1.0 SUMMARY

On October 1, 2008 the Federal Railroad Administration issued the Final Environmental Impact Statement (FEIS) for the Portal Bridge Capacity Enhancement Project. A Notice of Availability for the FEIS was published in the *Federal Register* by the U.S. Environmental Protection Agency (USEPA) on October 17, 2008. The FEIS assessed the environmental impacts of the Portal Bridge Capacity Enhancement Project sponsored by the New Jersey Transit Corporation (NJ TRANSIT) and the National Railroad Passenger Corporation (Amtrak). It culminated a nearly 24-month environmental review led by the Federal Railroad Administration (FRA) in cooperation with the Federal Transit Administration (FTA), USEPA, and the U.S. Coast Guard (USCG). The FEIS considered four build alternatives in addition to a No Action Alternative. After carefully considering all of the information in the public record including technical support documents, the FEIS, all public and agency comments on the Draft EIS (DEIS) and FEIS, comments from the project's Technical Advisory Committee and Regional Citizen Liaison Committee meetings, public comments and testimony at the public hearing, and alternative evaluations submitted by the project sponsors, FRA has decided to proceed with build Alternative DS. Alternative DS was identified as the agency's preferred alternative in the FEIS. This Record of Decision (ROD) explains the agency's decision.

2.0 BACKGROUND

Amtrak and NJ TRANSIT have proposed to enhance the capacity and improve the operation of the Portal Bridge, a rail crossing over the Hackensack River in Hudson County, New Jersey. The existing Portal Bridge is a two-track, moveable swing-span bridge that was constructed by the Pennsylvania Railroad (PRR) and began operation in 1910. The aging Portal Bridge, owned by Amtrak, is a bottleneck along the Northeast Corridor that conflicts with marine traffic and impedes efficient and reliable passenger rail service.

The Northeast Corridor is the most heavily used passenger rail line in the U.S., both in terms of ridership and service frequency. The Northeast Corridor extends from Washington, D.C. in the south to Boston, Massachusetts in the north, serving the densely populated northeast region, including Pennsylvania Station in New York City (PSNY). Amtrak, the nationwide inter-city passenger rail operator, owns much of and operates over all of the Northeast Corridor. Amtrak carries approximately 15,700 passengers each day in each direction over the Portal Bridge, including 3,900 passengers per day on the time-sensitive premium Acela Express service. NJ TRANSIT carries an average of 150,000 passengers per day in both directions over the Portal Bridge on almost 350 trains.

A Notice of Intent (NOI) for the Portal Bridge Capacity Enhancement Project was published in the *Federal Register* on December 12, 2006. The NOI initiated the environmental review process and publicized the availability of the *Scoping Document*, which described the proposed project alternatives and environmental analysis methodologies. FTA, USEPA, and USCG were

identified as cooperating agencies for the environmental review. To solicit comments on the *Scoping Document*, a public scoping meeting was held on January 17, 2007 in Newark, New Jersey, and an agency scoping meeting was held on January 9, 2007 in Newark, New Jersey. The comment period for scoping closed on January 31, 2007.

The Notice of Availability of the DEIS was published in the *Federal Register* on February 15, 2008. The comment period on the DEIS remained open until March 31, 2008. A public hearing was held on March 18, 2008 at the Hudson County Board of Chosen Freeholders in Jersey City, New Jersey. The FEIS responded to comments received on the DEIS during this period as well as testimony from the public hearing.

3.0 PURPOSE AND NEED

The Portal Bridge is a critical infrastructure element for Amtrak and NJ TRANSIT, enabling movement between destinations east and west of the Hudson River. The existing Portal Bridge, poses reliability concerns, capacity constraints, and operational inflexibility. The purpose of the project is to replace the nearly 100-year-old Portal Bridge and eliminate capacity constraints on the Northeast Corridor between Swift Interlocking and Secaucus Transfer Station. Four problem areas were identified during the EIS scoping process:

- Aging and limiting infrastructure;
- Capacity constraints and operational inflexibility;
- Maintenance difficulties; and
- Conflicts with maritime uses.

To compare and contrast the project alternatives' ability to address these problems, six project goals were identified as follows:

GOAL 1: Enhance capacity to meet current and future demand—including new service—along the Northeast Corridor.

GOAL 2: Improve service reliability and operational flexibility.

GOAL 3: Provide a redundant Hackensack River crossing to facilitate maintenance and enhance passenger safety and security.

GOAL 4: Minimize conflicts with maritime traffic.

GOAL 5: Optimize existing infrastructure and planned improvements.

GOAL 6: Minimize impacts on the surrounding environment.

4.0 PROJECT ALTERNATIVES

4.1 ALTERNATIVES CONSIDERED

The project alternatives include four build alternatives in addition to a "no build" scenario (the "No Action Alternative"). Under the No Action Alternative none of the project elements would be constructed and the existing Portal Bridge would remain in place.

The build alternatives for the Portal Bridge Capacity Enhancement Project were identified through a comprehensive alternatives development and screening process that included considerable input from stakeholders and the public through scoping meetings and Regional Citizen Liaison Committee meetings.

The *Scoping Document* (December 2006) presented general categories of project alternatives that were planned for consideration, including alternatives that would retain, replace, or modify the existing Portal Bridge. The results of the alternatives development process were presented in the *Alternatives Screening Report* (July 2007).

The *Alternatives Screening Report* concluded with identification of two feasible alternatives: (1) construction of a two-track moveable bridge on a new southern alignment and construction of a three-track fixed bridge on a new northern alignment; and (2) construction of a two-track moveable bridge on the existing Portal Bridge alignment and construction of a three-track fixed bridge on a new northern alignment. Subsequent to the *Alternatives Screening Report*, these two alignment alternatives were evaluated more closely for engineering, operational, and environmental feasibility, as well as for connectivity with NJ TRANSIT's Access to the Region's Core (ARC) Project. Two options for the track configuration at Swift Interlocking were developed. These options were combined with the two bridge alignments to define four feasible build alternatives.

All four build alternatives involve the decommissioning and removal of the existing Portal Bridge, and include the following project elements:

- Construction of a new three-track fixed northern bridge at a height of 50 feet above MHW and related approach structures.
- Construction of a new two-track moveable southern bridge at a height of 40 feet above MHW and related approach structures.
- A new track configuration between Swift Interlocking and Secaucus Transfer Station, including a grade-separated crossing of the Northeast Corridor.

Each of the four build alternatives would include new ancillary equipment such as signal and communication systems, traction power supply and distribution, and catenary and communication support structures as well as several new bridges over roadway and rail right-of-ways along the project corridor. The four build alternatives differ primarily in two respects, reflecting the two feasible alignment options and two track configurations identified in the *Alternatives Screening Report*—the location of the southern bridge and the type of grade-separation provided for crossing the Northeast Corridor. For purposes of nomenclature, the four build alternatives are referred to in the EIS as follows:

- **Preferred Alternative DS.** This alternative, discussed below as the preferred alternative, includes a three-track fixed northern bridge, a two-track moveable southern bridge built on a new southern alignment, and a duck-under structure for the grade separation. This alternative would have a capital cost of $1.344 billion in 2008 dollars and take 66 months to complete.
- **Alternative DE.** This alternative includes a three-track fixed northern bridge, a two-track moveable southern bridge built on the existing alignment, and a duck-under structure. The cost of this alternative is $1.243 billion and would take 94 months to construct.
- **Alternative FE.** This alternative includes a three-track fixed northern bridge, a two-track moveable southern bridge built on the existing alignment, and a fly-over structure for the grade separation. The cost of this alternative is $1.290 billion with a 94-month construction schedule.
- **Alternative FS.** This alternative includes a three-track fixed northern bridge, a two-track moveable southern bridge built on a new southern alignment, and a fly-over

structure. The cost of this alternative is $1.356 billion with a construction period of 66 months.

The tracks would be supported by different methods depending upon local conditions. A variety of methods is proposed, including earthen embankments, retaining walls, short span girder bridges, and long span truss bridges. Wherever feasible for construction and cost-effective, the support methods along each segment were selected to minimize the potential environmental and property impacts.

4.2 PREFERRED ALTERNATIVE

All four build alternatives would fully satisfy the first five goals described above. Since the build alternatives were developed in consideration of the project goals and objectives described earlier in this chapter, the differences among alternatives with respect to these goals and objectives are relatively minor. While there are some operational and engineering benefits to the duck-under as compared to the fly-over option, either group of alternatives would meet the stated goals relating to the operational, reliability, and capacity problems associated with the current rail infrastructure. The duck-under alternatives (Alternatives DS or DE) are cheaper than their fly-over counterparts (Alternative FS or FE), operationally superior, and require less right-of-way. Therefore, the selection of the preferred alternative becomes a choice between Alternatives DS and DE. These two alternatives were compared with respect to three issues: project cost; construction duration and risk; and environmental impacts.

In terms of project cost, when the year of expenditure and the time value of money are considered, the difference between the Alternatives DE and DS would be approximately $52 million or about 3 percent of the inflated cost. With the refinements in design and analysis between the DEIS and the FEIS, the differences in adverse environmental effects have also been substantially reduced. With respect to adverse environmental effects, the major difference among the alternatives was their potential to result in impacts to ecological resources. While the difference in the amount of wetlands to be filled by Alternatives DS and DE was nearly four acres in the DEIS, the refined design has reduced the difference to 0.3 acres. The difference in shading impacts is less than 0.5 acres.

The most substantial difference among the duck-under Alternatives DS and DE is the construction duration and the potential adverse effects related to prolonging the construction period. The additional 28 months of construction required to complete Alternative DE would prolong the number of seasons that terrestrial and aquatic resources would be subject to the temporary effects of project construction, as well as increase the potential for indirect or secondary effects on the ecological resources of the Meadowlands. The longer construction duration would also potentially result in greater adverse effects on NJ TRANSIT and Amtrak passengers by increasing the time that they may experience disruptions to service or inconvenience. After careful consideration and evaluation, the project sponsors have identified Alternative DS as the preferred alternative for the Portal Bridge Capacity Enhancement Project.

5.0 SUMMARY OF POTENTIAL EFFECTS

5.1 TRANSPORTATION

Each of the build alternatives would, for the most part, provide for similar transportation benefits to both NJ TRANSIT and Amtrak through the project area and improve rail travel between Newark Pennsylvania Station and Secaucus Transfer Station. Rail service along this portion of

the Northeast Corridor would no longer be subject to reliability concerns related to the existing 100-year old structure nor the frequent interruptions from bridge openings and malfunctions. Similarly, construction of a grade-separated junction between the Northeast Corridor and the proposed southern alignment at the current site of Swift Interlocking would improve operations through this area by greatly reducing the number of merging and diverging train movements that presently occur each day. Increased reliability and speeds for Amtrak on the Northeast Corridor would enable its service to become a more dependable option for short and medium distance trips in the region.

The build alternatives would also provide a substantial improvement for maritime users on the Hackensack River by constructing two new bridges with increased vertical clearance above mean-high-water (MHW). This would reduce the number of instances when marine traffic would be delayed waiting for a requested bridge opening or malfunction. In addition, the removal of the existing center pier would also provide for a 300-foot-wide, uninterrupted horizontal clearance across the river channel. This would result in a substantial improvement over the existing Portal Bridge in terms of navigability of the river.

The No Action Alternative would not provide these operational or reliability improvements, nor would it improve conditions for maritime users of the Hackensack River. Furthermore, transportation service with the No Action Alternative would worsen over time, as the bridge would continue to age beyond its economic life. Bridge malfunctions and conflicts between rail and maritime traffic would increase resulting in a worsening of transportation service.

5.2 LAND USE AND SOCIAL CONDITIONS

Overall, neither the No Action Alternative nor the build alternatives would result in substantial adverse impacts to land use in the study area since they would continue an existing land use that is dominant through the center of the study area, the rail right-of-way. All build alternatives would support one of the key goals of the New Jersey Meadowland Commission (NJMC) Master Plan and other policies for the Meadowlands District—by improving public transportation infrastructure through the study area, the build alternatives would contribute to creation of a well-integrated multi-modal transportation network.

All build alternatives would require some widening of the right-of-way and construction of new bridges and other rail infrastructure, but this would not change the land use or land use patterns in the study area. The widening of the right-of-way would require acquisition of some adjacent land. Alternative FS would potentially require the greatest amount of property acquisition (45.4 acres), followed by Alternative DS (41 acres), FE (29.2 acres), and DE (24.2 acres). All four build alternatives would require acquisition in full of an 11.1-acre industrial parcel on the north side of the Northeast Corridor right-of-way, and all but Alternative DE would also require acquisition in full of a 4-acre industrial parcel on the north side of the right-of-way, although this property may still need to be acquired for construction staging. See Section 8.0 Mitigation below for a discussion of the protections offered to property owners under the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act).

As described below, some property designated as parkland would be required for the build alternatives. The conversion of small areas of land designated for park and wetlands uses would be inconsistent with NJMC's policies to support and enhance open space and wetland areas within the Meadowlands District. In addition, several of the affected parks and preserved areas are or would be encumbered by the Green Acres Program. The Green Acres Program is administered by NJDEP and was established to help ensure that there is access to and an

adequate supply of public open space and conservation areas of natural resources in the State of New Jersey.

Effects on specific parks and preserve areas would be as follows.

- **Cedar Creek Marsh:** Alternatives FE and FS would require acquisition of a narrow strip of Cedar Creek Marsh immediately adjacent to the existing rail right-of-way to accommodate a track connection associated with the flyover. Based on discussions to date, this wetland preserve may be encumbered by the Green Acres Program.
- **Kearny Brackish Marsh (including Cayuga Dike):** All four build alternatives would require acquisition of 2.5 acres of the Kearny Brackish Marsh/Cayuga Dike to accommodate bridge piers supporting a viaduct above the preserve.
- **Riverbend Wetland Preserve:** The two southern alignment alternatives, Alternatives FS and DS, would require acquisition of a 4.7-acre portion of this wetland preserve to accommodate an overhead viaduct supported on piers. The piers would be located within, but would not occupy all of, the 4.7 acres to be acquired. Based on discussions to date, this preserve would not be encumbered by the Green Acres Program.
- **Hudson County Park at Laurel Hill:** All four build alternatives would require the acquisition of 2.0 acres of the 14.9-acre area (which is conceptually planned for an expansion of Laurel Hill Park) to accommodate the approach to the new northern bridge. This parcel of land was purchased by Hudson County and the NY/NJ Baykeeper under the Green Acres Program, and therefore, mitigation (see Section 8.0 below) of this loss of parkland requires special coordination with NJDEP.

5.3 HISTORIC RESOURCES

5.3.1 ARCHAEOLOGICAL RESOURCES

All of the build alternatives would involve modification of an area sensitive for human remains and funerary archaeological artifacts relating to the Historic Cemeteries of Hudson County. The No Action Alternative would not involve modifications to this sensitive area. A Memorandum of Agreement (MOA) among FRA, New Jersey Historic Preservation Office (NJHPO), Amtrak, and NJ TRANSIT has been signed to address the next steps in the process including possible disinterment/re-interment. These measures are discussed below in Section 8.0 Mitigation.

5.3.2 ARCHITECTURAL RESOURCES

The No Action Alternative would not adversely affect any architectural resource. All of the build alternatives would have an adverse effect on the Portal Bridge (State Register [SR]-listed; National Register [NR]-eligible), since all of the alternatives would result in its decommissioning and removal. All build alternatives would result in modifications to the Pennsylvania Railroad Historic District which would be adverse insofar as they would add to the cumulative alterations of the resource's original fabric and appearance that have occurred in the study area in recent decades.

As part of all the build alternatives, construction would occur in the immediate proximity of the Jersey City Waterworks Pipeline (S/NR-eligible) and Substation 4 (S/NR-eligible), and therefore could result in accidental damage to the resources. Amtrak and NJ TRANSIT, in consultation with FRA and NJHPO, will develop a Construction Protection Plan (CPP) for Historic

Properties to set forth the specific measures to be used, and specifications that would be applied, to protect these architectural resources during the construction period.

As mandated by Section 106 of the National Historic Preservation Act (NHPA) of 1966, FRA, Amtrak, and NJ TRANSIT have participated in an ongoing consultation process with the NJHPO with respect to potential effects on archaeological and architectural resources. As part of this ongoing process, measures will be further explored to avoid or minimize to the extent practicable any significant adverse effects to archaeological and architectural resources. Development of these mitigation measures (summarized below in Section 8.0) is set forth in an MOA, executed by FRA, NJHPO, Amtrak, and NJ TRANSIT and included in Appendix B of the FEIS.

5.4 VISUAL AND AESTHETIC RESOURCES

The No Action Alternative would not result in any changes to visual or aesthetic resources. The build alternatives would result in the removal of the Portal Bridge and its replacement with two new bridges of slightly larger size and greater height, as well as multiple alterations to the Northeast Corridor, some of which would involve changes to its height, alignment, and appearance. However, the new structures would not substantially block or alter important views to and from visual resources in the study area. Furthermore, because the project would replace existing rail infrastructure with new rail infrastructure, the overall visual character, atmosphere, and use of the study area would remain largely the same. Therefore, the project is not expected to substantially affect the visual character of the study area nor block important views to and from visual resources.

5.5 AIR QUALITY

The No Action Alternative would not provide the air quality benefits of the build alternatives. While the proposed improvements associated with the build alternatives would lead to an improvement in service along the Northeast Corridor that could increase passenger rail travel and reduce auto usage in the region, the air quality benefits would be modest. The Portal Bridge project would, however, allow other potential future projects to increase the number of trains to NYC, thereby providing substantial regional air quality benefits.

FRA actions are subject to the General Conformity Rule, pursuant to 40 C.F.R. 51.850-51.860. A conformity determination is needed for each pollutant of concern in the non-attainment or maintenance area affected by the federal action. The FEIS included an estimate of pollutant emissions based on capital construction costs and similar transportation projects within the region. It was determined that the estimated annual emission rates of each pollutant would be well below the conformity thresholds. Since the project would not exceed the "de minimis" thresholds for any criteria pollutant either during construction or operation, it would therefore satisfy General Conformity requirements.

5.6 NOISE AND VIBRATION

With all build alternatives, a portion of the planned expansion of Laurel Hill Park parcel that is within 419 and 226 feet of the Northeast Corridor would be subject to moderate and severe noise impacts, respectively. Due to the proximity of the Laurel Hill Park expansion to the existing rail corridor, the No Action Alternative would also result in moderate and severe noise impacts on this resource. Therefore, the impacts that would occur at the Laurel Hill Park would be similar under any of the project alternatives, including the No Action Alternative. Since there are no

vibration-sensitive uses in close proximity to the rail line, none of the project alternatives would result in adverse vibration effects.

5.7 ECOLOGY

The No Action Alternative would not result in any impacts to ecological resources. The build alternatives have the potential to affect wetland and terrestrial resources as well as water quality and floodplains. Each is discussed below.

5.7.1 WETLAND IMPACTS

Each of the build alternatives would result in adverse impacts to wetland, open water, and benthic habitats from construction of bridge and viaduct piers and foundations, retaining walls and widened embankments. Potential impacts related to shading effects from new structures were also examined. However, the build alternatives have been designed to minimize the adverse effects from potential fill in these ecologically sensitive areas and between the DEIS and the FEIS, the wetland impacts were refined to reflect the new designs.

The design changes resulted in a substantial reduction in the project's impact on wetlands, both from a fill and shading perspective. The most substantial decrease in potential wetlands impacts occurred with Alternatives DS and FS. The impacts to wetlands decreased from 13.1 and 12.3 acres for Alternatives FS and DS, respectively to 6.4 and 5.7 acres. The difference in permanent impacts to wetlands from the placement of fill between Alternatives DS and DE (5.4 acres) is now approximately 0.3 acres, as compared to the 3.9 acres shown in the DEIS. Most of the change has occurred in the area of the Riverbend Wetland Preserve on the east side of the Hackensack River south of the existing Northeast Corridor right-of-way. All four build alternatives would involve the loss of less than 1 acre of open water and 0.11 acre of benthic habitat.

Measures to avoid, minimize and mitigate these adverse effects are summarized below in Section 8.0 Mitigation.

5.7.2 TERRESTRIAL IMPACTS

Regions within the project area have been identified as colonial waterbird foraging habitat and areas within one half-mile of the site have been identified as potentially containing American coot (state status: declining species), peregrine falcon (state status: endangered species), and pied-billed grebe (state status: endangered/stable species). With the exception of peregrine falcons, the species identified are primarily wetland species but may occupy upland fringe areas. Furthermore, the terrestrial areas within the project alternatives are already developed with rail rights-of-way, roads, utility infrastructure, and industrial facilities. These areas have relatively little value as terrestrial habitat, and as such, permanent impacts to terrestrial natural resources are expected to be minor.

5.7.3 WATER QUALITY

The build alternatives would not result in any long-term adverse impacts to water quality or stormwater in the study area. The small increase in impervious surface would not substantially change stormwater pollutant loadings to nearby surface waters. Direct discharges of stormwater from impervious surfaces to surface waters would be avoided through implementation of a stormwater collection system for these structures. In addition, the additional in-water structures,

when considered in conjunction with the removal of the existing pivot pier, would not alter the flow characteristics of the Hackensack River.

5.7.4 FLOODPLAINS

All build alternatives would require construction in the 100-year floodplain since the existing right-of-way is, for the most part, surrounded by floodplain along its length particularly to the north. To minimize the risks associated with this construction, the build alternatives have been developed to maximize the use of elevated structures and retaining walls rather than using filled embankment in a large portion of the project area. While this increases the project costs, substantial ecological benefits accrue to both wetlands and floodplain resources.

Measures to avoid, minimize and mitigate these adverse effects are summarized below in Section 8.0 Mitigation.

5.8 CONTAMINATED MATERIALS

The No Action Alternative would have no effect on contaminated materials that are currently present in the project area. Subsurface disturbance required for the build alternatives, both within and in some cases beyond the existing right-of-way, would most likely occur in areas with a known degree of contamination including chromite ore processing residue sites such as the Diamond Shamrock property. Construction would involve some demolition, relocation or other disturbance of existing structures; excavation, disturbance, and likely removal for off-site disposal of some existing soil; and dewatering of groundwater in specific locations. Among the build alternatives, the only substantive difference with respect to contaminated materials is that Alternatives FS and DS would require subsurface disturbance within the Diamond Shamrock property. Therefore, these alternatives have a greater potential to disturb contaminated materials than the alternatives that use the existing Portal Bridge alignment for the southern bridge. In order to prevent exposure pathways, the proposed project would include appropriate health and safety and investigative/remedial measures (conducted in consultation with the appropriate regulatory authorities) as discussed in Section 8.0 Mitigation.

5.9 COASTAL ZONE MANAGEMENT

The NJDEP released updated CZM regulations in April 2008 and the FEIS was revised to reflect these changes. A full analysis of the NJDEP CZM Policies with respect to Special Areas identified in the coastal zone—as described in New Jersey Administration Code (N.J.A.C. Subchapter 3: Special Areas, Section 7:7E)—and whether the project alternatives are consistent with these policies is located in Appendix C of the FEIS. In a letter dated July 10, 2008, the NJDEP Division of Land Use Regulation determined that the proposed Preferred Alternative is consistent with New Jersey's Coastal Zone Management Rules N.J.A.C. 7.7E-1.1 et seq as amended to April 7, 2008 provided that certain conditions are met to the satisfaction of the DEP. These conditions are included in Appendix C of the FEIS and are summarized below under Section 8.0 Mitigation.

5.10 ENVIRONMENTAL JUSTICE

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," is designed to ensure that each federal agency "shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its

programs, policies, and activities on minority populations and low-income populations." There are no direct adverse effects on residential land uses in the study area, and there are few, if any, residents in the project study area. The potential for adverse impacts to open space, noise and vibration, cultural resources, ecological resources, and construction were identified and analyzed to determine if these adverse impacts would disproportionately affect minority communities. The only potential adverse effect on minority and/or low-income communities would involve Laurel Hill Park, which would also affect non-minority and/or non-low-income communities. Measures to avoid, minimize and mitigate these adverse effects are summarized below in Section 8.0 Mitigation. Because the adverse open space impact would affect all users of the park, the project would not result in disproportionately high impacts to minority or low-income communities.

5.11 CONSTRUCTION IMPACTS

The No Action Alternative would involve only regular maintenance of the existing bridge. The construction sequencing and methods would be largely the same for any of the four build alternatives. The primary determinant in the construction schedule is whether both bridges are constructed concurrently (Alternatives DS and FS) or whether they are constructed sequentially (Alternatives DE and FE). Alternatives DS and FS could be constructed more quickly since the southern bridge and its approaches could be constructed in advance of completion of the northern span. For Alternatives DE and FE, the tracks on the northern bridge must be in operation and the existing bridge removed before construction of the southern span and its approaches can begin. Because of the similarities in the duck-under and fly-over structures, the type of structure chosen would not substantially affect the construction schedule. The conceptual construction process has been developed to ensure continuous operations along the Northeast Corridor and at Secaucus Transfer Station.

There is the potential for temporary adverse impacts during the construction period, including open space, wetland and water resources, cultural resources, noise, and contaminated material effects. These construction-related impacts would be temporary and minimized to the extent feasible by the adoption of specific mitigation measures. The temporary impacts to wetlands will be evaluated further as part of the permitting process, and compensation for these temporary impacts will be included in the wetland mitigation plan. Measures to avoid, minimize and mitigate these adverse effects are summarized below in Section 8.0 Mitigation.

5.12 SECONDARY AND CUMULATIVE EFFECTS

5.12.1 SECONDARY EFFECTS

An important goal of the Portal Bridge project is to improve reliability and provide additional rail capacity over the Hackensack River to allow enhanced Amtrak and NJ TRANSIT operations. This would lead to beneficial indirect effects including: sustained regional economic growth, more efficient transportation systems, and a reduction in automobile VMT, resulting in regional benefits to vehicular traffic and air quality. While the Portal Bridge project does not by itself result in additional train service to Penn Station New York, it would allow future projects (such as NJ TRANSIT's ARC project) to do so by expanding Hackensack River capacity.

Indirect adverse effects pertain to the filling of wetlands, encroachment upon ecological resources, and disturbance of contaminated sediment. The direct loss of wetland and upland habitat could result in displacement of the existing wildlife and avian populations in that habitat.

Temporary disturbances during construction could also result in the displacement of wildlife and avian species from neighboring habitats. Short-term effects to water quality could occur if contaminated sediments or other pollutants are transported to locations further removed from the zone of direct impact. Finally, potential long-term effects on adjacent wetlands from alterations of the project site could result from changes to the existing hydrology or vegetative characteristics.

For all of the adverse indirect effects identified above, the indirect impacts stem from the direct impacts. Mitigation measures (see Section 8.0 below) have been proposed that would substantially minimize the potential direct impacts on these resources and therefore any subsequent indirect impacts. With respect to the loss of habitat and the potential displacement of wildlife and avian species, the amount of loss would be small in comparison to the extensive habitat adjacent to and in the surrounding areas.

5.12.2 CUMULATIVE EFFECTS

The build alternatives would improve rail service reliability and provide additional rail capacity over the Hackensack River which would enable Amtrak and NJ TRANSIT to provide an additional 25 peak hour trains into PSNY. This would lead to cumulative regional benefits to transportation including the reduction of trans-Hudson auto trips by over 20,000 vehicles. The VMT reduction in the New York-New Jersey metropolitan area would correspond to a cumulative regional air quality benefit. Energy savings resulting from a shift from auto-based travel to commuter rail would also accrue on a regional basis.

All build alternatives would require acquisition of a portion of the land recently acquired for the expansion of Laurel Hill Park while Alternatives DS and FS would also require acquisition of a portion of the Riverbend Wetland Preserve. The project sponsors would work with the NJMC, Hudson County, and the NY/NJ Baykeeper to avoid any adverse cumulative effects by providing mitigation to offset the project's contribution to the loss of open space and parkland. This effort would be in conjunction with the wetland mitigation measures proposed for the temporary and permanent loss of these resources.

The proposed build alternatives would require the permanent filling of up to 6.5 acres of wetlands within the Meadowlands District while the ARC project would impact up to 27 acres in the district. Other projects in the Meadowlands would also impact wetlands and other ecological resources in the Meadowlands. The FEIS quantitatively and qualitatively discussed other past, present, and future projects in the Meadowlands District, including impacts to wetlands. One of the missions of the NJMC is to prevent adverse cumulative effects and to that end they have established mechanisms to control and coordinate ecological resource impacts and mitigation. For each project in the Meadowlands District that negatively affects wetlands, compensation is required. Mitigation measures are discussed further in Section 8.0.

During construction, the greatest potential for adverse cumulative impact is the area of overlap between the Portal Bridge and ARC projects. This area is a mix of open space and wetlands, utility and transportation corridors, a rail station and a former landfill. These surrounding land uses would substantially reduce any potential for air quality and noise impacts on sensitive uses or populations. However, potential cumulative construction noise effects are a concern in conjunction with the direct cumulative effect from the disturbance to the wetland habitats on nesting birds and other wildlife in the area. To avoid these concerns, the project sponsors will coordinate concurrent projects along with other measures that will be identified during the permitting process.

6.0 SECTION 4(f) EVALUATION

Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966 prohibits the Secretary of Transportation from approving any program or project that requires the use of: (1) any publicly owned land in a public park, recreation area, or wildlife and waterfowl refuge of national state, or local significance, or (2) any land from a historic site of national, state, or local significance, unless there is no feasible and prudent alternative to the use of such land and the project includes all possible planning to minimize harm to the resource.

The build alternatives would require the use of the following Section 4(f) resources:

- All build alternatives would require the decommissioning and removal of the existing Portal Bridge, NR-eligible and SR-listed historic structure.
- All build alternatives would require acquisition of a 2.0-acre portion of a newly purchased extension of the Laurel Hill Park.
- All build alternatives require construction and excavation in an area of sensitivity for the Historic Cemeteries of Hudson County.
- All build alternatives would result in the modification and/or removal of significant features of the Pennsylvania Railroad Historic District.

As described in detail in Chapter 8 of the FEIS, "Section 4(f) Evaluation," there are no prudent and feasible alternatives to the use of the existing Portal Bridge, the Pennsylvania Railroad Historic District, and Laurel Hill Park. With respect to the Historic Cemeteries of Hudson County, there is a possibility that the project as proposed would not disturb remains in the area of sensitivity. Additional engineering and investigations are necessary to determine the exact extent of the resource and any potential impacts, as stipulated by the MOA (described in Section 8.0 below).

In a letter dated April 17, 2008 commenting on the DEIS, the United States Department of Interior concurred that there is no prudent and feasible alternative to the proposed use of Section 4(f) properties in including the Portal Bridge and portions of the Pennsylvania Railroad Historic District and recommended that a signed copy of the Memorandum of Agreement documenting compliance with Section 106 of the National Historic Preservation Act be included in the FEIS.

7.0 COMMENTS

USEPA submitted a letter dated November 17, 2008 with technical comments on the FEIS. USEPA provided several comments regarding air quality, wetlands, Green Acres, and cumulative impacts.

USEPA raised concerns regarding the methodology used to determine whether air pollutant emissions generated by construction of the Preferred Alternative would be less than the annual thresholds contained within the General Conformity regulations (40 CFR Part 93). USEPA provided a similar comment on the DEIS regarding this methodology, which estimates pollutant emissions on the basis of capital construction cost. The FEIS includes a response to USEPA's concerns and FRA, for the same reasons, maintains the method used in the EIS is both valid and appropriate at this level of project development for determining conformity of the proposed action. USEPA has recommended a very detailed approach that would require a more detailed design than the current EIS conceptual plan as well as a number of assumptions regarding potential contractor's means and methods. FRA still believes that these assumptions would in

themselves result in biases and inaccuracies that would be equal or greater than those in the methodology used in the EIS. Furthermore, it should be noted that the estimated annual emission rates of each pollutant are well below the conformity thresholds such that a doubling or tripling of the emission estimates would still be well below the guidelines. Therefore, after considering USEPA's comment on this issue, FRA concludes that the Preferred Alternative would be in conformance with the New Jersey State Implementation Plan.

USEPA stated that the necessary wetland maps were excluded from the FEIS and that more discussion was needed about the special ecological status of particular wetland areas. The FEIS and its appendices include numerous maps at varying scales. The FEIS includes small-scale wetland and floodplain maps to provide the public and other readers with an overview of the project site and its proximity to ecological resources. It describes the various wetland types identified in the study area and provides the appropriate references to publicly-available mapping tools and websites. Appendix A of the FEIS includes large-scale drawings of the engineering alignments for each build alternative. These drawings include substantial detail about the project site, the limits of disturbance (e.g., the anticipated extent of embankments and retaining walls), as well as the boundaries of known wetland and open water areas. The acreages of wetland impact presented in the EIS were based on these large-scale drawings. The attributes of the various wetland complexes within the study area were discussed in the FEIS. It was also stated that further assessment of the quality of each wetland area to be affected by the project will be performed as part of the permitting phase and, based in part on this quality determination, mitigation ratios will be determined in coordination with the appropriate natural resource agencies.

USEPA noted that Chapter 9 does not identify the acreage of temporary wetland impacts from the preferred alternative. The purpose of Chapter 9, "Preferred Alternative," was to evaluate and compare all the project alternatives based on their differential benefits and potential impacts identified throughout the EIS and to select the Preferred Alternative. As noted in that chapter, all build alternatives would require temporary access roads and construction platforms and would result in similar temporary wetland impacts. While temporary wetland impacts were acknowledged in Chapter 9, they were not a primary criterion in the comparison of alternatives and were therefore not compared quantitatively. The temporary wetland impacts for each alternative were quantified in Chapter 6, "Construction Impacts."

USEPA noted that the FEIS does not include a wetlands mitigation plan that can be examined by the public and therefore the ROD should note that construction on the project cannot start until a mitigation plan is finalized and mitigation is underway. FRA notes that the public process for the Portal Bridge project will continue beyond the EIS phase. The EIS states that several regulatory permits will be required for proposed activities in jurisdictional wetlands. The regulatory permit process will require a separate public review and will include more detailed mitigation plans than the conceptual ones presented in the FEIS. This ROD stipulates that the project sponsors must secure the appropriate regulatory permits and approvals prior to commencement of construction.

USEPA stated that the FEIS did not supply an estimate of the time required for the Green Acres diversion process and recommended the mitigation plan for the loss of this property as open space be described in the ROD. In response to a comment provided by USEPA on the DEIS, a detailed description of the Green Acres Program was added to the FEIS. The timeframe required to complete the procedural requirements for a major disposal of Green Acres properties varies widely, depending upon the property to be acquired and the stakeholders involved. With respect

to the Portal Bridge project, several meetings with NJDEP, Hudson County, the NY/NJ Baykeeper, and other involved parties were conducted as part of the EIS phase to ensure a timely process consistent with the anticipated construction schedule. While conceptual mitigation measures were discussed in the FEIS, it is premature and impractical at this time to detail the mitigation plan for the portion of Laurel Hill Park that will be acquired. As stated in the FEIS, an appropriate mitigation plan must be selected in conjunction with NJDEP and the stakeholders. Discussions have been initiated and options currently under consideration include: acquisition of other sites to serve as compensatory parkland, physical improvements (i.e., access to the currently inaccessible parcel; recreational facilities, infrastructure facilities), and waterfront access to the west side of the Hackensack River. The formal diversion process (including a finalized mitigation plan) will proceed after the NEPA process is complete. In accordance with this ROD, the project sponsors must adhere to the Green Acres process and continue to coordinate with NJDEP and the appropriate stakeholders to develop a suitable mitigation plan.

USEPA suggested that expected wetlands losses to the Hackensack Meadowlands from other transportation projects, such the Teterboro Airport Runway Safety project, should be discussed at least qualitatively. The FEIS qualitatively and quantitatively described the effects of many past, present, and future transportation and development projects within the Meadowlands District, including wetland impacts. The FEIS specifically noted that the Port Authority of New York and New Jersey (PANYNJ) has submitted permit applications for the Teterboro Airport EMAS project, a runway safety improvement project, and that it is expected that 8.7 acres of wetlands impacts will result from this project.

8.0 MITIGATION

Measures to mitigate the potential long- and short-term impacts of the project are discussed below for the various resources that may be adversely affected by construction and operation of the preferred alternative.

8.1 PROPERTY ACQUISITION

The Preferred Alternative would require acquisition of some land adjacent to the existing Northeast Corridor right-of-way to accommodate the new construction. Most of the acquisition would constitute only a small portion of each affected property. However, two properties with operating businesses would be affected—Professional Environmental Services and Royale Linens. All property owners and tenants on the parcels of land to be acquired for the construction of the selected alternative would be fairly compensated for their property. The rights of owners and tenants of any real property acquired to implement the proposed project are protected under the Uniform Acts, which provides for fair, uniform, and equitable treatment of people displaced from their businesses by federal and federally assisted programs. Overall, the Uniform Act is designed to ensure that individuals do not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole, and to minimize the hardship of displacement on such persons. Amtrak, FRA, and NJ TRANSIT would adhere to these laws with regard to relocation services, moving payments, and other allowable payments related to the displacement and moving costs of any businesses located on the parcels of land that are acquired for the construction of the project.

8.2 PARKLANDS AND OPEN SPACE

The Preferred Alternative would require the acquisition of 2.0 acres of a 14.9-acre portion of the Hudson County Park at Laurel Hill. This parcel of land was purchased by Hudson County and the NY/NJ Baykeeper under NJDEP's Green Acres Program, and therefore, mitigation of this loss of parkland requires special coordination with NJDEP.

The Green Acres Program was established to help ensure that there is access to and an adequate supply of public open space and conservation areas of natural resources in the State of New Jersey. The program offers funding to local governmental units and nonprofits to assist in these efforts to conserve public open space and protect existing natural resources and wildlife habitats in the State. The program establishes procedures and standards for the maintenance of properties purchased with Green Acres funding; therefore, the program follows restrictions and compensation requirements that must be adhered to by any nonprofit or local government unit that wishes to use Green Acres funded property for anything other than outdoor recreation and/or conservation purposes. Since the Preferred Alternative would acquire two acres of the newly expanded Laurel Hill Park, this acquisition would constitute a major diversion of a Green Acre property.

As part of the NEPA process, NJ TRANSIT and Amtrak have initiated discussions with Hudson County and the NY/NJ Baykeeper, NJMC, and other stakeholders on potential measures to mitigate the loss of this parkland. As part of preliminary engineering, the project will formally enter the Green Acres diversion process where compensation for the diversion of the parkland will be finalized. Currently, options for mitigation of the loss of the parkland include:

- Purchase of replacement land at a ratio of at least 2:1.
- Monetary compensation at a minimum 4:1 ratio based on market value of the land to be diverted.
- Contribution to or construction of capital improvements to the existing Hudson County Park at Laurel Hill.
- Construction of a waterfront access and recreation pier within the newly expanded portion of Laurel Hill Park.
- Contribution to or construction of physical improvements to other parks within Hudson County.

The project sponsors will continue to work with the county and other stakeholders on these various potential mitigation measures as the Portal Bridge Capacity Enhancement Project proceeds into preliminary engineering allowing for a more refined design of the areas surrounding the bridge structures. Once a final design decision is reached, mitigation measures consistent with the Green Acres diversion process will be implemented.

8.3 HISTORIC RESOURCES

As mandated by Section 106 of the NHPA of 1966, Amtrak and NJ TRANSIT have participated in an ongoing consultation process with the NJHPO with respect to potential effects on archaeological and architectural resources. As part of this ongoing process, measures have been explored to avoid or minimize to the extent practicable any adverse effects to archaeological and architectural resources. Development of these measures is set forth in a MOA, executed by FRA, NJHPO, Amtrak, and NJ TRANSIT and included in Appendix B of the FEIS.

To mitigate potential adverse impacts, Amtrak and NJ TRANSIT will implement the various provisions of the MOA. These include:

- Ongoing consultation with NJHPO with respect to the design of project elements that could disturb archaeologically sensitive areas, physically alter architectural resources, or affect the context or setting of an architectural resource, including those potential adverse effects identified on the Historic Cemeteries of Hudson County, the Portal Bridge, the Northeast Corridor, Substation 4, and the Jersey City Waterworks Pipeline;

- Development and implementation of the CPP to avoid inadvertent construction-period impacts on the Jersey City Waterworks Pipeline and Substation 4. The CPP would be developed in consultation with NJHPO by a licensed professional engineer prior to any project construction occurring within 90 feet of Substation 4. The CPP would include provisions for pre-construction inspection and documentation, vibration, settlement, and crack monitoring, as appropriate and stop-work orders.

- Mitigation for adverse effects on the Portal Bridge and Pennsylvania Railroad Historic District would include Historic American Engineering Record (HAER) documentation for Portal Bridge and the portions of the Pennsylvania Railroad Historic District within the APE; ongoing consultation with NJHPO regarding the design of the new bridge; salvage of elements of the affected historic resources; development of an interpretive exhibit in a park, greenway, or public space, that would present the history of the Pennsylvania Railroad and Portal Bridge, that could include but would not be limited to salvaged elements of these resources and signage; and additional documentation interpreting the history and significance of the Portal Bridge and Pennsylvania Railroad Historic District in the form of a website.

- Where locations identified as containing burials cannot be avoided, Amtrak and NJ TRANSIT will follow the procedures identified in the MOA concerning testing and excavation to avoid any insensitive disturbance to human remains in the Historic Cemeteries of Hudson County, including, but not limited to, conducting outreach to and consulting with appropriate descendant communities prior to any archaeological testing and construction, preparing a testing plan for review by NJHPO, and requiring a physical anthropologist/forensic archaeologist to be on-call or on-site in the event that skeletal material is encountered during archaeological testing or project construction. The Historic Cemeteries of Hudson County fall within the jurisdiction of the New Jersey Cemetery Act, Title 8A for the New Jersey Statutes (N.J.S.) (State of New Jersey, 2002). The New Jersey Cemetery Board administers the Act, and the New Jersey Attorney General oversees actions and proceedings of the Cemetery Board. Any disinterment and reinterment would also require approval by the Chancery Division of the Superior Court of New Jersey.

- Because the project could result in a physical effect to an SR-listed property (the Portal Bridge), NJ TRANSIT will submit an Application for Project Authorization to the NJHPO pursuant to the New Jersey Register of Historic Places (N.J.A.C. 7:4). NJ TRANSIT, in coordination with Amtrak, FRA, and NJHPO, will also fulfill any additional compliance obligations stipulated in N.J.A.C. 7:4-7 ("Review Procedures for Projects Encroaching upon New Jersey Register Properties"), as appropriate.

8.4 ECOLOGY

Consistent with Executive Order 11990, it has been determined that there is no prudent and feasible alternative to avoid construction in wetlands and therefore measures to minimize harm have been considered. The DOI concurs with this determination. Efforts to minimize wetland impacts were incorporated into the design of the Preferred Alternative including the use of structure where practicable in lieu of unretained embankments for new rail lines, placement of retaining walls (to minimize fill) where feasible, and consultation and coordination with natural resource agencies. The potential impacts to wetlands from the Preferred Alternative have been substantially reduced from the DEIS to the FEIS. In the DEIS, the estimated wetland impacts from the Preferred Alternative were 12.3 acres. Due to a number of refinements and updated engineering designs, the estimated wetland impacts from the Preferred Alternative is 5.7 acres.

As part of their respective permitting authority, federal and state regulatory agencies will require compensatory mitigation to offset the project's impacts on ecological resources. All of the affected wetlands are under the jurisdiction of NJMC. The mitigation requirements are addressed, at a state level, in the NJDEP Freshwater Wetlands Rule (N.J.A.C 7:7a), the NJDEP Coastal Permitting program (N.J.A.C. 7.7e), and the NJDEP Flood Hazard Control Act (N.J.A.C. 7:13). On the federal level, mitigation requirements are addressed in the Final Rule on Compensatory Mitigation for Losses of Aquatic Resources, administered by the U.S. Army Corps of Engineers (USACOE) and USEPA (March 2008).

The mitigation requirements will be developed in coordination with the natural resource management agencies and would be based on factors including, but not limited to, value, function, and/type of wetland impacted, existing contamination within the project area, and the availability of appropriate in-kind restoration areas. Typically, compensatory mitigation ratios of 2:1 for establishment/restoration and 3:1 for enhancement have been used. However, the ultimate ratios to be used to mitigate the impacts of the Preferred Alternative would be developed in conjunction with NJDEP, NJMC, and USACOE during the permitting process as well as continued coordination with MIMAC on the overall mitigation planning.

The regulations allow for several types of mitigation, including wetland restoration, wetland creation, wetland enhancement, purchase of wetland mitigation credits, upland preservation, monetary contribution for the purchase and enhancement of existing degraded wetland property, or land donation.

Options for providing compensatory mitigation for the Portal Bridge Capacity Enhancement Project include:

- Purchasing credits from a state- and federally-approved wetland mitigation bank.
- Completion of a specific mitigation project for the Portal Bridge project at a site in the Meadowlands. The project could entail the establishment, restoration or enhancement of wetlands at potential sites such as the Richard P. Kane Tract in Carlstadt and South Hackensack or the Oritani Marsh in East Rutherford.
- Completion of a mitigation project in conjunction with NJ TRANSIT's ARC project, which would also result in wetland impacts in the Meadowlands District.
- Establishment, restoration or enhancement of the wetland areas bordering the Portal Bridge project site.
- A combination of the above mitigation strategies.

A preferred option for mitigation is to purchase credits from an established wetland mitigation bank. Currently, there are no approved banks available within the Meadowlands District. However, it is likely that credits may become available from the Richard P. Kane Tract prior or concurrent with construction of the project. The Kane Tract is being developed by the Meadowlands Conservation Trust as a wetland mitigation bank specifically for transportation projects in the Meadowlands District. The Kane Tract is being established in accordance with the Request for Qualifications (RFQ) issued by the Meadowlands Conservation Trust on April 7, 2008. As per the RFQ, 254 acres of the Kane Tract (out of the total 584 acres) will be made available for compensatory mitigation exclusively for NJ TRANSIT, the New Jersey Turnpike Authority, the New Jersey Department of Transportation (NJDOT), and PANYNJ.

On October 2, 2008 the Board of the Meadowlands Conservation Trust approved the awarding of the contract to develop the bank to EarthMark NJKane Mitigation, LLC. Depending upon the scheduled completion of the wetland bank at the Kane Tract, some, if not all, of the compensatory mitigation required for the Portal Bridge Capacity Enhancement Project may be purchased from this bank. The final selection of a mitigation program will need to consider the availability of credits as well as the potential requirements for mitigation to be initiated prior to or concurrent with construction activities.

8.5 CONTAMINATED MATERIALS

As part of construction of the Preferred Alternative, subsurface disturbance for will occur in areas with a known degree of contamination. In order to prevent exposure pathways to workers, the public or the environment, the project includes appropriate health and safety and investigative/remedial measures (conducted in consultation with the appropriate regulatory authorities). These measures include:

- Preparation of a Regulated Materials Subsurface Investigation work plan to be approved by NJDEP.
- Completion of a Site Investigation/Remedial Investigation and Remedial Action Selection to be approved by NJDEP.
- Procedures for pre-construction removal of asbestos and appropriate management of lead based paint and of PCB-containing equipment.
- Development of a Construction Health and Safety Plan (CHASP) that would include detailed procedures for managing both known contamination issues (e.g., soil handling at known contaminated areas) and any unexpectedly encountered contamination issues. The CHASP would also include procedures for avoiding the generation of dust that could affect the surrounding community and the environment as well as the monitoring necessary to ensure that no such impacts are occurring.
- Preparation of and adherence to Remedial Action Workplan consisting of a Soil Re-use Plan and Groundwater Management Plan to be employed during construction of the project.

8.6 COASTAL ZONE MANAGEMENT

The NJDEP Division of Land Use Regulation has determined that the Preferred Alternative is consistent with New Jersey's Coastal Zone Management Rules N.J.A.C. 7:7E-1.1 et seq, provided that all applicable conditions set forth in the General Concurrence letter are met to the

satisfaction of NJDEP. The conditions include mitigation for impacts to 0.79 acres of state open water, 0.16 acres of intertidal subtidal shallows, and 5.7 acres of wetlands. If wetland mitigation credits are not purchased from an approved bank and an individual mitigation project is completed, the conditions include financial surety for such mitigation and a mitigation monitoring plan. For these impacts, the condition is that the mitigation project must be conducted prior to or concurrent with the construction of the project. After completion of the proposed mitigation, a final wetland mitigation report must be submitted to NJDEP. In addition, the mitigation program must be monitored for three (3) years for emergent or open water mitigation. A monitoring report must be submitted by the last calendar day of each year.

In addition, as part of the CZM's requirements for public access to the waterfront, the mitigation stipulations include design and construction of a waterfront walkway that conforms to the requirements set forth at the CZM Rule N.J.A.C. 7:7E-8.11(e). In conjunction with the waterfront walkway along the Hackensack River, other details of project-specific conditions included in Appendix C of the FEIS will be addressed in more detail during the permitting phase of the project.

8.7 CONSTRUCTION IMPACTS

The Preferred Alternative would result in unavoidable intermittent and variable impacts to the traveling public during the construction period. They would be kept to a minimum through appropriate interim operations planning. Many proven strategies to maintain train operations throughout the construction process would be applied such as:

- Scheduling certain construction activities to avoid peak morning and evening travel periods, when rail traffic is the most dense and any capacity to recover from train delays is at a minimum;
- Adjusting selected train schedules to include a small additional amount of "schedule recovery time" to mitigate the effects of any minor delays or temporarily lowered operating speeds on timekeeping;
- Continuous and proactive communication with the traveling public, especially by NJ TRANSIT and third party communications entities acting on its behalf, to advise of any anticipated travel delays or disruptions that could have a material effect on individual travel plans;
- Re-routing or re-scheduling certain selected late-night and/or weekend trains, with prior notice to the public, to maximize key construction work "windows" to maximize safety and construction efficiency.

Construction-related activities would not have a noticeable effect on local land uses, which include open spaces, wetland, vacant parcels, and industrial and transportation uses. Potential construction activities that may temporarily affect these land uses include construction traffic and temporary increases in noise and dust. However, the most disruptive construction activities would be of limited duration far from publicly accessible locations further diminishing the potential adverse effects.

The potential for adverse air quality impacts during construction would be small since the construction site is almost entirely surrounded by areas of limited access. In addition, the availability of rail and water access would minimize truck trips and established truck routes would be utilized, further lowering the potential for diesel particulate emissions through commercial or residential areas. Finally, the project would utilize ultra-low sulfur diesel fuel for

the non-road construction equipment that would be employed on-site during the duration of the construction process.

Construction activities related to the bridges, approach structures, embankment and retaining walls, and new track and ancillary equipment along each alignment would result in short-term noise increases in the vicinity of the actual work site. However, due to the project site's relative isolation from sensitive uses, these noise increases would not be perceptible at noise-sensitive receptors. Much of the area adjacent to the construction site is neither occupied nor publicly accessible. Where adjacent uses are occupied they are not noise-sensitive uses. The only sensitive use that may be affected by construction related noise would be the existing Hudson County Park at Laurel Hill. Due to the distance and intervening New Jersey Turnpike and Snake Hill, the existing park would be shielded from much of the noise generated by on-site construction activities. Noise caused by impact-type equipment (e.g., drilling) may be discernible. However, it is unlikely to be considered intrusive due to the distance from the noise source to the park. Moreover, it is likely that the major structures, including the river spans, would be supported by foundations of drilled caissons rather than driven piles. This would reduce the potential noise impacts at the existing Laurel Hill Park.

Construction of the proposed project would involve demolition, relocation or other disturbance of existing structures and excavation, and off-site disposal of some existing soil. The presence of regulated materials presents a threat to humans when exposure to these materials occurs. The most likely route of exposure would be through breathing volatile/semi-volatile compounds or particulate-laden air released during some construction activities. To prevent such exposure pathways and doses during construction, the proposed project would include appropriate health and safety and investigative/remedial measures. Most of the sites bordering the rail right-of-way are known to NJDEP and have had some degree of investigation. Once limits of disturbance for the final design are determined, NJDEP (along with other agencies including USEPA, NJMC, property owners, and potentially other responsible or affected parties, as appropriate) would be consulted. As discussed above, a Construction Health and Safety Plan (CHASP) would be prepared prior to commencing site disturbance. The CHASP would describe in detail the health and safety procedures to minimize exposure of hazardous materials to workers and the public.

Wastes containing hazardous materials require special handling, storage, transportation, and disposal methods to prevent releases that could impact human health or the environment. The project documents would address procedures for stockpiling, testing, loading, transporting (including truck routes), and properly disposing of all excavated material requiring off-site disposal.

Dewatering of groundwater would most likely be required in specific locations, depending on the final determination of the types of foundations to be used for bridges, viaducts, and retaining walls, as well as the ultimate construction methods. Where dewatering is required, it is possible that the water would require treatment prior to its discharge to surface water or existing sewers. Prior to any such discharge, the water would be tested. Discharge of water would be conducted in accordance with applicable requirements, including NPDES for discharge to surface water, and state and local requirements for sewer discharge.

8.8 MITIGATION COMMITMENTS

IMPACT	MITIGATION
Property Acquisition	The project sponsors will protect property owners and tenants under the federal Uniform Acts.
Parklands and Open Space	The project sponsors will compensate Hudson County and the NY/NJ Baykeeper in accordance with the requirements under NJDEP's Green Acres Program.
Historic Resources	In accordance with the stipulations outlined in the MOA developed pursuant to Section 106 of the NHPA, the project sponsors will (1) implement ongoing consultation with NJHPO with respective cultural resources; (2) develop and implement a CPP; (3) prepare Historic American Engineering Record (HAER) documentation of the Portal Bridge and portions of the Pennsylvania Railroad Historic District; (4) develop an interpretive exhibit that would present the history of the bridge and historic district, including possible salvaged elements of these resources; (5) test and excavate to avoid any insensitive disturbance to human remains in the Historic Cemeteries of Hudson County; and (6) submit an Application for Project Authorization to the NJ Historic Sites Council.
Ecology	The project sponsors will provide compensatory mitigation for the temporary and permanent loss of wetlands from construction of the Preferred Alternative. The final mitigation ratios to offset the losses will be determined, in conjunction with NJDEP and USACOE, as part of their respective permitting processes.
Contaminated Materials	In order to prevent exposure pathways to workers, the public or the environment, the project sponsors will prepare a Construction Health and Safety Plan and investigative/remedial measure workplans (conducted in consultation with NJ DEP) during Preliminary Engineering.
Coastal Zone Management	The project sponsors will meet all applicable and reasonable conditions to the satisfaction of NJDEP, including either purchasing wetland mitigation credits from an approved bank and/or completing an individual mitigation project as well as a commitment to meeting the public access requirements of the NJDEP CZM rule.
Construction Impacts	In addition to the measures regarding contaminated materials, the project sponsors will use proven strategies to maintain train operations throughout the construction process and, in regards to potential air quality impacts, will utilize ultra-low sulfur diesel fuel and Tier 2 engines with after-market retrofit filters to the extent practicable for the non-road construction equipment employed on-site. In addition, they will prepare Maintenance and Protection of Traffic (MPT) plans as needed for construction over existing rail and roads.

9.0 DECISION

The FRA, in accordance with 42 U.S.C. 4321 et seq and its implementing regulations (40 C.F.R. Parts 1500-1508; 64 FR 28545 and 23 C.F.R. Part 771), and by this ROD finds that the requirements of the National Environmental Policy Act of 1969 (NEPA) have been satisfied for the Portal Bridge Capacity Enhancement Project. The ROD also documents compliance with applicable federal environmental laws, rules, and regulations as follows:

SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT

Section 106 of the NHPA of 1966 requires that any federal agency having direct or indirect jurisdiction over a proposed federal or federally assisted undertaking take into account the effect of the undertaking on any district, site, building, structure, or other object that is included in or eligible for inclusion in the National Register of Historic Places. Under this provision, the NEPA lead agency, the State Historic Preservation Officer (SHPO), affected Native American tribes, and other "consulting" parties participate in a consultation process regarding the potential effects

of the undertaking on historic resources. In certain limited cases, the Advisory Council on Historic Preservation (ACHP) participates in the consultation as well.

FRA initiated the Section 106 consultation process for the project in February 2007. FRA's obligations under Section 106 of the NHPA have been satisfied as described in Chapter 5.2, "Historic Resources" of the FEIS.

SECTION 4(f) OF THE U.S. DEPARTMENT OF TRANSPORTATION ACT

Section 4(f) of the Department of Transportation Act (1966) mandates the protection of "the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites." Any transportation project that uses such Section 4(f) resources must conduct a Section 4(f) evaluation, and FRA may only approve a project requiring the use of such Section 4(f) resources if there is no prudent and feasible alternative that would avoid the use and if the program or project includes all possible planning to minimize harm to the affected land or resource. Chapter 8 of the FEIS addresses the Section 4(f) evaluation.

Chapter 8 of the FEIS, titled "Section 4(f) Evaluation," documents that there are no prudent and feasible alternatives to the use of the existing Portal Bridge, the Pennsylvania Railroad Historic District, and Laurel Hill Park. The United States Department of Interior concurred that there is no prudent and feasible alternative to the proposed use of Section 4(f) properties including the Portal Bridge and portions of the Pennsylvania Railroad Historic District. A signed copy of the Memorandum of Agreement documenting compliance with Section 106 of the National Historic Preservation Act was included in the FEIS. As required by Section 4(f), 49 U.S.C. 303, FRA finds no prudent or feasible alternative to the use of Section 4(f) resources exists, and finds that the project includes all possible planning to minimize harm to affected resources as described in Section 6 of this ROD and Chapter 8 of the FEIS.

EXECUTIVE ORDER 12898, ENVIRONMENTAL JUSTICE

Executive Order 12898 ("Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations") requires federal agencies to involve the public on project issues related to human health and the environment. USDOT's "Final Order on Environmental Justice" indicates that project sponsors should elicit public involvement opportunities, including soliciting input from affected minority and low-income populations in considering project alternatives. The environmental justice analysis is discussed in Chapter 5.9 of the FEIS and determines that no disproportionately high and adverse impact on minority or low-income populations would result from the project and that FRA has satisfied environmental justice requirements.

COASTAL ZONE MANAGEMNT ACT

The federal Coastal Zone Management Act (CZMA) of 1972 was established to encourage 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 programs and grant application procedures for development of the state programs is included in 15 C.F.R. Part 923, Coastal Zone Management Program Development and Approval Regulations, National Oceanic and Atmospheric Administration (NOAA). The Coastal Zone Management Act requires that federal activities within a state's coastal zone be consistent with that state's coastal zone management plan. New Jersey has a federally approved coastal zone management program, which is administered by

NJDEP. As discussed in the FEIS, NJDEP has determined that the project is consistent with the state's CZM policies and FRA has satisfied CZMA requirements.

EXECUTIVE ORDERS 11990 (WETLANDS) AND 11988 (FLOODPLAIN MANAGEMENT)

In accordance with Executive Order 11990, "Protection of Wetlands," and USDOT Order 5660.1a, "Preservation of the Nation's Wetlands," federal agencies must avoid undertaking or providing assistance for new construction in wetlands unless there is no practical alternative to such construction and the proposed action includes all practicable measures to minimize harm to the wetland.

Executive Order 11988 requires that federal agencies provide leadership and take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains.

FRA finds the project was determined to be consistent with these regulations as discussed in Chapter 5.6, "Ecology," of the FEIS.

CONCLUSION

Concluding the Portal Bridge Capacity Enhancement Project FEIS, the FRA makes the following decisions:

1. To select build Alternative DS and to reject the No Build Alternative and build Alternatives DE, FE, and FS; and

2. To adopt the mitigation commitments, described in Section 8.0 of this ROD, to minimize harm from the selected alternative.

Clifford C. Eby
Acting Administrator
Federal Railroad Administration
Date: DEC 23 2008