Pelham Bay Bridge Replacement Environmental Assessment (EA)

June 2025

Prepared for





Pelham Bay Bridge Replacement Project Environmental Assessment

Prepared by: Federal Railroad Administration (FRA)

Pursuant to: National Environmental Policy Act (42 USC § 4321 et seq.), 23 CFR Part 771; 23 USC § 139; Section 4(f) of the United States Department of Transportation Act (49 USC §303) and implementing regulations (23 CFR Part 774); Section 106 of the National Historic Preservation Act (54 USC §306108 et seq.) and implementing regulations (36 CFR Part 800); Clean Air Act as amended (42 USC §7401 et seq.) and implementing regulations (40 CFR Parts 51 and 93); the Endangered Species Act of 1973 (16 USC §1531-1544) and implementing regulations (50 CFR Part 402); the Clean Water Act (33 USC §1251-1387) and implementing regulations (33 CFR Parts 320 to 324 and 40 CFR Part 230); and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 USC §4601).

Date of Approval

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Acronyms

ACS	American Community Survey
APE	Area of Potential Effects
AREMA	American Railway Engineering and Maintenance of Way Association
CAA	Clean Air Act
CADNA-A	Computer Aided Noise Abatement
CRIS	Cultural Resource Information System
DBH	Diameter at Breast Height
ESA	Endangered Species Act
EIS	Environmental Impact Statement
ESA	Environmental Site Assessment
EFH	Essential Fish Habitat
FHWA	Federal Highway Administration

FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FONSI	Finding of No Significant Impact
FWCA	Fish and Wildlife Coordination Act
FMC	Fishery Management Council
HAPC	Habitat Area of Particular Concern
HGI	Hell Gate Line
	Land and Water Conservation Funds
	Land and Water Conservation Funds
LOD MOA	Momorandum of Agroement
	Memoranuum of Agreement Meanuage Stovens Fishery Conservation and Management Act
	Magnuson-Stevens Fishery Conservation and Management Act
MSDSS	Material Salety Data Sheets
MIA	Metropolitan Transportation Authority
MP	Milepost
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
NHP	Natural Heritage Program
NRCS	Natural Resources Conservation Service
NY	New York
NYCDCP	New York City Department of City Planning
NYCDPR	New York City Department of Parks and Recreation
CEOR	New York City Environmental Quality Review
NYCWRP	New York City Waterfront Revitalization Plan
NYSCMP	New York State Coastal Management Plan
NYSDEC	New York State Department of Environmental Conservation
NVSDOS	New York State Department of State
NHD	Natural Heritage Program
NEC	Northoast Corridor
	State Dollutent Discharge Elimination System
OH OH	Overhead
	Overnedu Occupational Safety and Health Administration
	Office of Parks, Recreation and Historic Preservation
PSA	Penn Station Access
SEL	Sound Exposure Levels
SPL	Sound Pressure Emission Levels
SEQRA	State Environmental Quality Review Act
SHPO	State Historic Preservation Office
SFA	Sustainable Fisheries Act
SNWA	Special Natural Waterfront Area
T/E	Threatened/Endangered
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WRP	Waterfront Revitalization Program
WOTUS	Waters of the United States

Executive Summary

ES-1 INTRODUCTION

The existing Pelham Bay Bridge was built in 1907 and is a two track railroad bridge with a movable span that crosses the Hutchinson River. The bridge is located in the Bronx, in New York City, New York, between the Co-op City neighborhood and Pelham Bay Park, on the Hell Gate Line (HGL) on the Northeast Corridor (NEC) (see **Figure ES-1**). The bridge is owned by Amtrak and is currently used by Amtrak intercity passenger rail trains and CSX freight rail trains.

Amtrak, as the owner of the existing railroad bridge, project sponsor, and recipient of federal grant funding, is proposing to replace the existing Pelham Bay Bridge with a new two-track movable bridge located immediately south (downstream) of the existing bridge. This Environmental Assessment (EA) was prepared in accordance with National Environmental Policy Act (42 USC § 4321 et seq.), 23 CFR Part 771; 23 USC § 139; Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966; Section 106 of the National Historic Preservation Act; and other federal environmental review requirements. FRA is the lead federal agency for NEPA, and the United States Coast Guard (USCG) and the United States Army Corps of Engineers (USACE) are NEPA cooperating agencies.

ES-2 PURPOSE AND NEED

The purpose of the Pelham Bay Bridge Replacement Project (Project) is to improve passenger rail service reliability, resiliency, and level of service; to improve the efficiency of bridge operations and maintenance; to address the geometric deficiencies in the track alignment; and to ensure continued navigation along the Hutchinson River. The Project is needed to improve operational reliability for passenger rail service on the NEC, accommodate increased train travel speeds, and improve maritime navigational clearances and safety.

The Pelham Bay Bridge is a vital component on the NEC, currently serving 51 Amtrak Regional and Acela passenger trains per day and two CSX trains per week that cross the bridge. In the future, Amtrak plans on increasing weekday train service to 60 trains per day. CSX, which operates two weekly freight trains during non-peak hours, plans on increasing its freight trains to three per week.

This existing bridge is reaching the end of its useful life resulting in bridge failures and frequent closures for maintenance. The bridge is also functionally obsolete due to its limited design speed (45 mph) and narrow navigable channel that requires frequent openings to allow maritime vessels to pass, causing disruptions in rail operations. A more detailed discussion of the purpose and need is included in **Section 1.3**.

ES-3 PROJECT ALTERNATIVES

This EA evaluates one Build Alternative and the No Build Alternative. Under the No Build Alternative, the existing Pelham Bay Bridge would remain in place and Amtrak would continue regular maintenance and rehabilitation work necessary to keep the bridge operating.

Amtrak considered and evaluated multiple preliminary build alternatives in consideration of the purpose and need of the Project, as documented in the 2015 Final Feasibility Report and in the 2022 Screening Report

and described in **Section 2.2**. Once the screening process was completed, Amtrak identified one build alternative (Alternative 2B) as the build alternative that best meets the purpose and need of the Project (referred to as the Build Alternative). **Chapter 2** provides more information on the project alternatives.



Figure ES-1. Project Location

ES-3.1 Identification of the Preferred Alternative

After taking into consideration environmental, operational, and engineering factors and input from the public and stakeholders, FRA and Amtrak identified the Build Alternative as the Preferred Alternative. The Preferred Alternative would be a mid-level movable bridge located south of the existing bridge. This alternative would allow for an increase in passenger train operating speed to 70 mph with only minor impacts to freight train traffic as well as provide navigation improvements through increased horizontal and vertical clearances and reduce the number of bridge openings (see **Section 2.2** for more information).

The Build Alternative best meets the purpose and need of the Project. The Build Alternative is also consistent with FRA's NEC FUTURE Program and its goals of increasing capacity and improving reliability and performance by eliminating bottlenecks that cause delays and reduce travel times.

ES-4 EXISTING CONDITIONS AND ENVIRONMENTAL CONSEQUENCES

Table ES-1 summarizes the anticipated environmental impacts of the No Build Alternative and the Preferred Alternative, along with measures proposed to mitigate the environmental impacts of the Preferred Alternative. Amtrak would be responsible for completing all mitigation measures included in **Table ES-1** as part of the Preferred Alternative. More detailed information on existing conditions, environmental impacts, and mitigation can be found in **Section 4**.

Environmental Resource	No Build Alternative	Preferred Alternative	Mitigation
Transportation	No improvement to passenger rail service or maritime traffic. Continued operational failures and disruptions in rail service.	Reduced delays in rail service, increased rail speeds over the bridge, and less frequent maritime vessel collisions. During construction, temporary increase in vehicular traffic but no impact to navigation channel.	Use existing NYCDOT- designated truck routes for vehicular traffic during construction.
Socioeconomic Conditions	Passenger and freight rail service would experience increasing delays due to operational failures of the bridge. The populations in Co- op City would be adversely impacted by the increasing travel time delays. Maritime traffic would continue to experience delays and risk vessel collisions.	Long term socioeconomic benefits due to improved passenger and freight rail service and reduced maritime vessel collisions.	None
Land Use, Zoning, and Community Facilities	None	No impact to development patterns, residences, businesses, zoning or community facilities. Permanent, maintenance and temporary easements in Pelham Bay Park would not adversely affect park land use.	Amtrak will implement mitigation identified through Section 4(f) and Section 6(f) consultations.
Visual and Aesthetic Conditions	None	Overall improvement in the visual and aesthetic quality and character of the Study Area.	None
Cultural Resources	No change to or disturbance of historic resources.	Adverse Effect to NR-eligible Amtrak Pelham Bay Railroad Bascule Bridge; No Adverse Effect to NR-eligible Pelham Bay Park Historic District, Co- op City or Shore Road Bridge.	On March 21, 2025, FRA, Amtrak and SHPO executed a Section 106 MOA to resolve the Project's adverse effect to the historic railroad bridge.

Table ES-1: Environmental Impacts Summary

Environmental Resource	No Build Alternative	Preferred Alternative	Mitigation
Air Quality and Energy	None	No change in long-term mobile source or stationary air pollutant emissions and negligible change in energy consumption. Total annual estimated emissions as a result of construction would be less than the general conformity <i>de minimis</i> thresholds.	None
Noise and Vibration	No changes to the noise environment; however, based on analysis documented in the Penn Station Access (PSA) EA, for nearby activities from the Penn Station Access Project future noise levels in the vicinity would increase from existing.	Moderate noise impacts at some residential receptors in Co-op City and severe impact to Bronx Equestrian Center under future operational conditions; vibration impacts are below the threshold. Construction activities would not exceed FTA impact thresholds for noise and vibration.	Amtrak will construct four noise barriers totaling 3,950 feet.
Terrestrial Resources	None	Disturbance of 1.1 acres of vegetated areas and osprey nest.	Areas temporarily disturbed for site access and materials/equipment staging will be replanted by Amtrak in coordination with NYCDPR following construction to pre- existing conditions. If Osprey nests are found on existing catenary structures, Amtrak will attempt to remove the osprey nest outside of the breeding season (April 1 to September 30. However, if work is to be performed around the osprey nest when it is active, Amtrak will obtain a Depredation Permit from the USFWS prior to the initiation of the work.
Floodplains	None	Permanent impact to 1.9 acres of 100- year floodplain and temporary impact to 12 acres of 100-year floodplain; permanent impacts would be offset by removal of infrastructure associated with existing bridge from within the floodplain. Movable portion of replacement bridge and associated machinery would be elevated above 1 percent flood hazard elevation through the 2100s.	None

Environmental Resource	No Build Alternative	Preferred Alternative	Mitigation
Coastal Zone	None	Impacts to New York State and New York City coastal zones but consistent with New York State Coastal Management Policies and New York City Waterfront Revitalization Program.	Amtrak will comply with federal coastal zone consistency requirements to be identified during the Project's final design and permitting phase, prior to initiation of construction.
Wetlands	None	Permanent impact to 0.7 acres of wetlands (0.07 acres emergent wetlands, 0.07 acres mudflat, 0.35 acres shallow water, 0.21 acres open water); temporary impacts to an additional 8.3 acres of wetlands (0.75 acres emergent wetlands, 1.52 acres mudflat, 3.93 acres shallow water, 2.14 open water).	Amtrak will utilize in-kind mitigation (on-site or off-site) or mitigation banking to compensate for permanent impacts, to be determined during the Project's final design and permitting phase. Amtrak will restore areas of temporary impacts to at least pre-existing conditions following construction, in coordination with NYCDPR.
Aquatic Resources	None	Impact to 9.05 acres of Essential Fish Habitat/ Habitat Area of Particular Concern, including 0.70 acres of permanent impacts and 8.33 acres of temporary impacts. Potential for temporary impacts to resident and migratory fish species from suspended sediments or underwater noise during construction.	Amtrak will utilize in-kind mitigation (on-site or off-site) or mitigation banking to compensate for permanent impacts to 0.70 acres of aquatic habitats, to be determined during the Project's final design and permitting phase. During construction, Amtrak will adhere to seasonal in-water work restrictions, and utilize vibratory hammer to the maximum extent practicable, and underwater noise attenuating tools if an impact hammer is necessary. Amtrak will also ensure that work barges float during all stages of the tide (i.e., do not sit grounded on river bottom).
Endangered, Threatened and Special Concern Species	None	Potential for temporary impacts to seven federally listed species and one proposed listed species. Tricolored bat may have an adverse impact on summer habitat due to tree clearing; there is no suitable breeding habitat for Piping plover in the action area; the four turtle species may have potential impact from noise/vibration during construction, vessel strikes and temporary turbidity; and the shortnose sturgeon and Atlantic sturgeon may have potential impacts from suspended sediments and underwater noise during construction. The NYSDEC Natural Heritage Program identified five birds, three insects and eight plant species for state-listed species.	FRA's Section 7 consultation with NOAA-NMFS determined that mitigation will include seasonal work restrictions, cofferdams, turbidity curtains, and silt curtains.

Environmental Resource	No Build Alternative	Preferred Alternative	Mitigation
Contaminated Materials	Contaminated soil and sediment will remain in place.	Potential to encounter contamination during soil or sediment disturbance activities. Suspect asbestos containing materials and lead paint to be disturbed during demolition of existing bridge.	Amtrak will perform Phase II sampling investigation of soil, groundwater, and river sediment prior to construction. Amtrak will include proper material handling and disposal and health and safety procedures in its construction contract documents and ensure they are followed if contaminated materials are encountered during construction.
Section 4(f) Impacted Resources	None	Uses: Amtrak Pelham Bay Railroad Bascule Bridge – Excepted from Section 4(f) Approval; Pelham Bay Park – FRA anticipates a Section 4(f) <i>de minimis</i> finding.	NYCDPR may request that Amtrak mitigate for park impacts including, but not limited to, restoring temporary construction areas on Park property, developing a maintenance of traffic plan for Park roads and trails affected by construction, use of protective matting for tree critical root zones during construction, complying with local tree replacement laws, and coordination with NYCDPR for any wetlands mitigation on Park property.
Section 6(f) Impacted Resources	None	Impact to 4.01 acres of LWCF funded Pelham Bay Park requiring a Section 6(f) conversion.	Amtrak will replace property converted under Section 6(f) of LWCF Act. The replacement will occur after FRA's NEPA decision but prior to the conversion.

ES-5 PUBLIC INVOLVEMENT AND AGENCY CONSULTATION

After publication of the EA, Amtrak will hold an in-person public meeting to invite public comments on the document. An electronic copy of the EA will be posted on FRA's project webpage (https://railroads.dot.gov/rail-network-development/environment/environmental-reviews/pelham-bay-bridge-replacement-project) and Amtrak's project webpage (https://www.amtrak.com/about-amtrak/new-era/infrastructure-projects/pelham-bay-bridge-replacement.htm). Meeting materials will be translated into Spanish. Upon request, Amtrak will provide translation and American Sign Language services at the public meeting.

Amtrak will announce the public meeting on its project website and post meeting materials for those unable to attend the public meeting. Public and agency comments on the EA must be provided within 30 days of the date that the EA is made available to the public. After the 30-day comment period, FRA and Amtrak will consider the comments received. FRA will then incorporate changes, as appropriate, into its NEPA decision document before finalizing. Official responses to public and agency comments will be included as an appendix to FRA's NEPA decision document.

Amtrak developed a Public Involvement Plan for the Project, identifying various avenues for outreach throughout the environmental review process and continuing through design and construction of the Project. **Appendix M**, "Public Involvement," includes a copy of the plan and lists the public participation meetings and activities conducted to date.

FRA invited the following agencies to be Cooperating or Participating agencies in the in the NEPA review process for the Pelham Bridge Replacement Project:

Cooperating Agency	Participating Agency
U.S. Army Corp of Engineers	National Park Service ¹
U.S. Coast Guard	New York State Office of Parks, Recreation and Historic Preservation
	U.S. Environmental Protection Agency
	U.S. Fish and Wildlife Service
	Federal Transit Administration
	National Oceanic and Atmospheric Administration
	New York State Department of Environmental Conservation
	New York City Department of Parks and Recreation

Amtrak and FRA met individually with various agencies to discuss the Project and understand their respective review, approval, and permitting processes and any concerns about impacts to the human and natural environment.

The public should submit written comments on the EA during the 30-day comment period through regulations.gov for consideration and response in the NEPA decision document. General questions about the Project can be directed to Amtrak by email (PelhamBay@amtrak.com) or to FRA by email to Eric Rothermel, FRA Environmental Protection Specialist, at eric.rothermel@dot.gov, but comments on the EA should not be sent to either email address. Information about the Project is also available on Amtrak's project website (https://www.amtrak.com/about-amtrak/new-era/infrastructure-projects/pelham-bay-bridge-replacement.htm). The comment period begins with publication of the EA and continues until July 17, 2025. To request further information or ask questions, please contact:

Amtrak Government Affairs

Re: Pelham Bay Bridge EA 2955 Market Street, 3S-155 Philadelphia, PA 19104 PelhamBay@amtrak.com

Federal Railroad Administration

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¹ NPS was invited to be a cooperating agency, however, declined invitation to be a cooperating agency but identified its desire to be a participating agency. FRA granted NPS participating agency status.

1. Introduction and Purpose and Need

1.1. INTRODUCTION

The existing Pelham Bay Bridge across the Hutchinson River is located in the Bronx, in New York City, New York, between the Co-op City neighborhood and Pelham Bay Park, on the Hell Gate Line (HGL) and is a vital component along Amtrak's Northeast Corridor (NEC) (see **Figure 1-1**).

The bridge was built in 1907 and currently consists of two tracks and a movable span and is reaching the end of its useful life, resulting in bridge failures and frequent closures for maintenance. The bridge is also functionally obsolete due to its limited design speed and narrow navigable channel that requires frequent openings causing rail operation disruptions.

Amtrak, as owner of the existing railroad bridge, project sponsor, and recipient of federal grant funding, is proposing to replace the existing Pelham Bay Bridge with a new two-track movable bridge located immediately south (downstream) of the existing bridge (the Project). This Environmental Assessment (EA) was prepared in accordance with National Environmental Policy Act (42 USC § 4321 et seq.), 23 CFR Part 771; 23 USC § 139; Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966; Section 106 of the National Historic Preservation Act; and other federal environmental review requirements. FRA is the lead federal agency for NEPA and development of the EA. The United States Coast Guard (USCG) and the United States Army Corps of Engineers (USACE) are cooperating agencies in the EA.

1.2. PROJECT BACKGROUND

1.2.1. Bridge History

The bridge has been in service for 117 years and is eligible for listing on the National and State Registers of Historic Places. It was built in 1907 by the New York, New Haven and Hartford Railroad and consisted of three parallel two track bridges. Two of the three bridges were removed prior to 1941, which reduced the river crossing to two tracks. The existing structure has also undergone several major improvement projects. In 1941, the original timber approach trestles were replaced by the precast concrete piles and cast-in-place reinforced concrete structures that are present today. At that same time, the two flanking steel bascule spans were also removed, although their foundations remained in place. In 1984, a major rehabilitation was completed including repairs to the steel girders and track stringers, replacement of movable span machinery and electrical systems, replacement of the tracks and track and structural modifications to the segmental girders of the bascule span. In 1999, the timber ties on the bascule span were replaced and the bascule span were replaced. In 2006, the tread plates attached to the segmental girders of the bascule span were replaced. In 2006, the tread plates attached to the segmental girders of the bascule span were replaced. In 2008, the movable span underwent a complete electrical rehabilitation. In 2011, significant repairs were made to the approach span pilings, bascule span piers, fender system, and the catenary tower footings. In 2014, a large portion of the bascule span drive machinery was replaced.



Figure 1-1. Project Location

1.2.2. Bridge Structure

The existing Pelham Bay Bridge is a bascule span, rolling lift bridge. The bridge, including the north and south approaches, is approximately 2,000 feet long and has a total of 39 spans on an east-west alignment. The bridge abutments and piers are built on a combination of pile and spread footing foundations. The three main bridge spans consist of a 40-foot-long girder span, a 27-foot-long girder span and an 81-foot 7-inch-long bascule span. In addition, there are two steel girder spans, one 66 feet-3¹/₄ inches long on the south approach and one 55 feet-2¹/₄ inches long on the north approach. Both girder spans have cast-in-place concrete decks.

The bridge provides eight feet of vertical navigation clearance in its closed position and opens an average of 64 times per month to allow maritime traffic to pass beneath the bridge. The vertical geometry is constrained by the adjacent overhead roadway bridge structures to the east (Hutchinson River Connector) and west (I-95 New England Thruway) of the river and the navigation channel.

1.2.3. Bridge Operations

The bridge is currently used by passenger and freight rail. Currently, there are 51 Amtrak Regional and Acela passenger trains per day and two CSX trains per week that cross the bridge. Amtrak and CSX train

service volumes crossing the bridge are anticipated to increase in the future (see **Table 1-1**). Amtrak plans on increasing weekday train service to 60 trains per day. CSX, which operates two weekly freight trains during non-peak hours, plans on increasing its freight trains to three per week.

Additionally, the Metropolitan Transportation Authority (MTA) is currently constructing infrastructure for the Penn Station Access (PSA) project that will bring MTA Metro-North train service into Penn Station, adding up to 102 new daily trains along the Hell Gate Line between Penn Station in New York City, New York and New Haven, Connecticut and over the Pelham bay Bridge.² Construction of components of the PSA Project are underway as of November 2024, and MTA anticipates completion in 2028 with service beginning soon afterwards.

Table 1-1. Existing and Future	Train Service a	along the Hell	Gate Line
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Weekday Trains (Both Directions)	Amtrak (daily)	CSX (weekly)	Metro-North (daily)	Total
Existing Conditions 2022	51	2	0	53
Future 2028 (Fully Implemented PSA)	60	3	102	165

Source: Amtrak and MTA, 2022

1.2.4. Hutchinson River and Navigation Channel

The Hutchinson River begins in southeastern Westchester County, New York and flows south through the northeastern section of the Bronx into Eastchester Bay and Long Island Sound at Pelham Bay Park. Portions of Pelham Bay Park straddle both sides of the mouth of the river. The waterway flows past the Co-Op City housing complex, which is located along more than 6,000 feet of its south shore. The navigable portion of the waterway begins at Eastchester Bay and continues north for approximately 18,000 feet (3.4 miles) to Canal Street and a small park in Westchester County. The navigable portion of the waterway is crossed by Amtrak's Pelham Bay Bridge, two New York City movable bridges, two higher fixed bridges, and a movable bridge in Westchester County.

The existing Pelham Bay Bridge has a vertical clearance of eight feet above mean high water (MHW) and a horizontal clearance in the navigational channel of 66 feet 9 inches. The low vertical clearance requires the bridge to be opened for the vast majority of vessels, requiring train traffic to stop while the bridge opens and closes.

1.3. PURPOSE AND NEED

The purpose of the Pelham Bay Bridge Replacement Project (Project) is to improve passenger rail service reliability, resiliency, and level of service; to improve the efficiency of bridge operations and maintenance; to address the geometric deficiencies in the track alignment; and to ensure continued navigation along the Hutchinson River. The Project is needed to improve operational reliability for passenger rail service on

² PSA Project refers to the project as described in the FRA adopted EA and FRA issued FONSI in November 2021. *See* MTA's Project website for the PSA project at <u>https://new.mta.info/project/penn-station-access</u>.

Amtrak's NEC, accommodate increased train travel speeds, and improve maritime navigational clearances and safety.

1.3.1. Operational Reliability

The existing Pelham Bay Bridge is past its useful life expectancy and is now prone to operational failures causing reliability issues on this section of the NEC. Despite rehabilitation projects in 1941, 1984, 1999, 2004, 2006, 2008, 2010, and 2014, deficiencies remain that affect bridge operation. In 2014, Amtrak completed an in-depth inspection of the superstructure and substructure of the approach structures and main span, including the bridge's structural, mechanical, and electrical systems. The approach and main spans were found to require maintenance and repairs and the steel elements needed to be repainted. A load rating analysis conducted as part of the inspection of the operating machinery found that the motors and brakes do not comply with current American Railway Engineering and Maintenance of Way Association (AREMA) standards.

The marine traffic requiring bridge openings is primarily commercial vessels transporting construction materials in the spring, summer and fall and heating oil in the fall and winter. This maritime traffic requires opening the bridge an average of 56 times per month, and each time the bridge is opened there is the potential for substantial delays to rail traffic using this section of the NEC. With MTA's Penn Station Access project introducing up to 102 additional daily commuter trains over the Pelham Bay Bridge, as well as planned increases in Amtrak and CSX service, the potential for delays to rail traffic will increase even further.

When there is a bridge operational failure (i.e., the bridge fails to open or close properly), Amtrak's track work crews must be dispatched from Newark, New Jersey (Newark Penn Station) approximately 30 miles away to repair the bridge, exacerbating the delays. Between 2017 and 2023, the Pelham Bay Bridge had over 128 failures in opening or closing resulting in approximately 2,097 minutes of train delays to Amtrak passenger rail service.

Despite variations from year to year, the potential risk for substantial disruption to passenger rail service will continue due to the dated, substandard machinery and overall condition of the existing bridge. Any bridge failures result in unacceptable operational delays. Given its critical location, failure of the bridge to open and close properly causes cascading delays to passenger rail service that are felt throughout the NEC as well as delays to freight rail service and maritime traffic on an active waterway.

1.3.2. Travel Speeds

The existing bridge's approach geometry and movable span miter rails restrict the passenger speed over the bridge to 45 miles per hour (mph) while tracks to on either side of the bridge allow for speeds of 70 to 100 mph. Freight speeds are limited to 30 mph over the bridge and on the curves approaching the bridge. This speed restriction on the bridge, as well as movable span openings for marine traffic, create a bottleneck along this critical section of the NEC and lengthens passenger rail trip travel times. Effects of this bottleneck are expected to be further exacerbated by planned future increases in Amtrak and Metro-North rail operations over the bridge (as shown in **Table 1-1**).

1.3.3. Maritime Navigation and Safety

The navigation channel at the existing Pelham Bay Bridge is 66'-9" wide and has a vertical clearance of 8' above MHW in the closed position. Due to the shallow water depth, boats can typically only pass during high water. The bridge's low vertical clearance requires that the bridge be opened for the majority of vessels, causing delays to rail and maritime traffic. Amtrak's analysis of the bridge opening logs between January 1, 2017, and December 31, 2021, found that there were 3,635 openings for 3,857 vessel passages. Vessel heights above the water were recorded against cumulative number of passes under the bridge and the analysis indicated that 70 percent of the vessel passes were for vessels less than 35 feet. Data are presented in the *Final Navigation Study Report* (September 2, 2022; see **Appendix B**).

The narrow horizontal clearance and the narrow channel significantly restrict maritime traffic and contribute to vessel collisions. Multiple tug and barge collisions have caused damage to the bridge's fender system. All other bridges over the Hutchinson River, except for the New York City Department of Transportation's Pelham (Shore Road) Bridge, have a horizontal clearance of 80 feet or greater.³ Therefore, the existing Pelham Bay Bridge creates a navigational restriction among bridge crossings over the river.

1.4. ENVIRONMENTAL REVIEW PROCESS

This EA evaluates one Build Alternative and one No Build Alternative.⁴ Other alternatives were eliminated earlier in the planning process through a screening process completed by Amtrak and were not carried forward in the EA (see **Appendix C**, Final Screening Report). Subsequent chapters in this EA describe the Project alternatives that were considered, describe the current environmental setting, and identify possible impacts of the reasonable alternatives. This EA also documents compliance with other federal environmental laws, rules, and regulations applicable to FRA-funded projects.

³ NYCDOT is currently preparing a Draft EIS for the replacement of the Shore Road Bridge, with the Federal Highway Administration as the lead federal agency. The Preferred Alternative under consideration would increase the horizontal clearance to 100 feet.

⁴ Although two alternatives were advanced as part of the screening process (Alternatives 2B and 6B), they are identical in Phase 1 (replacement of two-track bridge), and only differ in Phase 2 (construction of additional two tracks). The proposed Build Alternative in this EA only addresses replacement of the existing two-track bridge (Phase 1) and a potential future Phase 2 is not currently proposed. Therefore, FRA has not distinguished between Alternatives 2B and 6B for the purposes of this EA. Amtrak will coordinate with FRA on any required environmental review and documentation for Phase 2 if it is proposed in the future.

2. Project Alternatives

2.1. INTRODUCTION

This EA evaluates one Build Alternative and the No Build Alternative. Under the No Build Alternative, there would be no improvements made to the bridge and the existing Pelham Bay Bridge would remain in place. Amtrak would continue regular maintenance and rehabilitation work necessary to keep the bridge operating.

Amtrak evaluated and considered multiple preliminary build alternatives against the purpose and need of the Project in the 2015 Final Feasibility Report and in the 2022 Screening Report (**Appendix C**). Once Amtrak completed the screening process, Amtrak identified one build alternative (Alternative 2B) as the Build Alternative that best meets the purpose and need of the project (referred to as the Build Alternative).

Summary of the Build Alternative

The Build Alternative would construct a new two-track mid-level movable bridge across the Hutchinson River to the south of the existing Pelham Bay Bridge in the Bronx, NY. The new bridge would have a vertical clearance of 35 feet above mean high water level and a 100-foot (horizontal) navigation channel. The Build Alternative also would include removal of the existing bridge, realignment of the existing tracks and modifications to existing infrastructure such as replacing the catenary structures and other power and signal equipment to support construction of the new bridge. The new location to the south rather than the north of the existing bridge is preferrable to avoid impacts to recreation facilities and Erskine Place within the Co-op City neighborhood.

The Build Alternative would also allow for future expansion to four tracks in the Project area, increasing capacity should a future need arise.

2.2. ALTERNATIVES DEVELOPMENT AND SCREENING

The 2015 Final Feasibility Report identified multiple preliminary bridge and track-alignment alternatives to address the purpose and need during the screening phase of the Project. Preliminary build alternatives considered two track alignments:

- replacing the existing structure on the existing alignment or
- building a new bridge off alignment, adjacent to the existing bridge

For each track alignment alternative, three preliminary bridge alternatives were considered:

- a movable bridge at the existing elevation
- a movable bridge at a higher elevation that would reduce the number of openings or
- construction of a high-level fixed bridge.

Amtrak completed another Screening Report in 2020 to evaluate how MTA's PSA project could affect the replacement of Pelham Bay Bridge. The PSA Project will construct a new passenger station at Co-op City and modify the "PELHAM BAY" interlocking by moving it closer to the bridge. In this analysis, Amtrak identified two Pelham Bay Bridge replacement alternatives that would be compatible with the PSA project

design while also meeting the purpose and need of this Project. In total five preliminary build alternatives were refined and expanded to coordinate with the design of the PSA project.

A series of screening criteria were used to evaluate the ability of each preliminary build alternative to meet the purpose and need of the Project and identify any engineering issues that could preclude their implementation. The following screening criteria directly apply the "need" elements identified in **Section 1.3** above:

- Operational Reliability modernize the bridge infrastructure, reduce the number of bridge openings by increasing vertical clearance to at least 35' in a closed position;
- Travel Speeds increase the operating speeds of Amtrak trains across the bridge; and
- Maritime Navigation and Safety increase vertical and horizontal bridge clearances.

Additionally, the screening considered other potential issues that would pose problems in consideration of engineering, operations, and other factors. The following types of issues are summarized in **Table 2-1** under "Other Major Concerns":

- Compatible with PSA project alignment;
- Minimize impacts to freight rail traffic;
- Minimize construction period impacts (e.g., rail service outages) by limiting the complexity of construction staging; and
- Not preclude future construction of two additional passenger tracks over the Hutchinson River (referred to as Phase 2).

See **Table 2-1** for summary results and Final 2022 Screening Report (August 26, 2022) in **Appendix C**. As shown in the table below, the mid-level movable bridge located south of the existing bridge would best meet the purpose and need relative to the other preliminary build alternatives. Therefore, Amtrak recommended and FRA concurred with advancing the mid-level movable bridge (Alternatives 2B and 6B, which are identical for Phase 1) as the Build Alternative for further evaluation in this EA.

Alternative	Description	Modernizes Bridge Infrastructure	Reduces Bridge Openings	Increase Amtrak Operating Speeds	Increase Vertical and Horizontal Clearance	Other Major Concerns	Retain for Evaluation in EA
No-Build	Continued operation and maintenance with no bridge improvements	No	No – existing 8' vertical clearance in closed position	No - existing 45 MPH	No	N/A	Yes – does not meet purpose and need; retained to serve as baseline for comparison
1B	Phase 1: Low-level movable south of existing Phase 2: Low-level movable north of Phase 1	Yes	No – minimal improvement 14' vertical clearance in closed position	Yes – Phase 1 increase to 70 MPH	Yes (but minimal change to vertical clearance)	None	No – only a marginal reduction in bridge openings; does not sufficiently meet purpose and need
2B	Phase 1: Mid-level movable south of existing Phase 2: Mid-level movable north of Phase 1	Yes	Yes – 35' vertical clearance in closed position	Yes – Phase 1 increase to 100 MPH	Yes	None	Yes – meets all purpose and need
3	Phase 1: High-level fixed south of existing Phase 2: High-level north of Phase 1	Yes	Yes – 50' fixed vertical clearance	Yes – Phase 1 increase to 100 MPH	Yes	Not PSA compatible Grades not compatible with existing freight service	No – meets purpose and need but is not compatible with PSA project
6A	Phase 1: On-line replacement Phase 2: Two single track flanking high-level fixed	Yes	No – existing 8' vertical clearance in closed position	No – Phase 1 speeds remain at 45 MPH	No	None	No – does not reduce bridge openings or improve travel speeds
6B	Phase 1: Mid-level movable same as 2B Phase 2: Two single track flanking high-level fixed	Yes	Yes – 35' vertical clearance in closed position	Yes – Phase 1 speeds increase to 70 MPH	Yes	None	Yes – meets purpose and need

Table 2-1. Preliminary Alternatives Screening Results

2.3. NO BUILD ALTERNATIVE

The No Build Alternative serves as the baseline for which other alternatives can be compared. Under the No Build Alternative, the existing, aging Pelham Bay Bridge would continue to operate as it does today with regular routine maintenance to ensure it is safe and keep the movable span machinery properly functioning. However, this alternative does not include any substantial improvements to the bridge. Under the No Build Alternative, the vertical clearance under the bridge would remain the same, requiring it to open for most vessels through the channel and the horizontal clearance of the navigation channel would remain narrow, contributing to vessel collisions.

2.4. BUILD ALTERNATIVE

The Build Alternative consists of the construction of a new two-track, mid-level movable bridge across the Hutchinson River. The Build Alternative would be constructed while maintaining and operating the existing Pelham Bay Bridge and maintaining both train and maritime traffic. Total construction costs are anticipated to be approximately \$2 billion in 2028 dollars. The Build Alternative would extend from east to west, the Pelhamdale Avenue OH Bridge (Amtrak MP 17.87) to the Pelham interlocking (Amtrak MP 14.8). The Build Alternative would also include removal of the existing bridge, cutting the existing piers at ground level, removal of the transmission towers, realignment of the existing tracks, and modifications to existing infrastructure such as replacing the catenary structures and other power and signal equipment to support construction of the new bridge. The replacement bridge would be located directly south of the existing bridge. Although not proposed as part of the Project, the Build Alternative would not preclude the addition of a second two-track bridge in the future, should a need be identified. In addition, the proposed alignment of the Build Alternative would be compatible with PSA project and the planned location of Metro-North Railroad's future Co-op City Station.

The Build Alternative would provide a vertical navigation clearance of 35 feet above the mean high water and a horizontal navigation clearance of 100 feet. Dredging of the navigation channel would be required. The movable bridge span would be 140 feet in length to allow for the construction of a fender system, and foundations for the movable span and would be a bascule type. The total bridge length would be approximately 3,550 feet. There would be a total of approximately 1,430 feet of retaining walls, with 690 feet of retaining walls on the west approach and 740 feet of retaining walls on the east approach. Approximately 47 piers with support columns impacting a total area of 50,000 square feet would be required to construct the bridge. Regrading in wetlands at the bridge abutments would not be required.

A summary of the key design elements of the Build Alternative is provided in **Table 2-2**. Details are presented in **Figure 2-1**.

Amtrak anticipates construction to begin in 2029 and end in 2034. The Build Alternative would be constructed while maintaining and operating traffic on the existing Pelham Bay Bridge. After construction is complete and the new bridge is put into service, the existing bridge would be demolished. Construction staging and access would take place on either side of the river, with temporary trestles constructed over the water to provide access for equipment during bridge construction and demolition. Amtrak anticipates utilizing barges to transport materials and equipment to the construction site. Transport over the Shore Road Bridge, through Pelham Bay Park, would be required to access the Amtrak right-of-way on the north/east side of the Hutchinson River. Construction would occur on both approaches simultaneously. As of the date of preparation of this EA, construction of the Pelham Bay Bridge Replacement Project is not

anticipated to overlap with construction of the PSA Project However, project schedules could change and therefore Amtrak and MTA will remain in close coordination as they advance their respective projects.

Design Element	Build Alternative (Mid-level Movable)
Design Speed (mph)	70 (Passenger) & 35 (Freight)
Trip Time Reduction (seconds)	21
Vertical Navigation Clearance (feet above mean high water)	35 Closed & unlimited Open
Horizontal Navigation Clearance (feet)	100
Bridge Type	Movable
Movable Bridge Type	Bascule (lift also may be possible)
Overall Bridge Length (feet)	3,540
Total Retaining Wall Length (feet)	1,430
Track Structure	Ballasted track approach structure with open deck bascule span
Number of Piers	47
Limits of Disturbance Area (square feet)	787,000
Channel Dredging Area (square feet)	36,800
Construction Timeframe including demolition of existing span (years)	5.3
Temporary Trestles Area (square feet)	206,000

Table 2-2. Key Design Elements for the Build Alternative

Source: HNTB, 2022

2.5. IDENTIFICATION OF THE PREFERRED ALTERNATIVE

The Build Alternative, a mid-level movable bridge located south of the existing bridge, was selected as the Preferred Alternative. This alternative would provide navigation improvements through increased horizontal and vertical clearances, reduce the number of bridge openings and allow for an increase in passenger train operating speed to 70 mph with only minor impacts to freight train traffic and have an alignment compatible with the PSA project.

The Build Alternative is consistent with FRA's NEC FUTURE Program and its goals of increasing capacity and improving reliability and performance by eliminating bottlenecks that cause delays and reduce travel times. Additionally, the Build Alternative best meets the purpose and need of the Project.

2.6. LIMITS OF DISTURBANCE AND STUDY AREA

To accommodate the proposed alignment and profile changes, the limits of disturbance extend east to the Hutchinson River Parkway Connector OH Bridge 16.30 and west to OH Bridge 15.19 (New England Thruway/Interstate 95). Additional track alignment shifts and rail systems equipment modifications within the existing Amtrak property may be required further east to the PSA-proposed "BRONX" Interlocking at milepost 17.4 and will be coordinated with the PSA project.

For each environmental resource, the specific Study Area is described in the subsections of Chapter 3, "Existing Conditions and Environmental Consequences." The Study Area for the analyses varies by resource but range from a 500-foot to 1/4 mile buffer around the limits of disturbance, with socioeconomic data based on census tracts within $\frac{1}{2}$ -mile of the limits of disturbance.



Figure 2-1. Preferred Alternative Details

Pier Stem

2.7. ANTICIPATED PERMITS REQUIRED FOR THE PREFERRED ALTERNATIVE

Anticipated permits and approvals required for the Preferred Alternative would include:

- US Army Corps of Engineers (USACE) Section 10/404 Permit
- US Coast Guard (USCG) Bridge Permit
- New York State Department of Environmental Conservation (NYSDEC) Tidal Wetlands Permit
- NYSDEC Section 401 Water Quality Certification
- NYSDEC Protection of Waters Permit
- NYSDEC Excavation and Fill in Navigable Waters Permit
- NYSDEC State Pollutant Discharge Elimination System (SPDES) Construction General Permit
- Stormwater Pollution Prevention Plan
- New York State Office of Parks Recreation and Historic Preservation (OPRHP) consultation (Section 106 and Section 6(f) conversion)
- Approval of parkland alienation in the form of legislation enacted by the New York Legislature and approved by the Governor
- New York State Department of State (NYSDOS) Coastal Zone Consistency Determination
- New York City Department of City Planning (NYCDCP) Waterfront Revitalization Program (WRP) Consistency Determination
- Section 4(f) *de minimis* concurrence from New York City Department of Parks and Recreation (NYCDPR)
- New York City Local Law 3 of 2010 (governing tree replacement)
- National Environmental Policy Act (NEPA) compliance
- New York City Environmental Quality Review (CEQR) and New York State Environmental Quality Review Act (SEQRA), if Uniform Land Use Review Procedure is required for City map changes
- Section 106 of the National Historic Preservation Act compliance

3. Existing Conditions and Environmental Consequences

This chapter addresses the existing conditions and environmental consequences of the No Build Alternative and Preferred Alternative and provides the regulatory framework, methodology, and mitigation as appropriate. **Table 3-1** summarizes the environmental impacts for each of the resources. Amtrak, as the Project Sponsor and recipient of federal grant funding administered by FRA, will be responsible for implementing all mitigation measures.

Environmental Resource	No Build Alternative	Preferred Alternative	Mitigation
Transportation	No improvement to passenger rail service or maritime traffic. Continued operational failures and disruptions in rail service.	Reduced delays in rail service, increased rail speeds over the bridge, and less frequent maritime vessel collisions. During construction, temporary increase in vehicular traffic but no impact to navigation channel.	Use existing NYCDOT- designated truck routes for vehicular traffic during construction.
Socioeconomic Conditions	Passenger and freight rail service would experience increasing delays due to operational failures of the bridge. The populations in Co- op City would be adversely impacted by the increasing travel time delays. Maritime traffic would continue to experience delays and risk vessel collisions.	Long term socioeconomic benefits due to improved passenger and freight rail service and reduced maritime vessel collisions.	None
Land Use, Zoning, and Community Facilities	None	No impact to development patterns, residences, businesses, zoning or community facilities. Permanent, maintenance and temporary easements in Pelham Bay Park would not adversely affect park land use.	Amtrak will implement mitigation identified through Section 4(f) and Section 6(f) consultations.
Visual and Aesthetic Conditions	None	Overall improvement in the visual and aesthetic quality and character of the Study Area.	None

Table 3-1. Anticipated Environmental Impact Summary

Environmental Resource	No Build Alternative	Preferred Alternative	Mitigation
Cultural Resources	No change to or disturbance of historic resources.	Adverse Effect to NR-eligible Amtrak Pelham Bay Railroad Bascule Bridge; No Adverse Effect to NR-eligible Pelham Bay Park Historic District, Co- op City or Shore Road Bridge.	On March 21, 2025, FRA, Amtrak and SHPO executed a Section 106 MOA to resolve the Project's adverse effect to the historic railroad bridge.
Air Quality and Energy	None	No change in long-term mobile source or stationary air pollutant emissions and negligible change in energy consumption. Total annual estimated emissions as a result of construction would be less than the general conformity <i>de minimis</i> thresholds.	None
Noise and Vibration	No changes to the noise environment; however, based on analysis documented in the Penn Station Access (PSA) EA, for nearby activities from the Penn Station Access Project future noise levels in the vicinity would increase from existing.	Moderate noise impacts at some residential receptors in Co-op City and severe impact to Bronx Equestrian Center under future operational conditions; vibration impacts are below the threshold. Construction activities would not exceed FTA impact thresholds for noise and vibration.	Amtrak will construct four noise barriers totaling 3,950 feet.
Terrestrial Resources	None	Disturbance of 1.1 acres of vegetated areas and osprey nest.	Areas temporarily disturbed for site access and materials/ equipment staging will be replanted by Amtrak in coordination with NYC Parks following construction to pre- existing conditions. If Osprey nests are found on existing catenary structures, Amtrak will attempt to remove the osprey nest outside of the breeding season (April 1 to September 30. However, if work is to be performed around the osprey nest when it is active, Amtrak will obtain a Depredation Permit from the USFWS prior to the initiation of the work.

Environmental Resource	No Build Alternative	Preferred Alternative	Mitigation
Floodplains	None	Permanent impact to 1.9 acres of 100- year floodplain and temporary impact to 12 acres of 100-year floodplain; permanent impacts would be offset by removal of infrastructure associated with existing bridge from within the floodplain. Movable portion of replacement bridge and associated machinery would be elevated above 1 percent flood hazard elevation through the 2100s.	None
Coastal Zone	None	Impacts to New York State and New York City coastal zones but consistent with New York State Coastal Management Policies and New York City Waterfront Revitalization Program.	Amtrak will comply with federal coastal zone consistency requirements to be identified during the Project's final design and permitting phase, prior to initiation of construction.
Wetlands	None	Permanent impact to 0.7 acres of wetlands (0.07 acres emergent wetlands, 0.07 acres mudflat, 0.35 acres shallow water, 0.21 acres open water); temporary impacts to an additional 8.3 acres of wetlands (0.75 acres emergent wetlands, 1.52 acres mudflat, 3.93 acres shallow water, 2.14 open water).	Amtrak will utilize in-kind mitigation (on-site or off-site) or mitigation banking to compensate for permanent impacts, to be determined during the Project's final design and permitting phase. Amtrak will restore areas of temporary impacts to at least pre-existing conditions following construction, in coordination with NYCDPR.
Aquatic Resources	None	Impact to 9.05 acres of Essential Fish Habitat/ Habitat Area of Particular Concern, including 0.70 acres of permanent impacts and 8.33 acres of temporary impacts. Potential for temporary impacts to resident and migratory fish species from suspended sediments or underwater noise during construction.	Amtrak will utilize in-kind mitigation (on-site or off-site) or mitigation banking to compensate for permanent impacts to 0.70 acres of aquatic habitats, to be determined during the Project's final design and permitting phase. During construction, Amtrak will adhere to seasonal in-water work restrictions, and utilize vibratory hammer to the maximum extent practicable, and underwater noise attenuating tools if an impact hammer is necessary. Amtrak will also ensure that work barges float during all stages of the tide (i.e., do not sit grounded on river bottom).

Environmental Resource	No Build Alternative	Preferred Alternative	Mitigation
Endangered, Threatened and Special Concern Species	None	Potential for temporary impacts to seven federally listed species and one proposed listed species. Tricolored bat may have an adverse impact on summer habitat due to tree clearing; there is no suitable breeding habitat for Piping plover in the action area; the four turtle species may have potential impact from noise/vibration during construction, vessel strikes and temporary turbidity; and the shortnose sturgeon and Atlantic sturgeon may have potential impacts from suspended sediments and underwater noise during construction. The NYSDEC Natural Heritage Program identified five birds, three insects and eight plant species for state-listed species.	FRA's Section 7 consultation with NOAA-NMFS determined that mitigation will include seasonal work restrictions, cofferdams, turbidity curtains, and silt curtains.
Contaminated Materials	Contaminated soil and sediment will remain in place.	Potential to encounter contamination during soil or sediment disturbance activities. Suspect asbestos containing materials and lead paint to be disturbed during demolition of existing bridge.	Amtrak will perform Phase II sampling investigation of soil, groundwater, and river sediment prior to construction. Amtrak will include proper material handling and disposal and health and safety procedures in its construction contract documents and ensure they are followed if contaminated materials are encountered during construction.
Section 4(f) Impacted Resources	None	Uses: Amtrak Pelham Bay Railroad Bascule Bridge – Excepted from Section 4(f) Approval; Pelham Bay Park – FRA anticipates a Section 4(f) <i>de minimis</i> finding.	NYCDPR may request that Amtrak mitigate for park impacts including, but not limited to, restoring temporary construction areas on Park property, developing a maintenance of traffic plan for Park roads and trails affected by construction, use of protective matting for tree critical root zones during construction, complying with local tree replacement laws, and coordination with NYCDPR for any wetlands mitigation on Park property.
Section 6(f) Impacted Resources	None	Impact to 4.01 acres of LWCF funded Pelham Bay Park requiring a Section 6(f) conversion.	Amtrak will replace property converted under Section 6(f) of LWCF Act. The replacement will occur after FRA's NEPA decision but prior to the conversion.

3.1. TRANSPORTATION

This section assesses the potential benefits and impacts of the alternatives on transportation conditions in the project area and throughout the region. Because intercity, commuter, and freight rail lines all operate on the NEC and traverse the Pelham Bay Bridge, the Project could result in effects over a larger area. For discussion purposes, the Study Area for transportation has been defined by the major roadways that surround the Pelham Bay Bridge, slightly greater than a ¼-mile radius around the limits of disturbance. Those roadways include the Hutchinson River Parkway to the west, the Hutchinson River Parkway ramp to the north, Shore Road to the south, and the New England Thruway (I-95) to the west.

3.1.1. Existing Conditions

The Pelham Bay Bridge is used by passenger and freight rail that travels from New Haven, Connecticut (CT) to Penn Station New York (NY) in Manhattan by utilizing Amtrak's Hell Gate Line (HGL) on the NEC. Currently, 51 Amtrak Regional and Acela passenger trains per day and two CSX trains per week cross the bridge. In the future, Amtrak plans on increasing weekly train service to 60 trains per week. CSX plans on increasing its freight trains to three trains per week. MTA's PSA project is expected to bring up to 102 new daily trains along the HGL and over the Pelham Bay Bridge.

The Hutchinson River begins in southeastern Westchester County, NY and flows south through the northeastern section of the Bronx into Eastchester Bay and Long Island Sound at Pelham Bay Park. The navigable portion of the waterway begins at Eastchester Bay and continues north for approximately 18,000 feet (3.4 miles) to Canal Street and a small park in Westchester County. The navigable portion of the waterway is crossed by Amtrak's Pelham Bay Bridge, two New York City movable bridges, two higher fixed bridges, and a movable bridge in Westchester County.

There were 3,635 openings of the Pelham Bay Bridge for 3,857 vessel passages recorded from January 1, 2017 through December 31, 2021, representing around 1,928 vessel round trips up the river. The Pelham Bay Bridge has a vertical clearance of 8 feet above MHW requiring nearly all vessels that pass on the waterway to call for opening of the bridge. The bridge has a narrow horizontal navigation channel width of 68 feet, resulting in frequent vessel collisions with the bridge that cause damage to the fenders. All other bridges on this waterway provide a horizontal clearance of 80 feet or more except for the Shore Road Bridge; however, the Shore Road Bridge is currently completing an EIS with a proposed alternative that would provide 100 feet of clearance. The waterway has businesses involved in construction materials (sand, gravel), scrap metal, and heating oil. As a result, marine traffic is fairly balanced year-round with construction materials dominating in the spring, summer, and fall and heating oil shipments picking up in the fall and winter.

The roadway network within the Study Area includes the New England Thruway (I-95) that runs north-south on the western edge of the Study Area and crosses over the railroad tracks. The Hutchinson River Parkway is a six-lane freeway that crosses the Hutchinson River to the north of the Pelham Bay Bridge, while Shore Road is a local four-lane collector that crosses the river immediately south of the Pelham Bay Bridge. Co-op City is served by local roads with access to I-95 and the Hutchinson River Parkway. Erskine Place runs parallel to the railroad tracks immediately to the north on the west side of the Hutchinson River.

3.1.2. Impacts of the No Build Alternative

Under the No Build Alternative, there would be no change to the transportation network within the Study Area. Speed over the existing bridge would continue to be restricted to 45 mph for passenger trains, resulting in lengthier rail trip travel times. The vertical clearance under the bridge would be the same, requiring the bridge to be opened for the majority of maritime vessels. The horizontal clearance would continue to restrict maritime traffic and contribute to vessel collisions that cause damage to the bridge's fender system. There would be no impact to vehicular traffic as a result of the No Build Alternative. Additionally, the existing bridge would continue to have unacceptable failures due to the aging infrastructure, resulting in travel time delays.

3.1.3. Impacts of the Preferred Alternative

The Preferred Alternative would replace the existing Pelham Bay Bridge with a new mid-level movable bridge with improved operational reliability and greater horizontal and vertical clearances (proposed new bridge). There would be reduced delays in rail service because trains would not have to stop as frequently for the proposed new bridge to open for maritime traffic. Additionally, bridge failures would be reduced because of the modernized mechanical systems of the proposed new bridge and less frequent need to open and close the span. Passenger rail service would be able to maintain 70 mph over the proposed new bridge, reducing overall travel time. In addition, vessel collisions would likely be less frequent due to the wider navigation channel under the proposed new bridge. There would be no permanent impact to vehicular traffic following construction of the Preferred Alternative. Overall, the Preferred Alternative would provide a benefit to local and regional transportation.

During construction, there would be increased vehicular traffic in the Co-op City neighborhood and on Shore Road Bridge through Pelham Bay Park. Employees traveling to the construction site in personal vehicles would park within Amtrak right-of-way, in areas designated for construction staging. Amtrak anticipates using barges to transport materials to the site, anchoring near the shore on either side of the river to reduce the number of truck trips. If needed, track outages would be minimal and limited to nighttime and weekends so as not to reduce operational capacity and impact rail service. Any adverse impact to transportation during construction would be minor and temporary. The navigation channel would be kept clear so as not to impact maritime traffic during construction.

3.1.4. Mitigation

During construction, trucks traveling to and from the construction site would follow New York City Department of Transportation (NYCDOT) regulations, using designated truck routes where available. This would minimize the traffic, noise and dust impact to the local community. In addition, Amtrak will coordinate with NYCDOT on the Shore Road Bridge construction project regarding truck routes and maintaining the navigation channels when there is overlap between the construction activities for that project and the Pelham Bay Bridge Replacement Project.

3.2. SOCIOECONOMIC CONDITIONS

3.2.1. Introduction

This section evaluates the potential effects of the alternatives on socioeconomic conditions, employment, and income. Impacts to communities are discussed in **Section 3.3**, Land Use, Zoning, and Community Facilities.

3.2.2. Methodology

The Study Area that has been defined for the socioeconomic analysis is comprised of nine Census Tracts that are at least partially within a 1/2-mile radius surrounding the limits of disturbance. This radius was selected to capture the extent of the potential environmental impacts that would result from the Project. Data was collected using U.S. Census Bureau's 2017-2021 American Community Survey 5-Year Estimates.

3.2.3. Existing Conditions

The demographic information in this section is from the U.S. Census Bureau and illustrates the characteristics of the Study Area as well as for Bronx County, New York City, and New York State (see detailed tables in **Appendix E**). The Study Area has a population of approximately 24,729 and 10,474 housing units. The Study Area contains a wide range of median household income levels from \$49,219 to \$111,106.

The population living below the poverty level in the Study Area is 9.2 percent.⁵

3.2.4. Impacts of the No Build Alternative

The No Build Alternative would have no substantial impacts to the Study Area's socioeconomics. The Pelham Bay Bridge would not be replaced but rail service across the bridge would continue, along with maritime traffic underneath the bridge. Passenger and freight rail service would experience increasing delays due to operational failures of the bridge. The populations in Co-op City that would potentially utilize the future Metro-North service into Penn Station New York for cost-effective travel options to get to jobs or school would be adversely impacted by the increasing delays of the existing bridge. Maritime traffic would continue to experience delays waiting for the bridge to open and risk vessel collisions due to the narrow navigation channel, resulting in continued economic impacts of delayed deliveries and adverse impacts to public safety for those using the waterway. The No Build Alternative would not result in adverse impacts to socioeconomic conditions.

⁵ The U.S. Census Bureau methodology for determining the population living below the poverty level is based on the Office of Management and Budget's Statistical Policy Directive 14. The Census Bureau assigns each person or family one out of 48 possible poverty thresholds that vary by the size of the family and the age of the members.

3.2.5. Impacts of the Preferred Alternative

The Preferred Alternative would result in socioeconomic benefits as a result of the improved bridge design and operations that would maintain consistent passenger and freight rail service, increase speeds over the bridge, and reduce the number of maritime vessel collisions that cause delays or closures with a widened navigation channel. The improved rail operations would benefit the populations in Co-op City that live near Metro-North Railroad's future PSA Co-op City Station by ensuring more reliable service with limited delays for the anticipated rail traffic resulting from the PSA project.

The minor change to park land use would not adversely impact recreation areas that are publicly accessible. The operational noise impacts from the changes in railroad alignment will be mitigated through the installation of noise barriers on both approaches to the new bridge (as described in **Section 3.7**).

Construction of the Preferred Alternative would result in temporary impacts to traffic, air quality, noise, and contaminated materials. However, following NYCDOT regulations for vehicular traffic and implementing best management practices will minimize the impacts and protect the surrounding community. Therefore, there would be no adverse impacts to socioeconomic conditions as a result of construction of the Preferred Alternative.

3.2.6. Mitigation

There will be no adverse impacts to socioeconomic conditions, therefore no mitigation is proposed.

3.3. LAND USE, ZONING AND COMMUNITY FACILITIES

3.3.1. Introduction

This section is an evaluation of the existing land use, zoning and community facilities for the Study Area that would be potentially affected by the alternatives. The evaluation process involved a review of the existing and future land uses and zoning, and the community facilities present within the Study Area. In addition, this section addresses how the alternatives could influence community and neighborhood character surrounding the Project area. The Study Area for the land use and zoning analysis is defined as a ¼ mile radius surrounding the limits of disturbance.

3.3.2. Regulatory Context

Transportation projects sometimes require property acquisition and relocation of residences and businesses. A federally funded project must adhere to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, as codified in Title 42, Section 4601 et seq. of the United States Code, and the applicable implementing regulations set forth in Title 49, Part 24 of the Code of Federal Regulations (collectively, "the Uniform Act") with regard to relocation services, moving payments, replacement housing payments, and other allowable payments related to commercial and residential moving costs and displacement.

3.3.3. Methodology

The Study Area for land use has been defined as a ¼-mile radius around the limits of disturbance as any changes to land use and zoning resulting from the Preferred Alternative would likely be limited to that area. Existing land use and zoning information was obtained via ZoLa, New York City's zoning and land use map, and the NYCDCP MapPLUTO (version 22v3.1).

3.3.4. Existing Conditions

3.3.4.1. Land Use

The Study Area includes the railroad right-of-way that spans the length of the existing bridge and continues with the tracks on either side of the Hutchinson River. Portions of Co-op City, the Pelham Gardens neighborhood, Pelham Bay Park, and the Hutchinson River are also included within the Study Area. **Figure 3-1** shows existing land uses within the Study Area and the surrounding context, which consist primarily of single and multi-family residential uses directly to the west of the bridge, open space and outdoor recreation within Pelham Bay Park, located to the north, south and east of the bridge, commercial and office uses and public facilities and institutions, located primarily along the Hutchinson River Parkway to the west of the site, and transportation and utility infrastructure located primarily within the limits of disturbance.

Pelham Bay Park is located to the north, east and south of the Pelham Bay Bridge. The park is 2,772 acres in size and is the largest park in New York City. The park is under the jurisdiction of the New York City Department of Parks and Recreation (NYCDPR).

The limits of disturbance are approximately 18 acres in area. Of that area, 37.7% (6.8 acres) is transportation land use, 26.8% (4.8 acres) is park/open space (Pelham Bay Park), and the remaining area is water (Hutchinson River).



Figure 3-1. Land Use within Study Area

3.3.4.2. Zoning

Figure 3-2 shows existing zoning district designations within the Study Area. The western portion of the Study Area is largely zoned residential (R6, R3A, R-32), permitting a variety of housing types including low-rise attached houses, small multifamily apartment houses, detached and semi-detached one-and two-family residences, and large-scale "tower in the park" developments, which comprise portions of Co-op City. The C2-1 and C2-3 commercial overlay districts are mapped within some of the residential districts, permitting local retail within Co-op City and Pelham Gardens. The remaining portion of the Study Area is zoned Park.


Figure 3-2. Zoning within Study Area

3.3.4.3. Community Facilities

Within the Study Area there are two schools – the Equality Charter Middle School and P.S. 160 Walt Disney elementary school – and one daycare center (located at 100 Erskine Place). In the Study Area there are two playgrounds and two small recreation facilities (tennis courts and handball courts), and Iglesia Evangelica Coop and AHRC NYC (service provider for individuals with disabilities), and one police station (Co-op City Auxiliary Police).

3.3.5. Impacts of the No Build Alternative

The No Build Alternative would have no change or impact to existing land use or zoning and would not impact Pelham Bay Park or any community facilities. The No Build Alternative would maintain the existing bridge and track alignment. The bridge would remain in its two-track configuration and would require regular maintenance to ensure that its safety and reliability is upheld.

3.3.6. Impacts of the Preferred Alternative

This section discusses the potential impacts to land use, zoning and community facilities within the Study Area that would occur as a result of the Preferred Alternative.

3.3.6.1. Land Use

The Preferred Alternative would have minimal impact to the existing land use and development patterns within the Study Area. The Preferred Alternative would have no impact to residences or businesses. The realignment of the tracks and bridge would require permanent acquisition of 0.3 acres of Pelham Bay Park and a maintenance easement of 0.5 acres. The remainder of the park area within the limits of disturbance (approximately 4 acres) would be used temporarily for construction staging and access but would be returned to pre-existing condition (vegetated or landscaped land) following construction of the Preferred Alternative (see **Section 3.10** for more about impacts to Pelham Bay Park). The area of permanent acquisition and easement needed for the Preferred Alternative is minor in comparison to the total acreage of Pelham Bay Park. The locations of the land within the park to be acquired is adjacent to the railroad right-of-way and is not readily accessible to the public; therefore, this small amount of acquisition of land would not adversely affect the park.

3.3.6.2. Zoning and Public Policy

There would be no change in zoning under the Preferred Alternative. The replacement of the bridge would be consistent with existing zoning and would not substantially change existing conditions, as portions of the existing railroad right-of-way are within the Park zone and would remain there even with a shift in the alignment. There would be no impact to the surrounding residential or commercial zoning.

3.3.6.3. Community Facilities

The Preferred Alternative would have no impact to any community facility within the Study Area. The proposed replacement bridge would be located just south of the existing bridge and would not encroach on development within Co-op City. The Preferred Alternative would have no change in railroad operations and would not induce growth or result in an increase in residential population or businesses that could indirectly affect community facilities within Co-op City.

3.3.7. Mitigation

There would be no impacts to land use, zoning or community facilities, therefore, no mitigation is proposed. Mitigation for impacts to parkland will be identified and implemented through the Section 4(f) and Section 6(f) review processes (see **Sections 3.10.2.2** and **3.11.2.2**, respectively).

3.4. VISUAL AND AESTHETIC CONDITIONS

This section identifies and characterizes the existing visual environment and considers the potential for the alternatives to affect visual and aesthetic resources. This section also summarizes the visual impact assessment found in **Appendix F** that identifies visual elements associated with the Preferred Alternative, considers the potential impacts to the visual environment, and identifies potential mitigation measures related to visual quality.

3.4.1. Methodology and Study Area

FRA assessed visual quality and aesthetic impacts from the alternatives. FRA assessed visual impacts by evaluating the compatibility of the Preferred Alternative with the surrounding context, sensitivity of the viewers, and degree of impact. The assessment of compatibility consisted of consideration of the visual impacts of the Preferred Alternative in relation to such elements as scale, form, materials, visual character, and distance between the viewer and the visual resource.

This analysis was prepared in accordance with FHWA's *Guidelines for the Visual Impact Assessment of Highway Projects (January 2015)*, as appropriate and applicable to the Preferred Alternative. Although the Preferred Alternative is not a highway project, it is similar in that it involves new work on a linear transportation corridor and therefore many of the components in the guidance were relevant to the analysis.

For the visual resources analysis, the Study Area (also referred to as the Area of Visual Effect) was identified as approximately half-mile from the existing Pelham Bay Bridge, which is roughly bounded by Hutchinson River Parkway and Hutchinson River Parkway Bridge to the north; the Pelham Bay Park to the east, the Bronx and Pelham Parkway and Shore Road Bridge to the south; and Interstate 95 to the west (see **Appendix F, Figure F-1**). The Study Area represents the probable range of visual impact for the Project, given the nature and scale of the improvements.

3.4.2. Existing Conditions

Pedestrians and bicycles are not permitted on the Pelham Bay Bridge and views from passing trains are limited due to the speed of the train, which prevents extended durations of the view. Key viewsheds identified are shown on **Figure F-1** in **Appendix F** and depicted in Views 1 through 3 on **Figure F-2**.

The existing views across the Hutchinson River from the surrounding neighborhood are impeded by the low vertical clearance of the existing bridge. The piers and transmission towers are the most prominent visual elements of the bridge and can be seen from several locations within the half-mile Study Area, which comprises of residential and commercial development to the west, Co-op City and Bay Plaza Shopping Center, and wetlands and Pelham Bay Park. The river in the Study Area is traversed by three transportation corridors—the existing Pelham Bay Bridge through the center, Hutchinson River Parkway Bridge to the north, and the NYCDOT Shore Road Bridge to the south, all of which are visually significant historic structures that are eligible for listing on the National Register of Historic Places (NRHP).

The Hutchinson River View Corridor is the central visual resource in the Study Area. It is characterized by expansive open views from the shoreline, including Pelham Bay Park that surrounds it to the north, east, and south and contains wetlands and recreation areas. The existing Pelham Bay Bridge cuts through the middle of the Study Area.

Viewer groups are groups of people who are visually affected by a project in a similar way, such as those that have views of visually sensitive resources and those that have views from those resources. The following viewer groups were identified as part of the visual impact assessment:

- Pedestrians and Bicyclists,
- Motorists,
- Rail Passengers, and
- Boaters.

3.4.3. Impacts of the No Build Alternative

Under the No Build Alternative, the existing Pelham Bay Bridge would not be replaced and would remain in its current location and condition. Metro-North Railroad's future Co-op City Station and substation would be constructed on the west side of the Hutchinson River as part of the Penn Station Access project and the Shore Road Bridge would be replaced. The No Build Alternative would not result in adverse impacts to visual resources or aesthetic conditions in the Study Area.

3.4.4. Impacts of The Preferred Alternative

Under the Preferred Alternative, the existing Pelham Bay Bridge would be replaced with a mid-level movable bridge south of the existing bridge, which would provide a 35-foot vertical clearance over the 100-foot navigation channel. The Preferred Alternative would include replacement of catenary towers, noise barriers, and staged construction of the abutments and approach retaining walls.

The Preferred Alternative would have a maximum track height approximately 27 feet higher than the tracks on the existing Pelham Bay Bridge, which would increase the visibility of the new bridge from the surrounding vantage points for the area's viewer groups. However, since a through-girder structure is proposed to replace the existing through-truss structure, the overall height of the proposed structure would only be 17 feet higher than the existing bridge. Therefore, the visual impact of elements above the rail level, such as safety rails, would be negligible. Additionally, the existing transmission towers would be replaced with lower height monotube-type towers that would reduce the visual impact of the Project.

The Preferred Alternative would also provide a higher vertical clearance of 35 feet, as compared to the existing 8-foot vertical clearance, and have fewer piers, which would improve the visibility of the Hutchinson River view corridor for boaters/navigational ships and would provide pedestrians and bicyclists in the surrounding area with unobstructed views of the river and the surrounding Pelham Bay Park. With a higher vertical clearance, the shoreline of Co-op City would be visible to pedestrians, bicyclists, and motorists from Pelham Bay Park to the north of the river and Pelham Bridge Road/Shore Road, which would greatly improve the visual characteristics and quality of the Study Area (see **Appendix F**, **Figure F-4** and **Figure F-5**).

There would be an increase in retaining wall height under the Preferred Alternative as compared to the atgrade approach ramp of the existing bridge which would obstruct the pedestrian's and bicyclist's view to the Hutchinson River from the Co-op City area that is directly north of the southern approach. However, views from the Co-op City waterfront would not be affected by the increase in the retaining wall height. The retaining wall of the north approach ramp would result in a grade change that has the potential to obstruct existing views of motorists, pedestrians, and bicyclists to Co-op City from the Pelham Bay Park area closest to the north approach. However, views from other parts of Pelham Bay Park and along the waterfront would not be affected by the increase in the retaining wall height.

The Preferred Alternative would result in removal of the existing Pelham Bay Bridge, which along with the Hutchinson River Parkway Bridge and the Shore Road Bridge contribute to the visual character of the Hutchinson River View Corridor. In replacing the existing bridge with a new bridge, this aspect of the view corridor would be altered. However, the scale and overall visual character of the proposed bridge would be comparable to that of the existing bridge.

Because the alignment, height, and dimensions of the new bridge would not differ substantially from the existing bridge, views of the bridge and the Hutchinson River view corridor as a whole would not be significantly changed under the Preferred Alternative from existing conditions. The change in design of the new bridge would be minimally perceptible to those farther away and more noticeable to the transient viewer groups on the Shore Road Bridge and pedestrian viewers along the waterfront in Co-op City and Pelham Bay Park. Views to other aspects of the Hutchinson River view corridor would not be blocked or substantially changed, and the durations of these views would remain the same.

During construction, there would be construction equipment, including tall cranes in some instances and barges along the shoreline, that would be noticeable to the area's viewer groups. The changes in views of the bridge and Hutchinson River view corridor would be temporary and would not result in adverse impacts to visual resources or aesthetic conditions in the Study Area.

In the long term, the Preferred Alternative would result in an improvement in the visual and aesthetic quality and character of the Study Area. Therefore, the replacement bridge would not result in any significant adverse impact to the visual resources in the Study Area.

3.4.5. Mitigation

There would be no significant adverse impacts to visual resources, therefore, no mitigation is proposed.

3.5. CULTURAL RESOURCES

3.5.1. Introduction

This section contains a summary of the historic resources identified in the Area of Potential Effect (APE) for the Project, the potential effects of the Project on those resources, and conditions to avoid, minimize, and mitigate potential adverse effects.⁶ **Appendix G**, "Section 106 Documentation" contains correspondence and detailed information, including maps, photographs, and reports for historic architectural and archaeological resources within the APE.

3.5.1.1. Regulatory Framework

NEPA and the National Historic Preservation Act (NHPA) require efforts to identify significant cultural resources at the national, state, and local level that could be affected by an undertaking or action, as well as an assessment of the action's effects on those resources. Section 106 of the NHPA, as amended and implemented by 36 CFR Part 800, defines the obligation for analysis of effects to historic properties. NEPA and NHPA are separate federal laws, though they are often implemented together with the same documentation and public review processes. The NHPA defines historic properties as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register

⁶ Area of Potential Effects means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking (36 C.F.R. Part 800.16).

of Historic Places (NRHP). Eligibility criteria for listing on the NRHP are found at 36 CFR Part 60.⁷ Section 106 of the NHPA establishes standards for evaluating effects to historic properties. NHPA defines an effect as "an alteration in the character or use of a historic property qualifying it for inclusion in or eligibility for the National Register." An effect is considered to be adverse "when an undertaking may alter, directly or indirectly, any of the characteristics of the historic resource that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association" (36 CFR 800.5).

3.5.1.2. APE Delineation

The APE consists of the area where the Project has the potential to cause effects on historic properties. In accordance with 36 CFR 800.4(a)(1) and in consultation with the New York State Historic Preservation Office (SHPO), FRA delineated the APE for the Project based on the proposed scope of work, which includes:

- Construction of the new Amtrak Pelham Bay Bridge downstream from the existing bridge, including its approaches and associated infrastructure;
- Temporary ground disturbance associated with work zones and staging areas related to construction of the new bridge and demolition of the existing bridge.

With consideration of the visual changes associated with the removal of the existing bridge and the proposed new bridge at a higher elevation, a new alignment, and a new bridge type, FRA delineated an APE for the above-ground work as a 500-foot radius around the entire project area (proposed new bridge and approaches), as explained in a letter dated April 5, 2023. In a letter dated June 12, 2024, FRA expanded the above-ground APE to extend farther to the northeast and southwest due to the inclusion of additional retaining walls and noise barriers that were incorporated into the design. FRA's June 12, 2024 letter also delineated the below-ground APE, which coincides with the limits of disturbance for the Project, combining all of the permanent and temporary ground disturbance locations. The vertical extent of the below-ground APE (depth below grade) varies depending on the component of the Project (between 10 and 40 feet).

3.5.1.3. Consultation

In accordance with 36 CFR 800.2(c), FRA and Amtrak identified parties that may be interested in the Project and FRA's findings. On April 5, 2023, FRA sent letters to the following groups that were invited to participate as Section 106 Consulting Parties and to provide comment:

- Bronx Borough President's Office
- Friends of Pelham Bay Park
- MTA Metro-North Railroad
- New York Chapter of Railway & Locomotive Historical Society

⁷ National Park Service. 2018. NRHP Title 36 – Parks, Forests, and Public Property, Chapter I – National Park Service, Department of the Interior, Part 60 – National Register of Historic Places. Accessed at https://www.law.cornell.edu/cfr/text/36/part-60.

- New York City Department of Parks and Recreation
- New York City Landmarks Preservation Commission
- Professional Archaeologists of New York City
- Roebling Chapter, Society for Industrial Archaeology
- Tri-State Railway Historical Society
- New York State Historic Preservation Office
- Federal Transit Administration

On April 5, 2023, FRA also initiated consultation with the following federally recognized Indian tribes and invited them to participate in consultation:

- Delaware Nation
- Delaware Tribe
- Shinnecock Indian Nation
- Stockbridge-Munsee Community

On June 12, 2024, FRA invited the following additional organizations to participate in consultation:

- USCG
- USACE

The following parties are participating as consulting parties:

- New York State Historic Preservation Office
- New York City Landmarks Preservation Commission
- Delaware Nation

In a letter dated April 25, 2023, SHPO responded to FRA's initiation letter and concurred with the proposed APE for the above-ground Project work, the identified historic properties, including the Pelham Bay Bascule Bridge, and the list of consulting parties. In a letter dated April 19, 2023, NYC Landmarks Preservation Commission (LPC) indicated it would review the Project site for archaeology when more detailed plans are submitted and would defer to SHPO regarding treatment of architectural properties. LPC also indicated that there "are no LPC designated or eligible properties on the project site or in the radius." In a letter dated May 8, 2023, the Delaware Nation stated that, according to their files, the proposed Project should have no adverse effect on any known cultural or religious sites of interest to the Delaware Nation.

On June 12, 2024, FRA made a Section 106 Adverse Effect finding for the Project and distributed it to consulting parties for review and comment. Additionally, FRA delineated an updated APE and identified an additional historic property within the above-ground APE (Co-op City Historic District). FRA's letter included an Archaeological Disturbance Memo and an Identification of Historic Properties and Assessment of Effects Report. See **Section 3.5.2** and **3.5.4** for additional information regarding the identification and assessment of effects.

In a letter dated July 12, 2024, SHPO concurred with FRA's Adverse Effect finding as well as the eligibility determination of the additional historic property (Co-op City Historic District). In a letter dated August 8, 2024, NYC LPC concurred with FRA's findings with regard to archaeological resources. No other comments were received regarding FRA's findings or determinations.

FRA distributed a draft memorandum of agreement (MOA) to SHPO and other consulting parties on December 13, 2024 for a 30-day comment period on measures within the MOA to resolve adverse effects to historic properties.

In an email dated January 2, 2025, USACE designated FRA as the lead federal agency for purposes of Section 106. FRA invited USACE to sign the MOA, but USACE declined the invitation.

In an email dated, January 3, 2025, USCG designated FRA as the lead federal agency for purposes of Section 106. FRA invited USCG to sign the MOA, but USCG declined the invitation.

On January 7, 2025, LPC requested to be included in the archaeological consultation process that is stipulated in the MOA. FRA and Amtrak agreed to LPC's request.

On January 13, 2025, SHPO requested completion of Level I Historic American Engineering Record (HAER) documentation instead of Level II documentation as proposed in the draft MOA. However, on January 24, 2025, after additional consultation with Amtrak, SHPO concurred that the original stipulation for HAER Level II documentation would satisfy their concerns, and SHPO agreed to sign the MOA.

Pursuant to 36 CFR 800.6(a)(1), FRA notified the Advisory Council on Historic Preservation of its Adverse Effect finding on September 23, 2024. The ACHP responded on October 10, 2024 that they do not believe that ACHP participation in the consultation to resolve adverse effects is needed.

FRA, SHPO, and Amtrak executed the MOA on March 21, 2025.

FRA filed the executed MOA with ACHP on March 21, 2025.

3.5.2. Existing Conditions

3.5.2.1. Archaeological Resources

FRA has not identified any archaeological sites within the below-ground APE. The Project area contains a combination of railroad right-of-way (ROW) on filled land, the Hutchinson River crossing where the existing bridge is located, and narrow strips of marshland and parkland parallel to the ROW within Pelham Bay Park on both sides of the bridge. The large majority of the APE was studied previously as part of Amtrak's Northeast Corridor Project along the Hell Gate Line in the late 1970s, and the ongoing Penn Station Access project. Soil borings for the bridge crossing across the river and its touchdowns were available for review from 1941, prior to when the Pelham Bay Bridge was upgraded, as well as from the Penn Station Access project on the south side of the bridge approach from 2019. No soil borings have been completed on the north side of the bridge within the APE. The review of 1941 and 2019 borings found no obvious strata suggesting archaeological resources. In addition, the 1941 soil boring data represent conditions that are no longer applicable due to the considerable additional disturbance to this area from bridge work and dredging since 1941.

3.5.2.2. Architectural Resources

To identify historic architectural properties in the APE, Amtrak's consultants reviewed available information, including data provided by Amtrak; National Register of Historic Places (NRHP) listings; and the NY State Office of Parks, Recreation and Historic Preservation's Cultural Resource Information System. The identification effort is described in detail in the attached *Identification of Historic Properties and Assessment of Effects Report for the Amtrak Pelham Bay Bridge Replacement Project* (see **Appendix G**). FRA reviewed this report and based on the recommendations of the report, FRA determined that four properties in the above-ground APE shall be considered eligible for the NRHP for the purposes of this Section 106 undertaking pursuant to 36 CFR 800.4(c)(2). The properties are listed in **Table 3-2**. In letters dated April 25, 2023 and July 12, 2024, SHPO concurred with FRA's NRHP eligibility determinations.

USN	Name	Status	Location
00501.000795	Amtrak Pelham Bay Railroad Bascule Bridge	NRHP Eligible for Criteria A and C	Within APE (Project Boundaries)
11961.000020	Pelham Bay Park Historic District	NRHP Eligible for Criteria A and C	Within APE (Project Boundaries and 500-foot radius)
00501.001472	Shore Road Bridge (aka Pelham Bay Bridge) BIN 2240200	NRHP Eligible for Criterion C	Within APE (500-foot radius)
	Co-op City Historic District	NRHP Eligible for Criteria A and C	Within APE (500-foot radius)

Table 3-2. Identified Historic Properties

3.5.3. Impacts of the No Build Alternative

The No Build Alternative would result in continued routine maintenance of the Amtrak Pelham Bay Railroad Bascule Bridge in order to keep it functioning. The No Build Alternative would not affect historic resources; therefore, no temporary or permanent direct or indirect impacts or adverse effects to archaeological or historic architectural resources would occur.

3.5.4. Impacts of The Preferred Alternative

3.5.4.1. Archaeological Resources

The Preferred Alternative would result in permanent ground disturbance for construction of the new bridge and its approaches, including new tracks, piers, pier footings/stems, retaining walls, abutments, noise walls, and river channel dredging beneath the new bridge opening span, and temporary ground disturbance associated with work zones and staging areas related to construction of the new bridge and demolition of the existing bridge.

The below-ground APE contains a combination of railroad development on filled land, the Hutchinson River crossing where the existing bridge is located, and narrow strips of marshland and parkland parallel to the railroad right-of-way within Pelham Bay Park on both sides of the bridge. No archaeological sites have been identified within the below-ground APE. The development of the railroad involved massive amounts of filling in formerly tidal areas, which would have likely caused disturbance, indicating a low potential for archaeological resources. Although the large majority of the below-ground APE was studied previously,

there are some portions of the below-ground APE, particularly the north side of the Hutchinson River outside of the railroad right-of-way, where no soil borings have been completed.

As described in **Section 3.5.5**, Amtrak will complete geotechnical borings both within the Amtrak right-ofway and in areas outside of the right-of-way that will be subject to new ground disturbance. Amtrak will ensure that a qualified archaeologist reviews the results of the borings to confirm areas of prior disturbance and further assess and refine any areas of potential archaeological sensitivity in areas that have not previously been sampled as part of earlier soil boring programs. This review will occur prior to initiation of any demolition or construction activity of the Project. If the qualified archaeologist identifies potential NRHPeligible archaeological resources as a result the geotechnical soil borings, Amtrak will consult with FRA and SHPO to determine required next steps for archaeological field testing to avoid, minimize, or mitigate any potential effects to such resources.

3.5.4.2. Architectural Resources

As described further below, FRA found that the Preferred Alternative would alter the qualifying characteristics of the Amtrak Pelham Bay Railroad Bascule Bridge in a manner that would diminish its integrity and would have an Adverse Effect on this historic property. FRA found that the Preferred Alternative would have No Adverse Effect on the Shore Road Bridge and Co-op City.

FRA also found the Preferred Alternative would have No Adverse Effect on the Pelham Bay Park Historic District with the following conditions: Amtrak will implement noise abatement measures in the vicinity of the Bronx Equestrian Center; Amtrak will implement best management practices to minimize construction noise; and Amtrak will restore vegetation in areas where temporary right-of-way is needed for construction.

3.5.4.2.1. Amtrak Pelham Bay Railroad Bascule Bridge

The Preferred Alternative would construct a new railroad bridge approximately 100 feet downstream from the existing Amtrak Pelham Bay Railroad Bascule Bridge and then demolish the existing bridge once the new bridge is in service. The existing bridge would need to be removed to meet the Project's purpose and need, including improved maritime navigation and safety by increasing the navigation channel. The demolition of the NRHP-eligible bridge would result in an Adverse Effect.

3.5.4.2.2. Shore Road Bridge

The Preferred Alternative would have no Adverse Effect on Shore Road Bridge. The Shore Road Bridge is too far away from the Project to be affected by construction vibrations or excessive noise.⁸ The Preferred Alternative would not result in any significant changes to the Shore Road Bridge's existing visual landscape. The Preferred Alternative would not alter any characteristics that qualify the Shore Road Bridge for NRHP eligibility or diminish its integrity.

3.5.4.2.3. Pelham Bay Park Historic District

The Preferred Alternative would involve reconfigurations of the approaches to the new bridge within the Pelham Bay Park Historic District and would require permanent acquisition of 0.23 acres of park property,

⁸ WSP, 2023. Amtrak Pelham Bay Bridge Replacement Construction Noise Memorandum. Prepared for Amtrak.

maintenance easements of 0.37 acres total within park property, and temporary construction easements for 3.4 acres of park property. The areas of both permanent and temporary acquisition or easement would be immediately adjacent to Amtrak's right-of-way. Although vegetated, the areas are not landscaped like other areas of the park and FRA has determined that they are not contributing features of the historic district.

Under the Preferred Alternative, the bridge approaches nearest the Bronx Equestrian Center (BEC), which is a contributing feature of the Pelham Bay Park Historic District, would be approximately 15 feet higher in elevation and approximately 35 feet closer (shifted to the east) than the current approaches to account for the increased vertical clearance of the new bridge and the necessity to maintain an acceptable grade in tying the approaches back into the existing railroad alignment. Although at a higher elevation and shifted slightly downstream (to the southeast), the scale and overall visual character of the proposed bridge would be comparable to that of the existing bridge and the railroad pre-dates the creation of the park; therefore, the proposed bridge and realigned railroad tracks would not substantially alter any of the park's historically important viewsheds. In addition, the majority of the tall, mature trees between the BEC and the railroad tracks would be retained, blocking most views of the railroad when leaves are on the trees.

Construction of the new bridge and its staging areas also would result in the removal of woodland and other vegetation in locations not typically accessed by park users (0.1 acres of permanent removal and 0.4 acres of temporary removal). The areas of temporary vegetation removal would be restored at the end of construction which would minimize any potential visual effects.

The BEC is the only one of the Pelham Bay Park Historic District's contributing resources located within the above-ground APE. During and after construction of the Preferred Alternative, there would be no physical effects or change to operations of the BEC and access to the BEC would not be altered. Without noise abatement, the Preferred Alternative would result in an increase in operational noise levels at the BEC (increased day-night noise level to 68 dBA from the existing level of 64 dBA); however, a four-foot high noise barrier constructed on the proposed bridge structure would provide noise abatement to the facility and avoid any adverse auditory effects. The noise barrier would provide 6 decibels of noise reduction, resulting in a noise level lower than the existing noise level. Due to the distance of the BEC from the Limits of Disturbance (LOD), no physical or operational effects, including vibration effects, would occur to the BEC during construction of the Project. However, the BEC may be temporarily affected by construction-related noise levels and the visual effects of loss of trees and vegetation separating its riding ring from the adjacent railroad corridor. However, increased construction-related noise levels would only occur at the BEC for a portion of the overall construction period, and analysis found that there would be no period of time during construction of the Project where construction activities would exceed the FTA noise impact threshold (see Section 3.7.5.4). Amtrak would implement best management practices to minimize the construction noise and restore the woodland that would be removed during the Project's temporary construction period. Consequently, the Preferred Alternative would have No Adverse Effect on the Pelham Bay Park Historic District.

3.5.4.2.4. Co-op City

All of the Co-op City buildings within the APE are located north of Erskine Place, the 75-foot-wide roadway that separates the Co-op City complex from the Amtrak right-of-way. Due to the distance of the Co-op City buildings from the limits of disturbance, there would be no construction-related effects to this property as a result of the Preferred Alternative. Several noise barriers would be constructed south of Erskine Place, to reduce the noise from future trains, although even without noise barriers, any increase in noise levels from the Preferred Alternative within the Co-op City complex would be barely perceptible. The noise barriers

would range from 4-6 feet in height, which is similar to the existing fencing height along the south side of Erskine Place. The Preferred Alternative would not result in any significant changes to the existing Co-op City visual landscape, as the Preferred Alternative would replace existing infrastructure with similar infrastructure and would not introduce any elements that are out of character with existing conditions. The Preferred Alternative would not alter any characteristics that qualify Co-op City for NRHP eligibility or diminish its integrity. Therefore, the Preferred Alternative would have No Adverse Effect on Co-op City.

3.5.5. Mitigation

FRA drafted a memorandum of agreement (MOA) in consultation with Amtrak, NY SHPO, and the additional Section 106 consulting parties in order to resolve adverse effects of the Preferred Alternative to historic properties. Amtrak, as the project sponsor, will implement all mitigation and avoidance measures stipulated in the MOA which include the following:

- HAER Level II recordation of the Amtrak Pelham Bay Bridge.
- Illustrated pamphlet containing basic information about the history and significance of the Amtrak Pelham Bay Railroad Bascule Bridge within the larger context of the electrification of the New York, New Haven, and Hartford Railroad.
- Replant vegetation in areas of temporary ROW acquisition and vegetation removal within the Pelham Bay Park Historic District.
- Construction of a noise barrier on the new bridge structure to provide noise abatement to the BEC.
- Implementation of best management practices to minimize construction noise.
- Prior to construction, Amtrak will complete geotechnical borings both within the existing Amtrak
 right-of-way and outside of the right-of-way in areas that will be subject to new ground disturbance.
 Amtrak will ensure that a qualified archaeologist reviews the results of the borings to confirm areas
 of prior disturbance and further assess and refine any areas of potential archaeological sensitivity
 in locations that have not been previously sampled as part of earlier soil boring programs. If the
 qualified professional archaeologist determines that soil borings indicate areas of potential
 archaeological sensitivity, Amtrak will consult with FRA, SHPO and other appropriate parties to
 determine required next steps for archaeological field testing, avoidance and minimization
 measures, and/or mitigation programs.

FRA and Amtrak sought public comments regarding Section 106 by posting the draft MOA on <u>regulations.gov</u> and Amtrak's project website beginning December 11, 2024. No comments were received from the public during the 30-day comment period.

Following the 30-day public comment and consulting party comment periods, Amtrak and FRA revised the MOA to address the comments received from consulting parties, as described in **Section 3.5.1.3** and circulated it to signatories for execution. FRA, SHPO, and Amtrak executed the MOA on March 21, 2025. The MOA can be found in **Appendix G**.

3.6. AIR QUALITY AND ENERGY

3.6.1. Introduction

Modification or expansion of a transit system can result in air quality impacts along roadways and near stations and can produce changes in the amounts of emissions released into the atmosphere on a regional basis. This section assesses the No Build and the Preferred Alternative's potential beneficial and adverse impacts on ambient air quality and energy consumption. The energy assessment considers potential impacts on energy sources and transmission of energy.

3.6.2. Regulatory Context

The U.S. Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS) for the following pollutants of concern: carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), particulate matter smaller than 10 microns (PM_{10}), particulate matter smaller than 2.5 micron ($PM_{2.5}$), sulfur dioxide (SO₂), and lead (Pb). Pursuant to the federal Clean Air Act (CAA) and its amendments, the EPA designates attainment areas (meeting the NAAQS); nonattainment areas, which are geographic regions that do not meet one or more of the NAAQS; and, maintenance areas which are areas previously having nonattainment status and not yet re-designated to attainment status. Bronx County, New York is classified as a maintenance area for CO and $PM_{2.5}$ and a severe nonattainment area for O₃.

A State Implementation Plan (SIP) is a state's plan for how they will meet the NAAQS by the deadlines established by the CAA. The EPA's Transportation Conformity Rule requires that transportation plans, programs, and projects demonstrate conformity with the SIP before they may be approved or adopted. Therefore, federal transportation-related activities may not cause or contribute to new violations of the NAAQS, exacerbate existing violations, or interfere with timely attainment or required interim emissions reductions toward attainment of the NAAQS.

Under the General Conformity Rule, project-related emissions of applicable nonattainment/maintenance pollutants are compared to *de minimis* level thresholds. If project-related emissions are below the *de minimis* levels, the project can be assumed to conform to a state's SIP. If the emissions exceed the thresholds, a formal SIP conformity determination would be required.

A Transportation Improvement Program (TIP) is a four-year transportation plan with staged, multiyear, intermodal program of transportation projects within a metropolitan planning area, consistent with that area's metropolitan transportation plan (MTP). For the Project's Study Area, New York Metropolitan Transportation Council (NYMTC) is the pertinent metropolitan planning organization responsible for the MTP, the TIP, and the related conformity determination.

The New York State Department of Environmental Conservation (NYSDEC) Commissioner's Policy (CP-33)⁹ defines certain "de minimis" criteria for evaluating the potential for significant adverse impacts resulting

⁹ New York State Department of Environmental Conservation. 2003. NYSDEC Division of Air Resources Commissioner's Policy (CP-33), "Policy CP-33: Assessing and Mitigating Impacts of Fine Particulate Matter Emissions." Accessed at: <u>https://www.dec.ny.gov/chemical/8912.html</u>.

from the emission of PM_{2.5}. The NYSDEC established threshold criteria for identifying a "significant impact" related to PM_{2.5}.¹⁰ The significant threshold values defining significant adverse impacts are as follows:

- Predicted incremental impacts of PM_{2.5} greater than 5 µg/m³ on a 24-hour PM_{2.5} basis and
- Predicted incremental ground-level impacts of PM_{2.5} greater than 0.3 µg/m³ on an annual basis.

3.6.3. Pollutants for Analysis

In urban areas, motor vehicle activity predominantly influences ambient concentrations of CO, hydrocarbons, and O_3 . Both mobile and stationary sources emit nitrogen oxides; sulfur oxides are associated mainly with stationary sources; and particulate matter emissions are associated with stationary sources and, to a lesser extent, with diesel-fueled mobile sources (e.g., heavy trucks and buses).

Service over the Pelham Bay Bridge under both the No Build and Preferred Alternatives would operate primarily with electrically powered trains (for all passenger service), with diesel-powered trains for CSX's service two to three times per week. Therefore, there would be low levels of local rail-generated emissions. Besides the diesel trains, the only potential localized air quality consideration associated with the train service would be related to changes in vehicular traffic volumes or patterns near rail stations; however, neither the No Build nor the Preferred Alternative would result in a change in service. Therefore, no localized increases in CO or particulate matter are expected to result from Project-related changes and there would be no difference in operational emissions between the No Build and Preferred Alternative.

Because the Preferred Alternative would not cause a change in the operation of diesel-fueled trains, there would be no change in localized SO₂ and NO₂ as a result of the Project. In addition, due to the elimination of Pb from gasoline and since the Preferred Alternative would not change vehicular traffic volumes or patterns, there would be no change in Pb as a result of the Project.

The emission burden analysis focuses on calculating the construction emission burdens of CO, PM_{2.5}, PM_{2.5} precursors (SO₂ and nitrogen oxides) and O₃ precursors (nitrogen oxides and volatile organic compounds).

3.6.4. Existing Conditions

3.6.4.1. Existing Monitored Air Quality Conditions

Table 3-3 summarizes the representative monitored ambient air quality data for Bronx County. The NYSDEC and the EPA AirData databases compiled these data for the year 2022, the most recent year for which data are available. These data show that the monitored pollutant levels are within (less than) the applicable NAAQS for all pollutants except O₃, for which the area is designated nonattainment by the EPA.

¹⁰ While PM_{2.5} is considered a health hazard, for which NYSDEC has established threshold criteria for determining a "significant impact," PM₁₀ is considered principally a "nuisance" impact.

Pollutant	Monitor Location	Averaging Time	e Value	NAAQS
СО	200th Street/Southern Blvd, Bronx, NY	8 Hours	1.7 ppm	9 ppm
		1 Hour	2.4 ppm	35 ppm
O ₃	200th Street/Southern Blvd, Bronx, NY	8 Hours	0.081 ppm*	0.070 ppm
PM10	681 Kelly Street, Bronx, NY	24 Hours	26 µg/m³	150 µg/m³
PM2.5	200th Street/Southern Blvd, Bronx, NY	1 Year	6.9 µg/m³	12.0 µg/m³
		24 Hours	23.3 µg/m³	35 μg/m³
SO2	681 Kelly Street, Bronx, NY	1 Hour	7.6 ppb	75 ppb
NO ₂	681 Kelly Street, Bronx, NY	1 Hour	83 ppb	100 ppm
		1 Year	15.84 ppb	53 ppb

Table 3-3. Representative Ambient Air Quality Data Applicable to the Pelham Bay BridgeStudy Area in Bronx County (2022)^{1, 2}

Source: U.S. Environmental Protection Agency AirData database, 2022

Notes: Annual periods refer to calendar year.

1. Where data are available from more than one representative monitor, the higher values are reported.

2. Values correspond to the National Ambient Air Quality Standards averaging times and number of exceedances permitted.

*Monitor value exceeds the National Ambient Air Quality Standards, but compliance is determined based on additional statistical data. ppm = parts per million; ppb = parts per billion; µg/m3 = micrograms per cubic meter

3.6.4.2. Energy

ConEdison delivers electricity to New York City, including in the Bronx where the Project site is located. Electricity delivered by ConEdison is generated by a number of independent power suppliers. Overhead catenary systems power Amtrak trains operating on the NEC and will operate the future Metro-North trains as part of PSA. Electrically operated Amtrak trains use 1,506 British Thermal Units (BTUs)¹¹ per passenger mile and are 46 percent more energy efficient than traveling by car and 34 percent more energy efficient than domestic air travel.¹² CSX and P&W freight trains operating through the project site are all powered by diesel locomotives.

3.6.5. Impacts of the No Build Alternative

Under the No Build Alternative, the operations (number of trains) along the HGL and over the Pelham Bay Bridge, by Amtrak and Metro-North, would be the same as current operations. The existing bridge would continue to open for every vessel that passes through the Hutchinson River navigation channel. Additionally, there would be no change in stationary or mobile source emissions as a result of the No Build Alternative.

¹¹ British Thermal Units, or BTUs, are a measure of energy used to compare consumption of energy from different sources, such as gasoline, electricity, etc., taking into consideration how efficiently those sources are converted to energy. One BTU is the quantity of heat required to raise the temperature of one pound of water by one Fahrenheit degree.

¹² U.S. Department of Energy. Transportation Energy Data Book: Edition 39, 2021.

Amtrak expects adequate electrical capacity to be available to meet New York City's future energy demand through the analysis year of 2035. The planned major and minor improvement projects discussed under the No Build Alternative in Chapter 2, "Project Alternatives," have addressed their future energy needs and are not expected to adversely affect energy availability in the area.

3.6.6. Impacts of the Preferred Alternative

3.6.6.1. Operations

Since train operations and vehicular traffic would remain the same, there would be no change in mobile source emissions as a result of the Preferred Alternative, when compared to the No Build Alternative. In addition, the Preferred Alternative would have no change in stationary source emissions from the No Build Alternative.

The new mid-level movable bridge under the Preferred Alternative would operate more efficiently than the existing bridge, using state-of-the-art electric motors and modern construction materials, resulting in an improvement in terms of energy consumption. In addition, the mid-level replacement bridge would allow approximately 70 percent of navigation traffic to pass underneath the bridge without needing to open the bridge, reducing energy consumption compared to the No Build Alternative.

The Preferred Alternative would not result in any increases in train service or create a demand for additional energy. Amtrak expects the number of year-round bridge openings to be reduced by the Project. The energy consumed by the electrically operated trains would be reduced. It is not reasonably quantifiable whether the Preferred Alternative would substantially reduce the number of vehicle miles traveled by replacing automobile trips with rail ridership as a result of the Preferred Alternative. Overall, changes in energy consumption in the Study Area as a result of the Project would be negligible, and no significant adverse impacts to energy consumption or resources associated with generation of electricity used by trains and bridge openings would result under the Preferred Alternative.

3.6.6.2. Construction

The following activities associated with the construction of the Preferred Alternative would generate air pollutant emissions within and near the major construction areas:

- Excavation, demolition, and grading;
- Handling and transport of construction material and debris;
- Operation of heavy-duty diesel-powered construction equipment;
- Operation of heavy-duty diesel trucks and marine vessels for transport of construction materials within construction areas and on adjacent roadways; and
- Employee commuting trips.

Emissions generated by construction activities and truck trips were estimated on an annual basis for the entire construction period. Construction non-road equipment (e.g., cranes, loaders, etc. and tug and work boats) and on-road vehicle (e.g., trucks and worker commuting) activity estimates were developed for construction phases and calendar years, expressed as hours of operation for non-road and miles travelled for on-road. As shown in **Appendix K**, total annual estimated emissions generated during the Project's construction period are less than the general conformity *de minimis* thresholds. As such, air quality impacts

are not considered to be significant, and the Preferred Alternative would not be subject to a general conformity determination.

3.6.7. Mitigation

There would be no change in mobile or stationary source emissions and a decrease in energy consumption as a result of the operation of the Preferred Alternative, therefore, no mitigation is proposed. Emissions generated by construction activities for the Preferred Alternative would not be significant; therefore, no construction mitigation is proposed.

3.7. NOISE AND VIBRATION

3.7.1. Introduction

This section presents the noise and vibration analysis findings for the alternatives. The analysis includes the Preferred Alternative alignment that accommodates the future Penn Station Access project and allows increased operating speeds on this section of the NEC. A Transit Noise and Vibration Impact and Abatement Technical Report has been completed for the Project, providing an overview of noise and vibration fundamentals, standards, and criteria (see **Appendix H**).

3.7.2. Methodology

The noise and vibration analyses are based on guidance prepared by the Federal Transit Administration (FTA), *Transit Noise and Vibration Impact Assessment Manual*, FTA Report No. 0123, September 2018. The FTA Manual sets forth methodologies for analyzing noise and vibration from commuter and intercity rail operations and as such is the standard USDOT methodology for assessing potential impacts of new rail bridges and transit systems.

The following noise and vibration analysis methodology was employed for the Project:

- Identify representative noise and vibration sensitive properties that would potentially be adversely affected by the daily service operations under future build conditions. Within the Study Area, there were no sites where vibration alone would be of concern, therefore the same receptor locations were assessed for both noise and vibration.
- Collect and determine the existing noise levels at each representative site and compare the estimated alternative's build condition noise levels to the existing levels and determine if the alternative's projected generated noise levels exceed the FTA impact criteria shown in Table 5 in Appendix H. The FTA vibration impact assessment process does not rely on establishing baseline vibration levels along a proposed transit corridor; therefore, the estimated Project generated vibration levels were compared against the FTA vibration impact criteria shown in Table 6 in Appendix H.
- If under future build conditions noise and vibration impacts are found to occur, design refinements
 or mitigation measures that would reduce project-related noise impacts should be considered and
 tested for acoustic effectiveness and mitigation measures to eliminate the projected vibration are
 identified.

Stationary and mobile noise levels generated from onsite and offsite construction activities were determined using the Cadna-A noise model. Construction equipment noise emission levels and usage factors utilized in the Cadna-A model were taken from Chapter 22 of the New York City Environmental Review (CEQR) Technical Manual (2021). Separate Cadna-A models were created for each month of each construction phase year using only equipment that is expected to operate during that particular month. The noise impact criteria are outlined in the FTA Manual and based on a nine-hour maximum daytime noise exposure standard of 80 dBA at residential properties. At this time, no construction work is anticipated during nighttime hours.

The FTA Manual provides for vibration limits for several types of buildings to assess the potential for structural damage to buildings from construction activities. These vibration limits are shown in **Table 10** in **Appendix K**. Although ground-borne vibration related to human annoyance is generally expressed in units of "VdB" (velocity decibel), structural damage caused by vibration is expressed as peak particle velocity (PPV) in units of inches per second. The FTA-specified vibration limits shown in **Table 10** cannot be exceeded anytime during the construction phase.

A detailed description of the operations noise and vibration analysis methodology can be found in **Appendix H**, and a description of the construction noise and vibration methodology can be found in **Appendix K**.

3.7.3. Existing Conditions

The land uses in close proximity to the existing bridge are primarily residential on the south/west side of the bridge (the Co-op City neighborhood) and primarily wooded lands on the north/east side of the bridge (within Pelham Bay Park). Besides the existing Pelham Bay Bridge rail transit operations, other major transportation systems in the vicinity include the New England Thruway (I-95) and the Hutchinson River Parkway.

Four representative sensitive properties, depicted in **Appendix H**, were selected for existing noise monitoring. Noise measurements were collected during the two-day period from April 13 to April 14, 2022. A summary of the measured day-night noise levels is shown in **Table 3-4**. Day-night noise levels ranged from a maximum value of 68 dBA at R7 to a minimum noise level of 62 dBA at site R2. Receptor sites R2, R3 and R4 represent residential properties where people sleep, therefore these sites are categorized by default as FTA Category 2 land use activities and thus are mandated to be assessed for future project noise exposure using the day-night noise descriptor. Furthermore, measurement site R1 is the Bronx Equestrian Center, is a place where horses are stabled year-round, and people pay for horseback riding lessons and experienced riders come to use the riding trails in Pelham Bay Park. Because the horses are housed on the property year-round and are very sensitive to loud sounds this site meets the general requirements of a Category 2 land use as well as a Category 3. For the purpose of this analysis, the receptor was identified as the more conservative Category 2 land use.

Site No.	Receptor Address	Receptor Land Use	FTA Land Use Category	Centerline Distance to Tracks (feet)	Existing Day-Night Noise Level (dBA)
R-1	Bronx Equestrian Center at 9 Shore Rd.	Residential ⁽¹⁾	2(1)	300	64
R-2	120 Elgar Place	Multi-Family Residential	2	500	62
R-3	120 Erskine Place	Multi-Family Residential	2	200	66
R-7	2198 Palmer Avenue	Two-Family Residential	2	135	68

Table 3-4. Summary of Measured Existing Noise Levels

Source: WSP, 2022

Notes:

Property is used for horseback riding academy during daytime hours, but the horses sleep on the property. Therefore, the property was conservatively categorized as FTA Category 2 land use.

3.7.4. Impacts of the No Build Alternative

Under the No Build Alternative, there would be no change to the track horizontal or vertical alignment. The speed of the passenger trains passing over the Pelham Bay Bridge would be limited to 40 miles per hour, due to the bridge's approach geometry and movable span miter rails. No changes to the noise environment would result from the No Build Alternative; therefore, there are no noise impacts from the No Build Alternative. However, because the PSA project is anticipated to be built regardless of this Project, the number of trains using the bridge is anticipated to increase. Therefore, noise levels in this area are anticipated to increase for both the No Build and Preferred Alternative due to the increased number of trains proposed by the PSA project. While the noise impacts under the No Build Alternative would not be mitigated by Amtrak through this Project, the noise levels under the Preferred Alternative would be mitigated as described in **Section 3.7.5.2**.

3.7.5. Impacts of the Preferred Alternative

3.7.5.1. Estimated Future Transit Noise Exposure Levels

Future noise exposure levels for the Preferred Alternative were determined at all first-row noise sensitive properties facing the proposed replacement bridge using the CADNA program. A summary of the future build condition noise level estimates is provided in **Table 3-5**.

The noise analysis found that first-row receptor sites on the northern facing Co-op City neighborhood would experience noise exposure that is at the middle to high end of the FTA Moderate Impact range. No impact is projected to occur at the receptor R-3B representing the active recreational area located adjacent to the apartment building at 120 Erskine Place. The lower noise exposure at this site is because the proposed bridge alignment would be transitioning from an elevated position above the playground to an at-grade position on the Project's western limits. As a result, most of the train noise would pass at an elevation above the playground. Amtrak has evaluated noise mitigation measures to abate the future projected rail impacts based on these project-wide impact assessment findings.

			FTA	Existing Noise	Future Build Noise	FTA Impact Threshold Levels		Projected
Site No.	Receptor Address	Receptor Land-Use	Land- Use Category	Level (Ldn dBA)	Noise Exposure Level (Ldn dBA)	Moderate	Severe	FTA Impact Determination
R1	Bronx Equestrian Center at 9 Shore Rd	Residential ⁽¹⁾	2	64	68	61-65	>65	Severe Impact
R-2	120 Elgar Place	Multi-Family Residential	2	62	60	59-64	>64	Moderate Impact
R-3	120 Erskine Place	Multi-Family Residential	2	66	64	62-67	>67	Moderate Impact
R3B	Basketball & Tennis Courts Adjacent to 120 Erskine Place	Active Recreational	3	64 ⁽²⁾	65 ⁽²⁾	66-70	>70	No Impact
R-4	2203 Hunter Ave	Single-Family Residential	2	66 ⁽³⁾	64	62-67	>67	Moderate Impact
R-5	2212 Boller Ave	Single-Family Residential	2	66 ⁽³⁾	64	62-67	>67	Moderate Impact
R-6	2211 Boller Ave	Single-Family Residential	2	67 ⁽³⁾	63	63-67	>67	Moderate Impact
R-7	2198 Palmer Avenue	Two-Family Residential	2	68	66	63-68	>68	Moderate Impact
R-8	2035 Erskine Ave	Two-Family Residential	2	68 ⁽³⁾	68	63-68	>68	Moderate Impact
R-9	2025 Erskine Ave	Single-Family Residential	2	68 ⁽³⁾	68	63-68	>68	Moderate Impact

Table 3-5. Summary	v of Predicted Future	Noise Levels and	Comparison to F	TA Criteria
	y of the total of the tatal of			

Source: WSP, 2022

3.7.5.2. Noise Abatement/Mitigation

The evaluation of specific mitigation measures includes consideration of the noise reduction effectiveness, the cost of the abatement measure in relation to the overall project cost and its potential effect on transit operations. The factors considered in determining if mitigation is warranted for Moderate Impacts can be found in **Section 5.3** in **Appendix H**.

Four noise barriers are proposed to mitigate the noise impacts from the Preferred Alternative. As illustrated in **Figure 3-3**, three barrier wall segments (at 4', 5' and 6' heights) both on the bridge structure itself and at-grade would provide abatement to the residential properties represented by receptor sites R2 through R9. A fourth barrier (4' high) on the east side of the river would provide abatement for the Bronx Equestrian Center represented by receptor R1. All the proposed noise barriers would be positioned closer to the right-of-way edge, outside the track areas, and would be installed prior to the start of operations on the new bridge.

A summary of the noise reduction levels that would be achieved after construction of the barriers is provided in **Table 3-6.** In general, the barriers would achieve a 5 or more dBA noise reduction and mitigate the projected impacts with the exception of the at-grade section in front of receptor R9. The noise barrier must terminate abruptly at this location due to Metro-North Railroad's future Co-op City Station platform. Therefore, a moderate impact would remain at receptor R9. Furthermore, at the Bronx Equestrian Center (R1) the severe impact would be mitigated but noise levels in the moderate impact range would remain. Further refinements to the barrier wall analysis to better optimize the terminus locations for noise reduction will occur as the Preferred Alternative design advances.





Receptor	FTA Land Use Category	Future Noise Level from Project Without Abatement (dBA)	FTA Noise Impact Condition Without Abatement	Noise Reduction With Abatement (dB)	Future Noise Level from Project with Abatement (dBA)	FTA Noise Impact Condition With Abatement
R1	2	67.5	Severe Impact	6	62	Moderate Impact
R2	2	60.0	Low Moderate Impact	< 0.5	59.6	Moderate Impact
R3	2	64.5	Moderate Impact	6	58	No Impact
R3B	3	62.7	No Impact	2	63	No Impact
R4	2	63	Moderate Impact	5	58	No Impact
R5	2	63.7	Moderate Impact	5	59	No Impact
R6	2	62.2	Moderate Impact	5	58	No Impact
R7	2	66.4	Moderate Impact	5	61	No Impact
R8	2	69.4	Moderate Impact	6	62	No Impact
R9	2	67.4	Moderate Impact	< 1.0	67	Moderate Impact

Table 3-6. Comparison of Unabated and Abated Noise Exposure Against FTA Impact Criteria

Source: WSP, 2022

3.7.5.3. Vibration Assessment

The FTA vibration impact limits are intended to avoid human annoyance in buildings and other structures based on the maximum vibration level expected from train pass-by event regardless of its time of day. The vibration criteria are provided as absolute limits, and therefore these impact thresholds are not dependent on existing vibration conditions. These vibration impact values were extracted from the frequent pass-by events category contained in **Table 6** in **Appendix H** and differentiate between residential receptors (Category 2) where people would sleep, and business or institutional receptors (Category 3) that would primarily only involve daytime activities. **Table 10** in **Appendix H** provides a summary of the vibration levels at the first-row sensitive receptors evaluated in this study, their street addresses, land-uses and applicable vibration criteria limits based on the FTA methodology. Vibration levels are adjusted for travel speeds, distance and elevation of the alignment relative to the receptor sites. Vibration levels at all residential sites were determined to be below the FTA 72 VdB impact threshold. R-8 and R-9 are the closest anticipated impacts, at 68 VdB. Therefore, no vibration mitigation measures are necessary for the Preferred Alternative.

3.7.5.4. Construction Noise and Vibration Analysis

Noise level estimates were projected for each of the six calendar years during which construction would take place for the Preferred Alternative (see **Tables 4** to **9** in **Appendix K**). The findings reported there are for the worst construction noise exposure month for each year. The findings indicate that at all sensitive

locations there would be no period of time over the life of the Project construction or demolition of the existing bridge where construction activities would exceed the 80 dBA impact threshold. However, during construction, there would be some months where the overall increase in the total noise exposure over current ambient levels would be perceptible to outdoor listeners at some receptor locations. These impacts will be short in duration and would not require noise barrier mitigation.

A secondary comparison against the CEQR exterior noise exposure standards shows that in most cases, L10 levels generated from construction activities would not rise sufficiently to increase exterior levels from the Marginally Acceptable range of 70 dBA or less to the higher Marginally Unacceptable category range of 71 to 80 dBA. In construction years 2, 3, and 5, there are anticipated temporary noise increases that exceed the construction thresholds. No noise barriers are required because the duration is not considered long term.

The analysis of construction-related vibration found that peak particle velocity levels generated from pile driving activities are expected to reach a maximum value of 0.021 inch per second near receptor R4. Receptor R4's peak particle velocity is one full order of magnitude lower than the 0.2 inch per second impact threshold shown in **Table 10** of **Appendix K** for non-engineered timber and masonry buildings. Therefore, there will be no construction related impacts to receptors as part of the Preferred Alternative.

Any noise receptors, including the Co-op City neighborhood and the Bronx Equestrian Center, would be informed at least two weeks in advance of when the most intrusive construction work is going to be performed. In addition, the best management practices outlined in **Appendix K** are recommended to the extent possible because they collectively would ensure exterior noise levels remain within the CEQR Marginally Acceptable limits experienced today and vibration in the community would be minimized for the people living in the Co-op City neighborhood.

3.8. NATURAL RESOURCES

3.8.1. Introduction

This section assesses the potential of the proposed Project to impact natural resources, which include water resources, general ecology, and wildlife resources. Water resources include surface waters, floodplains, the coastal zone, and wetlands. General ecology and wildlife resources include terrestrial resources, aquatic resources, and endangered, threatened, and special concern species.

Replacement of the bridge would involve work within regulated tidal wetlands and potentially freshwater wetlands. Additionally, there are rare, state-listed, and federally-listed threatened and endangered species that may occur within the action area.

3.8.2. Methodology

The evaluation of effects of the proposed Project on natural resources complies with the requirements of federal and state regulations and incorporates the status of the action area¹³ with respect to water resource protection and management programs and ecological and wildlife resource protection programs. The action area used to evaluate impact on terrestrial resources, floodplains, coastal zone, wetlands, aquatic resources, and endangered and threatened species includes the limits of disturbance and a 500-foot buffer located south of the Amtrak railroad centerline, from the Hutchinson Parkway to Pelhamdale Avenue. A portion of the limits of disturbance and the 500-foot buffer extends outside of Amtrak's right-of- way, in Pelham Bay Park. The affected environment was characterized using a range of data sources listed in **Appendix I**.

3.8.3. Existing Conditions

3.8.3.1. Terrestrial Resources

The existing right-of-way includes rail embankments located on both sides of the Hutchinson River. Wooded areas along the southwestern side of the right-of-way are classified successional southern hardwood forest, brushy cleared land, and dredge spoil wetlands and along the northeastern side of the right-of-way are classified as Oak-Tulip tree forest and successional southern hardwood forest. A tree survey was performed in October 2024 and inventoried¹⁴ the following (see **Appendix I**):

- Southeastern side:
 - 137 trees
 - o Diameter at breast height (DBH) range: 3 to 48.5"
 - o DBH mean: 12"
 - o DBH median: 9"
- Northwestern side:
 - o 499 trees
 - o DBH range: 3 to 55"
 - o DBH mean: 12"
 - o DBH median: 9"

As indicated in **Appendix I**, Amtrak conducted a single day, opportunistic wildlife survey that identified 18 different wildlife species and 3 indications of wildlife utilizing the limits of disturbance of the Project (see **Appendix I**, *Wetlands Delineation and Natural Resource Inventory Report*). A single osprey (*Pandion haliaetus;* federal migratory bird and New York State "special concern" species) was observed nesting on a catenary structure located on the Amtrak bridge, and atop a cellular phone tower just north of the

¹³ The action area is defined by Section 7 of the Endangered Species Act as all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action (50 CFR 402.02).

¹⁴ All trees greater than or equal to 3" diameter at breast height were inventoried. Data for an inaccessible area on the southeastern side were supplemented by a tree survey performed for the Penn Station Access Project in 2022.

Hutchinson River Parkway Extension. See **Appendix I** for list of other protected migratory birds known to be found in the area. A single rusty blackbird (*Euphagus carolinus;* New York State "high priority" species) was observed overhead of the south end rail track, and one species considered "critically impaired, common eastern bumble bee (*Bombus impatiens*), was observed on invasive Japanese honeysuckle (*Lonicera japonica*) at the southern boundary of the LOD.

3.8.3.2. Floodplains

The Hutchinson River and the land area along its banks are within the floodplain. Based on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps, 87 percent (15.8 acres) of the limits of disturbance is within the 100-year floodplain and an additional 11 percent (1.9 acres) is within the 500-year floodplain (see Floodplains maps in **Appendix I**).

3.8.3.3. Coastal Zone

The Federal Coastal Zone Management Act (CZMA) of 1972 encourages coastal states to manage development within the states' designated coastal areas, reduce conflicts between coastal developments, and protect resources within the coastal zone. Requirements for federal approval of Coastal Zone Management (CZM) Programs and grant application procedures for development of the state programs are included in 15 CFR Part 923, CZM Program Development and Approval Regulations. The CZMA requires that federal activities within a state's coastal zone be consistent with that state's coastal zone management plan.

The Project as a federal discretionary action must be assessed for consistency with the New York State Coastal Management Program (CMP) and the local Waterfront Revitalization Program (WRP) adopted in 1982 and updated in 2002, authorized under the State's Waterfront Revitalization and Coastal Resources Act of 1981.

The entire LOD is within New York State's coastal zone management area and New York City's coastal zone. As a result, the Project must be reviewed by the New York State Department of State (NYSDOS) and the New York City Department of City Planning (NYCDCP) for consistency with applicable policies under the New York State Coastal Management Plan (NYSCMP) and the New York City Waterfront Revitalization Plan (NYCWRP).

3.8.3.4. Wetlands

Section 404 of the Clean Water Act (CWA) establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Activities in waters of the United States regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development, and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the United States.

A total of 1.04 acres of regulated wetlands were identified and delineated within the Project LOD (see **Appendix I**). Two tidal (salt marsh) wetlands were delineated, portions of which occur within the LOD, as well as a ditch wetland just beyond the southern extent of the LOD. One salt marsh parcel was delineated south of Amtrak's existing Pelham Bay Bridge, between the railway alignment boundary and the adjacent, shallow portion of Pelham Bay and encompasses 0.59 acres. North of the existing Pelham Bay Bridge, between the existing railway alignment and the adjacent Bronx Equestrian Center, a tidal cove containing salt marsh transitioning to freshwater wetlands along an elevation/salinity gradient encompasses 0.21 acres within the LOD. The ditch, culverted at both ends, was delineated at the south end of the Site, beneath the

Interstate 95 overpass and encompasses 0.24 acres within the limits of disturbance. Common mummichog (*Fundulus heteroclitus*) is present in this wetland, however, there is not a surface connection to the adjacent tidal waters of Pelham Bay. FRA will coordinate with the U.S. Army Corps of Engineers on the jurisdictional determination. The entirety of the ditch is in the tidal flood zone and designated Special Flood Hazard Area (see **Appendix I**). In addition, to the vegetated, delineated wetlands, there are mudflats, shallow water, and open water present within the Project LOD.

3.8.3.5. Aquatic Resources

3.8.3.5.1. Essential Fish Habitat

As shown in **Appendix I**, a total of 11 Essential Fish Habitat (EFH)-designated species occur in the action area. Of these, the following five species potentially occur in the action area at all life stages (eggs, larvae, juvenile, adults and spawning adults):

- Atlantic herring (*Clupea harengus*)
- Atlantic mackerel (Scomber scombrus)
- Atlantic butterfish (*Peprilus triacanthus*)
- Red hake (Urophycis chus)
- Scup (*Stenotomus chrysops*).

The following additional five species potentially occur in the action area as either juveniles, adults, or both:

- Black sea bass (Centropristis striata)
- Bluefish (Pomatomus saltatrix)
- Little skate (*Leucoraja erinacea*)
- Pollock (Pollachius pollachius)
- Sand tiger shark (Carcharias taurus).

See **Appendix I**, *Wetlands Delineation and Natural Resource Inventory Report* for a detailed description of the EFH in the action area.

Habitat Area of Particular Concern (HAPC) are subsets of EFH that are important for long-term productivity of federally managed species. HAPCs merit special consideration based their ecological function (current or historic), sensitivity to human-induced degradation, stresses from development, and/or rarity of the habitat. While many HAPC designations have geographic boundaries, there are also habitat specific HAPC designations for certain species. According to the results of the NOAA EFH mapper for the action area, one HAPC (submerged aquatic vegetation) has been designated within the lower Hutchinson River/Pelham Bay area, specifically for summer flounder (*Paralichthys dentatus*) which is known to use submerged aquatic vegetation (including marine algae) as nursery and foraging habitat.

3.8.3.6. Federally-listed Endangered, Threatened, and Special Concern Species

The Endangered Species Act (ESA) of 1973 (16 USC §§ 1531-1544) forbids any government agency, corporation, or citizen from taking (i.e., harming, harassing, or killing) endangered animals without a permit. Once a species is federally-listed as threatened or endangered, the ESA requires that "critical habitat" be designated for that species, including areas necessary for the recovery of the species. Federal agencies

may not authorize, fund, or carry out any action that "destroys or adversely modifies" critical habitat. Consultation with the USFWS was conducted via the Information for Planning and Consultation (IPaC) project planning tool to determine if there are known occurrences of federally threatened or endangered species or critical habitat, migratory birds or other biological resources which may be impacted by the Project. FRA and Amtrak reviewed USFWS's IPaC database and the New York Natural Heritage Program database for information regarding listed species and habitats in the action area. The NOAA National Marine Fisheries Service (NMFS) Section 7 mapper was used to complete an informal screening for federally listed aquatic species that could be affected by the Project. Descriptions of these species are provided in **Appendix I**, *Wetlands Delineation and Natural Resource Inventory Report* and a summary of their status and potential to be present in the action area is provided in **Table 3-7**.

Common Name	Scientific Name	Status	Likelihood of Being Present in the Action Area
		Mammals	
Tricolored Bat	Tricolored Bat <i>Perimyotis subflavus</i> Federally Endangered (proposed)		Likely – due to presence of deciduous forested areas
		Birds	
Piping Plover	Charadrius melodus	Federally Threatened; NYS Endangered	Unlikely to be in action area, observed on Orchard Beach.
Snowy Egret	Egretta thula	NYS Imperiled and protected	Likely – observed on Goose Island and in/near project LOD.
Glossy Ibis	Plegadis falcinellus	NYS Imperiled and protected	Likely – observed on Goose Island and in Pelham Bay Park
Little Blue Heron	Egretta caerulea	NYS Imperiled and protected	Likely – observed on Goose Island and in Pelham Bay Park
Yellow-Crowned Night-Heron	Nyctanassa violacea	NYS Imperiled and protected	Likely – observed on Goose Island and in Pelham Bay Park
Barn Owl	Tyto alba	NYS Critically Imperiled and protected	Likely – observed near Orchard Beach and in Turtle Cove
Osprey	Pandion haliaetus	Federal migratory bird; NYS Special Concern	Very likely – observed at Pelham Bay Park, Turtle Cove, and within project LOD.
		Insects	
Monarch Butterfly	Danaus plexippus	Federal Candidate	Likely – sightings within project LOD and adjacent areas
Seaside Dragonlet	Erythrodiplax berenice	NYS Imperiled and unlisted	Likely – given prevalence of salt march in LOD and adjacent areas

Table 3-7. Endangered, Threatened, and Special Concern Species Potentially Present in
the Action Area

Common Name	Scientific Name	Status	Likelihood of Being Present in the Action Area
Yellow Bumble Bee	Bombus fervidus	NYS Vulnerable and unlisted	Likely – given occurrence of nearby old field habitat with flowering plants
An Ear Moth	Amphipoea erepta ryensis	NYS Critically Imperiled and Globally Rare and unlisted	Likely – given prevalence of wetlands in LOD and adjacent areas
		Fish	
Atlantic Sturgeon	Acipenser oxyrinchus oxyrinchus	Federally Endangered; NYS Protected	Unlikely to occur, except as strays during migration into/out of Hudson River
Shortnose Sturgeon	Acipenser brevirostrum	Federally Endangered; NYS Endangered	Unlikely to occur, except as strays during migration into/out of Hudson River
		Reptiles	
Green Sea Turtle	Chelonia mydas	Federally Threatened	Unlikely to occur in tidal tributaries, eelgrass habitat is not present
Kemp's Ridley Turtle	Lepidochelys kempii	Federally Endangered	Unlikely to occur in tidal tributaries, eelgrass habitat is not present
Leatherback Sea Turtle	Dermochelys coriacea	Federally Endangered	Unlikely to occur in tidal tributaries
Loggerhead Sea Turtle	Caretta caretta	Federally Threatened	Unlikely to occur in tidal tributaries
		Plants	
Field Bead Grass	Paspalum leave	NYS Endangered and Vulnerable	Possible, but only in open meadow. Very rare. Observed in Pelham Bay Park.
Woodland Lettuce	Lactuca floridana	NYS Endangered and Critically Imperiled	Unlikely – observed in Pelham Bay Park.
Yellow Giant Hyssop	Agastache nepetoides	NYS Threatened and Imperiled	Likely, species reported in NYC and is associated with railroad habitats, not observed within LOD. Observed in Pelham Bay Park.
Wild Pink	Silene caroliniana ssp. Pensylvanica	NYS Threatened and Imperiled	Possible, in rocky woody openings. Observed in Pelham Bay Park.
Persimmon	Diospyros virginiana	NYS Threatened and Imperiled	Likely, species reported in Pelham Bay Park; not observed within LOD.
Slender Blue Flag	Iris prismatica	NYS Threatened and Imperiled	Likely, but not observed within LOD.
Perennial and Annual Saltmarsh Aster	Symphyotrichum tenuifolium var. tenuifolium	NYS Rare/ Threatened and Imperiled	Possible; not observed within LOD

Common Name	Scientific Name	Status	Likelihood of Being Present in the Action Area
Eastern Gamma	Tripsacum dactyloides	NYS Threatened	Likely, but not observed within LOD
Grass	var. dactyloides	and Imperiled	

3.8.4. Impacts of the No Build Alternative

Under the No Build Alternative, the existing Pelham Bay Bridge will remain in service as is, with continued maintenance and repairs. There would be no impacts to natural resources as a result of this Project, but future maintenance or repair projects could have impacts. The existing bridge would remain at 8 feet above the water, providing limited clearance during flood events and provide limited resilience in the event of potential future sea level rise.

3.8.5. Impacts of the Preferred Alternative

The natural resource impacts associated with the Preferred Alternative are discussed below.

3.8.5.1. Terrestrial Resources

Terrestrial resources potentially affected by the Preferred Alternative are confined to those within Amtrak's right-of-way and construction staging areas immediately adjacent to the right-of-way in Pelham Bay Park. The Preferred Alternative would disturb approximately 1.1 acres of vegetated areas (trees and shrubs). The removal of some scrub/shrub vegetation along the existing embankment may be necessary to accommodate the new alignment and construction access. These areas have relatively little value as terrestrial habitat as measured by traditional ecological metrics, although in the context of a park resource within an urban area, the vegetation is valuable and Amtrak will minimize vegetation removal to the extent practical. As such, no substantial permanent impacts to terrestrial natural resources are expected. The osprey nest observed on a catenary structure located on the Amtrak Pelham Bay bridge is protected under the Migratory Bird Treaty Act when it is active.¹⁵ Amtrak will attempt to remove the osprey nest located on the catenary structure on the existing bridge outside of the breeding season (April 1 to September 30). However, if work is to be performed around the nest when it is active, Amtrak will obtain a Depredation Permit from the USFWS. If the nest is empty when work is performed, there would be no impact to the osprey.

Following construction, Amtrak would replant areas within Pelham Bay Park that were used for access and staging in coordination with NYCDPR. Noise barriers constructed as part of the Preferred Alternative would ensure there would be no long-term noise impacts on local reptile, bird, and mammal reproduction, foraging, or movement.

¹⁵ Under the Migratory Bird Treaty Act, any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the USFWS.

3.8.5.2. Floodplains

The replacement bridge would be adjacent to the south of the existing bridge and would be entirely within (or over) the 100-year floodplain. The Preferred Alternative would permanently impact approximately 1.9 acres of 100-year floodplain. Additionally, the Preferred Alternative will have approximately 12 acres of temporary impacts within the 100-year floodplain. In addition, the 500-year flood plain would have approximately 0.1 acres of permanent impacts and 1.8 acres of temporary impacts. The placement of columns and footings within the floodplain for construction of the new bridge would be offset by the removal of piers and abutments associated with the existing bridge from within the floodplain, which would be demolished following construction of the new bridge. Therefore, the Preferred Alternative would have no adverse impact to flood attenuation and storage.

Under the current conditions, the limits of disturbance are within the existing 1 percent annual flood hazard area, with an existing Base Flood Elevation of +13.90 feet NAVD88. Based on the design elevation, it is likely that the proposed machinery and controls for the proposed bridge would remain above the 1 percent annual flood hazard elevation (i.e., 100-year floodplain). However, existing train control and communication equipment, portions of track east of the river crossing, and a portion of a gravel access road would be below the 1 percent annual flood hazard elevation immediately upon construction. Design measures would be taken to either elevate vulnerable equipment above the flood hazard elevation or floodproof the equipment so that there would not be an adverse impact due to flooding. In addition, the new bridge would be constructed with a clearance of 35 feet above the water, providing for additional clearance during flooding events.

3.8.5.3. Coastal Zone

FRA and Amtrak evaluated the Preferred Alternative for consistency with the NYSCMP policies and determined the Project is in New York State's coastal zone management area and in compliance with the NYSCMP.¹⁶ During final design and prior to construction, Amtrak will complete a NYS Consistency Assessment Form and applicable policy assessment for the Preferred Alternative. If FRA is the lead agency for construction, the FRA will submit this consistency assessment to NYSDOS for concurrence. Under 15 CFR §930.62, NYSDOS is responsible for concurring with or objecting to the Applicant's certification of consistency for the proposed project based on the following assessment of the proposed project's consistency with relevant policies. NYSDOS may also conditionally concur with the consistency certification (15 CFR §930.4).

The Preferred Alternative is also within New York City's coastal zone (see **Appendix I**). NYCDCP is responsible for coastal zone consistency review on a local scale under the NYCWRP.¹⁷ The NYCWRP comprises 10 policies designed to maximize the benefits derived from economic development, environmental preservation, and public use of the waterfront while minimizing any conflicts among those objectives. During final design and prior to construction, Amtrak will complete the NYCWRP Consistency Assessment Form for the Preferred Alternative, and supplement that form by identifying the coastal policies

¹⁶ New York State Department of State, Coastal Management Program. June 2017. <u>https://dos.ny.gov/state-coastal-management-program</u>

¹⁷ The New York City Waterfront Revitalization Program. June 2016. <u>https://www1.nyc.gov/site/planning/planning-level/waterfront/wrp/wrp.page</u>

that may be affected by the Preferred Alternative; FRA will submit this consistency documentation to NYCDCP for concurrence.

The Preferred Alternative would not conflict with any of the New York State Coastal Management Policies or any of the New York City Waterfront Revitalization Policies. While the Preferred Alternative would impact certain wetlands and fish and wildlife habitats, these impacts would be largely temporary, and of a smaller scale, as they would be directly associated with construction activities. However, the Preferred Alternative would result in minor permanent impacts to the coastal zone, due to the permanent portions of the proposed bridge's superstructure that would remain in place after construction. Additionally, the demolition and removal of the existing bridge would offset a significant portion of the proposed impacts to the coastal zone. During final design but prior to construction of the Project, Amtrak will coordinate with New York State and New York City to determine if any mitigation is necessary for coastal zone impacts. At the current level of project development, potential mitigation is not known.

3.8.5.4. Wetlands and Open Water

The Preferred Alternative would permanently impact a total of 0.7 acres of wetlands within the limits of disturbance for the Preferred Alternative – 0.07 acres emergent wetlands, 0.07 acres mudflat, 0.35 acres shallow water, and 0.21 acres open water. Temporary impacts (in the range of years, up to the total construction period of five years) are anticipated for an additional 8.3 acres of wetlands – 0.75 acres emergent wetlands, 1.52 acres mudflat, 3.93 acres shallow water, and 2.14 open water. Amtrak will obtain permits from U.S. Army Corps of Engineers and New York State Department of Conservation prior to construction. The area of tidal wetlands will be restored to at least pre-existing conditions upon cessation of project construction and Amtrak will restore pre-construction bathymetry, hydrodynamics, and soils. Mitigation requirements will be finalized by USACE and NYSDEC during the permitting process and then implemented by Amtrak. Restoration activities within Pelham Bay Park will be coordinated with NYCDPR.

3.8.5.5. Aquatic Resources

3.8.5.5.1. Essential Fish Habitat

A total of 11 EFH-managed species/life stages are potentially present within the waters surrounding the action area. In addition, the action area includes potential critical habitat for summer flounder (*Paralichthys dentatus*). In total, the Preferred Alternative would impact 9.05 acres of EFH/HAPC, including permanent impacts to 0.70 acres and temporary impacts to 8.33 acres of tidal marsh, mudflats, and estuarine/marine shallow water habitat. There exists the potential for temporary impacts to resident and migratory fish species from suspended sediments during construction or underwater noise. Sediment re-suspension and direct removal of benthic resources would occur in association with the demolition of existing bridge piers and abutments and excavation/dredging. Activities that are likely to cause in-water noise include the pile driving for temporary construction of cofferdams (if necessary). On April 24, 2024, FRA submitted for abbreviated consultation with the NOAA regarding impacts to EFH. In a letter dated January 13, 2025, NOAA agreed with FRA's determination that the adverse effects of the Project will not be substantial, provided their conservation recommendations are followed (as noted in **Section 3.8.6** below).

3.8.5.6. Threatened or Endangered Species

A total of seven federally listed species (Piping plover, four sea turtle species, along with Atlantic sturgeon [*Acipenser oxyrhynchus oxyrhynchus*] and shortnose sturgeon [*Acipenser brevirostrum*]) and one proposed listed species (Tricolored bat) were identified through preliminary consultation with USFWS and NOAA.

Table 3-8 presents the potential impacts from the Preferred Alternative to the identified Federally threatened and endangered species.

In addition, a total of five birds, three insects and eight plant species were identified by NYSDEC-NHP as likely occurrences. Seasonal work restrictions or other conditions may be imposed by natural resource agencies (e.g., NOAA, NYSDEC) to mitigate adverse effects on aquatic/terrestrial resources. USFWS indicated there are no critical habitats within the Project Area under their jurisdiction and no additional consultation is required. On October 31, 2024, FRA submitted a Biological Assessment to NOAA requesting to begin informal consultation for the Project. On November 22, 2024, NOAA responded to FRA concurring with the Not Likely to Adversely Affect determination and stating that no further consultation pursuant to Section 7 of the ESA is required.

Common Name	Scientific Name	Status	Potential Impacts	Findings
Mammals				
Tricolored Bat	Perimyotis subflavus	Federally Endangered (proposed)	Tree clearing during construction may have an adverse impact on summer habitat.	Not likely to adversely affect with avoidance and minimization measures
Birds				
Piping Plover	Charadrius melodus	Federally Threatened; NYS Endangered	No suitable breeding grounds in the action area, therefore, no impact anticipated.	No effect
Fish				
Atlantic Sturgeon	Acipenser oxyrinchus oxyrinchus	Federally Endangered; NYS Protected	Potential adverse impacts from suspended sediments and underwater noise during construction.	Not likely to adversely affect
Shortnose Sturgeon	Acipenser brevirostrum	Federally Endangered; NYS Endangered	Potential adverse impacts from suspended sediments and underwater noise during construction.	Not likely to adversely affect
Reptiles				
Green Sea Turtle	Chelonia mydas	Federally Threatened	Potential adverse impacts from noise/vibration during	Not likely to adversely affect
Kemp's Ridley Turtle	Lepidochelys kempii	Federally Endangered	from project support vessels, and temporary turbidity	Not likely to adversely affect
Leatherback Sea Turtle	Dermochelys coriacea	Federally Endangered	impacts on benavior/recullity.	Not likely to adversely affect
Loggerhead Sea Turtle	Caretta caretta	Federally Threatened		Not likely to adversely affect

Table 3-8. Potential Impacts to Threatened and Endangered Species in the Action Area

Source: Great Ecology, 2024

3.8.6. Mitigation

Amtrak will restore temporarily impacted terrestrial and wetland habitat to pre-existing elevations and replant (marsh) at the conclusion of the Project. Replanting of terrestrial impacts to trees, shrubs and herbaceous plants within Pelham Bay Park will be performed in coordination with NYCDPR and in accordance with NYC Local Law 3 of 2010 for tree replacement. In addition, Amtrak will provide mitigation for the permanent impacts to wetlands and aquatic habitat. The specifics of mitigation have not yet been finalized with USACE and NYSDEC; however, compensation for the permanent impacts is expected to be permittee-responsible mitigation (in-kind mitigation performed on-site or off-site) or mitigation banking (if available). **Table 3-9** presents preliminary anticipated wetland impacts and mitigation ratios. Suitable inlieu fee programs currently do not exist in the project area. Amtrak will be responsible for complying with all mitigation measures required and recommended by the permitting agencies. Mitigation measures with permitting agencies will be completed prior to construction. Any wetland mitigation within Pelham Bay Park will be coordinated with NYCDPR.

Wetland Type	Permanent Impacts (SF)	Temporary Impact (SF)	Total Impacts (SF)	Anticipated Mitigation Ratio
Emergent Wetland	2,897	32,820	35,717	3:1
Mudflat	3,020	66,166	69,186	3:1
Shallow Water	15,298	171,383	186,681	1:1
Open Water	9,335	93,288	102,623	1:1

Table 3-9. Preliminary Estimated Wetland Impacts and Mitigation Ratios

Note: all impacts and anticipated mitigation estimates are preliminary and will be finalized in coordination with USACE and NYSDEC during final design.

If work is to be performed around the osprey nest located on the catenary structure on the existing bridge when osprey are active, Amtrak will obtain a Depredation Permit from the USFWS prior to the initiation of the work. Amtrak will use turbidity curtains and silt curtains to mitigate sediment transport and deposition over sensitive areas and cofferdams will be installed to limit both noise levels and turbidity levels during pile driving and to prevent ESA-listed species from entering within close proximity of the project area. Due to the designation of the project area as EFH for a number of federally managed species, NOAA recommended the following conservation measures (in a letter to FRA dated January 13, 2025) that Amtrak has committed to:

- Avoid in-water work between January 1 through June 30;
- Do not begin in-water work until a final mitigation plan has been revised by NMFS Habitat and Ecosystem Services Division and accepted by the USACE;
- Ensure work barges float (i.e., do not sit grounded on-bottom) during all stages of the tide;
- Use vibratory hammer for the installation of piles and sheet piles to the maximum extent practicable;
- Should an impact hammer be necessary during pile installation, employ soft start procedures and cushion blocks.

3.9. CONTAMINATED MATERIALS

3.9.1. Introduction

This section addresses the potential for the presence of contaminated materials resulting from past and present uses of the project site and adjacent areas, potential exposure to them from the Project, and the specific measures that will be employed to protect public health, worker safety, and the environment in the event of contaminated materials' presence within the limits of disturbance.

Contaminated materials are potentially harmful substances that may be present in soil, groundwater, or building materials and may pose a threat to human health or the environment. These materials are frequently encountered during construction activities in areas that have been subject to past disturbance from construction, excavation, filling, and industrial uses. Generally, "contaminated material" is used interchangeably with "regulated material" or "hazardous material," but neither should be confused with the term "hazardous waste," which is a regulatory term.¹⁸ Soil and groundwater in the Project site can be contaminated as a result of past or present uses on the project site or adjacent properties.

3.9.2. Methodology

There are numerous regulations regarding contaminated materials at the federal and state levels. The applicable industry standards, regulatory requirements, guidelines, and rules for contaminated materials investigations are listed in in **Appendix J**.

A Phase I Environmental Site Assessment (ESA) to consider the location, type, and extent of contaminated materials that may be present was performed and the report can be found in **Appendix J**.

A Phase I ESA included a records search within radii specified in ASTM1 E1527-05; a review of available documents with the federal, state and local regulatory agencies; review and interpretation of historical data that may reveal evidence of historical activities and their potential to impact the environment; a site inspection; and interviews with the current and past operators at the parcel. Normally, the focus of the investigation is to determine past and current uses of a site as related to contaminated materials usage and potential for subsurface contamination. The intent of the Phase I ESA is to also identify and evaluate Recognized Environmental Conditions (REC) associated with a property to allow the user to qualify for the innocent landowner defense under the Comprehensive Environmental Response, Compensation, and Liability Act.

The findings of a Phase I ESA include information available from a review of existing conditions and identify any required remedial or mitigation measures that may be required prior to or during construction as well as any specific areas of concern where subsurface (Phase II) investigations (typically laboratory analysis

¹⁸ "Hazardous waste" is defined in the USEPA regulations (40 C.F.R. Part 261) and refers to a subset of solid wastes that are either specific wastes listed in the regulations (listed wastes) or solid wastes possessing the characteristics of ignitability, reactivity, corrosivity, or toxicity (characteristic wastes).

of soil and groundwater samples) are warranted to better characterize areas or media that are potentially impacted.

The Phase I assessment consisted of a visual onsite inspection of the Project site, review of historical aerial photos, review of historic Sanborn Maps, and review of available federal, state, and local agency environmental records and interview with Amtrak personnel. Potential areas of environmental concern were identified based on two primary criteria: 1) the known or suspected presence of hazardous materials and 2) the probable impacts to project soil and groundwater quality by a potentially contaminated site.

3.9.3. Existing Conditions

On April 25, 2022, Amtrak conducted a visual inspection of the Project site and properties within the project area. The visual inspection was done from the limits of the Project area and publicly accessible areas. Most of the area affected by the Project is currently or was historically used for railroad purposes.

Amtrak Right-of-Way: A portion of the Amtrak Railroad southern approach to the Pelham Bay Bridge was built on fill of unknown origin and environmental quality. According to historic aerial photographs, the fill was placed between 1954 and 1966. The long history of rail operations at the Project site dating to at least 1897 according to Sanborn maps has the potential to have impacted the Project site from activities such as equipment maintenance, placement of contaminated ballast containing coal ash and incinerated debris and leaching from chemically treated wood ties. Surficial oil staining was observed on the ground in two areas at the project site near the southern approach to the Pelham Bay Bridge, with a 55-gallon drum and containers of motor oil around one of the stained areas.

Hutchinson River Sediment: There is a reported history of petroleum spills to the waterway, potential nonpoint source impacts typical to urban waterways, and from the Bronx-Pelham Landfill located approximately 500 feet south of the project site.

The Bronx-Pelham Landfill is listed as a NYSDEC Class 4 Inactive Hazardous Waste Site due to illegal dumping of various chemicals in the 1970s including waste oil, sludges, metal plating waste, lacquers, cyanides, and solvents. The landfill was closed and remediated in the 1990s to the satisfaction of NYSDEC and the New York State Department of Health (NYSDOH) and is currently in the site management phase subject to various engineering and institutional controls. The chemicals of concern in soil and groundwater included chlorinated solvents, semi-volatile organic compounds, pesticides, metals, and cyanide. Hutchinson River sediment adjacent to the site was found to be impacted with pesticides and metals at levels that promoted NYSDOH to post a fishing advisory.

Based upon available information, groundwater beneath the Project site is expected to be encountered between 8 feet below grade to 15 feet below grade. Groundwater is expected to flow from all directions towards the Hutchinson River, which empties into Eastchester Bay.

3.9.4. Impacts of the No Build Alternative

The No Build Alternative will include continuing repairs and maintenance on the existing bridge as needed to maintain operations. No excavation would be required but could potentially be needed for future repairs and maintenance. Amtrak will follow applicable state and federal regulations if the potential lead paint on the existing bridge were to be disturbed. The planned major and minor improvement projects discussed

under the No Build Alternative in Chapter 2, "Project Alternatives," are located outside of the limits of disturbance for the Project and are not expected to change hazardous materials conditions in the area.

3.9.5. Impacts of the Preferred Alternative

Construction of the Preferred Alternative would involve the excavation, disturbance, and likely removal for off-site disposal of some existing soil (including soil from the embankments), and potential removal and off-site disposal of river sediments. These activities would take place along the proposed downstream bridge alignment. In addition, the new catenary pole foundations would be installed to a depth of up to 20 feet. Shallow soil disturbance would occur in areas where the proposed track would be placed on an embankment. Deeper excavations would be required for catenary and signal structures, new or relocated utilities, and retaining walls.

While the foundation type for piers within the river would be determined during subsequent engineering phases, it is likely to be comprised of drilled shafts, which could require the disposal of soil up to 90 feet or more below existing grade. Amtrak would import clean fill for grading during construction, e.g., to widen the bridge embankments.

Amtrak would perform all work in accordance with applicable local, state, and federal regulatory requirements. Prior to commencing site disturbance, the contractor would be required to prepare a Health and Safety Plan (HASP) to address the potential of encountering contamination during soil disturbance activities. The HASP will describe in detail the health and safety procedures to minimize exposure to contaminated materials by workers and the public. Amtrak will define dust control requirements for all soil-disturbing operations to prevent the potential off-site transport of dust.

Amtrak would be required to handle excavated soil or sediment in accordance with all applicable regulations. The contractor would characterize excavated material to classify the material (e.g., historical fill, uncontaminated native soils, petroleum-contaminated wastes, etc.). The extent and parameters of any testing will be dependent on the classification and any requirements of off-site waste disposal facilities.

Following construction of the new bridge, the existing bridge would be demolished. There is potential for the existing bridge structure and other structures within the limits of disturbance to contain asbestos, lead, and universal wastes. Amtrak observed suspect asbestos containing materials and suspect lead paint within the limits of disturbance during the site inspection walkthrough. If these materials are anticipated to be disturbed, Amtrak will hire qualified professionals to properly identify and handle the hazardous/contaminated materials. All hazardous/contaminated materials will follow proper material handling and health and safety procedures in accordance with federal, state and local laws. If disturbed by construction, the oil tank associated with the generator adjacent to the bridge operator house would require pump-out, cleaning, and proper disposal.

3.9.6. Mitigation

There is a potential for hazardous/contaminated materials to be present within the Preferred Alternative limits of disturbance. A Phase II sampling investigation will be performed prior to construction to confirm actual site conditions. The investigation would include sampling and laboratory analysis of soil, groundwater, and river sediment within the areas of likely future construction impacts. The sampling results can be used to identify material handling/disposal requirements, and health and safety protocols to protect workers and the community from exposure to hazardous materials during construction. The proper material
handling and disposal and health and safety procedures will then be included in the construction contract documents and followed during construction.

3.10. SECTION 4(F)

3.10.1.1. Regulatory Context and Methodology

Section 4(f) of the U.S. Department of Transportation Act of 1966 (1966 USDOT Act) as amended (23 CFR Part § 774, codified in 49 U.S.C. 303 and generally referred to as "Section 4(f)") provides protection for publicly owned parks, recreation areas, and wildlife or waterfowl refuges; historic properties that are listed in or eligible for inclusion in the NRHP; and archaeological sites listed in or eligible for the NRHP and are of such importance to warrant "preservation in place." Approval of a project impacting a resource protected under Section 4(f) may only occur if:

- i.) There is no feasible or prudent alternative to the use of the property; and
- ii.) The action includes all possible planning to minimize harm to the property resulting from such use; or
- iii.) The agency determines that the use of the property, including any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures) committed to by the applicant, will have a de minimis impact on the property.

Section 4(f) protection is afforded to properties where some use of the property is required. A use of a Section 4(f) property occurs when it:

- Permanently incorporates land from the property into a transportation facility;
- Temporarily occupies land in a manner that is adverse in terms of the statute's preservation purpose; or
- Comprises a constructive use of land, which per 23 CFR Part 774.15(a) occurs "when the transportation project does not incorporate land from a Section 4(f) property, but the proximity impacts are so severe that the protected activities, features, or attributes that qualify property for protection under Section 4(f) are substantially impaired."

3.10.2. Applicability of Section 4(f)

3.10.2.1. Project Description

The Preferred Alternative would construct a new Pelham Bay Bridge across the Hutchinson River to replace the existing Pelham Bay Bridge. The new Pelham Bay Bridge would be located immediately downstream to the south and adjacent to the existing bridge, primarily within Amtrak's existing right-of-way, although parts of the modified railroad approaches would physically impact Pelham Bay Park. Like the existing bridge, the new bridge would contain two railroad tracks.

The Preferred Alternative would provide a bridge with a center movable span like the existing bridge and a mid-level of clearance in the closed position (compared to the existing low-level clearance). As part of the Preferred Alternative, the existing bridge would be demolished once the new bridge is placed into service.

3.10.2.2. Section 4(f) Properties

- Amtrak Pelham Bay Railroad Bascule Bridge (Historic Property) The bridge was built in 1907 and rehabilitated in 1941 with new approach spans. It is significant in the area of engineering and is 1 of 12 bascule bridges in New York City. SHPO issued an opinion of NRHP eligibility for the property in 2018. As part of the Section 106 process for this Project, FRA has determined that this property is eligible for the NRHP.
- Shore Road Bridge (Historic Property) The bridge was built in 1908 and spans the mouth of the Hutchinson River, connecting two separate sections of Pelham Bay Park. It is significant in the area of engineering as a distinctive example of early-twentieth century bridge construction in New York City.
- Pelham Bay Park (Publicly Owned Park) –The approximately 2,772-acre park is under the jurisdiction of the NYCDPR and provides numerous facilities for recreation. Additionally, the Park includes the Thomas Pell Wildlife Sanctuary (489 acres of marshes and forests located west of the railroad tracks and north of Orchard Beach Road).
- Pelham Bay Park Historic District (Historic Property) The historic district is coterminous with Pelham Bay Park. The park embodies multiple periods of development from mid-eighteenth century through mid-twentieth century. SHPO issued an opinion of NRHP eligibility in 2018, significant under Criteria A and C, with a period of significance from 1748 and 1964. As part of the Section 106 process for this Project, FRA has determined that this property is eligible for the NRHP. Pelham Bay Park is significant under Criterion A as an embodiment of multiple significant themes in the development of New York City and Westchester, including the earliest European settlement of the area; the subsequent proliferation of grand estates; the subsequent development of the area as recreational parkland; and the public works projects of the Robert Moses era. The Park is also significant under Criterion C as it includes many fine and several outstanding examples of architecture and design associated with the various periods in the Park's development.
- Co-op City (Historic Property) The housing complex was constructed from 1968 to 1973. FRA has determined that it is eligible for inclusion in the NRHP for the purposes of this undertaking for its potential significance under Criterion A, for its association with labor history and the cooperative housing movement, and Criterion C for its association with urban planning and design trends. SHPO concurred with FRA's determination that this property is considered eligible for the NRHP.

3.10.3. Use of Section 4(f) Properties

3.10.3.1. No Build Impacts

The No Build Alternative would result in continued rehabilitation and maintenance of the Amtrak Pelham Bay Railroad Bascule Bridge in order to keep it functioning; however, the existing bridge over the Hutchinson River would remain in place. The No Build Alternative would not result in any change to or disturbance of historic resources; therefore, no temporary or permanent direct or indirect impacts or adverse effects to archaeological or historic architectural resources would occur. In addition, the No Build Alternative would not impact Pelham Bay Park. The No Build Alternative would maintain the existing bridge and track alignment. The bridge would remain in its two-track configuration and would require regular maintenance to ensure that its safety and reliability is upheld. Therefore, there would be no use of Section 4(f) properties.

3.10.3.2. Preferred Alternative Impacts

The Preferred Alternative would have a use of two Section 4(f) properties: the Amtrak Pelham Bay Railroad Bascule Bridge, and the Pelham Bay Park (Publicly Owned Park). The Section 4(f) use of the Pelham Bay Railroad Bascule Bridge is excepted from the requirement for Section 4(f) approval per 23 CFR § 774.13(a)(2). There would be no Section 4(f) use of Pelham Bay Park Historic District (Historic Property) because the parkland that will be required for the Project is not contributing to the historic district (as described in Cultural Resources **Section 3.5.4.2.3**). The use of the Pelham Bay Railroad Bascule Bridge and the Pelham Bay Park (Publicly Owned Park) is discussed below.

3.10.3.2.1. Pelham Bay Railroad Bascule Bridge

Demolition of the National Register-eligible Pelham Bay Railroad Bascule Bridge would result in an Adverse Effect (see **Section 3.5**, "Cultural Resources") and a use of the property. However, the Preferred Alternative meets the requirements of the 23 CFR § 774.13(a)(2) exception to the requirement for Section 4(f) approval as an improvement of a railroad line: *Improvement of railroad or rail transit lines that are in use or were historically used for the transportation of goods or passengers, including, but not limited to, maintenance, preservation, rehabilitation, operation, modernization, reconstruction, and replacement of railroad or rail transit line elements.*

The Preferred Alternative would replace the existing historic bridge that is considered a railroad element for the purposes of 23 CFR 774.13(a)(2) and therefore meets the requirements of the Section 4(f) exception and would not require Section 4(f) approval.

3.10.3.2.2. Pelham Bay Park

The Preferred Alternative would require permanent acquisition of 0.23 acres of parkland, a maintenance easement on 0.37 acres of parkland, and a temporary easement on 3.4 acres of parkland – a total of 4.01 acres of real property acquisition. The easement areas are located immediately south of the Amtrak right-of-way, on either side of the Hutchinson River. The easements would be primarily on land, however, some would be on wetlands or tidal areas within the park boundary, though not beyond the pier and bulkhead line. Those portions of the park are not readily accessible by the public and the maintenance easement would not affect the activities, features, or attributes of the publicly accessible portions of Pelham Bay Park.

In some cases, even if there is a permanent use of a Section 4(f) property, the FRA may determine that the impact is *de minimis*. A *de minimis* impact determination under 23 CFR Part 774.3(b) allows the FRA to determine that the use of the property, including any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures) committed to by the applicant, will have a *de minimis* impact. With respect to parks, recreation areas, or wildlife or waterfowl refuges, as summarized from 49 U.S.C. 303(d)(3), FRA may make a finding of *de minimis* impact only if:

- After public notice and opportunity for public review and comment, FRA finds that the transportation program or project will not adversely affect the activities, features, and attributes of the park, recreation area, or wildlife or waterfowl refuge eligible for protection under this section; and
- The finding has received concurrence from the officials with jurisdiction over the park, recreation area, or wildlife or waterfowl refuge.

The areas proposed for permanent and temporary use are not publicly accessible since they are adjacent to the existing railroad right-of-way, are densely forested or are marsh areas, and have no paths, trails or

park amenities. The use of these areas would not adversely affect the activities, features, or attributes of the publicly accessible portions of Pelham Bay Park. In addition, the total use of parkland would be a small portion, 4.01 acres (less than 0.14%) of the total resource (2,772-acres).

The closest park amenity to the Project is the Bronx Equestrian Center, located on the north side of Hutchinson River, between the Amtrak Pelham Bay Bridge and Shore Road Bridge. The center is 300 feet from the centerline of the existing tracks and the Project would result in the new tracks slightly closer vertically as well as a slightly higher elevation than existing. Noise analysis found that there would be 4 dBA increase in noise at that receptor, resulting in a severe impact.¹⁹ Amtrak is proposing a 4-foot high noise barrier to provide a noise reduction of approximately 6 decibels and reduce the total noise condition to 66 dBA, a moderate impact. A vibration analysis found no vibration impact at the equestrian center.

Amtrak and FRA have been coordinating with NYCDPR, the Official with Jurisdiction over the Park. Section 4(f) Avoidance, Minimization and Mitigation Measures

Amtrak has identified a series of proposed measures to avoid, minimize and mitigate impacts to the Pelham Bay Park to ensure *de minimis* impact. These proposed measures may include but are not limited to the following:

- Amtrak modified the Project design to shift the track alignment away from Park property
- Amtrak modified the Project design to reduce temporary construction impact area on Park property;
- Amtrak will construct a noise wall to reduce the severe noise impacts to park facilities (particularly BEC) to a level of moderate noise impact or less;
- Amtrak will coordinate with NYCDPR to develop a replanting and landscaping plan to restore temporary construction areas on Park property subject to NYCDPR approval prior to construction;
- Amtrak will coordinate with NYCDPR to develop a maintenance of traffic (MOT) plan for Park roads and trails affected by construction, subject to NYCDPR approval prior to construction;
- Amtrak will use protective matting for tree critical root zones during construction.
- Amtrak will return to NYCDPR after construction any Park property needed temporarily, even if subject to Section 6(f) replacement; and
- Amtrak will comply with local tree replacement laws and Uniform Land Use Review Procedure (ULURP) as applicable.

¹⁹ Property is used for horseback riding academy during daytime hours, but the horses sleep on the property. Therefore, the property was conservatively categorized as FTA Category 2 land use.

3.10.4. Section 4(f) Finding

The use of these areas within the Pelham Bay Park to construct and operate the Project would not adversely affect the activities, features, or attributes that make the Park eligible for Section 4(f) protection. In addition, the total use of the Park would be a small portion of the total resource. Therefore, with consideration of the proposed mitigation, the FRA is anticipating making a *de minimis* determination under 23 CFR 774.

In accordance with 23 CFR 774.5(b), the public will be afforded an opportunity to review and comment on the effects of the Project on Pelham Bay Park by way of the EA public comment period. The EA will be posted on <u>regulations.gov</u>, Amtrak's project website and hard copies will be made available at publicly accessible facilities for a 30-day public comment period (see **Section 4.1.1**). After publication of the EA, Amtrak will hold an in-person public meeting to allow public comments on the EA and proposed Section 4(f) finding.

Following the public comment period, FRA will inform NYCDPR, as the official with jurisdiction over Pelham Bay Park, of any relevant public comments and FRA's intent to make a *de minimis* finding. NYCDPR must then concur in writing that the Project will not adversely affect the activities, features or attributes that qualify the property for protection under Section 4(f).

3.11. SECTION 6(F)

3.11.1. Regulatory Context and Methodology

The Land and Water Conservation Fund (LWCF) State Assistance Program was established by the LWCF Act of 1965 (Public Law 88-578) and is enacted as law in 54 U.S.C. § 200301 et seq. (hereinafter, "the LWCF Act"). The program provides matching grants to States and through States to local bodies of government, for the acquisition and development of public outdoor recreation sites and facilities. Grant funds are also available, to States only, for fulfilling the comprehensive outdoor recreation planning requirements of the program.

The LWCF Act requires the States to operate and maintain by acceptable standards the properties or facilities acquired or developed for public outdoor recreation use. Further, Section 6(f)(3) of the LWCF Act (now codified at 54 U.S.C. § 200305(f)(3)) and its implementing regulations at 36 C.F.R. Part 59 requires that no property acquired or developed with LWCF assistance shall be converted to other than public outdoor recreation uses without the approval of the Secretary of the Interior, and only if the Secretary finds it to be in accordance with the then existing Statewide Comprehensive Outdoor Recreation Plan and only upon such conditions as the Secretary deems necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location. Parks or recreation areas acquired or developed with LWCF assistance (in whole or part) are now referred to as "LWCF-assisted areas" and/or "LWCF boundary areas."

3.11.2. Conversion of Section 6(f) Properties

3.11.2.1. Section 6(f) Applicability

Pelham Bay Park received LWCF funding in 1976 for the Orchard Beach Rehabilitation project. Permanent easements in Pelham Bay Park will trigger LWCF parkland conversions (Section 6(f)) requiring coordination with the National Park Service (NPS), Office of Parks, Recreation and Historic Preservation (OPRHP) and

NYCDPR to make a determination about the easements and any other potential LWCF compliance concerns. Because the Project requires a Section 6(f) conversion of Pelham Bay Park, a LWCF conversion request package must be submitted to the NPS by OPRHP on behalf of NYCDPR. The NPS will issue their own NEPA decision document on the Section 6(f) conversion after all federal approvals and permits are acquired, which will take place after the FRA issues a NEPA decision document.

The Preferred Alternative would require acquisition of portions of Pelham Bay Park located adjacent to the existing railroad right-of-way through the park. Amtrak will acquire 0.23 acres of permanent right-of-way of parkland, a maintenance easement on 0.37 acres of parkland, and a temporary easement on 3.4 acres of parkland. Amtrak is assuming that the portions of Park used for construction staging and access would be in use longer than 180 days. The Section 6(f) regulations state that use of a Section 6(f) property for 180 days or greater constitutes a Section 6(f) conversion. The total Section 6(f) property conversion for the Project is 4.01 acres. In accordance with the LWCF policy manual, a conversion of recreational use must be approved by OPRHP and the NPS, and replacement land would need to be provided. Amtrak, in conjunction with the NYCDPR, have been identifying potential replacement property in proximity to Pelham Bay Park.

3.11.2.2. Replacement Property for Section 6(f) Conversion

Amtrak and FRA have coordinated with OPRHP, NPS, and NYCDPR to ensure the requirements under the LWCF Act will be met in accordance with the *Land and Water Conservation Fund State Assistance Program Federal Financial Assistance Manual* (Volume 72, effective October 1, 2023). Amtrak has completed appraisals of the land to be converted (per Chapter 8, Section F.3.b). Once suitable replacement properties are identified of at least equal fair market value, of reasonably equivalent usefulness, and location to the land being converted, appraisals of those properties will be performed (per Chapter 8, Section F.3.c). Prior to FRA issuing a NEPA decision document, FRA and NYCDPR must agree on the replacement property. In accordance with the LWCF Manual Chapter 8, Section F.3.g, an analysis of the potential environmental impacts to both the land to be converted and the replacement property will be prepared and submitted to OPRHP. Amtrak and FRA will coordinate through OPRHP to provide NPS with information for NPS to make their own NEPA determination following FRA's decision document identifying the Selected Alternative.

3.12. INDIRECT AND CUMULATIVE EFFECTS

This section evaluates the indirect effects of the Preferred Alternative and its cumulative effects when considered in combination with other projects and initiatives that will occur within the Project's Study Area, as well as those large-scale or otherwise notable programmed and committed projects located beyond the Study Area.

3.12.1. Introduction

Federal agencies consider the potential for indirect and cumulative effects from a project. Indirect effects are those that are caused by an action and are later in time or farther removed in distance but are still reasonably foreseeable. By comparison, direct effects are caused by the action and occur at the same time and place. Indirect effects can include the full range of impact types, such as changes in land use, economic vitality, neighborhood character, traffic congestion, air quality, noise, vibration, and natural resources.

Cumulative impacts result from the incremental consequences of an action when added to other past or reasonably foreseeable future actions. The direct effects of an individual action may be negligible but may

contribute to a measurable environmental impact when considered cumulatively with other past and/or future projects.

3.12.2. Impacts of the No Build Alternative

The No Build Alternative has the potential to result in indirect effects to local and regional transportation due to the increased failures of the movable bridge if it is not replaced. Failures of the bridge would cause delays to Amtrak passenger service, freight operations, and the future Metro-North passenger service. Delays crossing the bridge could impact service all along the Hell Gate Line and throughout the Northeast Corridor. Continued failures of the movable bridge could also have a greater effect considered cumulatively with the increased passenger service from the Penn Station Access Project.

3.12.3. Impacts of the Preferred Alternative

3.12.3.1. Indirect Effects

The Proposed Project would remove the congestion point caused by the existing bridge. The Proposed Project would replace the Pelham Bay Bridge to improve the reliability and resiliency of the HGL and NEC. While this would be a direct benefit, it would also result in indirect benefits to the regional economy, which depends on the transportation system. By improving the reliability, resiliency, and redundancy of the HGL and NEC, the Preferred Alternative would avoid indirect adverse social, economic, and environmental effects associated with further deterioration and the need for additional maintenance on the existing bridge. The Preferred Alternative would potentially support growth and improved socioeconomic outcomes in communities served by stations along the NEC due to the improved service and corresponding increases in ridership.

Construction of the Preferred Alternative would result in both direct economic effects from constructionrelated expenditures as well as indirect economic benefits, including expenditures made by industries purchasing from other industries, and construction workers and other employees purchasing other goods and services within the region. These indirect benefits would occur throughout the 64-month construction period and be spread throughout the New York City metropolitan area.

The Preferred Alternative would not result in an increase of rail operations or induce development or demand for housing or other services. Post-construction, there would be no additional traffic or pedestrian trips as a result of the Project. Therefore, there would be no other indirect impacts as a result of the Preferred Alternative.

3.12.3.2. Cumulative Effects

The following projects in proximity to the Pelham Bay Bridge will be implemented regardless of whether the Preferred Alternative is constructed or not. All of the below projects have independent utility and are not connected actions to the Pelham Bay Bridge Replacement Project.

Penn Station Access: The Penn Station Access (PSA) Project will bring MTA Metro-North train service into Penn Station, adding up to 102 new daily trains along the Hell Gate Line starting in 2028.²⁰ A finding of no significant impact (FONSI) for the project was issued by the Federal Transit Administration in September 2021. FRA was a cooperating agency for the FTA PSA NEPA document and now has construction funding for the intercity passenger rail portions of the construction project. MTA will be funding the design-build commuter rail portions. To meet the FRA's NEPA requirements, FRA adopted FTA's EA and issued a FONSI on November 16, 2021. Construction is underway and expected to be completed in 2028. As part of the PSA Project, MTA will construct the Metro-North Railroad Co-op City Station within the railroad right-of-way immediately west of Pelham Bay Bridge, south of Erskine Place and west of DeReimer Avenue. As the easternmost station added as part of PSA, at the end of the new four-track section of the HGL, the station platform would be located sufficiently west to allow the four tracks to merge into two to then cross the existing Pelham Bay Bridge. In addition, work in the vicinity of the Pelham Bay Bridge will include construction of a new AC paralleling substation, south of the tracks on the west side of the river, and reconfiguration of the Pelham Bay Interlocking to merge four passenger tracks to two passenger tracks approaching the bridge from the west.

Shore Road Bridge: The Shore Road Bridge, also known as the Pelham Bridge, is an 865-foot-long bridge operated by New York City Department of Transportation that spans the Hutchinson River within Pelham Bay Park, south of Amtrak's Pelham Bay Bridge (see **Figure 2-1**). FHWA is the lead federal agency for an environmental impact statement (EIS) for the bridge replacement. Recently, FHWA has put a pause to the project. When the project resumes, FHWA will continue the NEPA project, completing a final EIS and record of decision (ROD).

NEC FUTURE: NEC FUTURE is a comprehensive planning effort to define, evaluate, and prioritize future investments on the Northeast Corridor (NEC) from Washington, D.C., to Boston. NEC supports the operation of eight regional rail authorities and Amtrak as well as four freight railroads. NEC FUTURE was an FRA-led program to work with stakeholders in the Northeast Corridor to determine the appropriate role for rail in the transportation system of the region. In 2017, the FRA issued a Record of Decision for the Tier 1 EIS selecting a program of rail investments, service, and performance objectives to grow the Northeast Corridor. The FRA's NEC FUTURE program is a long-term vision meant to guide rail project implementation over the upcoming decades.²¹ Any project identified in the ROD would require a Tier 2 NEPA document.

Two of the projects will occur in the Study Area within a similar time period as the Preferred Alternative and may result in cumulative effects to the environment – Shore Road Bridge Replacement and Penn Station Access. The replacement of the Amtrak Pelham Bay Bridge would occur in proximity to the Shore Road Bridge (immediately downstream), which is also slated for replacement. The construction period for the Shore Road Bridge is not currently known. The Project and the Shore Road Bridge Project could overlap in construction periods, resulting in cumulative construction-related impacts. The MTA is currently constructing infrastructure for the PSA Project. Construction is expected to be completed in 2028 with

²⁰ <u>https://new.mta.info/project/penn-station-access</u>

²¹ For more information, see <u>https://www.fra.dot.gov/necfuture/</u>

service beginning soon afterwards. Therefore, the additional daily Metro-North trains will be crossing the existing Pelham Bay Bridge during construction of the Preferred Alternative.

The cumulative effects of the three projects on the environmental resources evaluated in this EA are summarized below:

- Transportation There would be cumulative improvement in transportation from the three projects. During construction of the Shore Road Bridge and Pelham Bay Bridge projects, there may be a temporary increase in vehicular traffic on Shore Road Bridge from trucks bringing materials and taking away debris. However, use of NYCDOT designated truck routes would minimize the impact to the local community.
- Socioeconomic Conditions There would be cumulative public benefits from the three projects as a result of the improved bridge operations, maritime traffic conditions, and PSA service.
- Land Use, Zoning, and Community Facilities The three projects would require minor acquisition
 of property in Pelham Bay Park, but cumulatively that area would still be minor in comparison to
 the scale of the entire park. There would be no change to zoning from any of the projects and no
 impact to community facilities.
- Visual and Aesthetic Conditions The projects would result in a change to the visual environmental
 with construction of two new, higher bridges over the Hutchinson River, the addition of noise
 barriers along the railroad right-of-way, and a new Metro-North station at Co-op City. However, the
 scale and overall visual character of the Study Area would be comparable to that of the existing
 conditions and the replacement bridges would be designed in consultation with the SHPO, which
 would ensure that the bridge design is sensitive to the existing historical context of the surrounding
 visual resources, mitigating the loss of the existing historic bridges. Therefore, there would be no
 cumulative effects to visual and aesthetic conditions.
- Cultural Resources There would be adverse effects to historic resources as a result of the demolition of the NRHP-eligible Shore Road Bridge and Amtrak Pelham Bay Railroad Bascule Bridge. It is expected that those adverse effects will be mitigated through stipulations documented in memorandum of agreement in consultation with the project sponsors, lead federal agencies, SHPO and any additional Section 106 consulting parties, resulting in no cumulative adverse effects to cultural resources beyond the effects which have been identified and resolved through the Section 106 processes for each project.
- Air Quality and Energy Since the two bridge projects would be replacements in kind, there would be no increase in capacity that would increase in train operations or vehicular traffic that would increase mobile source emissions. By raising the height of the bridges above the river, fewer bridge openings would be required, resulting in a cumulative reduction in energy consumption from maritime traffic. During construction, there would be temporary increases in air pollutant emissions from the bridge projects, but these would be well below the general conformity *de minimis* thresholds. Therefore, there would be no cumulative effect to air quality.
- Noise and Vibration The analysis of future noise and vibration levels for the Preferred Alternative
 incorporated the planned PSA Metro-North service, so with the abatement measures (noise
 barriers) there would be no cumulative noise impacts. The future traffic noise over the replacement
 Shore Road Bridge would not be anticipated to increase noise at the Bronx Equestrian Center since
 the new Shore Road Bridge would be located downstream of the existing bridge and further away
 from the from the center than it is currently. There is likely to be some overlap in construction of the

Shore Road Bridge and Pelham Bay Bridge that would increase noise exposure over current ambient levels. However, the cumulative impacts would be short in duration and would not require noise mitigation.

- Natural Resources Both the Shore Road Bridge and Pelham Bay Bridge replacement would result in temporary and permanent impacts to the 100-year floodplain. In both cases, the placement of columns and footings within the floodplain would be offset by the removal of piers and abutments as part of the demolition of the existing bridge from within the floodplain. Therefore, there would no cumulative impact to flood attenuation and storage. Similarly, the two bridge projects would result in minor permanent impacts to the coastal zone but both would be consistent with New York State and New York City coastal management policies. There would be temporary and permanent impacts to tidal wetlands from replacement of the two bridges but those impacts would be mitigated as part of the permitting from USACE and NYSDEC. The PSA Project will have minor impacts to freshwater wetlands but not in the vicinity of the Preferred Alternative. Adverse effects to essential fish habitat and threatened and endangered species from construction of the two replacement bridges would be minimal, temporary, or alleviated with construction timing restrictions and mitigation measures. There would be no cumulative effect to natural resources as a result of the three projects.
- Contaminated Materials Construction of all three projects would result in disturbance and likely off-site disposal of soil, and in the case of the Shore Road Bridge and Pelham Bay Bridge projects, river sediments. There is the potential for soil and sediment to be impacted with contaminated materials based on historic use of the sites. For all projects, a project-specific Health and Safety Plan will be prepared and implemented. The demolition of the existing Shore Road Bridge and Pelham Bay Bridge has the potential to disturb suspect asbestos containing materials and suspect lead paint. For both projects, if those materials are disturbed, proper material handling and health and safety procedures would be followed. The proper implementation of a Health and Safety Plan and material handling procedures will minimize exposure to contaminated materials by workers and the public and ensure there is no cumulative contamination impact as a result of the construction of the project. There would be no cumulative contamination as a result of operations of the projects as only the PSA Project will result in a change in operations following construction.
- Section 4(f) and Section 6(f) The three projects would each result in a *de minimis* Section 4(f) impact to Pelham Bay Park and the Pelham Bay Park Historic District. However, cumulatively the park impacts would still be a small portion of the total resource (2,772 acres) and would not affect the activities, features, or attributes of the publicly accessible portions of the park. In addition, since both the PSA Project and the Shore Road Bridge Replacement Project would enhance the LWCF resource (Pelham Bay Park), no conversion under Section 6(f) is necessary; therefore, there would be no cumulative Section 6(f) effect.

4. Public Involvement and Agency Coordination

This chapter summarizes the public participation and agency coordination process and activities Amtrak conducted during environmental review of the Preferred Alternative.

4.1. PUBLIC INVOLVEMENT

4.1.1. Public Comment Period

The EΑ will be posted on regulations.gov and on Amtrak's project webpage (https://www.amtrak.com/about-amtrak/new-era/infrastructure-projects/pelham-bay-bridge-replacement. html), and hard copies will be made available at publicly accessible facilities near the Project (local libraries, local community and recreation centers, and Bronx Borough Hall). After publication of the EA, Amtrak will hold an in-person public meeting to allow public comments on the EA. Details about this meeting will be posted on Amtrak's project webpage. Meeting materials will be translated into Spanish, and translation and American Sign Language services will be made available at the public meeting upon request.

Amtrak will post meeting materials on its project webpage for those unable to attend the public meeting. Public and agency comments must be submitted via <u>regulations.gov</u> within 30 days of the date that the EA is made available to the public. FRA, in coordination with Amtrak, will address comments received during the public comment period before proceeding with issuing a NEPA decision document.

4.1.2. Public and Stakeholder Outreach

Amtrak developed a Public Involvement Plan for the Project, identifying various avenues for outreach throughout the environmental review process and continuing through design and construction of the Project. **Appendix M**, "Public Involvement," includes a copy of the plan and lists the public participation meetings and activities conducted to date.

Amtrak established a project webpage (<u>https://www.amtrak.com/about-amtrak/new-era/infrastructure-projects/pelham-bay-bridge-replacement.html</u>) to provide project updates throughout the environmental review process and later project phases. Concurrent with publication of this EA, Amtrak distributed a Pelham Bay Bridge project fact sheet via email to the mailing list of elected officials, agencies, interest groups, and members of the public.

Amtrak is committed to maintaining an open dialogue with all elected officials, community-based organizations, stakeholders and the communities as the Preferred Alternative advances.

4.2. AGENCY COORDINATION

FRA invited the following agencies to be Cooperating or Participating agencies in the in the NEPA review process for the Pelham Bridge Replacement Project:

- U.S. Army Corp of Engineers Cooperating
- U.S. Coast Guard Cooperating

- National Park Service Participating²²
- New York State Office of Parks, Recreation and Historic Preservation Participating
- U.S. Environmental Protection Agency Participating
- U.S. Fish and Wildlife Service Participating
- Federal Transit Administration Participating
- National Oceanic and Atmospheric Administration Participating
- New York State Department of Environmental Conservation Participating
- New York City Department of Parks and Recreation Participating

Amtrak and FRA met individually with various agencies to discuss the project and understand approval and permitting processes. Documentation of agency correspondence and a list of meetings is presented in **Appendix L**, "Agency Correspondence".

4.3. CONTACT INFORMATION

The public should submit written comments on the EA during the 30-day comment period through regulations.gov for consideration and response in the NEPA decision document. General questions about the Project can be directed to Amtrak by email (<u>PelhamBay@amtrak.com</u>) or to FRA by email to Eric Rothermel, FRA Environmental Protection Specialist, at <u>eric.rothermel@dot.gov</u>, but comments on the EA should not be sent to either email address. Information about the Project is also available on Amtrak's project website (<u>https://www.amtrak.com/about-amtrak/new-era/infrastructure-projects/pelham-bay-bridge-replacement.htm</u>). The comment period begins with publication of the EA and continues until July 17, 2025. To request further information or ask questions, please contact:

Amtrak Government Affairs

Re: Pelham Bay Bridge EA 2955 Market Street, 3S-155 Philadelphia, PA 19104

Federal Railroad Administration

Eric Rothermel, Environmental Protection Specialist

Office of Environmental Program Management Office of Railroad Development Federal Railroad Administration 1200 New Jersey Avenue, SE Washington, DC 20590 eric.rothermel@dot.gov

²² NPS declined FRA's invite to become a cooperating agency and requested to be a participating agency. FRA agreed to participating agency status.