The Federal Railroad Administration (FRA) and New Jersey Transit Corporation (NJ TRANSIT) as joint lead agencies are preparing a Draft Environmental Impact Statement (DEIS) to evaluate the Hudson Tunnel Project in accordance with the National Environmental Policy Act (NEPA) of 1969. NEPA is a law that requires federal agencies to evaluate the impacts on the human and natural environment of projects they may approve or fund. The DEIS also contains a Draft Programmatic Agreement prepared in compliance with Section 106 of the National Historic Preservation Act, a law that requires consideration of cultural, historic, and archaeological impacts.

The existing rail tunnel is aging and damaged from salt water inundation from Superstorm Sandy. While safe for use, frequent maintenance is required but is disruptive to the users of the tunnel. The Project is intended to preserve the current functionality of Amtrak’s Northeast Corridor (NEC) service and NJ TRANSIT’s commuter rail service between New Jersey and Penn Station New York by repairing the existing NEC rail tunnel beneath the Hudson River; and to strengthen the NEC’s resiliency to support reliable service by providing redundant capability under the Hudson River for Amtrak and NJ TRANSIT NEC trains. Because the existing two-track North River Tunnel (NRT) is operating at its full peak period capacity, it does not provide redundancy for reliable train operations during disruptions or maintenance. Therefore, these improvements must be achieved while maintaining uninterrupted commuter and intercity rail service.

The Preferred Alternative is the alternative that FRA and NJ TRANSIT have identified as best meeting the Project’s purpose and need. The Preferred Alternative would consist of construction of a new rail tunnel under the Hudson River, including tracks and other railroad infrastructure in New Jersey and New York connecting the new rail tunnel to the existing NEC, and rehabilitation of the existing tunnel beneath the Hudson River. The new rail tunnel is being constructed so that NEC service can be transferred to it while the existing NRT is rehabilitated. When completed, the Preferred Alternative would result in transportation benefits, including increased reliability through improved resiliency and redundant operational capability.

As described in the DEIS, the majority of the Project’s impacts would occur during the construction period, and most of these impacts would

continued on back cover
KEY ELEMENTS OF THE HUDSON TUNNEL PROJECT

ENVIRONMENTAL CONSIDERATIONS IN THE MEADOWLANDS

The Meadowlands is a large complex of tidal marshes and wetlands that provide habitat for many species of plants and wildlife, including resident and migratory birds, mammals, fish, reptiles, amphibians, and plants. Some species, such as the snowy egret, little blue heron, and osprey, have been listed by the New Jersey Natural Heritage Program as being of special concern, threatened, or endangered. The DEIS discloses that implementation of the Preferred Alternative would result in some temporary and permanent impacts to stormwater flow and wetlands in the Meadowlands as the result of placement of fill material for the new surface alignment.

CONSTRUCTION ELEMENTS

TUNNEL BORING

Tunnel Boring Machines (TBMs) are horizontal, large-diameter drills that continuously excavate tunnel sections. TBMs are brought to the opening of the tunnel operation and lowered into the ground in pieces to be reassembled at the base. As the TBM cuts through rock and soil, the excavated material (referred to as “spoil”) is moved to the back end of the TBM for disposal, and concrete tunnel liners are put into position to complete the tunnel. The tunnel is sealed by injecting cement grout into the spaces between the tunnel lining and the rock.

GROUND FREEZING

Ground freezing is a technique used to stabilize or harden soils, where needed, prior to construction. The ground is injected with a closed system of pipes in which a freezing liquid (brine) is circulated until the ground is frozen solid. This allows excavation to occur while maintaining the structure of the soil. The piping used would be a closed, sealed system that would not leak any brine into the surrounding ground.

COFFERDAM

Cofferdams are watertight structures designed to facilitate construction projects in areas that are normally submerged. Cofferdams can be used to ensure that sediments disturbed during construction do not travel into the surrounding waterway, and allow the construction zone to be dewatered, if necessary.

SEQUENTIAL EXCAVATION

Sequential Excavation Method (SEM) Mining is a technique in which a tunnel is excavated in successive phases and supported in a controlled manner. While TBMs can only excavate a fixed shape, SEM mining permits a tunnel of any shape or size to be excavated. This makes it useful in areas where ground conditions would not allow for tunneling to use a TBM.

EXISTING TUNNEL PORTAL

Once construction of the new tunnel is complete, rehabilitation of the existing North River Tunnel would begin. The North River Tunnel consists of two tubes that require replacement of the corroded and aging elements inside, including the tracks, bench walls, catenary systems, conduits, utilities, ventilation, and signals. The rehabilitation will take place in two phases. First, one tube will be rehabilitated. Once that is complete, that tube would be put back in service and the second tube would be rehabilitated.

NEW TUNNEL PORTAL

Two new tunnel portals would be constructed. A new tunnel portal would be constructed east of Tonnelle Avenue in the western face of the Palisades, directly beneath Paterson Plank Road in North Bergen, New Jersey. A new portal would also be constructed east of Tenth Avenue at West 33rd Street in Manhattan, where the new rail connections would be within the network of approach tracks leading to PSNY.

FAN PLANTS

Three fan plants are included in the project. The fan plants would provide fresh air to the tunnel and allow smoke to escape during emergencies. One fan plant would be constructed in Hoboken, New Jersey south of West 18th Street, adjacent to the Shades neighborhood. Two fan plants would be constructed in Manhattan: one near Twelfth Avenue between West 29th and 30th Streets and another at Tenth Avenue between West 31st and 33rd Streets.
cease upon the completion of construction. However, the DEIS also describes resources that will be permanently impacted. Among other potential impacts, the DEIS identifies temporary construction period impacts related to noise, traffic and Environmental Justice (low income and minority) populations; and permanent impacts related to loss of wetlands and to historic resources.

What is a DEIS?

The DEIS evaluates the environmental, economic, cultural, and social impacts of the proposed Project’s alternatives. It discloses a Project’s economic, environmental, and social impacts in order to inform the public as well as the agency’s decision making in choosing an Alternative to implement. Details of the Preferred Alternative can be found on the Project website at www.hudsontunnelproject.com.

Public participation is a critical part of the environmental review process required by NEPA. A DEIS is now available for public review and comment. Public hearings will be held during the public comment period, and comments may also be submitted via the Project website, via email and by mail. The public comment period will continue until August 21, 2017.

After the public comment period on the DEIS closes, FRA and NJ TRANSIT will consider all comments and will prepare a Final EIS (FEIS). The FEIS will include a summary of the comments made on the DEIS during the public comment period, responses to those comments, and any revisions to the DEIS needed to address the comments. The FRA will prepare a Record of Decision (ROD) that officially documents the selection of the Preferred Alternative and the measures to be incorporated into the Project that will avoid, minimize, or mitigate adverse impacts.