in the vicinity of the Project Site as a Significant Coastal Fish and Wildlife Habitat as part of the New York Coastal Management Program. The Preferred Alternative would not result in any temporary or permanent installation of any structure within the Hudson River and would not, therefore, result in any disturbance of substrate characteristics or result in any changes in water depth within the Lower Hudson River during construction of the Preferred Alternative. Similarly, neither construction nor operation of the Preferred Alternative would generate any new sources of underwater noise, require dredging, or result in a change in vessel traffic or in prey quantity or quality within the lower Hudson River. The continued discharge of stormwater runoff through the LIRR storm sewer in accordance with the existing NYCDEP MS4 permit for stormwater discharge from the Western Rail Yard would not result in any permanent or temporary impacts or changes in water quality. Furthermore, the Preferred Alternative would not involve any in-water construction that could affect this resource. During construction, the Project Sponsor would implement erosion and sediment control measures contained in the SWPPP prepared in accordance with an SPDES permit for the Preferred Alternative. These measures would minimize the discharge of sediment to the Hudson River during construction through existing LIRR stormwater outfalls. The incremental increase in sanitary sewage, and any additional stormwater runoff above what is detained on-site for reuse, conveyed to the North River WWTP would be small and would not be expected to cause the North River WWTP to be above its permitted daily flow limit of 170 mgd or adversely affect compliance of the North River WWTP effluent with its SPDES permit limits. Therefore, the Preferred Alternative would not have the potential to affect water quality of the Hudson River due to additional discharges from the North River WWTP. For these reasons, the operation of the Preferred Alternative would have no effect on Significant Coastal Fish and Wildlife Habitats. Therefore, the Preferred Alternative would promote this policy.

*Policy 4.5: Protect and restore tidal and freshwater wetlands.*

See response to Policy 4.3. The Preferred Alternative would not involve any in-water construction. The Project Sponsor would implement erosion and sediment control measures identified in the SWPPP during construction to minimize the discharge of sediment to littoral zone tidal wetlands of the Hudson River. As a result, the continued discharge of stormwater runoff through the LIRR storm sewer in accordance with the existing NYCDEP MS4 permit for stormwater discharge from the Western Rail Yard during construction of the Preferred Alternative would not result in any permanent or temporary impacts or changes in the quality of littoral zone tidal wetlands of the Hudson River. Therefore, the Preferred Alternative would promote this policy.

*Policy 4.7: 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.*

See response to Policy 4.3. The Preferred Alternative would not result in any in-water work within the lower Hudson River, where the federally listed endangered Atlantic and shortnose sturgeon (*Acipenser oxyrinchus* and *Acipenser brevirostrum*, respectively) have the potential to occur. The continued discharge of stormwater runoff through the LIRR storm sewer in accordance with the existing NYCDEP MS4 permit for stormwater discharge from the Western Rail Yard during construction and operation would not result in any permanent or temporary impacts or changes in water quality. Therefore, construction and the operation of the Preferred Alternative would have no effect on Atlantic sturgeon or shortnose sturgeon, or critical habitat for Atlantic sturgeon. The yellow bumblebee (*Bombus [thoracobombus] fervidus*; unlisted species identified as of conservation concern) would have the potential to occur in the vicinity of the Project Site, along the High Line where there is ample vegetation and flowering plants for foraging and nesting. Construction and operation of the Preferred Alternative would not affect the existing flower/herb garden habitat on the High Line. Therefore, the Preferred Alternative would not have an adverse impact on the yellow bumblebee. For these reasons, the Preferred Alternative would promote 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.*

See response to Policy 1.3. The Project Sponsor would implement erosion and sediment control measures identified in the SWPPP to minimize discharges of sediment to the Hudson River during construction activities associated with the Preferred Alternative. Therefore, the continued discharge of stormwater runoff through the LIRR storm sewer in accordance with the existing NYCDEP MS4 permit for stormwater discharge from the Western Rail Yard during construction of the Preferred Alternative would not result in any permanent or temporary impacts or changes in water quality of the Hudson River. Therefore, the Preferred Alternative would promote this policy.

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

See response to Policy 1.3. The Project Sponsor would handle stormwater collected on the Platform, or on portions of the Project Site that would not be covered by Platform, as described above in Policy 1.3. Therefore, the Preferred Alternative would promote this policy.

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

Groundwater is not used as a potable water supply in New York City. The Project Sponsor would pump, test, and treat any groundwater recovered during dewatering of excavation sites before disposal to the New York City stormwater or combined sewer system under an NYCDEP Discharge Permit from the Bureau of Wastewater Treatment and in conformance with applicable discharge limits. Discharge of groundwater exceeding 10,000 gallons of groundwater per day would require additional approval from NYCDEP's Bureau of Water and Sewer Operations, Division of Connections and Permitting. The Project Sponsor would treat any groundwater discharged to the Hudson River through existing stormwater outfalls within the Western Rail Yard in accordance with NYSDEC requirements. Dewatering would not be anticipated during installation of caissons. Although the drilling for caissons would be deeper than the water table, the Project Sponsor would use a steel casing with a polymer or bentonite slurry to maintain an open hole during drilling until concrete would be installed via tremie method into the caisson. The Project Sponsor would collect and recycle displaced slurry between caissons. Additionally, construction of the Preferred Alternative would not require any in-water work. The Project Sponsor would minimize the potential for impacts to nearby tidal wetlands by implementing erosion and sediment control measures, as well as post-construction stormwater management measures identified in the SWPPP.

The Preferred Alternative would not result in adverse impacts on groundwater. Although the below-grade structures, such as the caissons, would have the potential to modify groundwater flow patterns, groundwater would be expected to flow around these structures and continue to flow toward the Hudson River. Therefore, the Preferred Alternative would promote this policy.

**Policy 6:** Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.

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

Much of the Project Site is located within Zone AE, the area with a 1 percent probability of flooding each year. The existing BFE for the site is +11 to 12 feet NAVD88. A small portion of the site along West 30th Street falls within the 500-year floodplain (Zone X, the area with a 0.2 percent probability of flooding each year). Under Policy 6, the primary goal for projects in coastal areas is to reduce risks posed by current and future coastal hazards, particularly major storms that are likely to increase due to climate change and sea level rise. The Project Sponsor would construct the Platform at approximately +33 feet NAVD88, which is far above the DFE of +16 feet NAVD88. Where applicable, the platform's supporting elements, columns, and shear walls would be designed for the wave, stream flow, and other forces applied to the platform supporting elements by the potential flood event. Therefore, the Preferred Alternative would promote this policy.

*Policy 6.2: Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in New York City Panel on Climate Change 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms) into the planning and design of projects in the city's Coastal Zone.*

Guidance provided by DCP<sup>1</sup> recommends a detailed methodology to determine a project's consistency with Policy 6.2. A summary of this process is provided below.

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<sup>1</sup> NYC Planning. The New York City Waterfront Revitalization Program: Climate Change Adaptation Guidance. March 2017.

*1. Identify vulnerabilities and consequences: assess the project's vulnerabilities to future coastal hazards and identify what the potential consequences may be.*

*a. Complete the Flood Evaluation Worksheet.*

The information in the following subsections is based on the results of the completed worksheet, which is provided in **Appendix L**, which is included in the package that was submitted to NYSDOS.

*b. Identify any project features that may be located below the elevation of the 1 percent floodplain over the lifespan of the project under any sea level rise scenario.*

The lifespan of buildings (commercial, industrial, etc.) is generally considered to be about 80 years; mechanical, electrical, and plumbing equipment located within a building typically has a lifespan of 50 years, with regular maintenance. NPCC (2015) projects that sea levels are likely to increase by up to 30 inches by the 2050s, and up to 75 inches by 2100 under the High Scenario projections. Under current conditions, the Preferred Alternative is located within the 1 percent annual chance floodplain. Most of the Project Site is within Zone AE with a BFE of +11 to 12 feet NAVD88, with a portion along West 30th Street falling within the 500-year floodplain. The Project Sponsor would construct the Platform at an elevation of approximately +33 feet NAVD88 and would remain above the 1 percent annual chance BFE over the entire lifespan of the project under all sea level rise projections. While the Platform's structural support system would extend through the floodplain, it would be designed for the wave, stream flow and other forces applied to the platform supporting elements by the potential flood event. The Tunnel Encasement would be constructed below grade, would be fully enclosed, and flood proofed. No other project elements included in the Preferred Alternative would be located below the elevation of the 1 percent annual chance BFE over the lifespan of the project.

*c. Identify any vulnerable, critical, or potentially hazardous features that may be located below the elevation of mean higher high water (MHHW) over the lifespan of the project under any sea level rise scenario.*

Based on the range of sea level rise predictions described above, MHHW at the NOAA station nearest the Project Site (currently +2.28 feet NAVD88 at NOAA Station # 8518750 The Battery) could range up to +8.86 feet by the end of the century. The vulnerable, critical, or potentially hazardous features of Preferred Alternative would remain above MHHW through this period.

*d. Describe how any additional coastal hazards are likely to affect the project, both currently and in the future, such as waves, high winds, or debris.*

Wave action hazards (i.e., Zone VE) have not been designated for the Project Site.

*2. Identify adaptive strategies: assess how the vulnerabilities and consequences identified in Step 1 are addressed through the project's design and planning.*

*a. For any features identified in Step 1(b), describe how any flood damage reduction elements incorporated into the project, or any natural elevation on the site, provide any additional protection. Describe how would any planned adaptive measures protect the feature in the future from flooding?*

While the Preferred Alternative would result in the construction of the Tunnel Encasement and Platform supports within the current floodplain, all vulnerable, critical, or potentially hazardous features would remain above or protected from projected flood elevations throughout their lifespans. The Project Sponsor would design the Platform's structural support system for the wave, stream flow and other forces applied to the Platform supporting elements by the potential flood event.



*b. For any features identified in Step 1(c), describe how any flood damage reduction elements incorporated into the project, or any natural elevation on the site, provide any additional protection. Describe how would any planned adaptive measures protect the feature in the future from flooding?*

As described above in Step 1(c), none of the vulnerable, critical, or potentially hazardous features project features will be below MHHW throughout their lifespans.

*c. Describe any additional measures being taken to protect the project from additional coastal hazards such as waves, high winds, or debris.*

This Project Site is in FEMA Wind Zone II (up to 160 mph) and construction and materials will follow appropriate building and zoning standards. Additionally, when complete the Preferred Alternative would result in a surface that is generally at grade, or with the vast majority of structure below ground, and less susceptible to high winds and debris.

*d. Describe how the project would affect the flood protection of adjacent sites, if relevant.*

Because the floodplain within New York City is controlled by astronomic tide and meteorological forces (e.g., nor'easters and hurricanes) and not by fluvial flooding, the Preferred Alternative would not have the potential to adversely affect the floodplain or result in increased coastal flooding at adjacent sites or within the Project Site.

*3. Assess policy consistency: conclude whether the project is consistent with Policy 6.2 of the Waterfront Revitalization Program.*

Most of the Project Site is within Zone AE, with a portion of the site along West 30th Street falling within the 500-year floodplain. The Project Sponsor would construct the Platform at an elevation of approximately +33 feet NAVD88 and would remain above the 1 percent annual chance BFE over the entire lifespan of the project under all sea level rise projections. While the Platform's structural support system would extend below the BFE, it would be designed for the wave, stream flow and other forces applied to the Platform supporting elements by the potential flood event. The Tunnel Encasement would be constructed below grade, would be fully enclosed, and floodproofed. Therefore, the Proposed Development would promote Policy 6.2.

**Policy 7:** Minimize environmental degradation and negative impacts on public health from solid waste, toxic pollutants, hazardous materials, and industrial materials that may pose risks to the environment and public health and safety.

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

As described in Chapter 12, "Contaminated Materials," the potential for the presence of hazardous materials or contamination at the Project Site was examined as part of several studies conducted in previous years. These studies included Phase I ESAs in 2004 and 2009, and a Phase II ESI in 2004 (i.e., soil and groundwater testing). FRA used these previously conducted reports to conduct an updated hazardous material screening, and subsequently completed a Phase 1 ESA in December 2020. The December 2020 Phase 1 ESA identified several RECs, which indicates the presence or likely presence of any hazardous substance or petroleum products in, on or at the property.

The Project Sponsor would implement the following remedial and protective measures to avoid, minimize, or mitigate exposure pathways to these potential contaminants (see Chapter 12 for additional details). With these measures in place, FRA has determined that the risk of exposure to contaminated soil and groundwater would be minimal:

- A Subsurface (Phase II) Investigation would be conducted in areas of proposed disturbance (above the bedrock interface) to characterize subsurface conditions.
- Prior to any excavation or construction activity, the Project Sponsor would prepare a site-specific RAP and CHASP. The RAP and CHASP would describe precautionary measures and safety procedures to minimize pathways of exposure to contaminants, including a Materials Handling Plan identifying specific protocols and procedures to be employed to manage soil and groundwater at the Project Site in accordance with applicable regulations.
- Information in the NY Spills database indicated that additional remedial activities would be required to address known or potential residual petroleum contamination on the southwestern portion of the Site related to Spill #1802063 and on the northwestern portion of the Site under the SHWS program (ID #231083). Remedial activities in these areas would continue to be conducted in coordination with NYSDEC and the NYCOER, as required.
- Any USTs encountered during redevelopment would be properly closed and removed, along with any contaminated soil, in accordance with federal, state, and local regulations, including NYSDEC for registration and, if applicable, spill reporting.
- During subsurface disturbance, excavated soil would be handled and disposed of properly in accordance with all applicable regulatory requirements, with spill reporting as required. Transportation of material leaving the Site for off-site disposal would be in accordance with federal, state, and local requirements covering licensing of haulers and trucks, placarding, truck routes, manifesting, etc.
- The appropriate vapor mitigation systems would be installed to protect buildings on the terra firma portion of the Project Site. If required, the design of new buildings would consider soil vapor mitigation measures to prevent any volatile contaminants that may remain present in the soil and groundwater from migrating into the new buildings.
- Any building materials, equipment, or utilities containing suspect PCBs, LBP, and/or ACM would be properly handled and disposed of, in accordance with the applicable regulations, prior to demolition or construction which may disturb them.
- Appropriate permanent ventilation systems would be installed during redevelopment (to be operated post-construction) for areas under the platform at the Project Site in accordance with LIRR's engineering design criteria for yard ventilation.

Additionally, the Project Sponsor would conduct dewatering activities in accordance with DEP requirements, including pre-treatment as required. With these measures in place, the Preferred Alternative would promote this policy.

*Policy 7.2: Prevent and remediate discharge of petroleum products.*

Any hazardous materials, such as petroleum products, encountered during construction would be managed, isolated, and/or removed by the Project Sponsor in accordance with a RAP and CHASP, as required. The RAP and CHASP would include a Materials Handling Plan (or equivalent) to identify measures to address any contaminated material that would not be removed as part of construction and therefore would remain in place. While no active-status petroleum spills were identified at the Project Site, petroleum contamination was identified during several previous investigations (see Chapter 12). During disturbance associated with the Project, soil and/or fill materials containing petroleum contamination could be encountered. NYCOER would oversee the Project Sponsor's remedial activities, such as removal of petroleum-contaminated soil removal to the water table with associated waste characterization sampling for off-site disposal purposes. Any USTs encountered during redevelopment would be properly closed and removed, along with any contaminated soil, in accordance with federal, state, and local regulations, including NYSDEC for registration and, if applicable, spill reporting. With these measures in place, the Preferred Alternative would promote this policy.

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

See response to Policy 7.1. The Project Sponsor would ensure that transportation of material leaving the Project Site for off-site disposal would be conducted in accordance with federal, state, and local requirements covering licensing of haulers and trucks, placarding, truck routes, manifesting, etc. With these measures in place, the Preferred Alternative would promote this policy.

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

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

See the response to Policy 1.3. The Preferred Alternative is transportation infrastructure, which is not compatible with providing public access or new public open spaces. However, one of the purposes of the Preferred Alternative is to cover and protect the active railroad tracks and LIRR support facilities in the Western Rail Yard so that the Project Sponsor can provide additional new capacity for real estate development. The as-of-right private Overbuild approved by MTA and CPC in 2009 that the Preferred Alternative would facilitate, includes planned public open space that would be compatible with the Project Site's proposed land uses and coastal location. The Tunnel Encasement would preserve underground right-of-way in Hudson Yards to maintain opportunities to expand rail services, meet future demand, and improve intercity and commuter rail system safety and reliability. The preservation of the right-of-way is necessary to ensure the Platform construction would not eliminate the possibility of future rail development and expansion through Hudson Yards and into New York Penn Station. The rail yard would continue to be fully functional throughout construction of the Preferred Alternative. Therefore, the Preferred Alternative would promote this policy.

*Policy 8.3: Provide visual access to the waterfront where physically practical.*

As discussed in further detail in Chapter 11, "Aesthetics and Visual Quality," the Platform would not obstruct views of the Hudson River and the Hudson River vista from the two locations in the AVE that provide expansive waterfront views: the High Line and the Hudson Yards plaza. Therefore, the Preferred Alternative would promote 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.*

As described in Chapter 11, the Preferred Alternative would have a neutral effect on the visual quality of the AVE. The three new LIRR service buildings would be consistent with the aesthetics and visual quality of the mixed-use character of the area, where there are similar existing buildings currently on the southern portion of the Project Site. Therefore, the Preferred Alternative would promote this policy.

*Policy 9.2: Protect and enhance scenic values associated with natural resources.*

See response to Policy 8.3. The Platform would not obstruct views of the Hudson River and the Hudson River vista from the two locations in the AVE that provide expansive waterfront views: the High Line and the Hudson Yards plaza. Therefore, the Preferred Alternative would promote this policy.

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

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

As discussed in Chapter 9, “Cultural Resources,” FRA prepared a HARBS/EA report for the Preferred Alternative that identifies historic properties in the APE, assesses the Preferred Alternative’s potential effects on historic properties, and provides recommendations with respect to avoiding, minimizing, and/or mitigating any identified adverse effects on historic properties. FRA provided the HARBS/EA report to NYSHPO on October 15, 2020, to Federally-recognized Indian tribes and consulting parties on the same date, and to NYC Parks on March 3, 2021. FRA identified five historic properties in the APE, all of which were previously determined eligible for listing on the NRHP by NYSHPO (NRHP-Eligible). The historic architectural resources identified in the APE are listed in Table 9-1 in Chapter 9 and described in detail in the HARBS/EA report (see **Appendix F2**). NYSHPO concurred with FRA’s determination of No Adverse Effect with Conditions in a letter dated February 11, 2021, NYCLPC concurred with FRA’s determination of No Adverse Effect with Conditions in a letter dated February 12, 2021. No response to FRA’s effect determination was received from Amtrak or any Federally-recognized Indian tribes.

MTA and CPC evaluated the potential effects of the Platform on historic properties in the 2009 SEQRA/CEQR FEIS, which was prepared and reviewed in accordance with CEQR, SEQRA, and Section 14.09 of the New York State Historic Preservation Act. Since the final design of the Overbuild had not been determined at the time of the 2009 SEQRA/CEQR FEIS, and OPRHP had expressed concerns regarding the relationship of the High Line (an architectural resource that has been determined NRHP-eligible) to the Overbuild, the MTA, CPC, and the Overbuild Developer executed an LOR with OPRHP to address the potential for adverse effects to the High Line. The LOR required continued consultation under Section 14.09 regarding aspects of the development’s design that could affect the High Line (specifically, review of preliminary and pre-final design plans), as well as preparation of a CPP (called a CEPP in the LOR) to protect the High Line during adjacent project construction. That LOR remains in effect. The requirement for a CPP to protect the High Line during adjacent project construction was also incorporated into the RD for the 2009 Western Rail Yard project.

Subsequently, in 2013–2014, FRA and NYSHPO reviewed the potential for the construction of the Tunnel Encasement to have adverse effects on historic properties in accordance with Section 106 of the National Historic Preservation Act. In a letter dated July 22, 2014, OPRHP, acting in its capacity as the NYSHPO, concurred with FRA’s determination that the undertaking would have No Adverse Effects on historic properties, provided that construction monitoring of the High Line would occur per the NYCDOB’s *TPPN #10/88*.

Consistent with these prior determinations, FRA has found that the Preferred Alternative would not result in any adverse effects to historic properties. The Tunnel Encasement would be buried below ground, and the Platform would be minimally visible above-grade separate from the Overbuild, which would be constructed above it. Specifically, the Platform may be minimally visible from the Twelfth Avenue sidewalk adjacent to the Project Site, between the top of the existing concrete wall to remain and the bottom of the Overbuild. The Platform would be set back from the edge of the High Line by approximately five feet, and thus may be minimally visible in elevated views from adjacent portions of the High Line. However, the Hudson Yards neighborhood is experiencing a wave of development of new tall and modern skyscraper buildings, and the historic properties in the APE already exist in a mixed built context of smaller, older and masonry clad buildings and these taller buildings of recent construction with metal and glass curtain walls. The High Line runs adjacent to and sometimes through large buildings constructed both recently and contemporary to the High Line. The W & J Sloane Warehouse and Garage is flanked by new 31-, 33-, and 34-story developments directly to the north and south, and the West Chelsea Historic District buildings within the APE are across Eleventh Avenue and West 28th Street from the same 34-story development. Twelfth Avenue and the Hudson River Greenway provide visual separation between the Hudson River Bulkhead and the Project Site and surrounding new development. The New York Improvements and Tunnel Extension of the Pennsylvania Railroad, as a subsurface feature, would have no visual relationship with the Platform.

No historic properties are located within 90 feet of construction for the Preferred Alternative, with the exception of the NRT and the High Line. To avoid the potential for damage to the NRT from vibration produced by caisson drilling, the caissons will be located outside of Amtrak's influence line exclusion zone. Furthermore, FRA would include a condition as part of its environmental decision regarding the project, i.e., in the ROD for the EIS in accordance with NEPA, to ensure that potential vibration-related effects to the NRT are not adverse. The condition in the ROD would require the Project Sponsor to develop a CPP for the construction of the Platform and Tunnel Encasement in order to protect the NRT.

To avoid the potential for damage to the High Line during construction of the Platform and Tunnel Encasement, FRA would include a condition in the ROD requiring the Project Sponsor to develop a CPP for the construction of the Platform and Tunnel Encasement in order to protect the NRT and High Line. The CPP for the protection of the NRT and the High Line would be incorporated into the overarching CEPP that would be developed for the Preferred Alternative (see full description in Chapter 22). The CPP for the NRT and the High Line would be required to meet the guidelines set forth in NYCDOB's *TPPN #10/88*, the *Protection Programs for Landmarked Buildings* guidance document of the LPC, and the National Park Service's *Preservation Tech Notes, Temporary Protection #3: Protecting a Historic Structure during Adjacent Construction*.

FRA has determined, and NYSHPO concurred in a letter dated February 11, 2021, that the Preferred Alternative would not result in any adverse effects to historic properties, provided the Project Sponsor follows certain conditions. Specifically, the Project Sponsor would be required to develop a CPP for the construction of the Platform and Tunnel Encasement, in order to avoid the potential for construction-related effects (including vibration effects) on the NRT and High Line. Therefore, the Preferred Alternative would promote this policy.

*Policy 10.2: Protect and preserve archaeological resources and artifacts.*

As described in Chapter 9, NYSHPO and the LPC have previously reviewed the two components of the Preferred Alternative (the Platform and the Tunnel Encasement), and the Western Rail Yard site has been determined not to be an archaeologically sensitive area. The Tunnel Encasement would be the third and westernmost segment of the entire right-of-way preservation concrete casing that previously underwent environmental reviews led by FRA, which included reviews in accordance with Section 106 of the NHPA of 1966 (as amended) and its implementing regulations at 36 CFR Part 800. In a letter to FRA dated August 3, 2020, NYSHPO noted that it has no archaeological concerns with the proposed undertaking (see **Appendix F3**). The historical maps of the Study Area referenced in the cultural analyses conducted for the 2009 SEQRA/CEQR FEIS, the 2004 FGEIS, and the 2013 FRA EA/FONSI, show that the shoreline prior to approximately 1850 was further east than the location of the present Project Site. Furthermore, the Project Site has previously been subject to extensive ground disturbance from the original construction and 1986 reconstruction of the Western Rail Yard. For these reasons, the Preferred Alternative would promote this policy.

## **16.6 AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES**

There are no anticipated permanent adverse impacts on the coastal zone; therefore, no permanent avoidance, minimization, and/or mitigation measures are required. The Project Sponsor would be responsible for implementing the following construction-related measures to avoid, minimize, and/or mitigate potential impacts:

- The Project Sponsor would implement erosion and sediment control measures identified in the SWPPP prepared in accordance with a SPDES permit for the Preferred Alternative.
- The Project Sponsor would pump, test, and treat any groundwater recovered during dewatering of excavation sites before disposal to the New York City stormwater or combined sewer system under an NYCDEP Discharge Permit from the Bureau of Wastewater Treatment and in conformance with applicable discharge limits.
- The Project Sponsor would treat any groundwater recovered during dewatering activities prior to discharge to the Hudson River through existing stormwater outfalls within the Western Rail Yard in accordance with NYSDEC requirements.
- The Project Sponsor would implement the following remedial and protective measures to avoid, minimize, or mitigate exposure pathways to these potential contaminants during construction and operation:
  - A Phase II Investigation would be conducted in areas of proposed disturbance (above the bedrock interface) to characterize subsurface conditions.
  - Prior to any excavation or construction activity, the Project Sponsor would prepare a site-specific RAP and CHASP.
  - Remedial activities in areas of known spills would continue to be conducted in coordination with NYSDEC and NYCOER, as required.
  - Any USTs encountered during redevelopment would be properly closed and removed, along with any contaminated soil, in accordance with federal, state, and local regulations, including NYSDEC for registration and, if applicable, spill reporting.

- During subsurface disturbance, excavated soil would be handled and disposed of properly in accordance with all applicable regulatory requirements, with spill reporting as required. Transportation of material for off-site disposal would be in accordance with federal, state, and local requirements covering licensing of haulers and trucks, placarding, truck routes, manifesting, etc.
- The appropriate vapor mitigation systems would be installed to protect buildings on the terra firma portion of the Project Site. If required, the design of new buildings would consider soil vapor mitigation measures to prevent any volatile contaminants that may remain present in the soil and groundwater from migrating into the new buildings.
- Any building materials, equipment, or utilities containing suspect PCBs, LBP, and/or ACM would be properly handled and disposed of, in accordance with the applicable regulations, prior to demolition or construction which may disturb them.
- Appropriate permanent ventilation systems would be installed during redevelopment (to be operated post-construction) for areas under the Platform at the Project Site in accordance with LIRR's engineering design criteria for yard ventilation.

FRA would include conditions as part of its environmental decision regarding the Preferred Alternative, i.e., in the ROD for the EIS in accordance with NEPA, and in any funding agreement between the USDOT and the Project Sponsor, requiring the Project Sponsor to develop a CPP for the construction of the Platform and Tunnel Encasement in order to protect the NRT and High Line. The CPP would be required to meet the guidelines set forth in the NYCDOB *TPPN #10/88*, the *Protection for Landmarked Buildings* guidance document of the LPC, and the National Park Service's *Preservation Tech Notes, Temporary Protection #3: Protecting a Historic Structure during Adjacent Construction*. \*