

Hudson Tunnel Project
Environmental Impact Statement
Scoping Document

April 2016

A. INTRODUCTION

The Federal Railroad Administration (FRA) and NJ TRANSIT are preparing an Environmental Impact Statement (EIS) to evaluate the Hudson Tunnel Project (the “Proposed Action” or the “Project”). The Proposed Action is intended to preserve the current functionality of the Northeast Corridor’s (NEC) Hudson River rail crossing between New Jersey and New York and strengthen the resilience of the NEC. The Project would consist of construction of a new rail tunnel under the Hudson River, including railroad infrastructure in New Jersey and New York connecting the new rail tunnel to the existing NEC, and rehabilitation of the existing NEC tunnel beneath the Hudson River.

The existing NEC Hudson River rail tunnel beneath the Hudson River is known as the North River Tunnel.¹ **Figure 1** illustrates the location of the North River Tunnel and its approach tracks. This tunnel is used by Amtrak for intercity passenger rail service and by NJ TRANSIT for commuter rail service. As shown in the figure, the approach to the tunnel begins east of NJ TRANSIT’s Frank R. Lautenberg Station in Secaucus, New Jersey (which is 5 miles east of Amtrak and NJ TRANSIT’s Newark Penn Station). East of the Secaucus station, the NEC has two tracks that approach the tunnel on a raised embankment through the towns of Secaucus and North Bergen, New Jersey. Tracks enter a tunnel portal in North Bergen, passing beneath Union City and Weehawken, New Jersey and the Hudson River before emerging within the Penn Station New York (PSNY) rail complex in New York City. The tunnel has two separate tubes, each accommodating a single track for electrically powered trains, and extends approximately 2.5 miles from the tunnel portal in North Bergen to PSNY.

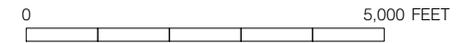
Superstorm Sandy in October 2012 damaged the North River Tunnel and today the tunnel remains compromised. The North River Tunnel is currently safe for use by Amtrak and NJ TRANSIT trains traveling between New Jersey and New York City and beyond. However, it is in poor condition as a result of the storm damage and has required emergency maintenance that disrupts service for hundreds of thousands of rail passengers throughout the region. Despite the ongoing maintenance, the damage caused by the storm continues to degrade systems in the tunnel and can only be addressed through a comprehensive reconstruction of the tunnel.

The Proposed Action would rehabilitate the North River Tunnel without disrupting existing levels of train service, and provide redundant capacity for rail service crossing the Hudson River. To perform the needed rehabilitation in the existing North River Tunnel, each tube of the tunnel will need to be closed for more than a year. However, rehabilitation needs to be accomplished without unacceptable reductions in weekday service. Therefore, the Proposed Action would include construction of two new rail tubes beneath the Hudson River (the “Hudson Tunnel”) that can maintain the existing level of train service while the damaged tubes are taken out of service one at a time for rehabilitation. If no new Hudson River rail crossing is provided, closing a tube of the tunnel for rehabilitation would substantially reduce the number of trains that could serve PSNY, because the single remaining tube would have to support two-way service. Once the North River Tunnel rehabilitation is complete, both the old and new

¹ “North River” is an alternate name for the Hudson River, based on an early Dutch name for the river.



-  Existing North River Tunnel
-  Existing Northeast Corridor



tunnel will be in service, providing redundant capacity and increased operational flexibility for Amtrak and NJ TRANSIT.

B. ENVIRONMENTAL REVIEW PROCESS

Construction of the Project is expected to involve the use of Federal funding administered through the U.S. Department of Transportation (USDOT). Prior to approving the funding, Federal agencies must consider the environmental effects of their actions in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 USC 4321 et seq.). Therefore, an EIS will be prepared for the Proposed Action. FRA and NJ TRANSIT will serve as joint lead agencies for the EIS.

FRA and NJ TRANSIT will prepare the EIS in compliance with NEPA, the Council on Environmental Quality's (CEQ) regulations implementing NEPA (40 CFR parts 1500-1508), the FRA Procedures for Considering Environmental Impacts (FRA's Environmental Procedures) (64 FR 28545, May 26, 1999, as updated in 78 FR 2713, January 14, 2013). Consistent with Section 11503 of the Fixing America's Surface Transportation Act of 2015 (FAST Act), the EIS will also be prepared in accordance with 23 USC 139. After release and circulation of a Draft EIS for public comment, FRA will issue a single document that consists of the Final Environmental Impact Statement and Record of Decision pursuant to Pub. L. 112-141, 126 Stat. 405, Section 1319(b) unless it is determined that statutory criteria or practicability considerations preclude issuance of such a combined document.

The EIS will also document compliance with other applicable Federal, state, and local environmental laws and regulations, including Section 106 of the National Historic Preservation Act; the Conformity requirements of the Clean Air Act; the Clean Water Act; Section 4(f) of the Department of Transportation Act of 1966 (Section 4(f)); the Endangered Species Act; Executive Order 11988 and USDOT Order 5650.2 on Floodplain Management; Executive Order 11990 on Protection of Wetlands; the Magnuson-Stevens Act related to Essential Fish Habitat; the Coastal Zone Management Act; and Executive Order 12898 on Environmental Justice. The EIS will provide the FRA and NJ TRANSIT and other participating agencies and the public with information about alternatives that meet the Proposed Action's purpose and need, including their environmental impacts and potential avoidance and mitigation measures.

The steps in the EIS process are as follows:

- Notice of Intent (NOI). Publication of the NOI in the Federal Register formally announces the FRA's intent to prepare an EIS for the Proposed Action and initiates the environmental review process.
- Scoping. Scoping generally occurs after publication of the NOI and is an initial step in the NEPA process where the public and agencies are provided an opportunity to review and comment on the scope of the EIS including the Proposed Action's purpose and need, alternatives to be studied in the EIS, environmental issues of concern, and the methodologies for the environmental analysis.

- Draft EIS. Following scoping, the lead agencies will prepare a Draft EIS to assess the potential environmental impacts of the Proposed Action and identify appropriate measures to avoid, minimize, or mitigate those impacts consistent with the requirements of NEPA and other applicable regulations and requirements.
- Public Review of the Draft EIS. When the Draft EIS is ready, FRA will ensure that the document is readily available for public review. The U.S. Environmental Protection Agency will publish a Notice of Availability in the Federal Register initiating the public comment period for the Draft EIS. FRA and NJ TRANSIT will hold a public hearing or hearings during the public comment period, and members of the public can offer oral testimony on the findings of the Draft EIS. Written comments will also be accepted.
- Final EIS and Record of Decision (ROD). After the close of the public comment period on the Draft EIS closes, FRA intends to prepare a joint Final EIS and ROD. The Final EIS will include a summary of the comments made on the Draft EIS during the public comment period and responses to those comments, and any necessary revisions to the Draft EIS to address the comments.

As described above, an early step in the environmental review process is “scoping,” which helps gather information to help FRA and NJ TRANSIT in the development of the Draft EIS. During scoping, FRA and NJ TRANSIT request comments from the public and agencies for input on the Project, including its purpose and need, alternatives to be considered, the potential for environmental impacts, and the methodologies to be used in the analyses. This Scoping Document presents the following:

- A description of the Proposed Action’s purpose and need (Section C);
- Alternatives to be considered in the EIS (Section D);
- The analyses to be included in the EIS (Section E); and
- A description of the plan for public and agency involvement (Section F).

FRA and NJ TRANSIT are seeking input and comments related to these issues and any particular concerns with respect to potential impacts of the Proposed Action. FRA will consider the comments received during the scoping period in determining the scope and issues to be analyzed in the EIS. As noted in Section F of this document (“Public Outreach and Agency Coordination”), FRA will be coordinating with participating agencies during development of the Draft EIS pursuant to 23 USC 139. FRA will also coordinate with Federally recognized Native American tribes and consulting parties established pursuant to Section 106 of the National Historic Preservation Act.

C. PROJECT PURPOSE AND NEED

BACKGROUND

The existing North River Tunnel is located on the NEC. The NEC is the most heavily used passenger rail line in the U.S., both in terms of ridership and service frequency. The NEC extends from Washington, D.C. in the south to Boston, Massachusetts, in the north, serving the densely populated Northeast region, including PSNY. Amtrak, the nationwide intercity passenger rail operator, operates over the

entire NEC, providing regional service, long distance service, and high-speed Acela Express service. Amtrak owns the majority of the NEC, including the North River Tunnel. NJ TRANSIT operates an extensive commuter rail network in New Jersey that extends to Philadelphia, Pennsylvania; Orange and Rockland Counties in New York; and New York City. In New Jersey, NJ TRANSIT owns much of the commuter rail network that converges on the NEC. NJ TRANSIT's rail lines all include direct or connecting service to PSNY. **Figures 2 and 3** illustrate the NEC and NJ TRANSIT routes that serve PSNY via the North River Tunnel.

Amtrak's NEC service and NJ TRANSIT's commuter rail service provide connections between the major cities of the Mid-Atlantic and Northeast states and commuter access for thousands of people who work in the region. Therefore, both services are important to the region's economy. The NEC FUTURE Tier 1 Draft EIS released by FRA in November 2015 evaluates improvements to the NEC and describes the importance of the NEC to the region's economy:

The Northeast regional economy, which approximates the Northeast and Mid-Atlantic regions, is unique among U.S. regional economies in that it is the most densely urban region in the United States, with the NEC connecting some of the nation's largest and most mature urban economies. . . . The region's infrastructure has some of the oldest assets in the nation's transportation network. To maintain its role as a global economic center, the region must modernize its aging infrastructure and add capacity to support future growth. Absent the ability to efficiently move large numbers of people in, out, and between these large economic centers daily, the negatives of large metropolitan economies begin to cancel the positives, tempering economic development and incentivizing businesses to expand elsewhere in the United States.²

Within the New York City commutershed, recent census data indicate that 12.8 percent of the workforce in Manhattan consists of residents of New Jersey and 7.2 percent of all New Jersey workers commute to Manhattan.³ In 2014, NJ TRANSIT carried almost 90,000 weekday passengers each day on approximately 350 trains between New York and New Jersey. Amtrak carried approximately 24,000 weekday passengers each day on more than 100 trains between New York and New Jersey.

Extensive engineering work and environmental documentation have been prepared over the past two decades for a new Hudson River rail tunnel. This has included the detailed studies and design conducted for the Access to the Region's Core (ARC) project from 1995 through 2010, which evaluated several options for construction of a new tunnel under the Hudson River in combination with an expansion of station capacity in midtown Manhattan to accommodate growing passenger demand. In addition, Amtrak conducted the Gateway Program Feasibility Study in 2011-2013, which assessed options for constructing a new Hudson River tunnel. Amtrak's Gateway Program envisions a series of improvement

² FRA, NEC FUTURE Tier 1 Draft EIS, November 2015, pp. 6-2 and 6-3, available at www.necfuture.com/tier1_eis/deis/.

³ U.S. Census 2006-2010 American Community Survey (ACS) data for the county level, 2006-2010, available at <http://ctpp.transportation.org/Pages/5-Year-Data.aspx>.



-  Existing North River Tunnel
-  Rail Station (not all shown)
-  Northeast Corridor
-  Connecting Rail Corridor
-  National Rail Network

Hudson Tunnel Project

Amtrak Northeast Corridor and
Connecting Rail Network
Figure 2



http://www.njtransit.com/pdf/rail/Rail_System_Map.pdf

projects to upgrade and expand the capacity of the NEC. While many of the Gateway improvements are still being fully defined, a new Hudson Tunnel on the NEC is urgently needed to maintain existing service.

In 2012, the FRA launched NEC FUTURE to consider the role of rail passenger service in the context of current and future transportation demands and to evaluate the appropriate level of capacity improvements to make across the NEC. The intent of the NEC FUTURE program is to help develop a long-term vision and investment program for the NEC. Through NEC FUTURE, FRA is currently evaluating overall capacity improvements and environmental consequences associated with improved NEC rail services, including trans-Hudson service. However, as described above, this Proposed Action addresses a specific need related to deterioration of the existing North River Tunnel and can be considered independently from the other projects analyzed in the NEC FUTURE EIS. All three build alternatives evaluated in the NEC FUTURE Tier 1 Draft EIS included new Hudson River tunnel investments similar to this Proposed Action. This EIS may incorporate the appropriate analysis and other relevant elements from the NEC FUTURE Tier 1 EIS while focusing on the issues specific to this independent Project.

As appropriate, FRA and NJ TRANSIT will use the work conducted for the ARC project and Amtrak's feasibility study to provide baseline information for the study of the Proposed Action. While the Proposed Action addresses maintenance and resilience of the NEC Hudson River crossing, it would not increase rail capacity. At the same time, the Proposed Action would not preclude other future projects to expand rail capacity in the area. Accordingly, while the Proposed Action may also be an element of a larger program to expand rail capacity, it would meet an urgent existing need and will be evaluated as a separate project from any larger initiative. Ultimately, an increase in service between Newark Penn Station and PSNY cannot be realized until other substantial infrastructure capacity improvements are built in addition to a new Hudson River rail tunnel. These improvements will be the subject of one or more separate design, engineering, and appropriate environmental reviews.

PROJECT PURPOSE

The purpose of the Proposed Action is: to preserve the current functionality of Amtrak's NEC service and NJ TRANSIT's commuter rail service between New Jersey and PSNY by repairing the deteriorating North River Tunnel; and to strengthen the NEC's resiliency to support reliable service by providing redundant capacity under the Hudson River for Amtrak and NJ TRANSIT NEC trains between New Jersey and the existing PSNY. These improvements must be achieved while maintaining uninterrupted commuter and intercity rail service and by optimizing the use of existing infrastructure.

PROJECT NEED

The existing North River Tunnel is a critical NEC asset and is the only intercity passenger rail crossing into New York City from New Jersey and areas west and south.⁴ This tunnel is more than 100 years old and

⁴ As shown in Figure 3, PANYNJ's Port Authority Trans Hudson (PATH) rail service also crosses the Hudson River into Lower Manhattan, serving local New Jersey and New York commuters.

was designed and built to early 20th-century standards. Service reliability throughout the tunnel has been compromised because of the damage to tunnel components caused by Superstorm Sandy, which inundated both tubes in the North River Tunnel with seawater in October 2012, resulting in the cancellation of all Amtrak and NJ TRANSIT service into New York City for five days. While the tunnel was restored to service and is now safe for travel, chlorides from the seawater remain in the tunnel's concrete liner and bench walls, causing ongoing damage to the bench walls, imbedded steel, track, and signaling and electrical components.

The damage caused by Superstorm Sandy is compounded by the tunnel's age and the intensity of its current use (operating at capacity to meet current demands), resulting in frequent delays due to component failures within the tunnel. With no other Hudson River passenger rail crossing into PSNY, single-point failures can suspend rail service, causing delays that cascade up and down the NEC as well as throughout NJ TRANSIT's commuter system, disrupting service for hundreds of thousands of passengers. For example, this occurred on March 17, 2016, when a NJ TRANSIT train became disabled in one of the tunnel's tubes during the morning peak period, resulting in delays to 57 other Amtrak and NJ TRANSIT trains headed into and out of PSNY that day. Service disruptions will continue and will over time happen more frequently as the deterioration related to the seawater inundation continues and components fail in an unpredictable manner.

Because of the importance of the North River Tunnel to essential commuter and intercity rail service between New Jersey and New York, City, rehabilitation of the existing North River Tunnel needs to be accomplished without unacceptable reductions in weekday service. Removing one tube in the existing North River Tunnel from operation without new capacity in place would reduce weekday service to volumes well below the current maximum capacity of 24 peak direction trains per hour.

In addition, the existing two-track North River Tunnel is operating at its full capacity and does not provide redundancy for reliable train operations during disruptions or maintenance. Any service disruption therefore results in major passenger delays and substantial reductions to overall system flexibility, reliability and on-time performance. This condition is exacerbated by the need to perform increased maintenance to address damage caused by Superstorm Sandy. These maintenance demands are difficult to meet because of the intensity of rail service in the tunnel. Efforts to maintain the North River Tunnel in a functional condition currently require nightly and weekend tunnel outages with reductions in service due to single-track operations. Train service is adjusted to allow one tube of the North River Tunnel to be closed each weekend for maintenance for a 55-hour window beginning on Friday evening and ending early on Monday morning.

In summary, the Proposed Action addresses the following critical needs:

- *Improve the physical condition and rehabilitate the existing North River Tunnel:* Both tubes in the North River Tunnel were inundated with seawater during Superstorm Sandy in October 2012, resulting in the cancellation of all Amtrak and NJ TRANSIT service into New York City for five days. The more than 100-year-old North River Tunnel has been compromised as a result of the storm damage and service reliability has suffered.

- *Preservation of existing NEC capacity and functionality during rehabilitation of existing North River Tunnel:* The need to maintain existing levels of rail service is critical as it supports intercity, regional, and local mobility and associated economic benefits regionally and nationally.
- *Strengthen the NEC's resiliency to provide reliable service by providing redundant capacity at the critical Hudson River crossing to reduce commuter and intercity rail delays caused by unanticipated events or routine maintenance:* The lack of redundant capacity across the Hudson River means that any service outage, either unplanned or for planned maintenance, results in substantial reductions to NEC reliability and on-time performance. Once the Project is constructed, maintenance can take place without these service disruptions.

GOALS AND OBJECTIVES

Five goals will guide the development and evaluation of alternatives to address the purpose and need. The objectives further define the goals and provide specific and measurable means by which to evaluate the Project alternatives.

- Goal 1:** Improve service reliability and upgrade existing tunnel infrastructure.
- Reduce infrastructure-related delays due to poor condition of the North River Tunnel following Superstorm Sandy.
 - Rehabilitate the North River Tunnel to modern system standards.
- Goal 2:** Maintain uninterrupted existing NEC service, capacity, and functionality by ensuring North River Tunnel rehabilitation occurs as soon as possible.
- Optimize use of existing infrastructure.
 - Use conclusions from prior planning studies as appropriate and to the maximum extent possible.
 - Avoid regional and national economic impacts associated with loss of rail service.
- Goal 3:** Strengthen the NEC's resiliency to provide reliable service across the Hudson River crossing, facilitating long-term infrastructure maintenance and enhancing operational flexibility.
- Construct additional tracks to allow for continued NEC rail operations during maintenance periods and unanticipated manmade and natural events.
- Goal 4:** Do not preclude future trans-Hudson rail capacity expansion projects.
- Allow for connections to future capacity expansion projects, including connections to Frank R. Lautenberg Station in Secaucus through to the Portal Bridge over the Hackensack River, and connections to station expansion projects in the area of PSNY.
- Goal 5:** Minimize impacts on the natural and built environment.
- Avoid/minimize adverse impacts on communities and neighborhoods.
 - Strive for consistency with local plans and policies.
 - Preserve the natural and built environment.

D. PROPOSED ACTION AND ALTERNATIVES

FRA and NJ TRANSIT will assess a reasonable range of alternatives in the EIS, including a No Action Alternative and a reasonable range number of different Build Alternatives identified through an alternatives development process. Alternatives will be developed based on the purpose of and need for the Project, information obtained through the scoping process, and information from previous studies. The Draft EIS will document the alternatives development and screening process. On the basis of that screening process and further analysis in the Draft EIS itself, FRA anticipates that the Draft EIS will also describe the Project's Preferred Alternative consistent with 40 CFR 1502.14(e).

NO ACTION ALTERNATIVE

NEPA requires examination of a "No Action" Alternative, which is an alternative against which the potential benefits and impacts of Build Alternatives can be compared. The No Action Alternative includes independent planned and funded projects likely to be implemented by the Project's completion year. For the Proposed Action, the No Action Alternative will assume that the existing North River Tunnel remains in service, with continued maintenance as necessary to address ongoing deterioration to the extent possible.

BUILD ALTERNATIVES

The EIS will describe and evaluate a reasonable range of Build Alternatives, identified through an alternatives development process, that meet the need for the Proposed Action. The Proposed Action, the Hudson Tunnel Project, consists of a new tunnel connecting the existing NEC tracks east of Frank R. Lautenberg Station in Secaucus, New Jersey, to the existing rail complex at PSNY as well as rehabilitation of the existing North River Tunnel, consistent with the goals and objectives identified above. Therefore, the end points or "termini" for the Project would be: in New Jersey, the interlocking near the Secaucus station where trains may connect with the NEC and can move from utilizing the North River Tunnel to the new Hudson Tunnel; and, in New York, the existing rail complex at PSNY.

Within this framework, the Build Alternatives would be located within a relatively small geographic area, close to and south of the existing NEC and the existing North River Tunnel. The new tunnel would not be north of the North River Tunnel, because of proximity to the Lincoln Tunnel, which carries vehicular traffic between New Jersey and New York City. As shown in **Figure 4**, the potential area where the Build Alternatives could be located extends from the east end of Frank R. Lautenberg Station in Secaucus, New Jersey to Ninth Avenue in New York City, where the PSNY tracks begin.

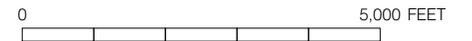
The Build Alternatives are anticipated to include the following elements:

- A new NEC rail tunnel beneath the Hudson River, extending from a new tunnel portal in North Bergen, New Jersey to the PSNY rail complex (as explained above).
- Ventilation shaft buildings above the tunnel on both sides of the Hudson River to provide smoke ventilation during emergencies.



- Project Study Area
- Existing North River Tunnel
- Existing Northeast Corridor

Hudson Tunnel Project



Project Study Area
Figure 4

- Modifications to the existing NEC tracks in New Jersey and additional track on the NEC to connect the new tunnel to the NEC. Modifications are anticipated beginning just east of Frank R. Lautenberg Station in Secaucus, New Jersey, and approaching the new tunnel portal in North Bergen, New Jersey.
- Modifications to connecting rail infrastructure at PSNY to connect the new tunnel's tracks to the existing tracks at PSNY.
- Rehabilitation of the existing North River Tunnel, one tube at a time.

Once the North River Tunnel rehabilitation is complete, both the old and new tunnel will be in service, providing redundant capacity and increased operational flexibility for Amtrak and NJ TRANSIT.

In addition to those permanent features, the Proposed Action would involve the following types of construction activities, which will be described and evaluated in the Draft EIS:

- Construction of new tracks along the NEC between Frank R. Lautenberg Station and the new tunnel portal.
- Construction of the new tunnel using Tunnel Boring Machine (TBM) technology, which is conducted underground from a tunnel portal. At this time, it is anticipated that tunneling would likely occur from the New Jersey side of the new tunnel.
- Construction staging sites near the tunnel portal and at the vent shaft site in New Jersey. These locations would be used to access the tunnel and to remove rock and soil from the tunnel while it is being bored.
- Construction staging site at the vent shaft site in Manhattan.
- Potential construction activities that affect the Hudson River riverbed above the tunnel location.

E. ENVIRONMENTAL ANALYSIS TO BE INCLUDED IN THE EIS

In accordance with NEPA and FRA's Environmental Procedures, the EIS will consider the potential direct, indirect and cumulative effects of the Project alternatives on the social, economic, and environmental resources in the study area. This analysis will include the identification of study areas; documentation of the affected environment; evaluation of direct and indirect effects of the alternatives; and identification of measures to minimize, avoid, or mitigate adverse impacts.

The analysis will include detailed consideration of impacts that could occur from Project construction (construction of the new tunnel and rehabilitation of the existing tunnel) as well as consideration of the impacts once the construction is complete. The Proposed Action is not intended to, and would not, expand capacity on this portion of the NEC as compared to the No Action Alternative, and therefore service changes are not an anticipated consequence of the Proposed Action.

For this scoping effort, FRA and NJ TRANSIT have identified a general study area for the Project as shown in **Figure 4**. The purpose of this study area is to identify a geographic area large enough to support assessment of potential environmental impacts of any alternatives that might be studied as part of the Draft EIS. However, the study areas for each affected resource will vary, based on the resource, since a

project's effect can occur over smaller or larger areas depending on the resource area. This general study area follows the NEC from just east of the Frank R. Lautenberg Station in Secaucus, New Jersey to PSNY in midtown Manhattan, New York and includes portions of Secaucus, North Bergen, Union City, Weehawken, and Hoboken in New Jersey; a portion of the Hudson River bounded by Weehawken and Hoboken to the west and Manhattan to the east; and a portion of midtown Manhattan, New York.

The EIS will consider the following resource areas for the No Action and the Build Alternatives:

- **Transportation:** The EIS will consider the Proposed Action's impacts during construction and after completion on passenger and freight rail service and operations, other public transit modes (including public and private bus service, commuter and light rail, and ferry service), automobile and truck traffic, pedestrian conditions, and maritime traffic in the Hudson River.
- **Social and Economic Conditions:** The EIS will describe and evaluate existing and future land use, zoning, and public policy; neighborhood character and cohesion; and socioeconomic conditions and trends. Land use data will also inform other EIS analyses, including the analyses of air quality, noise, and vibration.
- **Property Acquisition:** The EIS will identify the need for property acquisition for the Build Alternatives, and will discuss the procedures to be followed for any required acquisition in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisitions Policies Act (42 USC 4601) and its applicable regulations (49 CFR part 24).
- **Parks and Recreational Resources:** The EIS will identify parks and recreational resources and evaluate potential impacts including the use of park space during construction, noise impacts to park users, and any permanent features of the Project that could affect these resources. The analysis of parks and recreational resources will inform the evaluation of Section 4(f) resources, which is discussed below.
- **Visual and Aesthetic Resources:** The EIS will evaluate the Proposed Action's potential effects on visual and aesthetic resources, including staging sites and other construction activities as well as any permanent above-ground features, including its new NEC tracks and ventilation buildings. The EIS will follow the relevant USDOT guidelines related to visual assessment. In addition, the visual analysis in the EIS will also evaluate the potential for the Project's ventilation buildings to cast new shadows on important visual resources, using the methodologies set forth in the *New York City Environmental Quality Review (CEQR) Technical Manual*.
- **Historic and Archaeological Resources:** The EIS will analyze the Proposed Action's effects on historic and archaeological resources, in accordance with the requirements of Section 106 of the National Historic Preservation Act of 1966. Section 106 requires that Federal agencies consider the effects of their actions on any properties listed or determined eligible for listing on the National Register of Historic Places. As part of the Section 106 process, FRA will afford the New Jersey and New York State Historic Preservation Officers (SHPOs), the Advisory Council on Historic Preservation, Federally recognized Native American tribes, identified consulting parties, and interested members of the public a reasonable opportunity to comment on the Proposed Action and its potential effects. If any adverse effects are identified, FRA and NJ TRANSIT will resolve those effects and identify the appropriate avoidance and mitigation measures in

consultation with the SHPOs and/or Tribal Historic Preservation Officers (THPOs), tribes, and other consulting parties established during the Section 106 process. The analysis of historic and archaeological resources will inform the evaluation of Section 4(f) resources, which is discussed below.

- **Air Quality:** Therefore, The EIS will consider air pollutant emissions during construction, related to construction equipment and trucks bringing materials to and from the construction sites. In addition, the EIS will include a Conformity Analysis to address the Proposed Action's conformity with the Clean Air Act and associated conformity requirements. After construction, FRA and NJ TRANSIT do not expect any effects on air quality during normal operations since the rehabilitated existing tunnel and the new tunnel would be used only for electric trains, and no capacity improvements with the potential to change traffic patterns or transportation mode use would occur. The tunnel ventilation shafts would be used for emergency purposes only.
- **Greenhouse Gas Emissions and Resilience:** The EIS will describe sources of greenhouse gas emissions during construction and measures to reduce those emissions. It will also discuss design features that will make the Project and the region more resilient to the likely effects of climate change.
- **Noise and Vibration:** The EIS will evaluate the potential noise and vibration impacts associated with construction of the new rail tunnel, including new connections between the NEC and the tunnel. It will also consider the noise and vibration impacts associated with operation of Amtrak and NJ TRANSIT passenger rail service along the new route once it is complete. The analysis will follow the methodologies presented in the Federal Transit Administration (FTA) guidance manual, *Transit Noise and Vibration Impact Assessment* (FTA-VA-90-1003-06, May 2006), which FRA has adopted for use in environmental impact review, as well as FRA's *High-Speed Ground Transportation Noise and Vibration Impact Assessment* (DOT/FRA/ORD-12/15, September 2012), which is used for evaluation of trains traveling more than 90 miles per hour.
- **Ecology:** The EIS will examine the Proposed Action's potential impacts on water quality and terrestrial and aquatic natural resources. This will include a discussion of relevant regulatory programs, the current condition of natural resources in the study area, and the Project's potential to affect those resources. Natural resources to be assessed will include wetlands, water and sediment quality, floodplains, and biological resources, including aquatic biota, terrestrial biota, and threatened and endangered species. The EIS will also evaluate the Proposed Action's effects on Essential Fish Habitat. These analyses will be conducted in coordination with relevant resource and permitting agencies, including the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), Federal Emergency Management Agency (FEMA), U.S. Army Corps of Engineers (USACE), U.S. Environmental Protection Agency (USEPA), New Jersey Meadowlands Commission (NJMC) at the New Jersey Sports and Exposition Authority, New Jersey Department of Environmental Protection (NJDEP), and New York State Department of Environmental Conservation (NYSDEC).
- **Contaminated Materials:** Soil and groundwater beneath a site can be contaminated because of past or present uses on that site or adjacent properties. Contaminants commonly found along rail lines include semi-volatile compounds, heavy metals, pesticides, and herbicides. The EIS will

evaluate the potential for contamination to be present in the area where construction activities would occur and will describe measures to minimize potential exposure to the public and construction workers from any contaminants.

- **Environmental Justice:** The EIS will include an environmental justice analysis that complies with the requirements of Executive Order 12898, “Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations” and assesses the Proposed Action’s potential for disproportionately high and adverse environmental impacts on minority and/or low-income populations. The analysis will follow the guidance in the CEQ’s “Environmental Justice Guidance under the National Environmental Policy Act” (December 1997), the USDOT’s 2012 Updated Environmental Justice Order 5610.2(a), Environmental Justice Policy Guidance for FTA Recipients (FTA C 4703.1, 2012), and any relevant guidance from the States of New Jersey and New York.
- **Secondary and Cumulative Effects:** The CEQ’s regulations implementing NEPA require Federal agencies to consider the environmental consequences of their actions, including not only direct, but also indirect and cumulative effects. Indirect or secondary effects are those that occur later in time or farther removed in distance, and cumulative impacts are those that result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of which agency or person undertakes such actions. The EIS will include an analysis that meets the requirements of the CEQ regulations.
- **Section 4(f) Evaluation:** Agencies within the USDOT, including FRA, are subject to Section 4(f) of the USDOT Act of 1966, which prohibits them from approving any program or project that “uses” publicly owned parklands, protected wildlife areas, and historic structures and sites, unless there is no feasible and prudent alternative to the use of such land and such program or project includes all possible planning to minimize harm to the property. A “use” can include the permanent incorporation of a protected resource into the project, a temporary use during construction, and a constructive use, in which no direct impacts occur to the resource, but there are proximity impacts so severe that the activities, features, or attributes that qualify the property for protection are substantially impaired. The EIS will include a Section 4(f) Evaluation documenting the Proposed Action’s use of Section 4(f) resources, if any; any feasible and prudent alternatives to that use; and the measures to minimize harm.

F. PUBLIC OUTREACH AND AGENCY COORDINATION

Public involvement is an integral part of the transportation planning process. NEPA, along with Executive Order 12898 on Environmental Justice, require Federal agencies to work to ensure greater public participation in the decision-making process. 23 USC 139 also includes requirements for public and agency involvement in the NEPA process. Accordingly, the lead agencies will develop a Coordination Plan summarizing how the public and agencies will be engaged in the process. The Coordination Plan will be posted to the Project website (www.hudsonunnelproject.com). As required by 23 USC 139, the Coordination Plan will be completed within 90 days after publication of the Notice of Intent to Prepare an Environmental Impact Statement (EIS) and will include an anticipated schedule for the environmental

review for the Project. FRA and NJ TRANSIT will lead the outreach activities during the public scoping process, beginning with the scoping meeting.

PUBLIC INVOLVEMENT

The goals of the public involvement plan for the Proposed Action are as follows:

- To provide an opportunity and a mechanism for public participants to engage early and often in the development of the EIS and give relevant input to the Proposed Action.
- To focus public input in a structured manner that ensure any decisions are made with the benefits of robust public involvement.
- To ensure that elected officials, agencies, stakeholders, and the general public are adequately informed about the Proposed Action and its implications for their communities and to identify potential issues so that they can be addressed and resolved before the completion of the EIS process.

The public involvement plan will include a number of different outreach tools and activities to involve the public. These will include the following:

- **Project mailing list:** NJ TRANSIT will develop a mailing list of elected officials, public agency contacts, stakeholders and community groups, and members of the public with an interest in the Proposed Action. The mailing list will be used to distribute meeting announcements and information about the Project. Where email addresses are available, announcements will be distributed electronically.
- **Project website:** A Project website (www.hudsonstunnelproject.com) has been established to provide information on the Project. The website will be kept up to date with information on the Project alternatives, environmental review, and current and previous Project documentation, and will provide a link to allow people to sign up for the mailing list and submit comments electronically. Information about the Project is also available on FRA's website at www.fra.dot.gov/Page/PO214.
- **Project newsletters at key milestones:** These will provide updated information on the Project and the status of the environmental review.
- **Local government and stakeholder briefings:** The lead agencies will brief the appropriate local government entities and stakeholders to provide information, answer questions, and receive feedback.
- **Public open houses:** The lead agencies will hold public meetings to provide information about the status of the Project and solicit feedback at key milestones.
- **Public comment periods at specific NEPA milestones:** NEPA requires public comment periods to provide an opportunity for public input at two critical points during the environmental review: during the scoping period and when the Draft EIS is complete. During both those periods, public meetings will be held and the public will have an opportunity to provide comments orally or in writing.

AGENCY COORDINATION

The Proposed Action's location and implementation requires coordination with a number of Federal and state agencies with jurisdiction over natural resources, water ways, historic resources, and parklands. FRA and, NJ TRANSIT will implement an agency coordination plan in during the environmental review process accordance with the requirements of 23 USC 139 that will keep permitting and resource agencies informed and involved in the Project's environmental review to ensure that their concerns are addressed.

Agencies can be involved as lead, cooperating, or participating agencies, depending on their anticipated role. The responsibility of the lead agency(ies) is to ensure compliance with applicable environmental review processes. A "cooperating agency," according to CEQ regulations (40 CFR § 1508.5), means any Federal agency, other than a lead agency, that has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposed project or project alternative. A state or local agency of similar qualifications or when the Proposed Action may have effects on lands of tribal interests, a tribal government may, by agreement with the lead agencies, also become a cooperating agency. CEQ regulations also state (40 CFR § 1501.6) that an agency may request the lead agency to designate it a cooperating agency. "Participating agencies" are those Federal, state, or local agencies or Federally recognized tribal governmental organizations with an interest in the project. The standard for participating agency status is broader than the standard for cooperating agency status. Therefore, all cooperating agencies are, by definition, participating agencies, but not all participating agencies are cooperating agencies.

Cooperating and participating agencies are responsible for identifying, as early as practicable, any issues of concern regarding a project's potential environmental impacts that could substantially delay or prevent an agency from granting a permit or other approval. FRA and NJ TRANSIT will identify and invite appropriate Federal and state agencies to become cooperating or participating agencies for the Project. A preliminary list of agencies that may be included is provided in **Table 1**. This list will be adjusted as Project issues are developed and the need for permits is identified. Regular coordination with the cooperating and participating agencies will occur through periodic meetings and conference calls.

Public agencies with jurisdiction are requested to advise FRA of the applicable permit and environmental review requirements of each agency, and the scope and content of the environmental information that is germane to the agency's statutory responsibilities in connection with the Proposed Action. Public agencies are requested to advise FRA if they anticipate taking a major action in connection with the Proposed Action and if they wish to cooperate in the preparation of the EIS in accordance with 40 CFR 1501.16.

FRA will be coordinating with participating agencies during development of the Draft EIS pursuant to 23 USC 139. FRA will also coordinate with Federally recognized tribes and consulting parties established pursuant to Section 106 of the National Historic Preservation Act.

Table 1
Preliminary List of Lead, Cooperating, and Participating Agencies

Agency	Role	Responsibilities
Lead Agencies		
Federal Railroad Administration (FRA)	Federal Lead Agency	Manage environmental review process; prepare EIS and decision document; provide opportunity for public and agency involvement; arbitrate and resolve issues
NJ TRANSIT	State Joint Lead Agency and Project Sponsor	Manage environmental review process; prepare EIS and decision document; provide opportunity for public and agency involvement; arbitrate and resolve issues
Federal Agencies		
Federal Transit Administration	Cooperating Agency	Consultation related to NEPA
U.S. Army Corps of Engineers (USACE)	Cooperating Agency	Section 404, Clean Water Act permit Section 10, Rivers and Harbors Act permit
U.S. Department of Interior	Participating Agency	Consultation related to Section 4(f) of the U.S. Department of Transportation Act
U.S. Environmental Protection Agency	Participating Agency	Consultation related to Section 404, Clean Water Act
U.S. Fish and Wildlife Service	Participating Agency	Consultation in accordance with Section 7 of the Endangered Species Act
NOAA National Marine Fisheries Service	Participating Agency	Consultation in accordance with Section 7, Endangered Species Act; Essential Fish Habitat, Magnuson-Stevens Fishery Conservation and Management Act; Section 10 permit, Section 404 permit
U.S. Coast Guard	Participating Agency	Consultation related to navigational issues in the Hudson River
Federal Emergency Management Agency, Federal Region II	Participating Agency	Consultation related to resilience and floodplain issues
U.S. Department of Homeland Security	Participating Agency	Consultation related to security
Advisory Council on Historic Preservation	Possible Section 106 Consulting Party	Possible participation in Section 106 process
State Agencies		
New Jersey Department of Environmental Protection (NJDEP)	Participating Agency	Various permits and reviews
New York State Department of Environmental Conservation (NYSDEC)	Participating Agency	Various permits and reviews
New York State Department of State	Participating Agency	Coastal zone consistency review
New Jersey State Historic Preservation Office (at NJDEP)	Participating Agency; Section 106 Consulting Party	Concurrence under Section 106, National Historic Preservation Act
New York State Historic Preservation Office (at New York State Office of Parks, Recreation and Historic Preservation)	Participating Agency; Section 106 Consulting Party	Concurrence under Section 106, National Historic Preservation Act
Hudson River Park Trust	Participating Agency	Consultation related to impacts within Hudson River Park
New York State Department of Transportation	Participating Agency	Consultation related to impacts within Route 9A
Regional Agencies		
Port Authority of New York and New Jersey	Participating Agency	Assist in environmental review process; will be a funding partner for Project development
North Jersey Transportation Planning Authority	Participating Agency	Consultation
New York Metropolitan Transportation Council	Participating Agency	Consultation
New Jersey Meadowlands Commission at New Jersey Sports and Exposition Authority	Participating Agency	Consultation
Local Agencies		
Agency representatives of local municipalities: Hoboken, Jersey City, North Bergen, Secaucus, Union City, and Weehawken, NJ; New York City; and Hudson County, NJ	Participating Agency	Consultation

The lead agencies will invite all Federal and non-Federal agencies and Native American tribes that may have an interest in the Proposed Action to become participating agencies for the EIS. In the event that an agency or tribe is not invited and would like to participate, please contact FRA at the contact information listed below.

SCHEDULE FOR AGENCY COORDINATION AND PUBLIC OUTREACH

The anticipated schedule for key milestones during the NEPA process is shown in **Table 2** below.

Table 2
Potential Schedule of Key Milestones
for NEPA Review

NEPA Activity	Anticipated Schedule
Scoping	April 2016 – May 2016
Draft EIS Complete	Summer 2017
Comment Period on Draft EIS	Summer 2017
Final EIS and Record of Decision	Spring 2018

ENVIRONMENTAL JUSTICE COORDINATION

Executive Order 12898 requires Federal agencies to involve the public on project issues related to human health and the environment. The U.S. Department of Transportation's Environmental Justice Order indicates that project sponsors should create public involvement opportunities to solicit input from affected minority and low-income populations in considering project alternatives. The public involvement plan for the Proposed Action will include specific efforts to reach environmental justice communities that may be affected by the Proposed Action. Environmental justice communities are present in the Project study area in areas of North Bergen, Union City, and Weehawken, New Jersey.

SECTION 106 COORDINATION

Section 106 of the National Historic Preservation Act requires Federal agencies to take into account the effects of their undertakings on historic properties that are listed in or meet the eligibility criteria for listing in the National Register of Historic Places. The Section 106 process has a specific public involvement component. In particular, regulations require that the Federal agency (FRA), in consultation with the SHPO (in this case, the New Jersey and New York SHPO) and THPOs) as applicable, identify appropriate points for seeking public input and for notifying the public of the proposed actions associated with the Project. The regulations also require that the Federal agency seek and consider the views of the THPOs, SHPOs, and the public in a manner that reflects the nature and complexity of the project and its effects on historic properties. Public outreach for purposes of NEPA can be used to satisfy the public involvement requirements under Section 106, as long as the NEPA document contains adequate information about the project's effects on historic properties. At a minimum for this Proposed Action, the public will be given the opportunity to provide FRA with comments on the Section 106 process during the public comment period on the Draft EIS.

Furthermore, Section 106 requires that agency officials work with the SHPOs to identify parties to participate in the Section 106 process (“consulting parties”). Consulting parties may include local governments, Federally recognized Indian tribes, and individuals and organizations with a demonstrated interest in the project due to the nature of their legal or economic relation to the project or affected historic properties, or their concern with the project’s effects on historic properties. FRA and NJ TRANSIT will invite appropriate entities to participate in the Project’s Section 106 review as consulting parties, in addition to the New Jersey and New York SHPO and the Advisory Council on Historic Preservation (ACHP), and will hold Project status update and other meetings as appropriate throughout the environmental review process. As part of the scoping process, FRA and NJ TRANSIT will seek to identify entities that may wish to participate in the Section 106 review for the Proposed Action as consulting parties.

PROJECT SCOPING MEETINGS AND OPPORTUNITY FOR PUBLIC COMMENT ON THE SCOPE OF THE EIS

FRA and NJ TRANSIT are seeking input and comments related to the scope of the Hudson Tunnel EIS, including the following:

- The Proposed Action’s purpose and need;
- Proposed Action and alternatives to be considered in the EIS;
- The potential environmental impacts of concern, analyses to be included in the EIS, and the study area and methodologies to be used;
- The approach for public and agency involvement; and
- Any particular concerns related to the anticipated impacts of the Proposed Action.

FRA and NJ TRANSIT will consider the comments received during the scoping period in determining the scope and issues to be analyzed in the EIS. Persons interested in providing comments on the scope of the EIS should do so by May 31, 2016.

Please submit written comments via the internet, email, or mail, using the contact information provided below. Comments may also be provided orally or in writing at the public scoping meetings. FRA and NJ TRANSIT will give equal consideration to oral and written comments.

FRA and NJ TRANSIT will hold two scoping meetings on the following dates:

- May 17, 2016, at the Hotel Pennsylvania, Gold Ballroom, 3rd Floor, 401 Seventh Avenue at West 33rd Street, New York, New York 10001.
- May 19, 2016 at Union City High School, 2500 Kennedy Boulevard, Union City, New Jersey 07087.

Both days will include an afternoon session from 3 to 5 PM with a brief presentation about the Proposed Action at 4 PM, and an evening session from 6 to 8 PM with a brief presentation about the Proposed Action at 7 PM. The public will be able to review Project information, talk informally with members of the study staff, and formally submit comments to the FRA (to a stenographer or in writing). The meeting facilities will be accessible to persons with disabilities. Spanish language translators will be present. If

special translation or signing services or other special accommodations are needed, please contact the Project team five days prior to the meeting at 973-261-8115, or email team@hudsontunnelproject.com.

In addition to the scoping meetings, comments may be submitted by May 31, 2016 in written form, as follows:

- Through the Project website: www.hudsontunnelproject.com.
- Via email at: team@hudsontunnelproject.com.
- To the Project contacts listed below.

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