

**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL TRANSIT ADMINISTRATION**

**FINDING OF NO SIGNIFICANT IMPACT**

**Project:** Raritan River Bridge Replacement Project

**Applicant:** New Jersey Transit Corporation

**Project Location:** Perth Amboy and South Amboy, New Jersey

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## **1.0 INTRODUCTION**

The Raritan River rail bridge carries New Jersey Transit Corporation's (NJ TRANSIT) North Jersey Coast Line (NJCL) and freight trains operated by Conrail across the Raritan River between South Amboy and Perth Amboy, New Jersey. The bridge is a critical rail link for the NJCL to the Northeast Corridor and job centers in Newark, NJ; Jersey City, NJ; and Manhattan, NY. The Raritan River rail bridge suffered structural damage during the storm named Sandy in October 2012, when ocean surge moved the approach girder spans out of alignment atop their supporting piers. NJ TRANSIT proposes to replace the existing two-track Raritan River rail bridge with a new two-track bridge on an alignment parallel and to the west of the existing bridge and demolish the existing bridge. The Federal Transit Administration (FTA) selected the proposed project for funding as "NJ TRANSIT Raritan River Drawbridge Replacement Project" (Funding ID D2013-RESL-008) as a Section 5324 Emergency Relief Resilience Project in Response to Hurricane Sandy on November 5, 2014 (see Table 1, Federal Register Vol.79, No. 214, p. 65764) following a competitive evaluation process.

The FTA and NJ TRANSIT prepared the Environmental Assessment (EA) and Section 4(f) Evaluation, dated June 2017 in compliance with the National Environmental Policy Act (NEPA) (42 U.S.C. Section 4321 et seq.), FTA's Joint NEPA implementing regulations (23 CFR Part 771), the Department of Transportation Act of 1966, codified at 49 U.S.C. § 303 (Section 4(f)), and FTA's Joint Section 4(f) implementing regulations (23 CFR Part 774). The EA includes an analysis prepared in accordance with Section 106 of the National Historic Preservation Act (Section 106). The analysis indicated the proposed project would have potentially significant adverse effects on several railroad-related historic resources located within the project area. Pursuant to Section 106, FTA, NJ TRANSIT and the New Jersey Historic Preservation Office (NJHPO) signed a Programmatic Agreement (PA) on August 21, 2017, to mitigate the adverse effects to these historic resources. Due to the proposed project's potential "use" of the historic properties, FTA prepared a Section 4(f) Evaluation. The Section 4(f) Evaluation is included in the EA and demonstrates that there is no feasible and prudent use of the historic properties, and that the proposed project with the mitigation measures specified in the Section 106 PA fulfilled FTA's obligation to include all possible planning to minimize harm to the historic property.

FTA finds, in accordance with 23 CFR Part 771.121, that the proposed project with mitigation measures described in the EA will result in a Finding of No Significant Impact (FONSI) on the environment.

### PROJECT PURPOSE AND NEED

The purpose of the proposed project is to reduce the vulnerability of the existing Raritan River rail bridge to major storm flood events, enhancing the reliability of the NJCL, the third busiest of NJ TRANSIT's commuter rail lines. The existing bridge is more than 100 years old and suffered damage during Sandy that resulted in the suspension of service across the bridge for three weeks after the storm. Construction of a bridge more resilient to future storm events is key to ensuring continued public transportation and freight service on the NJCL. Replacement of the Raritan River rail bridge is a key element of NJ TRANSIT's resilience program to repair and restore the transit system.

### PROJECT DESCRIPTION

The Project includes the complete replacement of the existing two-track Raritan River rail bridge and its swing span with a new two-track bridge with a moveable vertical lift span. The new bridge will be constructed parallel to, and west of, the existing bridge to allow train operations to continue without interruption as the new bridge is being constructed. Upon completion of the new bridge, the entire existing Raritan River rail bridge (including the center swing span piers and its landside approach tracks) will be removed.

The new bridge's approach spans will consist of a steel multi-girder superstructure with bridge pier spacing at approximately 95 feet apart (approximately the same number as the existing bridge). The new bridge piers will likely consist of long narrow caissons with concrete caps at the waterline. The new bridge will be approximately 37-feet wide to allow space for two tracks that are at least 14 feet apart and two 4-foot-wide maintenance walkways on either side. The approach track and the fixed spans of the bridge will have continuous welded rail on a ballasted deck. Steel through trusses will be used for the flanking spans adjacent to the moveable span.

The main span will be a vertical lift design to permit the passage of boats beneath the structure at the existing 300'-wide navigation channel. A vertical lift span is raised and lowered in between two towers that house the counterweights that facilitate the spans movement. A bridge operator's house will be located on either side of the lift span. The Project will not alter the Raritan River navigation channel and no channel river bottom dredging will be required to construct the new bridge. The new bridge piers and associated fenders will be placed outside the navigation channel, which will allow a wider area for ship passage than with the existing bridge. The vertical lift span will provide for a vertical clearance of 110 feet and an unimpeded navigation channel, with a width of approximately 300 feet. The new bridge will have overhead catenary wires and traction power cables, supported on independent monopoles with a minimum vertical clearance of 110 feet.

Approximately 40,000 cubic yards of material will be excavated and removed from the upland areas of the project site. Approximately 10,000 cubic yards of imported fill will be required for construction of embankments. Nearby buried, underwater AT&T Utilities will be relocated to the east and outside of the construction zone. Other nearby buried underwater utilities will be avoided.

To increase resilience to flood damage, the new bridge deck of the fixed bridge spans will be constructed approximately ten feet higher than the existing bridge deck (18 feet above mean high water), which will exceed the NJ TRANSIT Design Flood Elevation design standard of 2.5 feet above the Federal Emergency Management Agency (FEMA) base flood elevation (BFE).

The Project will not result in changes to daily service (i.e. the number of daily trains planned). The new lift bridge will operate more reliably than the existing bridge, reducing the number and severity

of delays related to bridge malfunction. Passenger train operating speed will increase to 40 mph (from 30 mph) and freight rail operating speed will increase to 30 mph (from 20 mph).

## **2.0 PUBLIC OPPORTUNITY TO COMMENT AND AGENCY COORDINATION**

NJ TRANSIT published a Notice of Availability for the EA and Section 4(f) Evaluation on June 14, 2017 in the *Star Ledger* and the *Amboy Guardian*; on June 15, 2017 in the *Home News Tribune*; and on June 16, 2017, in the Portuguese language *Luso Americano*, and the Spanish language *El Especialito*. NJ TRANSIT made the EA and Section 4(f) Evaluation available on-line at <http://njtransitresilienceprogram.com/documents> and solicited comments on the EA and Section 4(f) Evaluation between June 14, 2017 and July 14, 2017.

Prior to publication, NJ TRANSIT and FTA sought and received comments on the EA and Section 4(f) Evaluation from several state and federal agencies. Written comments from the Federal Railroad Administration (FRA), United States Coast Guard (USCG), United States Army Corps of Engineers (USACE), United States Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and United States Environmental Protection Agency (EPA) were addressed in the published EA and included Appendix F. Additional comment from USACE, USEPA, and the United State Department of Interior (DOI) are attached and addressed in this FONSI. A summary of public and agency comments on the published EA and FTA's responses are attached to this FONSI.

Public outreach activities for the Project included two public information sessions held in Perth Amboy and South Amboy on September 20, 2016 and September 27, 2016, respectively. These meetings were held to provide information about the Project to the public and to solicit comments on the proposed design. NJ TRANSIT also conducted a Waterway User Survey to gather feedback from the various users of the Raritan River and vicinity. Attachment A is the Response to Public and Agency Comments on the EA. Agency Correspondence received concerning the EA is in Attachment B.

## **3.0 SUMMARY OF ANALYSIS OF NEPA IMPACT AREAS, MITIGATION MEASURES, AND PERMITS**

The EA was prepared in compliance with NEPA, the Joint Environmental Impact and Related Procedures Rule (23 CFR 771), and FTA guidelines for preparing EAs. The following sections summarize potential impacts, required mitigation, and necessary permits for the Project. Attachment C of this FONSI provides a summary of the potential long-term adverse effects and mitigations analyzed in the EA.

### **Property Acquisition and Displacement:**

The new bridge and approach tracks will be constructed entirely within the existing rail right-of-way; permanent property acquisition will not be required. However, a total of approximately three acres of property may need to be acquired to accommodate seven temporary easements during construction. Private property owners will be compensated under the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (the Uniform Act). The temporary acquisition of public property will follow equitable land acquisition procedures in conformance with FTA requirements for federally funded projects. Following an appraisal of the property, a fair and equitable offer will be made, and an agreement will be reached between the property owners and NJ TRANSIT.

FTA concludes that with compliance with the above mitigation measures, the Project will not have significant adverse effects on property acquisition and displacement.

### **Sole Source Aquifer:**

The Project area coincides with the New Jersey Coastal Plain Aquifer System, a USEPA-designated Sole Source Aquifer (SSA). Based on the information provided in the EA, the USEPA has determined that the Project satisfies the requirements of Section 1424(e) of the Safe Drinking Water Act of 1974 (SDWA) and will not impact the SSA.

### **Wetlands and Water Quality:**

The proposed project will result in elimination of up to 1.97 acres of wetlands. FTA and NJ TRANSIT prepared an analysis of project alternatives using the Section 404(B)(1) guidelines of the Clean Water Act (40 CFR 230) (Attached to this FONSI). FTA determined that avoidance of the wetlands was not feasible because other project alternatives would not fulfill the project purpose and need and/or result in greater potential impact to the built environment and would still necessitate use of wetlands. Wetlands use and dredging will require the following permits and approvals:

- USACE Section 404 Individual Permit;
- NJDEP Waterfront Development Upland and In-Water Individual Permit; and
- Compensatory Mitigation (coordinated with USACE and subject to review by NJDEP).

Mitigation for a conservative total of 1.97 acres of wetland impacts may include on-site mitigation activities and/or wetland creation elsewhere to support ecological/wetland restoration. Mitigation will likely be required by both NJDEP and the USACE, in accordance with the Final Rule for Mitigation for Losses of Aquatic Resources, Department of Defense and the Environmental Protection Agency, April 10, 2008 (Federal Register Vol. 73, No 70: pp. 19594-19705). Compensatory mitigation ratios for wetland creation or wetland mitigation bank credits will likely be 2:1 (2 acres of compensatory mitigation required for every 1 acre of impact, conservatively totaling approximately 4 acres). Options being considered include purchasing credits from an authorized wetland mitigation bank and/or on-site mitigation. If wetlands mitigation credits are not available, NJ TRANSIT will be required to comply with all NJDEP and USACE wetlands permit requirements, including any alternative mitigation measures deemed necessary by permitting authorities. Additionally, all areas of temporary impacts will be restored and monitored to ensure restoration success.

FTA concludes that with compliance with the above mitigation measures and construction impact mitigation measures described in the EA and “Construction Impacts” below, the Project will not have significant adverse effects on wetland resources and water quality.

### **Floodplains and Riparian Zones:**

The proposed project will result in the placement of material within the 100-year floodplain (approximately 0.3 acres on land plus approximately 0.8 acres in-water) and 500-year floodplain (approximately 0.4 acres). As such, the proposed project will be designed to comply with the Flood Hazard Control Act (FHA) Rules (N.J.A.C. 7:13) and compliance with these rules will be demonstrated as part of the Waterfront Development permit application to be submitted to the NJDEP in accordance with N.J.A.C. 7:7.

Additionally, the NJDEP FHA Rules under N.J.A.C. 7:13-11.2 will require mitigation for proposed vegetative riparian area clearance. Mitigation measures for disturbance within the 150-foot riparian zone will include re-vegetation within disturbed areas after removal of the existing bridge and approach tracks, other areas within the railroad right-of-way that could be re-vegetated, and opportunities available near the project site to reach the required mitigation ratio (anticipated to be at least 2:1).

The Project will not require dredging for new navigation channels nor will it require alteration of the existing 300' wide navigation channel maintained by the USACE.

FTA concludes that with compliance with the above rules and regulations, and identified mitigation measures, there will be no significant adverse impacts as defined by USDOT Order 5650.2.

**Essential Fish Habitat:**

An Essential Fish Habitat (EFH) Evaluation was prepared in accordance with Section 305(b)(2)-(4) of the Magnuson-Stevens Act (MSA), to assess the potential impacts to EFH species. The proposed new bridge structure will include approximately the same number of fixed supporting piers and create approximately the same area of shadow, but will occupy less in-water volume and area. The Project will also result in the removal of the support structures and dolphins currently required for the existing swing span. Following demolition of the existing bridge, the Project will result in a net increase of in-water bottom habitat. Mitigation recommendations, including restoration of the water bottom, developed in consultation with NOAA NMFS are incorporated into the mitigation commitments for this Project. FTA finds that the Project may adversely affect EFH, but the adverse effect is not significant. Also, with the implementation of the construction mitigations described in the EA and under "construction impacts" below, the Project satisfies the requirements of the MSA.

**Threatened and Endangered Species:**

Federally listed threatened and endangered species occur near the Project. FTA initiated consultation was conducted with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) to satisfy Section 7 of the Endangered Species Act (ESA) of 1973. FTA has determined that the Project will not affect any species listed under the ESA under the jurisdiction of the USFWS, and may affect, but is not likely to adversely affect, any species that fall under the jurisdiction of the Migratory Bird Treaty Act of 1918 (MBTA) and Bald and Golden Eagle Protection Act of 1940 (BGEPA).

FTA has determined that the Project may affect, but is not likely to adversely affect, any species listed as threatened or endangered by NMFS under the ESA of 1973, as amended. The Atlantic Sturgeon and other ESA species may occur in the general area and occasionally enter the project area, but the project area has not been designated as critical habitat for any of the listed species that may occur near the Project. Any potential adverse effects would be limited to construction activities. FTA concludes that the requirement to avoid and mitigate the potential adverse effects on species protected under Section 7 of the ESA will be satisfied with the implementation of the construction mitigations described under "construction impacts" below and in the EA.

### **Section 106 Historic and Architectural Resources:**

The Project will have an adverse effect on several railroad-related historic resources that must be removed for construction of the new bridge. These include the following:

- Raritan River Drawbridge, which is individually eligible for listing on the National Register of Historic Places;
- The railroad catenary system, referred to as the “Overhead Contact System” on the Raritan River DrawBridge and its approach tracks;
- An electric substation, a contributing resource to the New York and Long Branch Railroad Historic District;
- Essay Tower, a contributing resource to the New York and Long Branch Railroad Historic District; and
- A signal bridge, a contributing resource to the Perth Amboy & Elizabethport Branch of the Central Railroad of New Jersey Historic District.

Mitigation measures and commitments are set forth in the Section 106 PA among the FTA, NJHPO, and NJ TRANSIT (see Attachment D) and include: HABS/HAER documentation of the Raritan River Drawbridge and other historic railroad-related features; potential salvage of a pair of terrestrial catenary poles for display at the proposed South Amboy ferry terminal and potential salvage for interpretive display of a signal bridge associated with the Perth Amboy & Elizabethport Branch; education and interpretive display; and design review by NJHPO.

FTA concludes that with fulfillment of the above mitigation measures, the Project will not have significant adverse impacts on historic and architectural resources.

### **Section 106 Archaeological Resources:**

The Project may have an adverse effect on two buried NRHP-eligible historic vessels in the shoreline (Vessels 98 and 99). An archaeologist will undertake an on-site evaluation, and as appropriate, complete a Phase III research design and data recovery plan to document the remains of Vessels 98 and 99.

The project area within the Raritan River also has a high sensitivity for marine archaeological resources. A marine archaeological survey will be undertaken to determine the presence or absence of marine archaeological resources, and to help determine if further underwater archaeological investigation is required to determine the presence of potential eligible shipwrecks. Further evaluation will be undertaken to assess the potential for a deeply buried pre-contact landform near the Perth Amboy and South Amboy shorelines. This will include the archaeological monitoring of geotechnical cores, as well as the review of soil boring samples and soil boring logs by a qualified archaeological geomorphologist.

These mitigation measures are set forth in the Section 106 PA among the FTA, NJHPO, and NJ TRANSIT (see Attachment D). In addition, a copy of the archaeological reports prepared to record the results of the investigations of Vessels 97 and 98 will be provided to the Middlesex County Office of Culture and Heritage Division of Historic Services, per their request. FTA concludes that with fulfillment of these mitigation measures, the Project will not have significant adverse impacts on archaeological resources.

### **Maritime Navigation:**

The Project would demolish and remove the existing swing bridge span, which effectively narrows the 300-foot wide navigation channel maintained by USACE to approximately 125 feet, and replace it with a new vertical lift bridge span that aligns with - and allows for full use of - the existing navigation channel. The Project will therefore reduce the likelihood of maritime vessel collisions with bridge structures, which have occurred in the past. All existing bridge structures will be removed to a depth below the underwater mudline as specified by the USCG and USACE, minimizing the risk of any future damage to water craft from the old structures. It would also improve overhead clearances for maritime navigation by increasing the average elevation above the water line of both the fixed bridge structure and catenary lines. While the proposed vertical lift bridge creates a new structural overhead restriction of above the 300'-wide commercial navigation channel, the proposed 110-foot vertical overhead clearance for both lift bridge and catenary lines would be similar to or less than the elevation of the existing catenary line. To assess potential project impacts on maritime navigation and ensure the project preserves maritime navigation for current and reasonably foreseeable maritime stakeholders, FTA and NJ TRANSIT, in coordination with USCG, conducted outreach to current maritime stakeholders as summarized in Appendix H of the EA. Consultations with both the USCG and responses from the outreach to maritime stakeholders indicated that the proposed project with the 110-foot vertical lift span and increased elevation of fixed bridge spans would meet the needs of affected respondents and improve river navigation and safety, subject to the proposed design parameters.

FTA concludes that the Project will not have any adverse impacts on maritime river navigation in the Raritan River, subject to completion of a Navigation Impact Report, coordination with USCG to ensure navigation during construction, and any final design stipulations required for the USCG Bridge Permit.

### **Construction Impacts:**

To mitigate the potential effects of construction activities, best practices will be implemented and monitored in the field and construction activities will comply with all applicable laws, regulations and permit conditions, as follows:

- Air quality control measures imposed on the Project will include: limiting idling times to less than three minutes on diesel and gasoline powered engines; locating diesel powered exhausts away from local residential or building air intakes; limiting on-site equipment to operating speeds of five mph; using other dust control measures; and establishing truck haul routes to minimize impact to sensitive receptors.
- A Materials Management Plan (MMP) will be developed to manage any contaminated media encountered during construction. Fill brought to the site to build the railroad embankments on the Perth Amboy and South Amboy shores will meet the clean fill or alternative fill requirements as per NJDEP requirements. A Fill Use Plan will be prepared to specify the site-specific requirements. To minimize disturbance of any potential contaminants during construction and to ensure safe handling and disposal of any contaminated soils and materials encountered during the Project. The Project will be enrolled as a linear construction project (LCP) as per NJDEP Linear Construction Technical Guidance. A Construction Health and Safety Plan (CHASP) will be prepared to address the contamination issues prior to construction activities for the proposed project. The CHASP will be prepared in accordance with OSHA regulations for Hazardous Waste Operations and Emergency

Response (HAZWOPER) (29 CFR 1910.120), OSHA construction safety requirements (29 CFR 1926), and other applicable regulations and guidelines for the field personnel.

- A NJDEP-approved Stormwater Pollution Prevention Plan (SPPP) and Erosion and Sediment Control (ESC) plans will implement measures (i.e., silt fencing, hay bales) to protect adjacent wetlands (outside of the area of disturbance) from stormwater runoff during construction. Best Management Practices will be implemented in accordance with “The Erosion and Sediment Control in New Jersey,” 7th Edition, January 2014.
- Tree and shrub clearing activities will be conducted outside the breeding period of March 15 to September 30 to minimize impacts to the birds of conservation concern that are protected under the Migratory Bird Conservation Act and have the potential to breed within the study area. During this period, construction and demolition areas will be surveyed for the nesting birds. Additional timing restrictions, if required, will be imposed as a condition of the NJDEP Waterfront Development or Freshwater Wetland Permits.
- Restoration of temporarily impacted wetlands disturbed during construction.
- In-water and shoreland construction will include the following methods to mitigate potentially adverse impacts on aquatic biota and habitat:
  - Compliance with seasonal construction limits or prohibitions. To minimize disruption of migration and other impacts on winter flounder; migrating anadromous fishes (alewife, blueback herring, Atlantic sturgeon), and other anadromous fish species, and endangered Atlantic Sturgeon; in-water work will be avoided from January 1 to June 30. Work may proceed during timing restrictions behind dewatered cofferdams, provided that they are installed before January 1 and removed after June 30.
  - Construction of temporary work trestles to limit in-water and shoreland impacts in accordance with plans approved by federal and state regulatory agencies.
  - Use of temporary containment structures (cofferdams, turbidity curtains, etc.) around wetlands; new structures during construction; and existing bridge structures during their removal as required by federal and state permits.
  - Use of noise and vibration attenuation measures such as vibration drilling practical and limiting use of vibratory or impact drilling to the extent. Where impact drilling is the only practical alternative, alternative methods pile tapping and cushioned block impact hammering will be used to deter fish and provide some noise attenuation.
  - Restriction of most construction activities to daylight hours and employment of measures to minimize light exposure if night work is necessitated.
  - Use of construction barges and powered craft for deep water construction. Construction barges within the project area must float at all stages of the tide. Watercraft will operate at low speeds (10 mph or less) within the project area.
  - Use of mechanical means (cranes, excavators, etc.) for removal of existing structures wherever practical. Old bridge structures will be removed to a depth of at least two feet below the mudline outside the navigation channel and five feet below the mudline within the channel or as otherwise required by USCG and USACE. A demolition plan, including contingencies for blasting (if deemed necessary), will be developed in coordination with federal and state resource agencies.
  - Use of horizontal directional drilling (HDD) to relocate buried, underwater utilities. A frac-out contingency plan (a plan to mitigate against inadvertent return of drilling lubricant) will be developed for all HDD and verified as required by permitting agencies.

- Maritime Navigation – NJTRANSIT will coordinate with USCG Waterways Management Branch, Sector NY to ensure adequate maritime navigation during construction.

FTA concludes that with the above measures as approved by federal and state permitting agencies, the Project's construction will not result in significant adverse impacts on protected natural resources or the public.

**Environmental Justice:**

The communities adjacent to the project site in Perth Amboy include minority and low-income populations and are considered environmental justice (EJ) communities. Chapter 4 of the EA includes an Environmental Justice analysis and a summary of NJ TRANSIT outreach to EJ communities potentially affected by the Project. Potential localized adverse effects would be limited to short-term construction activities such as construction noise and dust and would end once construction is completed. The location of potentially adverse impacts (primarily construction noise and dust) are limited to on-shore construction and staging sites. The mitigation measures (limiting construction hours, truck travel, dust and soil erosion best practices, etc.) will be employed in all affected areas and the benefits will accrue equitably.

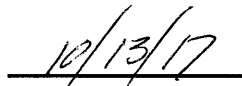
FTA finds that the Project will not result in disproportionately high adverse impacts to the Environmental Justice communities in the study area, since no significant adverse impacts are expected to occur. The adjacent communities will benefit from the more resilient train service on an alignment that is slightly farther away from residential, institutional, and park land uses in Perth Amboy than the existing track alignment.

#### **4.0 FTA NATIONAL ENVIRONMENTAL POLICY ACT FINDING**

FTA has reviewed the EA for the Raritan River Bridge Replacement project dated July 2017, and finds pursuant to 23 CFR 771.121 that the Project, with the mitigation measures committed to by NJ TRANSIT specified in the EA and summarized in this FONSI, will have no significant impact on the environment.



Stephen Goodman, P.E.  
Regional Administrator, Region II  
Federal Transit Administration

  
Date

## 5.0 FTA SECTION 4(F) OF THE DOT ACT OF 1966 DETERMINATION

The Project will require the "use" of Section 4(f) property since it will require the removal of several railroad-related historic architectural resources for construction of the new bridge. The Section 4(f) Evaluation in the EA demonstrates that there is no feasible and prudent alternative to the use of the following historic architectural/archaeological resources.:

- Raritan River Drawbridge;
- The railroad catenary system, referred to as the "Overhead Contact System";
- An electric substation;
- Essay Tower;
- A signal bridge; and
- Vessels 98 and 99

The mitigation measures set forth in the Section 106 PA (see Attachment D) among the FTA, NJHPO, and NJ TRANSIT represent all possible planning to minimize harm to these Section 4(f) resources. The DOI concurred with FTA's Section 4(f) determination in a letter, dated June 7, 2017 (see Attachment B).



Stephen Goodman, P.E.  
Regional Administrator, Region II  
Federal Transit Administration

10/13/17  
Date

### Attachments:

- A. Response to Public and Agency Comments on the Environmental Assessment
- B. Agency Correspondence
- C. EA Table S-2: Summary of Potential Long-Term Adverse Effects and Mitigation
- D. Section 106 of the Historic Preservation Act Project Programmatic Agreement Among the FTA, NJ TRANSIT and NJ SHPO executed August 21, 2017.

## **FINDING OF NO SIGNIFICANT IMPACT**

**Project: Raritan River Bridge Replacement Project**

**Applicant: New Jersey Transit Corporation**

**Project Location: Perth Amboy and South Amboy, New Jersey**

### **Attachment A:**

**Response to Public and Agency Comments on the Environmental Assessment**

## **Response to Public and Agency Comments on the Environmental Assessment**

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FTA and NJ TRANSIT solicited comment on the Project throughout the development of the Environmental Assessment (EA) in accordance with the public outreach plan and as summarized in the EA. Various federal, state, and local agencies were invited to comment as cooperating or participating agencies. Maritime stakeholders were contacted via mailed survey. Public outreach meetings were held in Perth Amboy and South Amboy. The EA was made available for public review and comment from June 14, 2017 through July 14, 2017 and to cooperating and participating agencies. The following is a summary of comments received and FTA's responses.

### **FEDERAL RAILROAD ADMINISTRATION (FRA)**

**Comment 1:** It's not clear if text in main body of the Environmental Assessment (EA) was modified to clarify items that were questioned. For some of these items, it'd be helpful to confirm that text was modified to make clearer.

**Response:** The previous comments and responses from the Federal Transit Administration (FTA) are included in Appendix F-2 of the EA. Any necessary modifications to the EA were indicated within the response to comments.

**Comment 2:** According to the state rail plan "Resolution of this issue and achieving the ability to operate 286K freight rail on lines owned by NJ TRANSIT and Amtrak will require discussion and negotiation of operating and maintenance cost sharing agreements to establish an equitable distribution of remedial cost among private freight carriers and public transportation agencies." Have these agreements/discussions/negotiations between freight and passenger service providers taken place and/or been put in place?

**Response:** NJ TRANSIT has existing operating agreements with Conrail Shared Assets. Currently, NJ TRANSIT allows 267K car capacity over the Raritan River Bridge to allow Conrail to optimize their business. NJ TRANSIT and Conrail have had ongoing discussions regarding the ability to operate 286K freight rail.

**Comment 3:** The state rail plan indicates a request for increased capacity to 286K through this segment of track. Does the line interchange with 286K capacity track at both ends of the segment (looking more to the West)? The state rail plan is hard to determine.

**Response:** Conrail's Chemical Coast Secondary meets the North Jersey Coast Line at Wood Interlocking, which is located in Perth Amboy. The car capacity on this

rail segment is 286K. The Amboy Secondary, which is the track west of the Raritan River Bridge, has a maximum car capacity of 270K for open box cars.

It should be noted that the industry standard for freight cars is currently 286K. By designing the bridge for future freight car capacity, it ensures that proposed bridge will not limit the expansion of the freight industry in the state. As previously mentioned and detailed in Section 3.7.1.2 “Freight Railroad Operations”, there are no current plans to operate heavier freight trains across the bridge. However, bridges that are not designed to current standards have an increased likelihood of becoming functionally obsolete prior to the end of their useful life. The proposed design to accommodate this freight weight capacity contributes to a more durable and resilient bridge.

**Comment 4:** The project goals state the design is for 60 miles per hour (mph); however, the No. 20 TO max design speed is only 50 mpg. Please clarify the response here.

**Response:** The new interlocking on the north shore in Perth Amboy will replace a No. 10 universal crossover with a No. 20 universal crossover. As part of the new Perth interlocking, this area of diverging track will have a maximum speed of 45 mph. The design speed of 60 mph applies to the area of track over the new bridge.

#### **UNITED STATES ARMY CORPS OF ENGINEERS**

**Comment 5:** I reiterate my comment that Corps jurisdiction is for Section 404 only. There is no Section 10 jurisdiction.

**Response:** FTA notes that permitting for Section 10 of the Rivers and Harbors Act of 1899 will not be necessary for the proposed project.

**Comment 6:** I reiterate my comment that the 404(b)(1) guidelines should be addressed in the EA. Simply saying they will be addressed at a later time does not satisfy the need for a rigorous alternatives analysis that shows how impacts to the aquatic environment were first avoided and minimized before compensatory mitigation is proposed.

**Response:** In accordance with 40 CFR Part 230, Section 404(b)(1) *Guidelines for Specification of Disposal Sites for Dredged or Filled Material*, a detailed alternatives analysis will be prepared for submission with the USACE permit application. However, a preliminary analysis to address these guidelines has been drafted and included here for reference in **Attachment 1**. The analysis will be finalized as the design advances and submitted as part of the permit application in late 2017. This detailed analysis is based on the Alternatives Analysis included in Appendix A of the EA.

**NOAA NATIONAL MARINE FISHERIES SERVICE**

**Comment 7:** The Essential Fish Habitat (EFH) Assessment (Appendix C-3) should be revised to include a listing of all EFH species at the project site. Please refer to our website <https://www.greateratlantic.fisheries.noaa.gov/hcd/index2a.htm>. As the project location is in the Raritan Estuary, select the “Estuaries” link on the webpage, select New Jersey, and then select “Hudson River/ Raritan/ Sandy Hook Bays” for a comprehensive list of EFH species at the project location. The assessment should include a full evaluation of the impacts of the project on EFH, as well as efforts to avoid, minimize, and mitigate impacts to the extent practicable, using the EFH worksheet as a guide.

**Response:** A comprehensive list of EFH species at the project site was included in Table 3.11-4 of the EA. A full evaluation of the impacts on EFH was discussed in Section 3.11.1-6 of the EA. Efforts to avoid, minimize, and mitigate impacts was discussed in Section 3.11.3.7 of the EA, as well as the separate informal Section 7 consultation correspondence with NMFS. The EFH worksheet was revised to include all species for FTA’s separate consultation with the NMFS Protected Resources Division.

**Comment 8:** NOAA Trust Resources for the project location include diadromous fishes (alewife, blueback herring, American shad, American eel, striped bass), shellfish, blue crabs, horseshoe crabs, etc. Atlantic sturgeon is listed in the draft EFH assessment as a NOAA Trust Resource. This species is listed under the Endangered Species Act, not the Magnuson Stevens Act which regulates EFH. It should be removed from the EFH section and added to a section on threatened and endangered species. Coordination with our Protected Resources Division should be done separately.

**Response:** The above listed species are included in Section 3.11.1.6 “Essential Fish Habitat” of the EA. Atlantic sturgeon was previously removed from the EFH discussion and included in Section 3.11.1.7, “Threatened and Endangered Species”. The EFH worksheet was revised to include all species for FTA’s separate consultation with the NMFS Protected Resources Division. A separate informal Section 7 consultation was coordinated with NMFS.

**Comment 9:** In addition to the timing restriction for anadromous fishes (March 1 – June 30) already mentioned in the DEA, a timing restriction for winter flounder (January 1 – May 31) may be necessary for in-water work. The use of turbidity curtains will not offset either timing restriction. A method to avoid these two timing restrictions would be to use cofferdams for any in-water work; cofferdams must be put into place before the start and removed after the end of any timing restrictions. If work is proposed to occur within the cofferdams during the anadromous fish window, work should be done in the dry to avoid noise impacts

to migrating fish. Other options may be available to reduce the noise effects, but further analysis will be needed to determine if they are sufficient. The DEA describes the use of cofferdams for the installation of temporary trestle bridges on both shores and several bridge piers that will be constructed in open water. However, it is unclear if “open water” refers only to the deep water of the channel or to the entire width of the river. To clarify this, a diagram of the bridge showing any in-water bridge piers should be provided.

**Response:** Any in-water work would take place either outside of the combined window of timing restrictions (January 1 through June 30) or within dewatered cofferdams for the entire width of the river. Detailed drawings with the in-water piers will be included as part of the permitting process. These mitigation measures are included in the Finding of No Significant Impact (FONSI), and will be incorporated in the contract documents to be followed during the construction and demolition period.

**Comment 10:** Detailed information should be provided on the type and areal extent of tidal wetlands impacted, as well as efforts to avoid, minimize, and mitigate impacts to the extent practicable. Compensatory mitigation should be provided for all wetlands that will be impacted by this project. The applicant should develop a detailed compensatory mitigation plan for review and comment prior to construction. The detailed plan should be prepared in accordance with the requirements of the 2008 mitigation rules and should include performance measures, success criteria, and a long-term monitoring and maintenance plan.

**Response:** A compensatory mitigation plan will be developed for review prior to construction of the project. Mitigation for the approximately 0.4 acres of NJDEP-mapped freshwater wetlands in South Amboy and two acres of NJDEP saline coastal tidal marsh in Perth Amboy that will be affected will include avoidance and minimization of impacts to the maximum extent practicable, acquisition and adherence to applicable permit conditions, and compensatory mitigation at a 2:1 ratio, which could include purchasing credits from an approved wetland mitigation bank, or on-site mitigation.

For additional information, please see response to Comment 6 above.

**Comment 11:** Construction barges must float at all stages of the tide.

**Response:** To mitigate the potential effects of construction activities, best practices will be implemented and monitored in the field. Construction activities will comply with the conditions set forth by NMFS, as detailed in the FONSI.

**Comment 12:** A frac-out plan should be developed for all horizontal directional drilling. The document does not need to be provided to us, but evidence of its existence must be provided.

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## Response to Public and Agency Comments on the Environmental Assessment

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**Response:** A frac-out plan will be developed for all horizontal drilling and confirmation of the plan will be verified through inclusion in USACE permits. To mitigate the potential effects of construction activities, best practices will be implemented and monitored in the field. Construction activities will comply with the conditions set forth by NMFS, as detailed in the FONSI.

**Comment 13:** All areas of temporary impact should be restored and monitored to ensure restoration success.

**Response:** To mitigate the potential effects of construction activities, best practices will be implemented and monitored in the field. Construction activities will comply with the conditions set forth by NMFS, as detailed in the FONSI.

### NEW JERSEY DEPARTMENT ENVIRONMENTAL PROTECTION

**Comment 14:** Land Use Permitting: Per the Environmental Assessment/Draft Section 4(f) Evaluation, dated June 2017, the project will impact 0.40 acres of freshwater wetlands. Therefore, the proposed project will require an Individual Freshwater Wetlands Permit. The proposed project is also located within the Coastal Zone and therefore requires both an Upland Waterfront Development Permit and an In-Water Waterfront Development Permit. Any construction within a flood hazard area located at a distance greater than 500 feet from the mean high water line will also require a Flood Hazard Area Permit.

**Response:** During final design the Project Team will apply for permits, as necessary, including the Flood Hazard Area permit.

**Comment 15:** Surface Water Permitting: Any discharge to the combined system should be during dry weather in order to minimize CSO outfall discharges. If a discharge to surface water becomes necessary, a NJPDES Discharge to Surface Water permit will be needed. Provided that the discharge is not contaminated, the appropriate discharge permit will be the B7- Short term De minimis permit. If, however, if the discharge is contaminated the appropriate NJPDES discharge to surface water permit will be the BGR — General Remediation Cleanup permit.

**Response:** During final design the Project Team will apply for permits, as necessary, including the Discharge to Surface Water permit.

**Comment 16:** NJDPES: Bureau of Non-Point Pollution Control: Construction projects that disturb 1 acre or more of land, or less than 1 acre but are part of a larger common plan of development that is greater than 1 acre, are required to obtain coverage under the Stormwater construction general permit (5G3).

**Response:** During final design the Project Team will apply for permits, as necessary, including the 5G3 permit.

**Comment 17:** Historic Preservation Office: On page 3-20 of the draft EA, the second bullet under Section 3.6.3.2 should be changed from "three other contributing resources" to "two other contributing resources" of the New York and Long Branch Railroad Historic District. Although three contributing resources were identified in the Section 106 review process, only two of the three will be adversely affected.

**Response:** Comment noted, the FONSI will correctly note which two of the five adversely affected architectural resources are contributing resources to the NY&LRB Railroad Historic District.

**Comment 18:** Green Acres Program: Based on the maps included in the information provided by the applicant, it is not entirely clear exactly which blocks and lots are covered by the proposed project area. As the applicant notes, however, the area for the proposed 2<sup>nd</sup> Street Park lies to the east directly adjacent to the railroad right of way in Perth Amboy. While Green Acres currently has an open project agreement where Perth Amboy will potentially be reimbursed for the acquisition of the property, payment has not yet been made due to ongoing contamination issues and therefore the property is not Green Acres encumbered parkland. 2<sup>nd</sup> Street Park will potentially include the following blocks/lots: Block 10, Lots 1, 1.01, 1.02, 2-12; and Block 16, Lots 1.01, 1 & 2.

However, if reimbursement occurs while the bridge project is ongoing, the property will become encumbered and any use, even temporarily, by the applicant will require prior approval from the Green Acres Program. Therefore, if the project will impact of the above-referenced parcels, the applicant should notify Green Acres to determine whether those parcels have become encumbered.

**Response:** The project area in the EA identified areas required for the proposed project footprint, as well as temporary construction areas. It is anticipated that the 2<sup>nd</sup> Street Park property would be avoided during construction and therefore would not require approval from the Green Acres Program.

**Comment 19:** Given the project's location at the intersection of the Arthur Kill, Raritan Bay and Raritan River the Bureau of Water Allocation and Well Permitting would not regulate construction related dewatering for this project.

**Response:** During final design the Project Team will review the need for any permits required for dewatering.

**Comment 20:** Air Quality Permitting: A preliminary review of the information supplied to the Bureau of Stationary Sources does not indicate any stationary source permit applicability. However, please review NJAC 7:27-8.2 to determine air permit

applicability for all operations at this site including the need to file for a new air permit(s) or to make changes to any existing air permit(s).

**Response:** NJ TRANSIT will review the need to file for a new air permit prior to rail service operating on the bridge.

**Comment 21:** Air Mobile Sources: Diesel exhaust contributes the highest cancer risk of all air toxics in New Jersey and is a major source of NO<sub>x</sub> within the state. Therefore, NJ DEP recommends that construction projects involving non-road diesel construction equipment operating in a small geographic area over an extended period of time implement the following measures to minimize the impact of diesel exhaust:

- All on-road vehicles and non-road construction equipment operating at, or visiting, the construction site shall comply with the three minute idling limit, pursuant to N.J.A.C. 7:27-14 and N.J.A.C. 7:27-15. Consider purchasing "No Idling" signs to post at the site to remind contractors to comply with the idling limits. Signs are available for purchase from the Bureau of Mobile Sources at 609/292-7953 or <http://www.stopthesoot.org/sts-no-idle-sign.htm>.
- All non-road diesel construction equipment greater than 100 horsepower used on the project for more than ten days should have engines that meet the USEPA Tier 4 non-road emission standards, or the best available emission control technology that is technologically feasible for that application and is verified by the USEPA or the CARE as a diesel emission control strategy for reducing particulate matter and/or NO<sub>x</sub> emissions.
- All on-road diesel vehicles used to haul materials or traveling to and from the construction site should use designated truck routes that are designed to minimize impacts on residential areas and sensitive receptors such as hospitals, schools, daycare facilities, senior citizen housing, and convalescent facilities.

**Response:** To comply with the requirements of N.J.A.C. 7:27-14 and N.J.A.C. 7:27-15 NJ Transit use its best practice measures to reduce and mitigate diesel exhaust three minute idling, dust control measures, using Tier 4 or best available non-road equipment, and utilizing existing truck routes.

## **DELAWARE TRIBE HISTORIC PRESERVATION REPRESENTATIVES**

**Comment 22:** Thank you for providing the report for the above referenced project. Our review indicates that there could be religious or culturally significant sites within this project area. The cultural sites can be both above and below the water. We look forward consulting on this project.

Correction: S.4- Section 106 Coordination, 2nd paragraph

The Delaware Tribe of Indians of Oklahoma has agreed to become a consulting party, not just the New Jersey Historic Preservation Office

(HPO). The NJHPO handles the consultation, but it is doing so for the Tribe.

We ask that in the event a concentration of artifacts and/or in the unlikely event any human remains are accidentally unearthed during the course of the project that all work is halted until a qualified archaeologist can evaluate the find and the Delaware Tribe of Indians is informed of the inadvertent discovery.

**Response:** FTA and NJ TRANSIT will consult with the Delaware Nation and Tribe if any human and/or cultural remains are discovered during project construction. Section IV Paragraphs E and F of the Section 106 Programmatic Agreement (PA) for this project commit the signatories to notify and consult with both the Delaware Tribe and Delaware Nation representatives if any human and/or cultural remains are discovered. The PA explicitly adopts by reference the commitments for treatment of any inadvertent finds specified in the “Delaware Tribe of Indians Policy for the Treatment and Disposition of Human Remains and Cultural Items That May be Discovered Inadvertently during Planned Activities.” FTA will notify Tribal representatives if the scope of the project changes and alters the Area of Potential Effects and if inadvertent discoveries necessitate changes to project design.

#### **DELAWARE NATION**

**Comment 23:** The protection of our tribal cultural resources and tribal trust resources will take all of us working together. We look forward to working with you and your agency. With the information you have submitted we can concur at present with this proposed plan. As with any new project, we never know what may come to light until work begins. The Delaware Nation asks that you keep us up to date on the progress of this project and if any discoveries arise please contact us immediately.

**Response:** Please see response to Comment 22.

#### **MIDDLESEX COUNTY OFFICE OF CULTURE AND HERITAGE, DIVISION OF HISTORIC SITES AND HISTORY SERVICES**

**Comment 24:** We are requesting that a copy of the final report with any HAER and HABS photographs be deposited with our office. We also are requesting to be involved in the continued mitigation process, especially with vessels 98 & 99.

**Response:** NJ TRANSIT will provide the Middlesex County Office of Culture and Heritage, Division of Historic Sites and History Services with a copy of the final report; and any HAER and HABS photographs resulting from the archaeological investigation of vessels 98 and 99. FTA will ensure the request to be involved with the mitigation process is on record with the New Jersey State

## **Response to Public and Agency Comments on the Environmental Assessment**

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Historic Preservation Office and archaeologist contracted to oversee the mitigation of archaeological finds.

## **Alternatives Analysis in Compliance with 40 CFR Part 230 – Section 404(b)(1) Guidelines**

Section 404(b)(1) *Guidelines for Specification of Disposal Sites for Dredged or Fill Material* (40 CFR 230) are used in evaluating activities regulated under Section 404 of the Clean Water Act. The guidelines require an evaluation of practicable alternatives to a proposed discharge which would have less adverse impact on the aquatic ecosystem. The *Raritan River Bridge Replacement Environmental Assessment* (EA), dated June 2017, conservatively identified approximately wetland impacts within a proposed project area. The EA listed potential impacts to 0.4 acres of New Jersey Department of Environmental Protection (NJDEP) freshwater wetlands that occur within the study area in South Amboy, and approximately two acres of NJDEP regulatory mapped (per the Wetlands Act of 1970) saline coastal tidal marsh located within study area with the potential to be adversely affected by the Preferred Alternative (aka the Build Alternative) (see **Figure 1**). Subsequent to the completion of the EA and further advancement of the preliminary engineering design, a wetland delineation was completed, and potential wetland impacts were found to decrease. This alternatives analysis was performed to satisfy the requirements of Section 404 of the Clean Water Act.

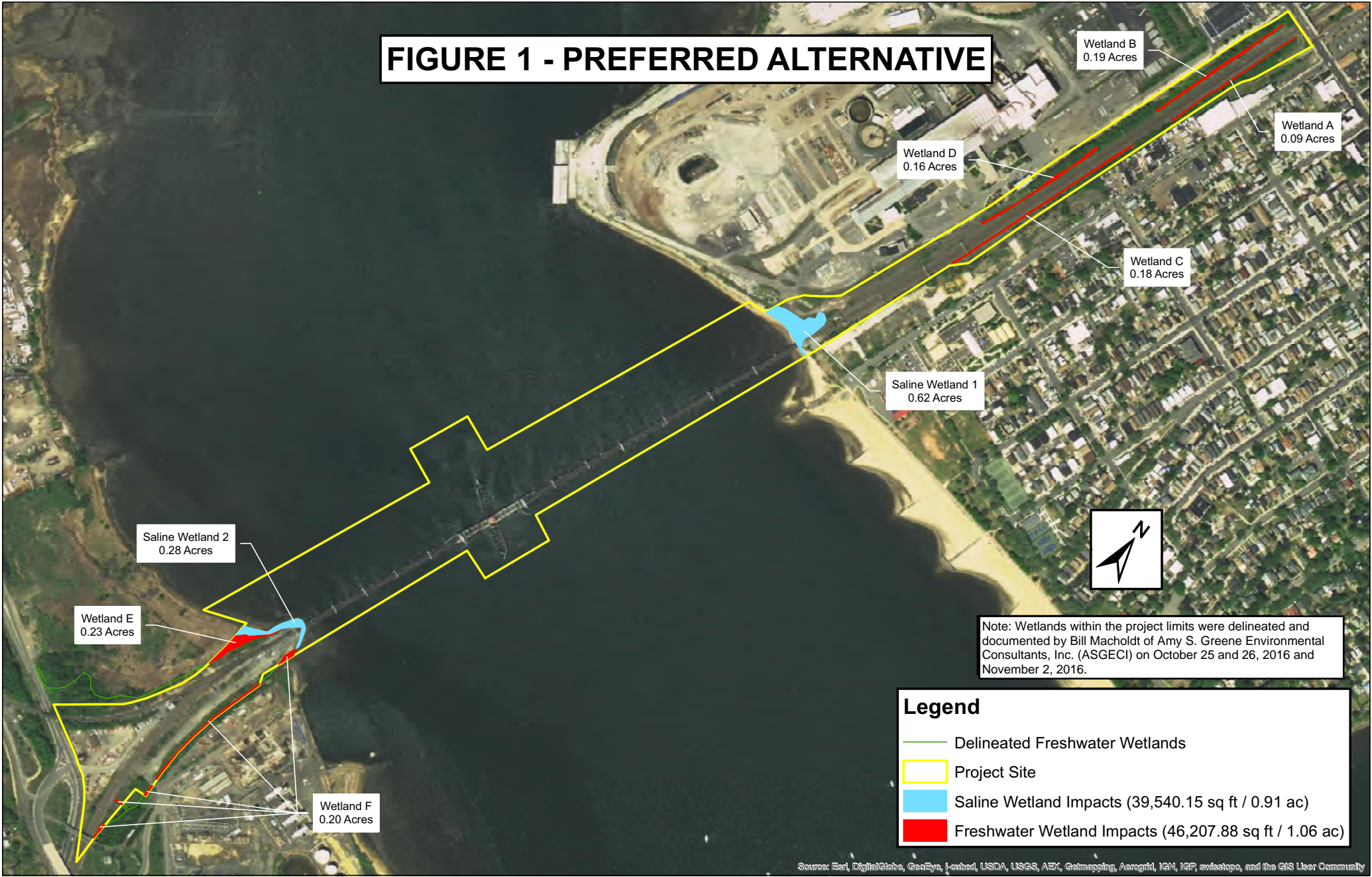
As part of the EA, an Alternatives Analysis was performed in accordance with FTA guidance (see Appendix A of the EA). The alternatives analysis includes the development of screening evaluation criteria based on the goals and objectives established for the project, and screening the potential alternatives to determine reasonableness by separating those that are unreasonable from those that are reasonable and must be carried forward for detailed study. An alternative that does not meet the project's purpose and need is, by definition, unreasonable and can be eliminated from further consideration. An alternative that does meet the project's purpose and need can still be rejected as unreasonable based on other factors, including environmental impacts, engineering considerations, and cost. In accordance with 404(b)(1) guidelines, "An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes". If there are two alternatives that both meet the project's purpose and need to a similar degree, but one of them is higher-impact and more costly, those factors can be cited as a basis for rejecting the higher-impact alternative as unreasonable.

### **IDENTIFICATION OF ALTERNATIVES**

For the purposes of evaluating wetland compact alternatives per the Section 404(b)(1) guidelines, NJ TRANSIT and its consultant team identified and evaluated a number of alternatives, including the following:

- No Action Alternative;
- Rehabilitation Alternative; and
- Bridge replacement alternatives, as follows:
  - Bridge alignment within the footprint of the existing bridge;
  - Fixed span (non-moveable) bridge alignment (to the east or west of existing bridge);

**FIGURE 1 - PREFERRED ALTERNATIVE**



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Moveable span bridge to the east of the existing alignment;
- Moveable span bridge to the west of the existing alignment with center span perpendicular to the navigation channel; and
- Moveable span bridge to the west of the existing alignment.

## **DESIGN GUIDELINES FOR REPLACEMENT BRIDGE ALTERNATIVES**

The design of any replacement bridge for Raritan River Bridge must meet certain railroad operating requirements and should optimize the horizontal and vertical alignments to improve marine navigation and the resiliency of the bridge, and its railroad operations, to severe weather events.

### **HORIZONTAL ALIGNMENT**

The horizontal alignment should be as straight as practicable, to avoid the need to slow trains for a curve, and should reconnect to the existing main line tracks of the New Jersey Coast Line (NJCL) as soon as practicable, to limit the need for work outside the railroad right-of-way and acquisition of property.

### **VERTICAL ALIGNMENT**

The vertical alignment should be raised as high as practicable, to raise the bridge above NJ TRANSIT's Design Flood Elevation. However, the maximum elevation that can be achieved is limited by the need to maintain a shallow grade of no more than 1.5 percent, to accommodate both passenger and freight trains, and the need to reach existing grade to the north and south of the bridge within a fairly short distance. The tracks should meet the existing grade prior to the Perth Amboy and South Amboy rail stations (to the north and south of the bridge, respectively), to avoid the need for modifications to those historic stations. The tracks should also meet the existing grade in South Amboy prior to the roadway overpass near Main Street, to avoid the need for changes of this crossing.

The new bridge should provide for a minimum of 110 feet of vertical clearance within the navigational channel. This criterion is based on the height of the adjacent Victory Bridge, which is upstream of the Raritan River Bridge. The Victory Bridge, which carries Route 35 across the Raritan River, is a fixed bridge constructed in 2003-2004 to replace a moveable bridge.

### **RESILIENT DESIGN**

Any new bridge must also be designed to be resilient to severe storm events. As indicated above, bridge elements should be raised above NJ TRANSIT's Design Flood Elevation, which is 2.5 feet above the Federal Emergency Management Agency (FEMA) base flood elevation (BFE) where practicable, and/or all bridge components should be designed to be resilient to saltwater and ocean surges.

### **NAVIGATIONAL IMPROVEMENTS**

The existing navigational channel on either side of the bridge is 300 feet wide. As it passes beneath the bridge, the channel divides around the bridge's center pier (i.e., the location of the swing span when the bridge is open), creating two narrow channels: a 124-foot-wide north channel and a 125-foot-wide south channel. This creates an obstacle for maritime traffic. In addition, the alignment of the bridge is such that the marine channel is slightly skewed in

comparison to the bridge's fenders and central pier. The combination of the obstacle created by the center pier, the narrower channels, and this misalignment has contributed to numerous collisions at the bridge channel in which both bridge and marine vessels have been damaged. The new bridge should improve this condition by addressing the skew of channel relative to the bridge, or by removing the center pier altogether.

#### **OPERATING REQUIREMENTS**

To optimize operations on the NJCL, the target design speed for passenger trains on the bridge is up to 60 miles per hour. Additionally, the new bridge should accommodate freight trains with heavier rail cars, up to 315,000 pounds per rail car, a key goal identified in the *New Jersey Statewide Freight Rail Strategic Plan* (2014)<sup>1</sup> and a goal identified by Conrail, which operates freight rail trains over the bridge.

#### **EVALUATION OF ALTERNATIVES**

The No Action, Rehabilitation, and Bridge Replacement alternatives were evaluated with respect to the screening evaluation criteria established for the proposed project. Each of the alternatives is evaluated in the context of the above Design Guidelines and their subsequent impacts on wetlands.

##### **NO ACTION ALTERNATIVE**

In the No Action Alternative, the existing Raritan River Drawbridge would remain in service as is, with continued maintenance to address conditions as they arise. In this alternative, the track bed would retain its existing elevation (8 feet above mean high water and 13 feet above mean low water). In this alternative, the elevation of the tracks at top of rail is 19 feet, only 1 foot above the FEMA BFE. This means that in a severe storm, the bridge girders would be well below the ocean surface and vulnerable to powerful ocean water surges driven by tides and winds, such as occurred during Sandy. The bridge's operating machinery would remain below the FEMA BFE and subject to continued damage from water infiltration. Prolonged service disruptions would be expected to occur after severe weather events for emergency repairs and inspections.

The No Action Alternative would require trains to be operated at the reduced speed limits that have been in place since Sandy, with passenger trains operating at 30 mph and freight trains operating at 20 mph.

This alternative was eliminated from further consideration due to its failure to meet any of the screening evaluation criteria established for the proposed project.

The No Action Alternative would have no direct impacts on regulated wetlands but is not acceptable because it does not meet the evaluation criteria established for the proposed project.

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<sup>1</sup> New Jersey Department of Transportation, *New Jersey Statewide Freight Rail Strategic Plan, Moving New Jersey Forward*, June 2014.  
<http://www.state.nj.us/transportation/freight/plan/pdf/FRSP.pdf>

## **REHABILITATION OF THE EXISTING BRIDGE**

Rehabilitation of the existing bridge on the existing alignment while maintaining train operations across the bridge during construction is not feasible. Rehabilitation to address the damage caused by Sandy and to upgrade the bridge to meet current standards and requirements for storm resilience would require extensive retrofitting of substructure and foundation. However, there is inadequate clearance beneath the bridge to drive the required sheet piles, and retrofitting of the main span piers would require narrowing the navigational channel.

In addition, the existing bridge girders, mechanical equipment, and rail would remain in place and therefore the bridge would continue to be vulnerable to storm damage. The track bed would retain its existing elevation (8 feet above mean high water and 13 feet above mean low water). In this alternative, the elevation for the tracks at top of rail is 19 feet, only 1 foot above the FEMA BFE. This means that in a severe storm, the bridge girders would be well below the ocean surface and vulnerable to powerful ocean water surges driven by tides and winds, such as occurred during Sandy. The bridge's operating machinery would remain below the FEMA BFE and subject to continued damage from water infiltration. Prolonged service disruptions can be expected to occur after severe weather events to for emergency repairs and inspections.

This alternative will have adverse impacts to open water and will impact the existing navigation channel. It will not have adverse impacts to existing wetlands. However, the alternative was eliminated from further consideration due to its failure to meet any of the screening evaluation criteria established for the proposed project.

## **REPLACEMENT BRIDGE ALTERNATIVES**

### ***I. ALIGNMENT WITHIN FOOTPRINT OF CURRENT BRIDGE***

Replacing the existing bridge within the existing alignment while maintaining train operations across the bridge during construction is not feasible. It would require a complete shutdown of train operations across the river for approximately three years while the new bridge is being constructed. The existing piers and bridge deck cannot be replaced in part while maintaining train operations. Shutting down train operations would result in significant adverse impacts to the regional roadway network and affect regional economic productivity due to time spent in increased traffic congestion. This alternative was eliminated from further consideration due its failure to avoid impacts to NJCL and Conrail operations and its inability to minimize adverse impacts and property acquisition.

In the context of wetland impacts, this alternative would have impacts commensurate with the preferred alternative. For the basis of estimating wetland impacts, the Project Site was widely defined as an area in and around the existing structure. Wetland impacts were conservatively calculated based upon the area of wetlands within the Project Site to account for changes during the design process, staging, construction and other impacts. Using the same methodology and same Project Site boundaries as shown in Figure 3.10-1 of the EA, the wetland impacts associated with this alternative would be calculated as the same as the preferred alternative.

This alternative was eliminated from further consideration due its failure to meet the screening evaluation criteria 3 and 7.

II. *FIXED SPAN ALIGNMENT*

On the west side of the existing bridge, NJ TRANSIT evaluated the potential for a fixed bridge, which would be high enough above the navigational channel to allow maritime traffic to pass beneath the bridge without a bridge opening. As indicated above, the fixed bridge would need to provide vertical clearance of 110 feet, the same height as the Victory Bridge, which is the next bridge upstream of the Raritan River Drawbridge.

Because of the need to provide a shallow grade of no more than 1.5 percent to accommodate freight trains, the fixed bridge alternative would require new landside approach tracks extending more than a mile north of the river in Perth Amboy (approximately 4,300 feet north of the Perth Amboy rail station) and approximately a mile south of the river in South Amboy (approximately 2,100 feet past the South Amboy station) before tying back into the existing NJCL tracks. This is far longer than the new approach tracks that would be needed for a moveable span, which would be less than 1,000 feet on either side of the bridge in either a western or an eastern alignment. This in turn would result in the need for acquisition of portions of up to 48 properties. In addition, the Perth Amboy and South Amboy stations would need to be raised approximately 65 feet and 55 feet, respectively, to align with the new higher tracks. Subsequently, a fixed bridge alignment would result in the loss of the historic Perth Amboy and South Amboy train station buildings. Moreover, the higher tracks could be visually intrusive to the surrounding neighborhoods, especially in the Perth Amboy residential neighborhoods close to the railroad tracks.

A fixed span bridge alignment to the east of the existing bridge was also eliminated from further consideration for the same reasons discussed above. The long track approaches would require acquisition of portions of up to 23 properties on this alignment.

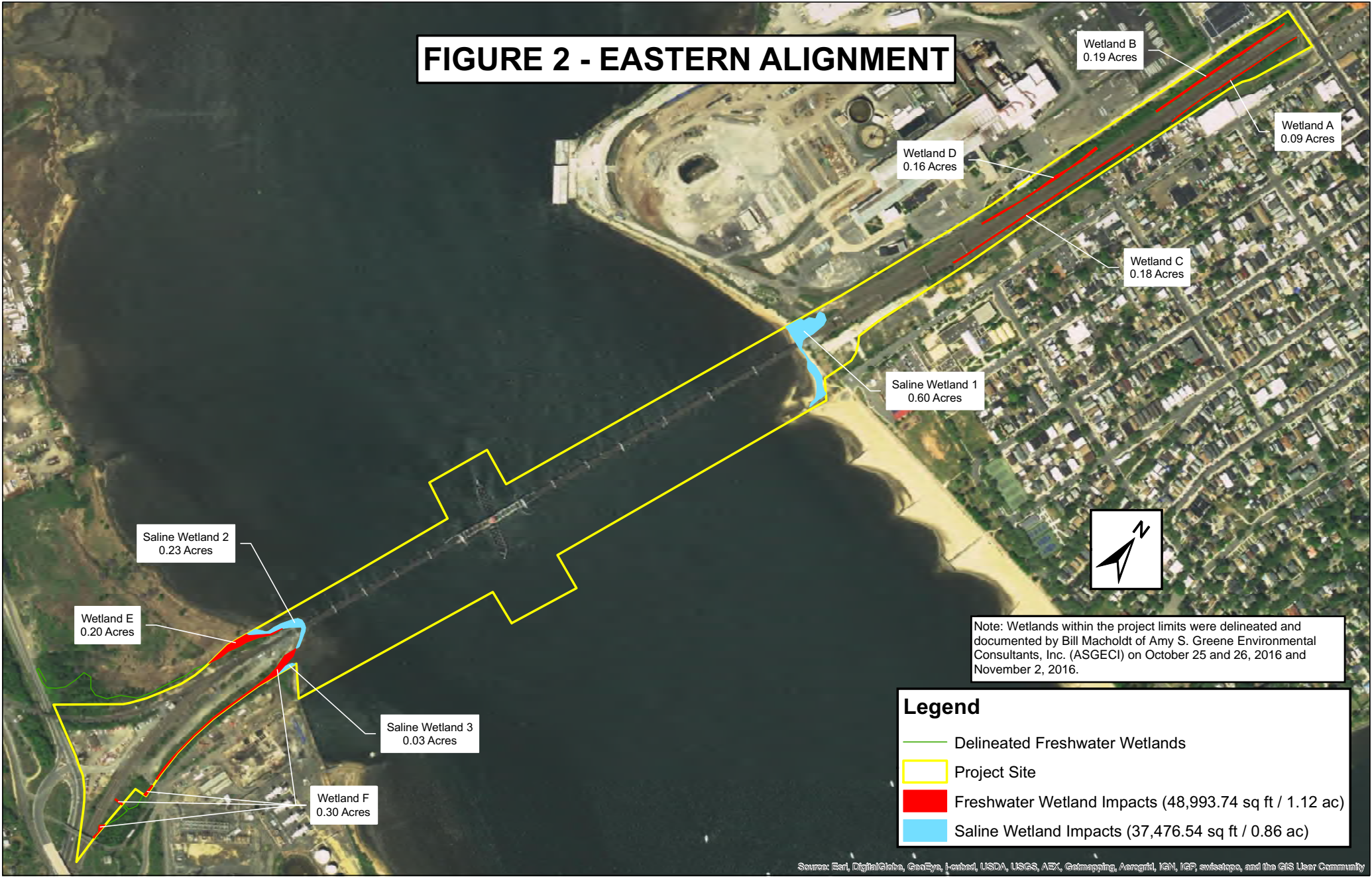
In the context of wetland impacts, the extension of the tracks and improvements 4,300 feet north of the Perth Amboy Station and 2,100 feet past the South Amboy station including the corresponding embankments would have a significantly greater impact on wetland quantities than the preferred alternative.

Given the magnitude of environmental impacts that would result under this alternative and the extensive property acquisitions that would be required, the fixed span bridge alternative was eliminated from further consideration.

III. *MOVEABLE SPAN BRIDGE TO THE EAST OF EXISTING BRIDGE*

This alternative provides for a bridge on an alignment east of the existing structure generally parallel to the existing alignment (see **Figure 2**). This alternative would be designed to meet current structural design standards and NJ TRANSIT's Design Flood Elevation criteria, and accommodate freight trains with heavier rail cars. However, the track geometry of the alignment does not allow for the 60 mph operating requirement to be met due to a curve on the South Amboy side of the river. Trains would operate at slower speeds than pre-Sandy conditions (30 mph instead of the 45 mph operation prior to Sandy). The proposed alignment would be between 80 to 210 feet away from the existing center span of the bridge, depending on the moveable span option selected for the center span. River access to the bridge during construction would be from upriver (the inland side of the bridge), which would impact the construction schedule and/or railroad operations due to the need to open and close the swing span of the existing bridge for construction access. Depending on the moveable span option

# FIGURE 2 - EASTERN ALIGNMENT



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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selected, to varying degrees, marine navigation would be maintained and/or improved during construction and operation. An eastern alignment would require greater property acquisition than the western alignment, including active businesses, the site of a proposed park (2nd Street Community Park), and potentially a small area of an existing park (Sadowski Parkway Waterfront Park). Based on the overall project area, wetland impacts would exceed impacts from the Build Alternative (western alignment alternative). Construction on the eastern alignment would require the removal of old pier foundations from an old bridge that was in place prior to the existing Raritan River Drawbridge. This additional in-water work could result in a range of potential aquatic impacts. This alternative was eliminated from further consideration based on its relative performance, compared to the western alignment, with respect to several of the screening evaluation criteria.

### **IV. *MOVEABLE SPAN BRIDGE PERPENDICULAR TO THE NAVIGATION CHANNEL***

This alternative provides for a bridge on an alignment west of the existing structure and perpendicular to the existing navigation channel at the main span. This alternative would be designed to meet current structural design standards and NJ TRANSIT's Design Flood Elevation criteria, and would accommodate freight trains with heavier rail cars. This alignment would achieve the 60 mph curve on the South Amboy side, however, track geometry to the east of the curve may lead to reverse curvature, which is a less than ideal operating condition. The proposed alignment would be approximately 80 feet from the existing alignment across the southern half of the river, but would swing out to a maximum of approximately 400 feet from the bridge just north of the existing swing span. River access to the bridge would be from upriver (the inland side of the bridge), which would allow for the movement of construction materials without impact to railroad operations during construction, since the existing swing span would not have to be opened for most of the material and equipment movement. The existing bridge would remain in operation throughout the construction phase of the project, and impacts to rail operations and marine navigation would be relatively minor. While this alignment would optimize marine navigation by addressing the skew of the channel relative to the bridge, its construction would lead to increased construction cost and longer construction durations due to the complex girder configurations and non-uniform sections dictated by the curves in the alignment. This alternative would require more property acquisition and impact wetlands on the South Amboy shore to a greater degree than the western alignment described above.

### **V. *MOVEABLE SPAN BRIDGE TO THE WEST OF EXISTING BRIDGE***

This alternative is the Build Alternative and provides for a bridge on an alignment west of the existing structure generally parallel to the existing alignment. This alternative would be designed to meet current structural design standards and NJ TRANSIT's Design Flood Elevation criteria, would meet the 60 mph operating requirement, and accommodate freight trains with heavier rail cars. The proposed alignment would be between 80 to 210 feet away from the existing center span of the bridge, depending on the moveable span option selected for the center span. River access to the bridge would be from upriver (the inland side of the bridge), which would allow for the movement of construction materials without impact to railroad operations during construction, since the existing swing span would not have to be opened for most of the material and equipment movement. The existing bridge would remain in operation throughout the construction phase of the project, and impacts to rail operations and marine

## **Section 404(b)(1) Alternatives Analysis**

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navigation would be relatively minor. Depending on the moveable span option selected, to varying degrees, marine navigation would be maintained and/or improved during construction and operation. The alignment would be primarily within the railroad's right-of-way with minor property acquisition requirements on the north and south shore. Since this alternative meets all of the criterion established for the proposed project it was retained for detailed analysis in the Environmental Assessment.

Subsequent to the initial findings of the EA, a further analysis of the engineering design has allowed for a refinement of the potential permanent wetland impacts. Originally, wetland impacts were assessed conservatively based upon a generalized project impact area and NJDEP mapping sources. Upon consultation with the design engineers, permanent wetland impacts have been substantially reduced in both Perth Amboy and South Amboy.

### **PERTH AMBOY**

There is a section of wetlands identified by NJDEP as part of their Wetlands Act of 1970 that is within the project area of the proposed western alignment. The extent of the wetlands is identified by the Upper Wetland Boundary (UWB) on official NJDEP maps. The wetland area in this location can be described as severely degraded (see attached photo in **Figure 3**). As part of the USACE 404 jurisdictional determination process, it is likely that most if not all of the designated area would not be considered as a wetland. However, for the purposes of this analysis, it is considered jurisdictional because of the NJDEP mapping.

Two alternatives were evaluated to minimize impacts to the NJDEP-mapped wetland in Perth Amboy. The first, identified as Option 1, utilizes a combination of fill and retaining walls to limit impacts (see attached CVL-0204, Option 1). This alternative impacts approximately 8,000 square feet (0.184 acres) of NJDEP mapped wetlands. Option 2 provides for a structured system to bridge the NJDEP wetland area (see CVL-0204, Option 2). Wetland impacts under this option account for approximately 300 square feet (0.007 acres) of impact to NJDEP mapped wetlands. The net difference is approximately 0.17 acres of impacts. The construction of Option 2 with structure over the wetland area would have a significant cost increase over Option 1. Based upon the minimal increase in wetland impacts, the degraded nature of the area, and the cost differential between the two options, the preferred alternative for this section of the project is Option 1.

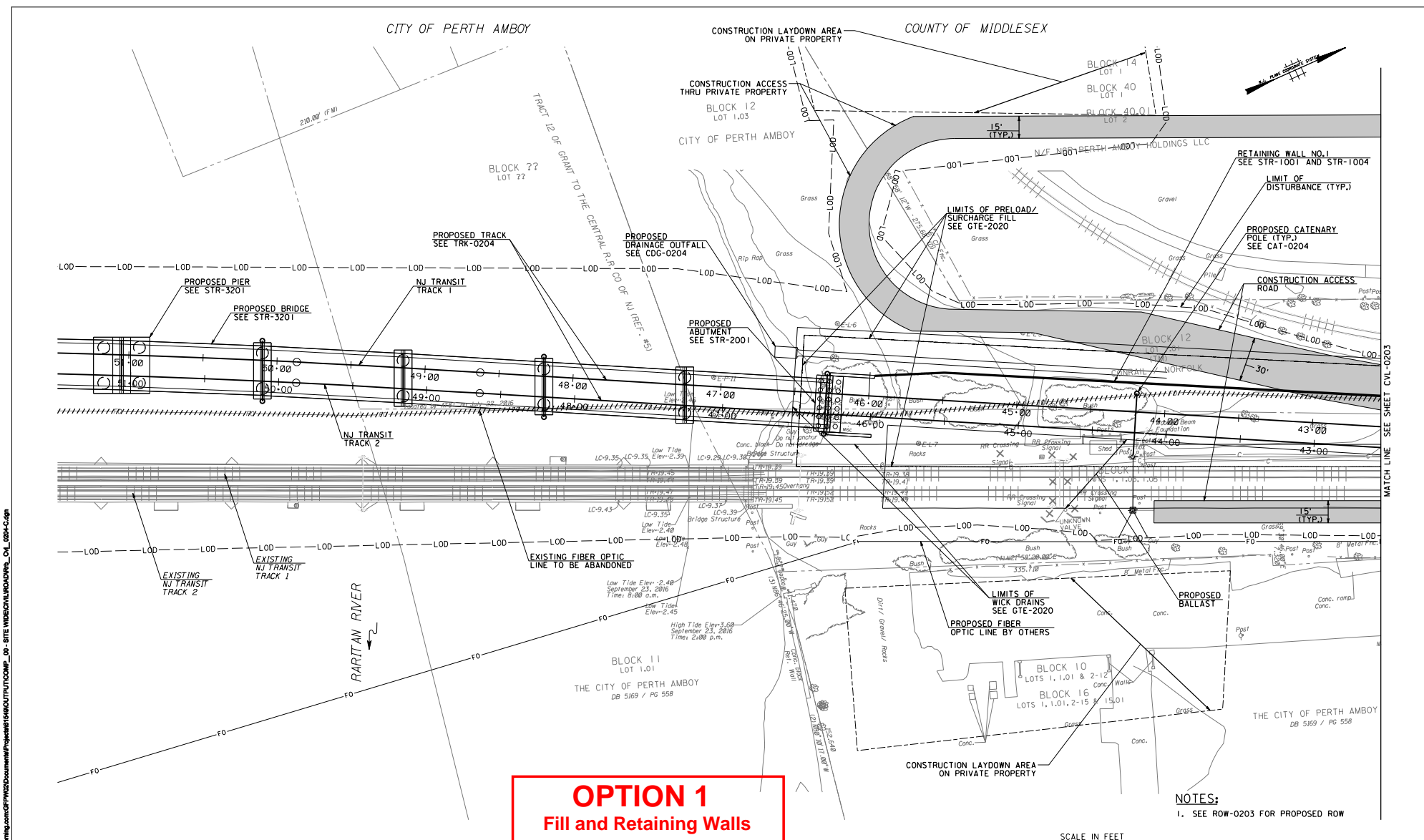
In addition to the saline wetland impacts defined above, there are a series of linear "ditched" wetlands (0.62 acres) that have formed at the base of the embankment of the existing rail line in the Perth Amboy section of the project, which were identified during wetland delineation. Virtually all of the linear ditches will be regulated by NJDEP's Freshwater Wetland regulations (N.J.A.C. 7:7A). These ditches are a direct result of the change in grade from the existing track embankment and the ground surface. The new bridge alignment is expected to generate similar freshwater wetland "ditches" at the bottom of the new embankment and hence there is not expected to be a permanent net loss of freshwater wetlands in the Perth Amboy section of the project.

### **SOUTH AMBOY**

Saline and freshwater wetland impacts on the South Amboy side of the project will be limited to a column within the UWB area and a small section of freshwater wetlands where the bridge transitions from structure to fill. The impacted area associated with the column support totals



View facing east of degraded saline wetland along Perth Amboy shoreline (October 2014).

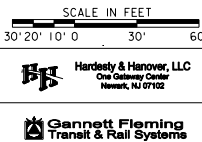


|            |             |             |                       |                  |               |
|------------|-------------|-------------|-----------------------|------------------|---------------|
|            |             |             |                       | <b>Date</b>      | 02/17/2017    |
|            |             |             |                       | <b>Des.</b>      | S. ZAPOTICZNY |
|            |             |             |                       | <b>Dwn.</b>      | R. BRIGGS     |
|            |             |             |                       | <b>Chkd.</b>     | R. MATTHEWS   |
|            |             |             |                       | <b>Chkd.Dwn.</b> | S. ZAPOTICZNY |
|            |             |             |                       | <b>Scale</b>     | AS SHOWN      |
| <b>No.</b> | <b>Date</b> | <b>Eng.</b> | <b>Revision Notes</b> |                  |               |

Date: \_\_\_\_\_



**INFRASTRUCTURE ENGINEERING  
OFFICE OF CHIEF ENGINEER  
STRUCTURES**

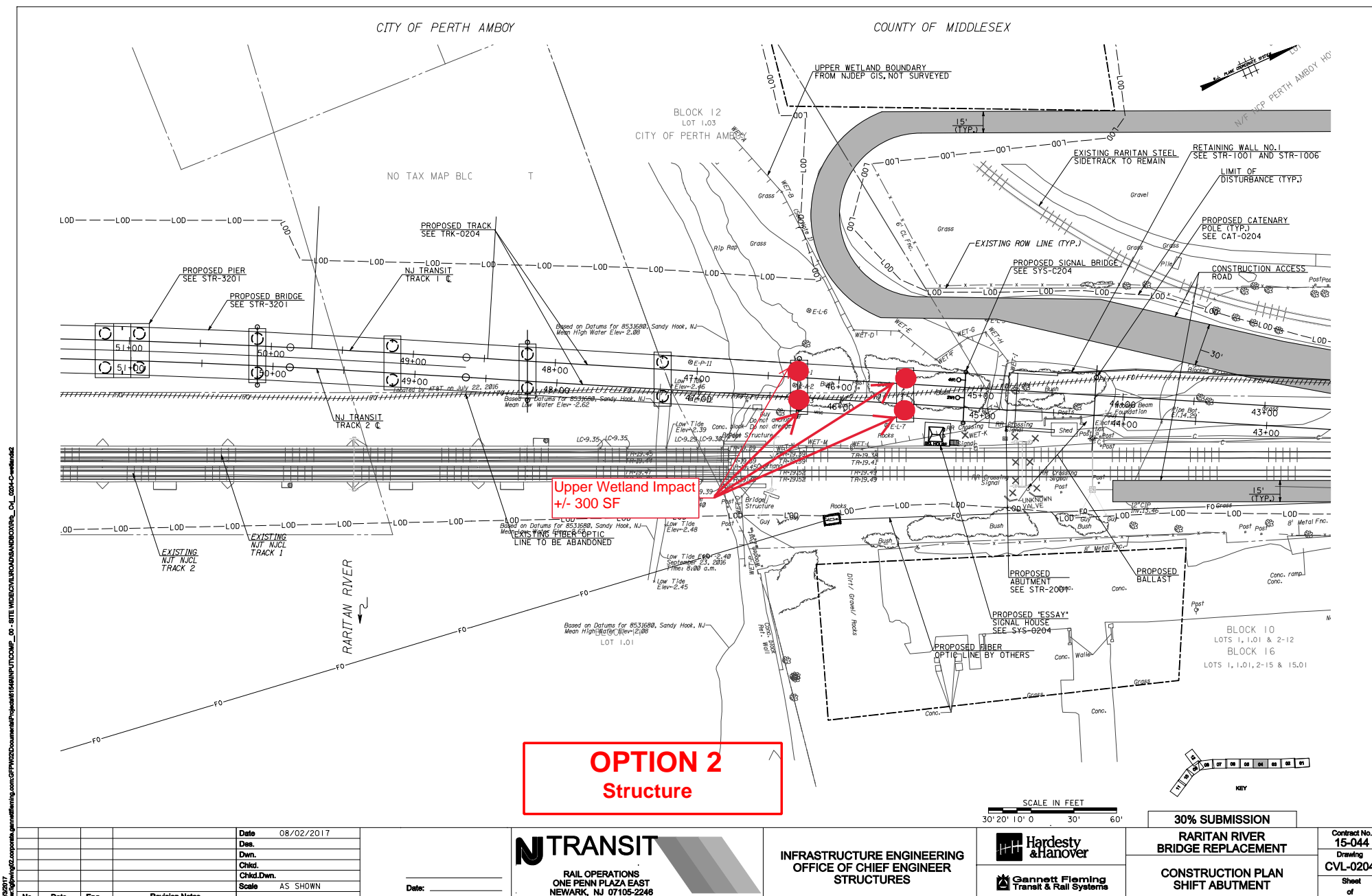


**DRAFT 30% SUBMISSION**  
**RARITAN RIVER**  
**BRIDGE REPLACEMENT**  
**CONSTRUCTION PLAN**  
**SHEET 4**

Contract No.  
15-044

Drawing  
**CVL-0204**

Sheet  
of



## Section 404(b)(1) Alternatives Analysis

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approximately 100 square feet (0.002 acres). See attached drawings CVL-0207. Moving the abutment inland farther from the river would require construction in close proximity to the active railroad, presenting constructability risk and requiring unacceptable track outages. Construction within 12 feet of an active railroad requires suspension of service. The minimum clearance is a requirement as per *NJ Transit Rail Operation General Requirements for Working Within the Right-Of-Way Manual* (November 2012). Since the existing embankment and tracks could become destabilized during construction of an abutment, temporary sheeting would need to be placed within 12 feet of the existing track (NJT Track 1) in order to eliminate permanent wetland impacts. This would require taking one or both tracks out of service for the two to three months needed to construct the abutment. As this would have a severe impact on NJ TRANSIT operations, it does not meet the project goals, and is not considered a feasible option.

To minimize wetland impacts in this area, retaining walls will be constructed to limit the amount of fill that would otherwise be needed to form a railroad embankment. The 0.4 acres of permanent freshwater wetland impacts identified in the EA has been reduced to approximately 0.2 acres via the use of retaining walls and refined engineering advancement.

### SUMMARY OF IMPACTS

In summary, overall permanent impacts to saline wetlands (areas within NJDEP's UWB) are expected to be approximately 0.186 acres, and permanent impacts to freshwater wetlands are expected to be approximately 0.2 acres under the Moveable Span Bridge to the West of the Existing Bridge option. There are two primary reasons for the reduction in both saline and freshwater wetland impacts:

1. The original EA was overly conservative in its estimation of wetland impacts. Engineering design had not progressed to a point where it could be used for assessment of wetland impacts. Accordingly, estimates for both saline and freshwater impacts were derived from estimating the general location of the replacement bridge relative to mapped wetlands in the vicinity.
2. Through the use of retaining walls and structure as identified through the advancement of engineering design, wetland impact areas have been significantly reduced.

Pending final design details of the project, wetland impact thresholds may be exceeded and mitigation required by both NJDEP and the USACE. Compensatory mitigation ratios for wetland creation or wetland mitigation bank credits will likely be 2:1 (2 acres of compensatory mitigation required for every 1 acre of impact). Options being considered include purchasing credits from an authorized wetland mitigation bank and/or on-site mitigation. A decision will be determined by the regulatory agencies based on the site specific impacts and conformance with requirements at 33 CFR Part 332: Compensatory Mitigation for Losses of Aquatic Resources during the permitting process.

## SUMMARY OF ALTERNATIVES

Multiple alternatives were considered for the replacement bridge. Each of the alternative alignments would require a similar number of piers and associated impacts within the Raritan River. Of the alternatives considered, only the western alignment met the design and operation criteria necessary to meet project goals. Upon further refinement of engineering design, it has been determined that permanent wetland impacts from bridging the existing saline wetlands will reduce impacts from an initial estimate in the EA of two acres to approximately 0.186 acres, and net freshwater wetland impacts will be reduced from 0.4 acres to approximately 0.2 acres. Accordingly, the evaluation demonstrates that the preferred western alignment minimizes wetland impacts compared to the other alignments considered, and permanent wetland impacts have been minimized to the greatest extent practicable.

## CONSTRUCTION METHODS TO REDUCE WETLAND IMPACTS

The estimate of wetland impacts due to construction is conservative, i.e., wetland impacts were calculated based upon the assumption that all wetlands within the Project Area would be impacted as part of the Preferred Alternative's construction. Considerations for reduction of wetland impacts are provided below:

1. Use of Structure – The use of structures to bridge existing wetlands on the South Amboy portion of the project has reduced impacts to saline wetlands.
2. Use of retaining walls – The use of retaining walls to limit the extent of embankment will minimize the outward migration of remaining wetland impacts (i.e., those wetlands immediately adjacent to the existing alignment that will most directly impacted by the proposed alignment) will be the main mechanism for reducing wetland impacts on wetlands immediately impacted by the landing of the structure.
3. Replacement of linear wetland systems – On the Perth Amboy side of the project, 0.62 freshwater wetlands are linear “ditches” that serve primarily as a conveyance and collection area for stormwater runoff. Upon final grading, it is anticipated that similar linear features will be formed as part of the final grading for the project. The wetland function and purpose provided by the linear features will re-form as a result the grade of the new tracks and will provide the same function and purpose as the existing linear features.
4. Wetlands to the east of the new alignment – On the South Amboy side of the project, proposed construction is limited to areas to the west of the existing alignment for approximately 250 feet. Approximately 0.20 acres of freshwater wetlands and 0.08 acres of saline wetland impacts can be avoided by assuring that staging areas do not occur within those areas. Construction of the Preferred Alternative should be limited to the western side of the existing alignment for the first 250 feet and avoid the identified wetlands. Approximately 0.02 acres of saline wetlands on the Perth Amboy side of the

#### **Section 404(b)(1) Alternatives Analysis**

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project are located to the east of the current alignment and may be avoidable during the construction process.

5. In-water Construction - Construction methods within the Raritan River would minimize disturbance and removal of sediment (i.e. no additional dredging of channel is needed for navigation).
6. Use of Temporary mats – Temporary mats will be used to help minimize damage to the wetlands soils and habitat, where appropriate during the construction process.
7. Wetland Restoration – The wetland areas temporarily affected by construction activities will be restored to existing conditions or better, following completion of the project.

## **FINDING OF NO SIGNIFICANT IMPACT**

**Project: Raritan River Bridge Replacement Project**

**Applicant: New Jersey Transit Corporation**

**Project Location: Perth Amboy and South Amboy, New Jersey**

**Attachment B:**

**Agency Correspondence**



16591/  
Raritan River/NJ

May 17, 2017

Mr. Dan Moser  
Regional Administrator  
Federal Transit Administration  
Region II  
One Bowling Green, Rm 428  
New York, NY 10004-1415

Subj: REVIEW OF THE DRAFT ENVIRONMENTAL ASSESSMENT (DEA) FOR THE  
RARITAN RIVER RAILROAD BRIDGE REPLACEMENT PROJECT IN MIDDLESEX  
COUNTY, NEW JERSEY

Dear Mr. Moser,

This responds to request for comments regarding the Raritan River Railroad (RRRR) Bridge proposed project– Draft Environmental Impact Statement dated April 2017. The U. S. Coast Guard has reviewed the document and offers the following comments:

1. Table of Contents: include a List of Acronyms
2. Executive Summary:
  - (i) Include a section with the current navigational related dimensions of the existing bridge structure to include the minimum vertical clearance in the open position at 130 feet.
  - (ii) Table S-2. Include the following in the Mitigation/Commitment Section for the Transportation Technical Discipline and in corresponding EA sections.

Summary of Temporary Potential Long-Term Adverse Effects and Mitigation

| Technical Discipline | Potential Effects  | Mitigation/ Commitment  |
|----------------------|--|---|
| Transportation       | PA reduction in vertical clearance from 130 to 110 feet. | Acquire the information necessary to prepare a Navigational Impact Report. <sup>1</sup> |

Summary of Temporary Construction-Period Effects and Mitigation

| Technical Discipline | Potential for Adverse Effects   | Mitigation/Commitment   |
|----------------------|---|---|
| Transportation       | Maritime traffic will be affected during the vertical lift span construction. | Coordination with USCG Waterways Management Branch, Sector NY |

<sup>1</sup> Memorandum of Understanding, USCG, FHA, FTA, FRA, Section V (c), dtd January 14, 2014.

May 16, 2017

(iii) further, several corresponding mitigation/commitment for the technical disciplines categories in the summary charts are designated non-applicable (N/A). Until the required agencies can determine the potential impacts, recommend all corresponding mitigation/commitments be changed from N/A to awaiting final permit conditions, authorization and/or certification or concurrence of non-adverse effect/ mitigation from required agencies as indicated in section 3.15.

3. Chapter 3:

(i) Environmental Considerations. Provide an additional Appendix to document consultation and coordination with local and government agencies to include letters and meeting minutes regarding pre-coordination, potential impacts posed by construction as well as mitigation strategies if applicable in regards to the environmental considerations, i.e. compliance with air quality control, impacts to traffic and noise control.

(ii) Section 3.7.1.3. Maritime Traffic: Include the regulatory site for Raritan River New Jersey Transit Rail Operations. 33 CFR Section 117.747 "The draw of New Jersey Transit Rail Operations Railroad Bridge at mile 0.5 shall open on signal; except that, from 6 a.m. to 9:30 a.m. and 4:30 p.m. to 7:30 p.m., Monday through Friday, except holidays, the bridge need not open."

Note: 33 CFR Section 117.5 drawbridges must open promptly and fully for the passage of vessels when a request or signal to open is given in accordance with this subpart". Confirm that references in the EA to the amount of time it takes to open the lift is commensurate with opening the bridge fully.

New Jersey Department of Transportation (NJDOT) conceptual preferred alternative (PA) for the proposed project is a new replacement vertical lift bridge west of the existing RRRR bridge. As described in DEA including Executive Summary and Section 2.4.1, the PA provides for a vertical clearance (VC) of 110 feet above MHW with a width of approximately 300 feet. The Victory Bridge is a high-level fixed bridge and provides for a vertical clearance (VC) of 110 feet above MHW. It is located at mile point 1.6 and controls VC for all points upstream of the proposed structure. Further outreach and public comments is required to determine how the proposed reduction of the RRRR Bridge in the VC from 130 feet to 110 feet at MHW may affect navigation between the RRRR Bridge and the Victory Bridge.

(iii.) Section 3.11. Natural Resources, should address the specific mitigation recommendations made by the NMFS and USFWS. This should include the in-water work dates and timing restrictions for tree and shrub clearing. Further, should NMFS determine that the potential impacts of the project will result in an incidental take of any of the listed species; the Coast Guard will also need to review the Biological Opinion.

(iv.) 3.15 Permits, Approvals and Consultation. Insert the General Bridge Act of 1946, 33 U.S.C. 525 after Section 9 of the Rivers and Harbor Act of 1899 in the Coast Guard section.

May 16, 2017

5. The final permit conditions and authorizations have not been received from USACE and NJDEP's freshwater wetlands permit. The NJDEP Water Quality Certification will also provide the status of state concurrence with New Jersey's Coastal Zone Management Program (CZMP).

6. As mentioned, refer to coordination with the Coast Guard to ensure that the needs of marine navigation are considered during construction, it is imperative that we continue to be included in construction planning and scheduling.

7. As a cooperating agency for the National Environmental Policy Act (NEPA) efforts, the Coast Guard reviews the lead federal agency's environmental consultations with agencies such as the U.S. Army Corps of Engineers (USACE), U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), the New Jersey Department of Environmental Protection (NJDEP) and other appropriate state and local authorities as part of the bridge application process.

8. Thank you for the opportunity to comment on the Draft Environmental Impact Statement (DEIS) for the Raritan River Railroad Bridge Project. Please refer to the Bridge Application Guide: which can be found at [https://www.uscg.mil/hq/cg5/cg551/BPAG Page.asp](https://www.uscg.mil/hq/cg5/cg551/BPAG%20Page.asp), for information about the bridge permit application requirements.

Please contact me at the above telephone number or at [christopher.j.bisignano@uscg.mil](mailto:christopher.j.bisignano@uscg.mil) or Ms. Donna Leoce [donna.d.leoce@uscg.mil](mailto:donna.d.leoce@uscg.mil); 212 514-4332 if you have any questions.

Sincerely,



C. J. BISIGNANO  
Supervisory Bridge Management Specialist  
U.S. Coast Guard  
By direction

Copy: 1) CG-BRG-2  
2) D1 (dp)  
3) CG SECNY (wwm)





# United States Department of the Interior

OFFICE OF THE SECRETARY  
Office of Environmental Policy and Compliance  
15 State Street – 8<sup>th</sup> Floor  
Boston, Massachusetts 02109-3572

June 7, 2017

9043.1  
ER 17/0192

Daniel Moser  
Federal Transit Administration  
One Bowling Green, Room 428  
New York, NY 10004-1451

**Subject: Environmental Assessment and Draft Section 4(f) Evaluation  
New Jersey Transit Raritan River Bridge Replacement  
South Amboy and Perth Amboy, New Jersey**

Dear Mr. Moser:

The U.S. Department of the Interior (Department) has reviewed the Environmental Assessment and Draft Section 4(f) Evaluation for the proposed replacement of the Raritan River Drawbridge, spanning the Raritan River between South Amboy and Perth Amboy, Middlesex County, New Jersey. The purpose of the proposed project is to address the vulnerability of the existing Raritan River Drawbridge to major storm events in order to enhance the reliability of the New Jersey Coast Rail Line (NJCL). The following comments represent contributions from the Department's U.S. Fish and Wildlife Service (Service) and the National Park Service (NPS).

## **U.S. Fish and Wildlife Comments**


The Service submitted the following comments by e mail on April 24, 2017. The Service concurs in that the Project will not adversely affect a listed species under Service jurisdiction. The Service recommends that no tree clearing occur from March 15 to September 30 to protect any nesting migratory birds in the Project area that are protected under the Migratory Bird Treaty Act. Any work (maintenance or demolition) proposed on the existing bridge during the March 15 to September 30 period should also be surveyed to ensure Project activities are sufficiently protective of any potential nesting species that may be utilizing the bridge. The Service also recommends that no in-water work occur from March 1 to June 30 to protect migrating/spawning shad and herring species. All unavoidable impacts to the aquatic environment should be mitigated for in accordance with the Final Rule: Mitigation for Losses of Aquatic Resources, Department of Defense and the Environmental Protection Agency, April 10, 2008 (Federal Register Vol. 73, No 70: pp. 19594-19705).

## Section 4(f) Evaluation Comments

The Department concurs that there is no prudent and feasible alternative to the proposed use of 4(f) lands, which consist of the Raritan River Swing Span Draw Bridge, which is individually eligible for listing in the National Register of Historic Places and a contributing element of the New York and Long Branch Railroad Historic District, and the Overhead Contact System of the Pennsylvania Railroad Company spanning, which is eligible for listing in the National Register. Both resources span the river. Additional 4(f) resources include an electrical substation and NJ TRANSIT Essay Tower in South Amboy, which are contributing resources to the New York and Long Island Branch Railroad Historic District, and the Perth Amboy Elizabethport Branch Railroad Signal Bridge in Perth Amboy, which is a contributing resource to the Central Railroad of New Jersey Historic District. The need to demolish these resources will be an adverse effect to both historic districts, the bridge, and the contact system, which constitutes a 4(f) use. The measures to minimize harm must be explicitly consistent with the Memorandum of Agreement (MOA) developed in consultation with the New Jersey State Historic Preservation Office and New Jersey Department of Transportation. We note that a draft copy of the MOA has been included in the documentation of compliance for the project and is undergoing public review. It reflects appropriate procedures for mitigating the adverse effects to cultural resources.

Thank you for the opportunity to review and comment on this project. If you have questions regarding these comments, please contact Steve Mars, FWS at 609-382-5267, [steve\\_mars@fws.gov](mailto:steve_mars@fws.gov) or Cheryl Sams, NPS at (215) 597-5822, [Cheryl\\_Sams@nps.gov](mailto:Cheryl_Sams@nps.gov). Please contact me at (617) 223-8565 if I can be of further assistance.

Sincerely,



Andrew L. Raddant  
Regional Environmental Officer

cc: SHPO-NJ ([Katherine.Marcopul@dep.nj.gov](mailto:Katherine.Marcopul@dep.nj.gov))  
FTA ([Donald.Burns@dot.gov](mailto:Donald.Burns@dot.gov))

**From:** [Braegelmann, Carol](#)  
**To:** [Moser, Daniel \(FTA\)](#)  
**Subject:** NJ TRANSIT Raritan River Bridge Replacement Project EA and Section 4(f) Evaluation  
**Date:** Thursday, June 29, 2017 8:49:19 AM

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Mr. Moser,

We received a letter from your office dated June 14, 2017 regarding the issuance of the subject document. Our records show that a comment letter on the document was sent from the Boston Office on June 7, 2017. If you have not received this response or if there is new information to review in the publicly released document, please let me know. Otherwise, the review of this document by the Department of the Interior is complete.

Regards,  
Carol Braegelmann

--

*Carol Braegelmann  
Natural Resources Management Team Leader  
Office of Environmental Policy and Compliance  
Department of the Interior*

**From:** [Handell, Naomi J CIV USARMY CENAN \(US\)](#)  
**To:** [Moser, Daniel \(FTA\)](#); [Leoce, Donna D CIV](#)  
**Cc:** [Bisignano, Christopher J CIV](#); [Ryba, Stephan A CIV CPMS \(US\)](#)  
**Subject:** RE: Summary of FTA responses to Federal Agency Comments: Raritan Bridge EA NAN-2016-00900-EHA  
**Date:** Tuesday, July 11, 2017 10:14:26 AM

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Hi Dan,

Thank you for the response to comments document. I have the following comments:

I reiterate my comment that Corps jurisdiction is for Section 404 only. There is no Section 10 jurisdiction.

Additionally, I reiterate my comment that the 404(b)(1) Guidelines should be addressed in the EA. Simply saying they will be addressed at a later time does not satisfy the need for a rigorous alternatives analysis that shows how impacts to the aquatic environment were first avoided and minimized before compensatory mitigation is proposed.

Naomi

Naomi Handell  
Project Manager  
U.S. Army Corps of Engineers  
New York District  
Regulatory Branch-Eastern Section  
26 Federal Plaza, Room 1937  
New York, New York 10278  
P: 917-790-8523  
F: 212-264-4260

PLEASE USE THE ABOVE 18-CHARACTER FILE NUMBER ON ALL CORRESPONDENCE WITH THIS OFFICE.

-----Original Message-----

From: Moser, Daniel (FTA) [<mailto:daniel.moser@dot.gov>]  
Sent: Monday, July 10, 2017 4:40 PM  
To: Handell, Naomi J CIV USARMY CENAN (US) <Naomi.J.Handell@usace.army.mil>; Leoce, Donna D CIV <Donna.D.Leoce@uscg.mil>  
Cc: Bisignano, Christopher J CIV <Christopher.J.Bisignano@uscg.mil>; Ryba, Stephan A CIV CPMS (US) <Stephan.A.Ryba@usace.army.mil>  
Subject: [Non-DoD Source] RE: Summary of FTA responses to Federal Agency Comments: Raritan Bridge EA

Naomi and Donna

Attached is a summary log of NJTRANSIT/FTA Responses to Federal Agency Comments received through that May 24. It includes responses both USACE and USCG. This log will be an attachment to the EA.

Additional updates to the EA document itself have also been made. Attached is a "track changes" version of the EA (text only to keep file size manageable) with edits.

I apologize for not sending this with the release for public comment. I hope this assists you in your additional review. If neither edits or the FTA responses are sufficient, we will make further changes.

Thanks

Dan Moser

Community Planner  
Federal Transit Administration - Region 2  
1 Bowling Green, Room 429  
New York, NY 10004  
Phone: (212) 668-2326 / Fax (212) 668-2136

-----Original Message-----

From: Handell, Naomi J CIV USARMY CENAN (US) [<mailto:Naomi.J.Handell@usace.army.mil>]  
Sent: Monday, July 10, 2017 3:07 PM  
To: Moser, Daniel (FTA) <daniel.moser@dot.gov>  
Subject: RE: FTA release of NJTRANSIT Raritan River Bridge Replacement Project EA and DOT for 30 public review NAN-2016-00900-EHA

Hi Dan,

Thanks for the reminder. Can you point me to the section in the document where my comments about the 404b1 process were addressed?

Thanks,  
Naomi

Naomi Handell  
Project Manager  
U.S. Army Corps of Engineers  
New York District  
Regulatory Branch-Eastern Section  
26 Federal Plaza, Room 1937  
New York, New York 10278  
P: 917-790-8523  
F: 212-264-4260

PLEASE USE THE ABOVE 18-CHARACTER FILE NUMBER ON ALL CORRESPONDENCE WITH THIS OFFICE.

-----Original Message-----

From: Moser, Daniel (FTA) [<mailto:daniel.moser@dot.gov>]  
Sent: Monday, July 10, 2017 2:36 PM  
To: Handell, Naomi J CIV USARMY CENAN (US) <Naomi.J.Handell@usace.army.mil>  
Cc: Ryba, Stephan A CIV CPMS (US) <Stephan.A.Ryba@usace.army.mil>  
Subject: [Non-DoD Source] FW: FTA release of NJTRANSIT Raritan River Bridge Replacement Project EA and DOT for 30 public review

Good afternoon Naomi

Just a reminder that the Raritan Bridge EA Public Review period ends this Friday July 14th. At one time, you indicated that USACE may be providing additional comment, so I wanted to check in to see if you intended to provide any.

Thanks

Dan Moser

Community Planner

Federal Transit Administration - Region 2

1 Bowling Green, Room 429

New York, NY 10004

Phone: (212) 668-2326 / Fax (212) 668-2136

From: Moser, Daniel (FTA)

Sent: Monday, June 19, 2017 10:09 AM

To: Bisignano, Christopher J CIV <Christopher.J.Bisignano@uscg.mil>; Stephan.A.Ryba@usace.army.mil

Cc: Handell, Naomi J CIV USARMY CENAN (US) <Naomi.J.Handell@usace.army.mil>; Leoce, Donna D CIV

<Donna.D.Leoce@uscg.mil>; RJ Palladino <RPalladino@njtransit.com>; DCallender@njtransit.com

Subject: FTA release of NJTRANSIT Raritan River Bridge Replacement Project EA and DOT for 30 public review

Mr. Bisignano and Mr. Ryba,

FTA has released the NJ TRANSIT Raritan River Bridge Replacement Project Environmental Assessment and US DOT 4(f) document for 30 Day public review from June 14 to July 14, 2017. Attached is a letter from FTA Region II for your records.

The EA is available for inspection on line on the NJTRANSIT project website at

[BlockedBlockedhttp://njtransitresilienceprogram.com/documents](http://njtransitresilienceprogram.com/documents). Previous comments received by your agency have been incorporated into the document or addressed in a comment log added to the EA (with FTA and NJ TRANSIT responses).

Please let us know if you have any additional comments on this project. Your agency will be receiving a letter with this release by mail and cc'd by email.

Thank you

Dan Moser

Community Planner

Federal Transit Administration - Region 2

1 Bowling Green, Room 429

New York, NY 10004

Phone: (212) 668-2326 / Fax (212) 668-2136



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 2  
290 BROADWAY  
NEW YORK, NY 10007-1866

JUL 11 2017

Dan Moser  
Community Planner  
Federal Transit Administration – Region 2  
1 Bowling Green – Room 429  
New York, NY 10004

RE: Raritan River Bridge Replacement Project

Dear Mr. Moser:

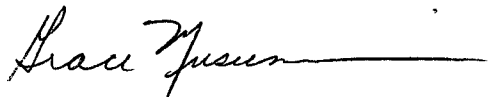
The Environmental Protection Agency (EPA) has reviewed the U.S. Department of Transportation Federal Transit Administration's (FTA) Environmental Assessment (EA) dated June 2017 on the proposed Raritan Bridge Replacement Project located in Perth Amboy and South Amboy, Middlesex County, New Jersey. The purpose of the proposed project is to address the vulnerability of the existing Raritan River Drawbridge to major storm events. The existing bridge is more than 100 years old and suffered damage during Superstorm Sandy that resulted in the temporary suspension of service across the bridge. A replacement bridge will improve the reliability of the rail line and minimize impacts to marine traffic on the Raritan River. The preferred alternative is a vertical lift bridge with a steel multi-girder superstructure located to the west of and approximately 50 feet from the existing bridge.

EPA finds that the EA supports a finding of no significant impact, however, EPA has two comments:

- As stated in the EA, due to FTA funding the project is subject to Transportation Conformity. For other agencies that would be required to do a General Conformity analysis to permit this project, Appendix G uses a comparative analysis to conclude that the project would not exceed de minimis thresholds during construction. EPA does not agree with the use of dollar value of construction as a surrogate for emissions and finds this analysis inaccurate for measuring construction emissions.
- The Raritan River Bridge Replacement project is located in the New Jersey Coastal Plain Aquifer System, a sole source aquifer (SSA) designated by EPA in 1988. Based on the information provided, the project satisfies the requirements of section 1424(e) of the SDWA, and will not impact the SSA.

Thank you for the opportunity to comment on the environmental assessment. If you have any questions, please call or email Lingard Knutson (212) 637-3747 or [Knutson.lingard@epa.gov](mailto:Knutson.lingard@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Grace Musumeci", followed by a horizontal line.

Grace Musumeci Chief  
Environmental Review Section

cc: Donald Burns, FTA



## State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

OFFICE OF PERMIT COORDINATION AND ENVIRONMENTAL REVIEW

P.O. Box 420 Mail Code 401-07J Trenton, New Jersey 08625-0420

Telephone Number (609) 292-3600

FAX NUMBER (609) 633-2102

**CHRIS CHRISTIE**  
*Governor*

**KIM GUADAGNO**  
*Lt. Governor*

**BOB MARTIN**  
*Commissioner*

July 12, 2017

000 20411.17

Daniel Moser  
Federal Transit Administration  
One Bowling Green, Room 428  
New York, New York 10004-1415

R.J. Palladino, Senior Program Manager  
NJ Transit Capital Planning  
One Penn Plaza East – 8<sup>th</sup> Floor  
Newark, NJ 07105-2246

**RE: Proposed Raritan River Bridge Replacement Project  
Comments on Environmental Assessment / Draft Section 4 (f) Evaluation  
Perth Amboy and South Amboy, Middlesex County, New Jersey**

Dear Mr. Moser and Mr. Palladino:

The New Jersey Department of Environmental Protection's (Department) Office of Permit Coordination and Environmental Review (PCER) distributed, for review and comment, the Environmental Assessment (EA) for the proposed Raritan River Bridge Replacement Project. This EA was prepared by the Federal Transit Administration and NJ Transit Corporation as part of the FERC National Environmental Policy Act (NEPA) requirements and posted for public comment on June 14, 2017. The project is proposed to replace the one-hundred (100) year old existing Raritan River Drawbridge with a new bridge parallel to the existing bridge location (the Raritan River Bridge Replacement Project or proposed project). The Raritan River Drawbridge carries NJ Transit's North Jersey Coast Line (NJCL) and freight trains operated by Conrail across the Raritan River between South Amboy and Perth Amboy in Middlesex County, New Jersey.

We offer the following Environment Assessment / Draft Section 4(f) comments for your consideration:

### **Land Use Permitting**

The proposed project involves the replacement of the existing New Jersey Transit Raritan River Bridge. The new bridge is proposed at location approximately 50 feet west of the existing bridge.

Per the Environmental Assessment/Draft Section 4(f) Evaluation, dated June 2017, the project will impact 0.40 acres of freshwater wetlands. Therefore, the proposed project will require an Individual Freshwater Wetlands Permit.

The proposed project is also located within the Coastal Zone and therefore requires both an Upland Waterfront Development Permit and an In-Water Waterfront Development Permit.

Any construction within a flood hazard area located at a distance greater than 500 feet from the mean high water line will also require a Flood Hazard Area Permit.

If you have any additional questions, please contact Christopher Jones at (609) 984-6216.

### **NJDDES: Surface Water Permitting**

Based on a review of the EA for the proposed project, it appears dewatering will be required during deeper excavations for utilities or bridge support structures. Perth Amboy has a combined system with CSO outfalls. Any discharge to the combined system should be during dry weather in order to minimize CSO outfall discharges. If a discharge to surface water becomes necessary, (outside of the combined system--via a stormwater outfall or via direct discharge to surface water) a NJPDES Discharge to Surface Water permit will be needed.

Provided that the discharge is not contaminated, the appropriate discharge permit will be the B7- Short term De minimis permit ( see <http://www.state.nj.us/dep/dwq/pdf/b7-rfa-checklist.pdf>). This is determined by running a pollutant scan as described in the application checklist where the data can be collected up to a year in advance of the discharge.

If, however, if the discharge is contaminated (the analytical results demonstrate levels greater than the Appendix A standards as specified in the De minimis permit (see <http://www.state.nj.us/dep/dwq/pdf/b7-deminimis-final-permit-5-20-15.pdf>)), the appropriate NJPDES discharge to surface water permit will be the BGR – General Remediation Cleanup permit (see <http://www.state.nj.us/dep/dwq/pdf/sw-gp-chklst.pdf>) . The BGR permit can generally be processed in less than 30 days although a treatment works approval may be needed for any treatment units.

If you have additional questions, please contact Kelly Perez at (609) 292-4860

### **NJDDES: Bureau of Non-Point Pollution Control**

Construction projects that disturb 1 acre or more of land, or less than 1 acre but are part of a larger common plan of development that is greater than 1 acre, are required to obtain coverage under the Stormwater construction general permit (5G3). Applicants must first obtain certification of their soil erosion and sediment control plan (251 plan) from their local soil conservation district office. Upon certification, the district office will provide the applicant with two codes process (SCD certification code and 251 identification code) for use in the DEPonline

portal system application. Applicants must then become a registered user for the DEPonline system and complete the application for the Stormwater Construction General Authorization. Upon completion of the application the applicant will receive a temporary authorization which can be used to start construction immediately, if necessary. With 3-5 business days, the permittee contact identified in the application will receive an email including the application summary and final authorization.

If you have any additional questions, please contact Eleanor Krukowski at (609) 633-9286.

### **Historic Preservation Office**

The HPO is working with NJ TRANSIT and the FTA to review the proposed project in accordance with Section 106 of the National Historic Preservation Act (NHPA), and have reviewed and commented on the draft Programmatic Agreement (PA), which will be incorporated into the Environmental Assessment (EA) as Appendix B.

In terms of the proposed project's potential effects on historic resources, the draft EA and draft Section 4(f) Evaluation are consistent with our comments under Section 106. I would, however, suggest one minor correction. On page 3-20 of the draft EA, the second bullet under Section 3.6.3.2 should be changed from "three other contributing resources" to "two other contributing resources" of the New York and Long Branch Railroad Historic District. Although three contributing resources were identified in the Section 106 review process, only two of the three will be adversely affected.

If you have any questions, please feel free to contact Meghan Baratta at 2-1253 or Vincent Maresca at 3-2395.

### **Green Acres Program**

Based on the maps included in the information provided by the applicant, it is not entirely clear exactly which blocks and lots are covered by the proposed project area. As the applicant notes, however, the area for the proposed 2<sup>nd</sup> Street Park lies to the east directly adjacent to the railroad right of way in Perth Amboy. While Green Acres currently has an open project agreement where Perth Amboy will potentially be reimbursed for the acquisition of the property, payment has not yet been made due to ongoing contamination issues and therefore the property is not Green Acres encumbered parkland. 2<sup>nd</sup> Street Park will potentially include the following blocks/lots:

Block 10, Lots 1, 1.01, 1.02, 2-12

Block 16, Lots 1.01, 1 & 2

However, if reimbursement occurs while the bridge project is ongoing, the property will become encumbered and any use, even temporarily, by the applicant will require prior approval from the Green Acres Program.

Therefore, if the project will impact of the above-referenced parcels, the applicant should notify Green Acres to determine whether those parcels have become encumbered.

If you have any additional questions, please contact Sean Moriarty at (609) 984-0622.

### **Water Allocation**

Given the projects location at the intersection of the Arthur Kill, Raritan Bay and Raritan River the Bureau of Water Allocation and Well Permitting would not regulate construction related dewatering for this project.

If you have any additional questions, please contact Jan Gheen, Section Chief, Division of Water Supply and Geoscience, Bureau of Water Allocation and Well permitting at (609) 984-6831.

### **Air Quality Permitting**

A preliminary review of the information supplied to the Bureau Of Stationary Sources does not indicate any stationary source permit applicability. However, please review NJAC 7:27-8.2 to determine air permit applicability for all operations at this site including the need to file for a new air permit(s) or to make changes to any existing air permit(s).

If you have any additional questions, please contact Qayyum Quddus in the Bureau of Air Permitting at (609) 292-6722.

### **Air Mobile Sources**

Diesel exhaust contributes the highest cancer risk of all air toxics in New Jersey and is a major source of NOx within the state. Therefore, NJ DEP recommends that construction projects involving non-road diesel construction equipment operating in a small geographic area over an extended period of time implement the following measures to minimize the impact of diesel exhaust:

1. All on-road vehicles and non-road construction equipment operating at, or visiting, the construction site shall comply with the three minute idling limit, pursuant to N.J.A.C. 7:27-14 and N.J.A.C. 7:27-15. Consider purchasing "No Idling" signs to post at the site to remind contractors to comply with the idling limits. Signs are available for purchase from the Bureau of Mobile Sources at 609/292-7953 or <http://www.stopthesoot.org/sts-no-idle-sign.htm>.
2. All non-road diesel construction equipment greater than 100 horsepower used on the project for more than ten days should have engines that meet the USEPA Tier 4 non-road emission standards, or the best available emission control technology that is technologically feasible for that application and is verified by the USEPA

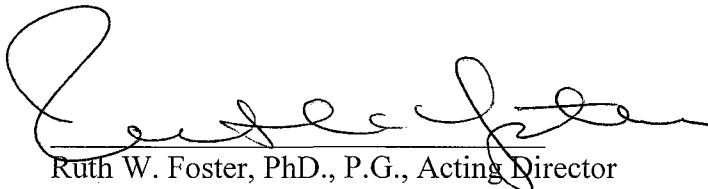
or the CARB as a diesel emission control strategy for reducing particulate matter and/or NOx emissions.

3. All on-road diesel vehicles used to haul materials or traveling to and from the construction site should use designated truck routes that are designed to minimize impacts on residential areas and sensitive receptors such as hospitals, schools, daycare facilities, senior citizen housing, and convalescent facilities

If you have any additional questions, please contact Jeffrey L. Cantor, Bureau of Mobile Sources at (609)292-2232 or at [jeff.cantor@dep.nj.gov](mailto:jeff.cantor@dep.nj.gov)

Thank you for giving the New Jersey Department of Environmental Protection the opportunity to comment on the Environmental Assessment / Draft Section 4 (f) Evaluation for the Preliminary proposed Raritan River Replacement Bridge Project.

Sincerely,



Ruth W. Foster, PhD., P.G., Acting Director

Enclosure

cc: John Gray, NJDEP-Deputy Chief of Staff  
Megan Brunatti, NJDEP-PCER  
Meghan Baratta, NJDEP Historic Preservation Office  
Eleanor Krukowski, NJDEP - BNPC  
Angela Skowronek, NJDEP-Air Quality Planning  
Jeff Cantor, NJDEP – Air Quality Mobile Sources  
Jan Gheen, NJDEP-Water Allocation  
Sean Moriarty, NJDEP- Green Acres  
Chris Jones, NJDEP-LURP  
Kelly Davis, NJDEP –NHRG T&E  
Kelly Perez, NJDEP – BSWP  
Qayyum Quddus, NJDEP – Air Permitting



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
GREATER ATLANTIC REGIONAL FISHERIES OFFICE  
55 Great Republic Drive  
Gloucester, MA 01930-2276

Stephen Goodman  
Federal Transit Administration  
US Department of Transportation  
One Bowling Green  
Room 428  
New York, NY 10004-1415

AUG 16 2017

RE: Essential Fish Habitat Consultation, Raritan River Drawbridge Replacement Project

Dear Mr. Goodman:

We have reviewed the July 2017 essential fish habitat (EFH) assessment for the Federal Transit Administration's (FTA) planned Raritan River Drawbridge Replacement Project between Perth Amboy and South Amboy, New Jersey. The New Jersey Transit Corporation is proposing to replace the Raritan River Drawbridge with a new bridge parallel to the existing bridge's location. The existing drawbridge is over 100 years old and suffered structural damage during Superstorm Sandy. The preferred alternative for the project consists of a vertical lift bridge with a steel multi-girder superstructure to be constructed approximately 50 feet west of the existing bridge. The existing bridge will be removed after completion of the replacement bridge. The proposed project is designed to improve resilience of the drawbridge to severe storms, provide rail improvements to minimize service disruption and optimize operations, and maintain and improve marine navigation beneath the bridge.

According to the EFH assessment, proposed in-water work associated with construction of the drawbridge includes the construction of two temporary work trestles with finger piers, and 29 bridge piers. Steel sheetpile cofferdams will be installed around the open-water pier sites with vibratory hammer prior to drilling of the shafts for the piles used to support the piers. The cofferdams will encompass approximately 0.7 acre during installation of the bridge piers and they will be removed by the same method after placement of the piers.

Demolition of the existing bridge will occur once the replacement bridge is fully operational. The existing bridge superstructure will be removed span-by-span using a barge and crane, and then transported to and disassembled in a staging area. Cofferdams will be installed at all existing piers of the existing bridge with vibratory hammer prior to demolition; cofferdams will encompass approximately 1 acre during demolition activities. Following in-water activities associated with the demolition of the existing bridge, landside tracks will be constructed on either side of the replacement bridge to connect it with tracks running to the existing bridge.

Although not discussed in the EFH assessment, we understand that additional work includes relocation of underground cables with horizontal directional drilling (HDD) and the creation of



embankments associated with placement of landside tracks which will result in the filling of wetlands.

### **Magnuson Stevens Fisheries Management and Conservation Act (MSA)**

The project area has been designated as EFH for a number of federally managed species including Atlantic butterfish (*Peprilus triacanthus*), Atlantic mackerel (*Scomber scombrus*), Atlantic herring (*Clupea harengus*), bluefish (*Pomatomus saltatrix*), black sea bass (*Centropristis striata*), clearnose skate (*Raja eglanteria*), cobia (*Rachycentron canadum*), king mackerel (*Scomberomorus cavalla*), little skate (*Leucoraja erinacea*), red hake (*Urophycis chuss*), sandbar shark (*Carcharhinus plumbeus*), scup (*Stenotomus chrysops*), shortfin squid (*Illex illecebrosus*), Spanish mackerel (*Scomberomorus maculatus*), summer flounder (*Paralichthys dentatus*), windowpane flounder (*Scophthalmus aquosus*), winter flounder (*Pseudopleuronectes americanus*), and winter skate (*Leucoraja ocellata*).

The MSA requires federal agencies to consult us on project such as this that may affect EFH adversely. This process is guided by the requirements of our EFH regulation at 50 CFR 600.905, which mandates the preparation of EFH assessments, lists the required contents of EFH assessments, and generally outlines each agency's obligations in this consultation procedure.

We have reviewed the EFH assessment for this project. The assessment adequately assesses many of the impacts of the project on EFH associated with construction of the replacement drawbridge over the Raritan River. We acknowledge the net increase of approximately 0.7 acres of shallow water benthic habitat upon demolition of the existing bridge. Because most construction work will be conducted within cofferdams, we agree that the impacts to EFH for those components of the project are not substantial. However, some of the proposed construction activities, including the installation of sheetpiles to construct the cofferdam systems, could adversely affect EFH for bluefish, summer flounder, windowpane flounder, winter flounder, and other species.

The EFH assessment does not address the temporary and permanent impacts to tidal wetlands. According to the information in the preliminary draft environmental assessment (PDEA) for this project, tidal wetlands will be filled for the construction of rail track embankments and for temporary access ways. Tidal wetlands provide nursery habitat for a variety of federally managed species; the primary production in wetlands forms the base of a food web that supports invertebrates and forage fish that are prey species for EFH fishes.

### **Potential Project Impacts**

The installation of the cofferdams and the construction of the bridge piers will result in adverse effects to EFH for spawning adult winter flounder and winter flounder eggs and larvae. Winter flounder ingress to shallow water spawning areas within mid-Atlantic estuaries when water temperatures begin to decline in the fall. Tagging studies show that most return repeatedly to the same spawning grounds (Lobell 1939, Saila 1961, Grove 1982 in Collette and Klein-MacPhee 2002). Winter flounder typically spawn in the winter and early spring, although the exact timing is temperature dependent and thus varies with latitude (Able and Fahay 1998), however movement into these spawning areas may occur earlier, generally from mid- to late November

through December (B. Phelan, personal communication 2014).

Winter flounder have demersal eggs that sink and remain on the bottom until they hatch. After hatching, the larvae are initially planktonic, but following metamorphosis they assume an epibenthic existence. Winter flounder larvae are negatively buoyant (Pereira et al. 1999), and are typically more abundant near the bottom (Able and Fahay 1998). These life stages are less mobile and thus more likely to be affected adversely bridge construction and demolition activities. Installation of the cofferdam while eggs and larvae are present will likely result in the entrapment of these life stages within the work area. As a result, in-water work should be avoided between January 1 and May 31 of each year. Work within the cofferdams can take place during this time as long as the cofferdams are installed prior to January 1.

Anadromous fish such as alewife (*Alosa pseudoharengus*), blueback herring (*Alosa aestivalis*), American shad (*Alosa sapidissima*), and striped bass (*Morone saxatilis*) use the Raritan River as a migratory pathway and as nursery and forage habitat. Alewife and blueback herring spend most of their adult life at sea, but return to freshwater areas to spawn in the spring. Both species are believed to be repeat spawners, generally returning to their natal rivers (Collette and Klein-MacPhee 2002). In the Mid-Atlantic, landings have declined dramatically since the mid-1960s and have remained very low in recent years (ASMFC 2007). Because landing statistics and the number of fish observed on annual spawning runs indicate a drastic decline in alewife and blueback herring populations throughout much of their range since the mid-1960's, they have been designated as Species of Concern by our agency. Species of Concern are those species about which we have concerns regarding status and threats, but for which insufficient information is available to indicate a need to list the species under the Endangered Species Act.

Buckel and Conover (1997) in Fahay et al. (1999) reports that diet items of juvenile bluefish include *Alosa* species such as alewife and blueback herring. Juvenile *Alosa* species have also been identified as prey species for windowpane flounder and summer flounder in Steimle et al. (2000). As a result, activities that adversely affect the spawning success and the quality for the nursery habitat of these anadromous fish can adversely affect the EFH for juvenile bluefish, windowpane and summer flounder by reducing the availability of prey items

Increases in turbidity due to the resuspension of sediments into the water column during construction can degrade water quality, lower dissolved oxygen levels, and potentially release chemical contaminants bound to the fine-grained estuarine/marine sediments. Suspended sediment can also mask pheromones used by migratory fishes to reach their spawning grounds and impede their migration and can smother immobile benthic organisms and demersal newly-settle juvenile fish (Auld and Schubel 1978; Breitburg 1988; Newcombe and MacDonald 1991; Burton 1993; Nelson and Wheeler 1997).

Noise from construction activities may also result in adverse effects. Our concerns about noise effects comes from an increased awareness that high-intensity sounds have the potential to harm both terrestrial and aquatic vertebrates (Fletcher and Busnel 1978; Kryter 1984; Richardson et al. 1995; Popper 2003; Popper et al. 2004). Effects may include (a) non-life threatening damage to body tissues, (b) physiological effects including changes in stress hormones or hearing capabilities, or (c) changes in behavior (Popper et al. 2004).

As acknowledged in the EFH assessment, in-water work should be avoided from March 1 to June 30 of each year to minimize adverse effects on anadromous fishes and other NOAA trust resources. Work within the cofferdams can be undertaken during this time provided they are installed prior to March 1 and removed after June 30. Cofferdams should also be dewatered to decrease noise impacts.

The proposed project would result in the filling of tidal wetlands for the construction of embankments for track placement on the north side of the replacement bridge, but the EFH assessment does not evaluate the adverse effects to EFH and federally managed species that will result from this fill. The wetlands in the Raritan River estuary perform many important ecological functions including water storage, nutrient cycling and primary production, sediment retention, water filtration or purification, and groundwater recharge. The loss of wetlands as a result of this project could adversely affect EFH for a number of federally managed species through the loss of nursery, forage, and refuge habitat; the reduction in prey species; and primary production and water quality degradation from the reduction in sediment retention and pollution filtration. Vegetated wetlands are also considered to be special aquatic sites under Section 404(b)(1) of the Clean Water Act. Because of their ecological value, impacts on these special aquatic sites should be avoided and minimized.

Compensatory mitigation should be provided for unavoidable adverse effects to wetlands and other aquatic habitats. As this project moves forward, a mitigation plan should be developed in accordance with the federal final mitigation rules published in the Federal Register on April 10, 2008 (33 CFR Chapter 2 Part 332.4 (b)) and provided to us for review. The plan should explain how the proposed compensatory mitigation will offset the impacts to wetlands and EFH. It should also include performance measures, success criteria, and a long-term monitoring and maintenance plan. The site protection mechanism and long-term land steward should also be identified. Any wetlands subject to temporary impact by the proposed project should be restored and monitored to ensure restoration success.

The EFH assessment does not address the potential effects of HDD on EFH species. The inadvertent release of drilling muds into the water column (frack-out) could affect EFH in the project area by increasing turbidity in the water column, the impacts of which are discussed above, and smothering benthic organisms. To ensure that any frack-out will be appropriately managed, evidence of a plan should be provided.

The EFH assessment also does not evaluate the potential impacts of barges on benthic habitat. Barges in use along the river could run aground, especially at low spring tides or blowout tides, impacting benthic organisms such as shellfish. Species such as hard clam (*Mercenaria mercenaria*), soft shell clam (*Mya arenaria*), blue mussel (*Mytilus edulis*), and blue crab (*Callinectes sapidus*), occur in the shallow water habitats along the Raritan River. Coen and Grizzle (2007) discuss the ecological value of shellfish habitat to a variety of managed species and have suggested its designation as EFH for federally managed species. Because of the potential for impact to EFH prey species in the project area, barges should float at all stages of the tide.

## **Essential Fish Habitat Conservation Recommendations**

Pursuant to Section 305 (b) (4) (A) of the MSA, our EFH conservation recommendations are as follows to minimize adverse effects to EFH for summer flounder, bluefish, windowpane, little skate and other federally managed species:

1. Avoid in-water work from January 1 to June 30 of each year to minimize adverse effects to migrating anadromous species including alewife, blueback herring and American shad and to winter flounder early life stages and their EFH. Work may proceed during timing restrictions behind dewatered cofferdams, provided that they are installed before January 1 and removed after June 30.
2. Provide compensatory mitigation for unavoidable impacts to tidal wetlands. A compensatory mitigation plan should be developed and provided to us for review. This plan should document the avoidance and minimization impacts to tidal wetlands and provide sufficient acreage to offset the habitat losses.
3. All areas of temporary impact within wetlands should be restored and monitored to ensure restoration success.
4. A frack-out plan should be developed for all horizontal directional drilling. The document does not need to be provided to us, but evidence of its existence must be provided.
5. Barges should float at all stages of the tide.

We will continue to work with FTA as the plans for this project progress and additional details on the in-water work in the Raritan River and the impacts to wetlands within the project area are more fully defined. As additional information on the project schedule and construction details are developed, we will evaluate whether or not the full, recommended seasonal restriction for in-water work and removal of cofferdams is warranted based on available data on the timing of migration of anadromous fishes in the project area, or if there are other options to minimize adverse effects to migrating anadromous fishes.

Please note that Section 305(b)(4)(B) of the MSA requires you to provide us with a detailed written response to the EFH conservation recommendations, including a description of measures you have adopted to avoid, mitigate, or offset the impact of the project on EFH. In the case of a response that is inconsistent with these conservation recommendations, Section 305(b)(4)(B) of the MSA also indicates that you must explain your reasons for not following the recommendations. Included in such reasoning would be the scientific justification for any disagreements with us over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects pursuant to 50 CFR 600.920(k).

Please also note that a distinct and further EFH consultation must be reinitiated pursuant to 50 CFR 600.920(1) if new information becomes available or the project is revised in such a manner

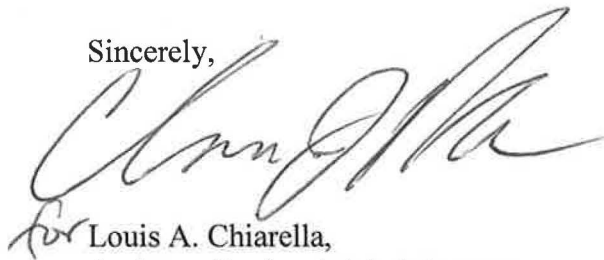
that affects the basis for the above EFH conservation recommendations.

**Endangered Species Act**

Federally listed species may be present in the project area. Coordination between FTA and our Protected Resources Division pursuant to Section 7 of the Endangered Species Act (ESA) is ongoing. Our Protected Resources Division will be providing comments on this project separately. Questions regarding the status of their review should be directed to Edith Carson at (978) 282-8490 or [edith.carson@noaa.gov](mailto:edith.carson@noaa.gov).

We look forward to our continued coordination with your office on this project as it moves forward. If you have any questions or need additional information, please do not hesitate to contact Ursula Howson at [ursula.howson@noaa.gov](mailto:ursula.howson@noaa.gov) or (732) 872-3116.

Sincerely,

A handwritten signature in dark ink, appearing to read "Louis A. Chiarella", written over a horizontal line.

for Louis A. Chiarella,  
Assistant Regional Administrator  
for Habitat Conservation

NY ACOE – S. Ryba  
PRD – E. Carson  
FTA – D. Burns  
FTA – D. Moser  
NJ Transit – R. Paladino  
MAFMC – C. Moore  
ASMFC – L. Havel  
NYDEC – D. McReynolds

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**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
GREATER ATLANTIC REGIONAL FISHERIES OFFICE  
55 Great Republic Drive  
Gloucester, MA 01930-2276

Stephen Goodman, P.E.  
U.S. Department of Transportation - Federal Transit Administration  
1 Bowling Green, Room 429  
New York, NY 10004-1415

OCT 2 - 2017

**Re: Raritan River Drawbridge Replacement Project**

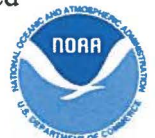
Dear Mr. Goodman:

We have completed our consultation under section 7 of the Endangered Species Act (ESA) in response to your letters received on July 28, 2017 and September 14, 2017 regarding the above-referenced proposed project. We reviewed your consultation request document and related materials. Based on our knowledge, expertise, and your materials, we concur with your conclusion that the proposed action is not likely to adversely affect the NMFS ESA-listed species. Therefore, no further consultation pursuant to section 7 of the ESA is required.

We agree with the rationale you provided to support your determination that the proposed action is not likely to adversely affect listed species or critical habitat. Specifically, we agree with your project description and the description of the action area. We agree with your description of listed species, life stages, and behaviors in the action area. You mentioned that critical habitat has been proposed for Atlantic sturgeon in the Hudson River. On August 17, 2017, the critical habitat rule for Atlantic sturgeon became final (82 FR 39160). Therefore, we are no longer under conference provisions. As this action is not within critical habitat, no further analysis is necessary.

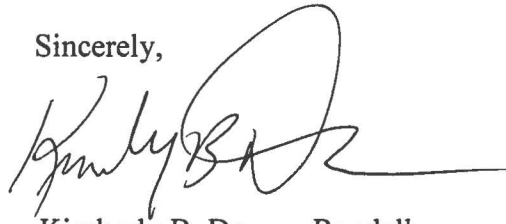
We agree that the effects, which you analyzed, constitute all of the direct and indirect effects of the action and that there are no interrelated or interdependent activities. We agree with your application of the terms "insignificant" and "discountable" to each of the effects you analyzed, and that your analysis of the effects of the action when added to baseline conditions supports your "not likely to adversely affect" determination. Finally, we agree that you based your determinations on the best available scientific and commercial information.

Reinitiation of consultation is required and shall be requested by the Federal agency, or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (a) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered in the consultation; (b) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this consultation or; (c) If a new species is listed or critical habitat designated that may be affected by the identified action. No take is anticipated or exempted. Should you have any questions about this correspondence please contact Edith Carson at 978-282-8490 or [Edith.Carson@noaa.gov](mailto:Edith.Carson@noaa.gov). For questions related



to Essential Fish Habitat please contact Ursula Howson with our Habitat Conservation Division at 732-872-3116 or [Ursula.Howson@noaa.gov](mailto:Ursula.Howson@noaa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read 'Kimberly B. Damon-Randall', with a long horizontal flourish extending to the right.

Kimberly B. Damon-Randall  
Assistant Regional Administrator  
for Protected Resources

EC: Carson NMFS/PRD; Moser FTA; Howson NMFS/HCD

PCTS: NER-2017-14430

File Code: \Non-Fisheries\FHWA\_State DOTs\Informals\NJ DOT\2017\FTA NJ DOT Raritan Bridge Replacement

## **FINDING OF NO SIGNIFICANT IMPACT**

**Project: Raritan River Bridge Replacement Project**

**Applicant: New Jersey Transit Corporation**

**Project Location: Perth Amboy and South Amboy, New Jersey**

### **Attachment C:**

**EA Table S-2: Summary of Potential Long-Term Adverse Effects and Mitigation**

**Table S-2**

**Summary of Potential Long-Term Adverse Effects and Mitigation**

| <b>Technical Discipline</b>                  | <b>Potential Effects</b>   | <b>Mitigation/Commitment</b>  |
|--|--|---|
| <i>Land Use</i>                              | None   | NA  |
| <i>Zoning/Redevelopment</i>                  | None   | NA  |
| <i>Parks and Recreational Resources</i>      | None   | NA  |
| <i>Socioeconomic Conditions</i>              | None   | NA  |
| <i>Property Acquisition and Displacement</i> | None.  | NA  |
| <i>Visual Resources</i>                      | None   | NA  |
| <i>Archaeological Resources</i>              | The Build Alternative will have an adverse effect on archaeological resources, including two buried historic vessels, and will traverse a portion of the Raritan River with high sensitivity for marine archaeological resources.  | Underwater archaeological investigations of the buried resources and coordination with the NJHPO will occur in order to develop appropriate mitigation measures for the adverse effect.   |
| <i>Architectural Resources</i>               | The proposed project will have an adverse effect on several railroad-related historic resources, including the historic Raritan River Drawbridge, which must be removed for construction of the new bridge.  | Documentation of the Raritan River Drawbridge and other historic railroad-related features in accordance with the standards of the Historic American Engineering Record (HAER); education and interpretive materials related to the bridge; design review by NJHPO; salvage of a pair of terrestrial catenary poles for display at the proposed South Amboy ferry terminal; and adherence to the measures outlined in the signed PA (see Appendix B). |
| <i>Transportation</i>                        | The Build Alternative will result in significant benefits to commuter and freight rail services on the NJCL due to a more reliable and resilient bridge. Maritime traffic will benefit from improved navigation due to the unimpeded 300-foot horizontal clearance provided by the lift span and fewer delays caused by bridge malfunction. The protective fender system installed at the main span's piers will improve safety and fewer boat collisions will occur as a result of the wider channel clearance afforded by the lift span. Most recreational boats will be able to pass beneath the bridge without opening the lift span since it will be approximately ten feet higher than the existing bridge. The lift can open quickly (within a few minutes), reducing wait times for the larger vessels.<br>The minimum vertical clearance of the lift span in the open position would be reduced from 140 to 110 feet. | Prepare a Navigation Impact Report.   |
| <i>Air Quality</i>                           | None   | NA  |

**Table S-2 (Cont'd)**  
**Summary of Potential Long-Term Adverse Effects and Mitigation**

| <b>Technical Discipline</b>              | <b>Potential Effects</b>   | <b>Mitigation/Commitment</b>   |
|--|--|--|
| <i>Greenhouse Gas (GHG) Emissions</i>    | No change to the number of daily trains that cross the bridge are proposed as a result of the Build Alternative. Since passenger and freight transportation by rail are substantially more efficient than on-road or in-water transportation, the long-term effect of the proposed project will be lower energy use and GHG emissions due to the resiliency improvements.  | NA   |
| <i>Noise and Vibration</i>               | None   | NA   |
| <i>Wetlands</i>                          | Approximately 0.4 acres of NJDEP-mapped freshwater wetlands in South Amboy and 2 acres of NJDEP saline coastal tidal marsh in Perth Amboy will be potentially affected.  | Avoidance and minimization of impacts to the maximum extent practicable, acquisition and adherence to applicable permit conditions, and compensatory mitigation at an anticipated 2:1 ratio (as per NJDEP and USACE requirements), which could include purchasing credits from an approved wetland mitigation bank, or on-site mitigation activities.  |
| <i>Flood Zones</i>                       | The Build Alternative will result in the placement of fill within the 100-year floodplain (approximately 0.3 acres on land plus approximately 0.8 acres in water) and 500-year floodplain (approximately 0.4 acres). Because this portion of the Raritan River is tidal and is affected by coastal flooding rather than riverine flooding, it will not lose storage capacity under normal conditions or during severe storms as a result of the placement of these materials. The Build Alternative will result in the clearing of vegetation in regulated "riparian zones." | Mitigation measures for disturbance within the 150-foot riparian zone will include re-vegetation within disturbed areas after removal of the existing bridge and approach tracks, other areas within the railroad right-of-way that could be re-vegetated, and opportunities available in the vicinity of the project site to reach the required mitigation ratio (anticipated to be at least 2:1) |
| <i>Water Quality</i>                     | None   | Awaiting final permit conditions, authorization and/or certification   |
| <i>Terrestrial Natural Resources</i>     | None   | Awaiting final permit conditions, authorization and/or certification   |
| <i>Aquatic Resources</i>                 | While the new bridge deck will be wider than the existing bridge deck, the new bridge will be higher and river shading is not expected to appreciably increase. The Build Alternative will result in a net increase of approximately 28,000 square feet of bottom habitat due to a different type of bridge pier that will be installed.   | Awaiting final permit conditions, authorization and/or certification   |
| <i>Essential Fish Habitat</i>            | None   | Awaiting final permit conditions, authorization and/or certification   |
| <i>Threatened and Endangered Species</i> | None   | Awaiting final permit conditions, authorization and/or certification   |
| <i>Coastal Zones</i>                     | The Build Alternative is located within the NJ Coastal Zone  | Acquisition of Waterfront Development and Coastal Wetlands permits and adherence to permit conditions  |
| <i>Indirect and Cumulative Effects</i>   | None   | NA   |
| <i>Environmental Justice</i>             | The proposed project will be located within an area that is an environmental justice community.  | Public participation initiatives are being conducted for this project in accordance with the requirements of NEPA.   |

Table S-3

### Summary of Temporary Construction-Period Effects and Mitigation

| Technical Discipline                    | Potential for Adverse Effects  | Mitigation/Commitment  |
|---|--|--|
| <i>Land Use/Zoning</i>                  | None   | NA   |
| <i>Zoning/Redevelopment</i>             | None   | NA   |
| <i>Parks and Recreational Resources</i> | None   | NA   |
| <i>Socioeconomic Conditions</i>         | None   | NA   |
| <i>Property Acquisition</i>             | A total about three acres for seven temporary easements of undeveloped commercial and/or industrial land may be required.  | Property owners will be compensated under the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (the Uniform Act) and established equitable land acquisition procedures.  |
| <i>Transportation</i>                   | Conrail Essay Running Track will be taken out of service for a period of approximately four to eight weeks and Conrail will need to use an alternate route to connect to the Northeast Corridor.<br>Maritime traffic will be affected during the installation of the vertical lift span, for a period of approximately 48 hours. The navigation channel may be reduced sporadically to allow for construction barge access.  | Coordination with Conrail on staged construction activities will occur and maritime users will be kept apprised of the proposed project's construction schedule.<br>Coordination with USCG Waterways Management Branch, Sector NY.   |
| <i>Air Quality</i>                      | Increased dust related to site preparation and exhaust emissions from material truck deliveries and construction equipment.  | Best practices measures will be employed including: limiting idling times to less than 3 minutes on diesel and gasoline powered engines; use of dust control measures; and other measures.   |
| <i>GHG Emissions</i>                    | Total GHG emissions associated with the construction of the Build Alternative are estimated to be on the order of 15,000 metric tons CO <sub>2</sub> e (annualized at 300 metric tons CO <sub>2</sub> e over the 50-year lifetime of the bridge). These would be offset by implementing measures to minimize GHG during construction and, over the lifetime of the proposed project, by the increased efficiencies in moving freight, with newer equipment that meets more stringent emissions requirements than the locomotives currently operating on the NJCL, and a reduction of emissions due to improving the passage of boats beneath the bridge. | The contractor will be encouraged to: use biodiesel fuel; concrete with high slag and fly ash content, where appropriate; re-use on-site aggregate; and use recycled concrete and steel. NJ TRANSIT will evaluate the use of composite plastic ties.   |
| <i>Noise and Vibration</i>              | None   | NA   |
| <i>Wetlands</i>                         | The Build Alternative will require construction activities to occur in and near wetlands.  | NJDEP-approved Stormwater Pollution Prevention Plan (SPPP) and Erosion and Sediment Control (ESC) plans will be drafted identifying measures (i.e., silt fencing, hay bales) that will be followed to protect adjacent wetlands outside of the area of disturbance from stormwater runoff during construction. |
| <i>Flood Zones</i>                      | Staging areas and construction trestles may be temporarily located in the flood zones. Since construction-related water volume displacement resulting from the additional fill will be to the Raritan Bay and the larger Atlantic Ocean, which has the ability to absorb flood waters, no adverse floodplain effects will occur.   | Awaiting final permit conditions, authorization and/or certification   |

**Table S-3 (Cont'd)**

**Summary of Temporary Construction-Period Effects and Mitigation**

| <b>Technical Discipline</b>   | <b>Potential for Adverse Effects</b>   | <b>Mitigation/Commitment</b>  |
|---|--|---|
| <i>Water Quality</i>  | The Build Alternative requires the installation of steel bridge piers and abutments and demolition of the existing bridge with piers removed to approximately two feet below the mudline outside of the navigation channel and five feet below mudline within the navigation channel, either by mechanical or drill-and-blast methods.   | As indicated above in Section S.2.2.3 all work will be performed in accordance with the NJDEP and USACE permit conditions, which will likely require containment of debris through the use of turbidity barriers and sheet piling around the existing piers during demolition. Construction barges will be located in waters of sufficient depth to minimize bottom disturbance.  |
| <i>Aquatic and terrestrial natural resources including Threatened and Endangered Species and Essential Fish Habitat</i> | <p>Birds protected under the Migratory Bird Treaty Act could potentially nest in the project area.</p> <p>Sea turtles and Atlantic sturgeon have the potential to occur in the project area as transients (i.e., not for breeding/spawning).</p> <p>Construction equipment and temporary trestles will result in increased shading, which could adversely affect aquatic habitat, or loss of water area and disturbance to the river bottom, which provides habitat.</p> <p>Underwater noise produced during impact pile driving has the potential to cause behavioral avoidance, injury, or mortality to fishes and sea turtles in the vicinity of pile driving activities.</p> | <p>Consultation with USFWS on construction activities and schedule may require imposition of timing restrictions on vegetation clearing to minimize potential impacts to migratory/nesting birds, which will be monitored in accordance with NJDEP and USACE permits requirements.</p> <p>As recommended by NOAA in-water work will not occur between March 1 and June 30 to minimize impacts to alewife and blueback herring and other transient species.</p> <p>Temporary trestles will be designed to reduce shading.</p> <p>Low-speed vibratory drilling will be used wherever practicable,</p> <p>The spatial extent of underwater noise could be minimized through the use of noise attenuation methods including wooden cushion blocks, dewatered cofferdams, or bubble curtains. Pile tapping would be used prior to the start of pile driving to deter fish and sea turtles from the vicinity of pile driving.</p> |
| <i>Coastal Zones</i>  | The Build Alternative is located within the NJ Coastal Zone  | Acquisition of Waterfront Development and Coastal Wetlands permits and adherence to permit conditions   |
| <i>Contaminated Materials</i>   | Contaminated materials are expected to be encountered during construction.   | Proposed project will be enrolled as a linear construction project as per NJDEP. Construction Health and Safety Plan will be prepared and contaminated materials will be handled, stored, transported and disposed of in accordance with all applicable laws and regulation and following best practices methods. A Materials Management Plan and Fill Use Plan will be developed and fill used on site will meet applicable Federal, State and local standards for clean or alternative fill.  |
| <i>Utilities</i>  | Bridge construction will require relocation of AT&T cable spanning Raritan River.  | Coordination with AT&T, acquisition of Section 10/404 permits for cable installation and adherence to permit conditions.  |

## **FINDING OF NO SIGNIFICANT IMPACT**

**Project: Raritan River Bridge Replacement Project**

**Applicant: New Jersey Transit Corporation**

**Project Location: Perth Amboy and South Amboy, New Jersey**

### **Attachment D:**

**Section 106 of the Historic Preservation Act Project Programmatic Agreement Among the  
FTA, NJ TRANSIT and NJ SHPO executed August 21, 2017.**

**PROJECT PROGRAMMATIC AGREEMENT  
AMONG  
THE FEDERAL TRANSIT ADMINISTRATION,  
THE NEW JERSEY TRANSIT CORPORATION,  
AND THE NEW JERSEY STATE HISTORIC PRESERVATION OFFICER  
REGARDING THE  
NEW JERSEY TRANSIT NORTH JERSEY COAST LINE  
RARITAN RIVER BRIDGE REPLACEMENT PROJECT,  
CITY OF PERTH AMBOY AND CITY OF SOUTH AMBOY,  
MIDDLESEX COUNTY, NEW JERSEY**

**WHEREAS** the New Jersey Transit Corporation (“NJ TRANSIT”) is proposing a project to construct a new Raritan River rail bridge serving the NJ TRANSIT North Jersey Coast Line and remove the existing bridge (“The Project”). The replacement bridge will be located parallel to and immediately west of the existing bridge and will include a moveable swing span to replace the existing swing bridge. Most, or all, of the existing bridge will be removed after completion of the new bridge. The Project will also include the relocation of communication and signal systems and new catenary supports and wires; and

**WHEREAS** NJ TRANSIT is the Project sponsor and the Federal Transit Administration (“FTA”) is the Project’s lead federal agency pursuant to the National Environmental Policy Act (“NEPA”), 42 U.S.C. §4321 *et. seq.*, and is responsible for compliance with Section 106 of the National Historic Preservation Act (“NHPA”), 16 U.S.C. §470f (hereinafter referred to as “Section 106”); and

**WHEREAS** NJ TRANSIT, FTA and the New Jersey State Historic Preservation Officer (“NJSHPO”) through Section 106 consultation determined that it is appropriate to enter into this Programmatic Agreement (PA), pursuant to Section 800.14(b) of 36 C.F.R. part 800 the implementing regulations for Section 106, which will govern the implementation of the Project and satisfy FTA’s compliance with Section 106 regarding the treatment of historic properties; and

**WHEREAS** the FTA through NJ TRANSIT undertook consultation with the NJSHPO on September 28, 2015, October 16, 2015, January 28, 2016, and March 23, 2016 in order to identify consulting parties, to present a public outreach plan, to define the Project’s area of potential effects (“APE”) as illustrated in Attachment 1, and to assess the Project’s effects on historic properties; and

**WHEREAS** the FTA in consultation with NJ TRANSIT and the NJSHPO, have determined that the undertaking will have an adverse effect on the Raritan River Swing Span Draw Bridge (SHPO Eligibility Opinion: 6/25/1991), the Pennsylvania Railroad Overhead Contact System (SHPO Eligibility Opinion: 4/26/2002), the New York & Long Branch Railroad Historic District (SHPO Eligibility Opinion: 8/24/2004), the Central Railroad of New Jersey Perth Amboy & Elizabethport Branch Historic District (SHPO Eligibility Opinion: 8/30/2000), the Camden & Amboy Railroad Main Line Historic District (SHPO Eligibility Opinion: 10/4/1991; 3/23/2016); and

**WHEREAS** the APE may contain Vessels 98 and 99 (SHPO Eligibility Opinion: 7/23/1998) but their location and depth is unclear requiring additional archaeological study, impact evaluation, and/or mitigation if either vessel is determined to be within the APE; and

**WHEREAS** research has determined that deeply buried Native American archaeological resources and/or submerged historic shipwreck-related archaeological resources may be present within a portion of the APE, and that the undertaking may result in an adverse effect upon such archaeological remains, should they exist; and

**WHEREAS** the FTA and NJ TRANSIT have consulted with the NJSHPO, and the FTA has consulted with Tribal Historic Preservation Officers of the Delaware Nation, the Delaware Tribe, the Eastern Shawnee Tribe of Oklahoma, and the Shawnee Tribe (Tribal Officials) pursuant to 36 CFR Part 800 of the regulations implementing Section 106 of the NHPA  
; and

**WHEREAS** the full effects on archaeological historic properties, if present, cannot be fully determined prior to completion of the NEPA process; and

**WHEREAS** the FTA through NJ TRANSIT has consulted with Amtrak, Consolidated Rail Corporation (“Conrail”), Middlesex County, the City of Perth Amboy, the City of South Amboy, the United States Coast Guard, and the United States Army Corps of Engineers regarding the effects of the undertaking on historic properties; and

**WHEREAS** the FTA through NJ TRANSIT has agreed to enter into a Programmatic Agreement (“PA”) pursuant to 36 CFR 800.14(b) to implement a series of stipulations to mitigate identified adverse effects to architectural historic properties, to perform additional archaeological investigations and evaluations to determine the presence of archaeological historic properties, develop ways to avoid and/or minimize effects to any archaeological historic properties, and to implement data recoveries and/or other alternative mitigation strategies during the Project’s design phase if archaeological historic properties are determined to exist within the APE and cannot be avoided; and

**WHEREAS** in accordance with 36 CFR 800.6(a)(1), the FTA has notified the Advisory Council on Historic Preservation (“ACHP”) of its Adverse Effects determination with specified documentation on March 30, 2017, and the ACHP has chosen not to participate in the consultation in a letter dated April 17, 2017 pursuant to 36 C.F.R. 800.6(a)(1)(iii);

**NOW, THEREFORE,** the FTA, NJ TRANSIT, and the NJSHPO agree that the Project shall be implemented in accordance with the following stipulations in order to take into account the effects of the undertaking on historic properties.

## **STIPULATIONS**

The FTA through NJ TRANSIT shall ensure that the following measures are carried out:

### **I. RECORDATION**

The Raritan River Swing Span Draw Bridge, and contributing elements of the Pennsylvania Railroad Overhead Contact System, New York & Long Branch Railroad Historic District, Central Railroad of New Jersey Perth Amboy & Elizabethport Branch Historic District and the Camden & Amboy

Railroad Main Line Historic District within the project's APE shall be documented consistent with the Historic American Building Survey ("HABS")/Historic American Engineering Record ("HAER") Level III standards (see Attachment 5). NJ TRANSIT will use persons meeting the professional qualifications standards specified in Part V. of this PA to document existing listed and eligible resources that will be removed or altered as a result of the Project. For the photo documentation, which will consist of the use of large film format for recordation of the historic Raritan Bridge structures and the use of either large format film or digital photography for other historic resources as deemed appropriate based upon consultation with the NJSHPO, NJ TRANSIT will use persons with experience in the respective forms of large format photography. This documentation effort shall include detailed descriptions of the Perth Amboy & Elizabethport Branch Signal Bridge, the Essay Interlocking Tower and Substation, as well as a full background history of the rail crossing of the Raritan River at this location including discussion of this bridge type's technology, its prevalence, and how many of this type still exist.

- A. As part of the recordation, and in consultation with the NJSHPO and any consulting parties, NJ TRANSIT shall actively solicit from the public and attempt to obtain from other accessible archival sources, printed, graphic, and photographic information regarding the Raritan River Swing Span Draw Bridge and associated railroad infrastructure. The compiled information will be evaluated and (as deemed appropriate during consultation) duplicated as part of the recordation document.
- B. NJ TRANSIT will prepare and provide the FTA and the NJSHPO with a draft copy of the recordation document for review and comment. Completion of the photographic recordation, including NJSHPO review and approval of same, will occur within six (6) months of letting the main construction contract and prior to the initiation of any demolition or construction activity. NJ TRANSIT and the NJSHPO shall review and concur that all other elements of the recordation are completed within one (1) year of letting the construction contract.
- C. Archival copies of the final recordation document will be provided to the NSJHPO, National Park Service, the New Jersey State Library, the Rutgers University Special Collections and University Archives, and the Perth Amboy and South Amboy Public Libraries. Additional non-archival copies will be furnished to the PRR Technical & Historical Society and the Camden & Amboy Railroad Historical Society, and any other consulting party requesting a copy.

## **II. INTERPRETIVE DISPLAYS**

NJ TRANSIT in consultation with the NJSHPO shall develop plans and an implementation schedule for the preparation and installation of an interpretive display along the affected North Jersey Coast Line ("NJCL") or at NJ TRANSIT's South Amboy and Perth Amboy Stations or another location mutually acceptable to all parties (such as at the location of interpretive materials being prepared for the South Amboy Intermodal Ferry project). The content of these displays shall also be developed in consultation with the NJSHPO and draw upon the research and documentation conducted for the recordation and archaeology stipulations in this PA. Possible themes may include, but are not limited to, the Camden & Amboy Railroad, maritime traffic on the Raritan River, movable bridge technology, New York & Long Branch Railroad, and the Central Railroad of New Jersey Perth Amboy & Elizabethport Branch.

### III. SALVAGE OF MATERIALS

NJ TRANSIT shall consult with the NJSHPO, any consulting parties, and FTA to develop a plan for the potential salvage and possible reuse for interpretive purposes of two Pennsylvania Railroad catenary structures (and possibly associated wiring) from the Raritan River Swing Bridge or its approaches, and the Perth Amboy & Elizabethport Branch Signal Bridge. The plan shall at minimum include the following provisions:

1. NJ TRANSIT and the NJ SHPO shall consult with the New Jersey Department of Transportation (“NJDOT”) and the City of South Amboy concerning the two Pennsylvania Railroad catenary structures and associated wiring, and contact the City of Perth Amboy concerning the Perth Amboy & Elizabethport Branch Signal Bridge. NJ TRANSIT shall provide the NJSHPO and FTA with copies of correspondence between NJ TRANSIT and NJDOT, the City of South Amboy, and the City of Perth Amboy. Should any of these third party contacts not be responsive to outreach efforts, NJ TRANSIT shall continue a good faith effort to coordinate with these three parties over the course of six months from the removal of the structures and shall document such efforts in materials to be provided to the NJSHPO and FTA for the project record.
2. If it is determined that all or some of the structures can be salvaged and potentially reused for interpretive purposes at these locations or elsewhere, NJ TRANSIT shall store the catenary structures (and possibly associated wiring) and/or Signal Bridge until ownership of the structures is transferred or, if no owner can be found, for a period of no longer than one year following the removal /disassembly of the structures.
3. All prospective recipients shall be informed that the structures will be made available in “as-is” condition, to include any permanent or temporary damage or disassembly necessitated by their removal. NJ TRANSIT will make a good faith effort to minimize damage caused by the structures’ removal.
4. As part of the mitigation under Section 106 and to implement the plan for interpretive displays consistent with Stipulation II above, the NJSHPO and NJ TRANSIT will enter agreements with recipient agencies to ensure the structures are preserved for public or research interpretive use. These agreements shall include assurances that NJ TRANSIT has no legal liability for completion of mitigation conditions once the agreements have been executed and ownership of the structures has been transferred to receiving entities.
5. In the event NJDOT and the respective cities decline ownership of the structures, NJ TRANSIT and NJSHPO shall coordinate to identify and contact other prospective curators of the structures before the end of the one-year period NJ TRANSIT is obligated to store the structures.
6. After the close of the maximum one-year storage period, if suitable locations for reutilization have not been identified, and after NJ TRANSIT has provided NJSHPO with copies of written correspondence between NJ TRANSIT and NJDOT showing that NJDOT and other prospective recipients are unable or unwilling to take possession of salvaged materials, NJ TRANSIT shall be free to dispose of the structures in whatever manner it prefers, subject to any applicable federal and or state disposal or other requirements.

#### IV. PROTOCOLS FOR ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS

- A. Archaeological Monitoring of Geotechnical Cores. A qualified geomorphologist with demonstrated experience shall inspect the soil boring samples, soil boring logs undertaken in connection with the Raritan River Bridge Replacement Project, and other relevant background data. Based on the review of the borings and the potential for a pre-contact landform, the geomorphologist may also monitor future soil borings to inspect the portions of the soil column to determine if cultural bearing deposits are present. This work would be undertaken in order to gain information concerning deeply buried terrestrial landforms in the vicinity of the shorelines. If submerged pre-contact landforms are identified, the NJSHPO, FTA, and NJ TRANSIT shall consult regarding the scope of work for any additional archaeological monitoring of the borings. Initial consultation between signatories regarding establishing a process for additional investigations, avoidance, and/or mitigation will occur no later than 15 days following notification of discovery by the geomorphologist. The signatories will follow all requirements of Section 106, including consultation with other parties as needed. NJ TRANSIT and FTA will not be required to conduct additional soil borings and other investigations outside of the area of the discovery that is potentially disturbed by Project implementation. Mitigation shall at a minimum include a report of all investigations in a document meeting the NJSHPO's *Guidelines for Preparing Cultural Resources Management Archaeological Reports Submitted to the Historic Preservation Office*. Additional stipulations for any discoveries that include human remains or cultural artifacts (to include tribal discoveries) are detailed in Stipulation IV, Parts E and F below.
- B. Underwater Archaeological Investigations. A Qualified Maritime Archaeologist shall review bathymetric survey data collected previously and in connection with the current undertaking in order to determine if anomalies potentially indicative of previously unidentified shipwrecks or other maritime archaeological resources are present within the APE-Archaeology. Additional research shall also be undertaken prior to construction to try to pinpoint or discover more about any identified anomalies and whether they could be shipwrecks over 50 years old. The NJSHPO, FTA, and NJ TRANSIT shall determine on the basis of this review if an underwater archaeological investigation of any such anomalies is merited to evaluate the National Register of Historic Places ("NRHP") eligibility of any resources identified and to document and record any such eligible resources. If NRHP-eligible resources are identified within the APE-Archaeology, the NJSHPO, FTA, and NJ TRANSIT shall consult to develop ways to avoid, minimize, and/or mitigate any adverse effects on historic properties prior to project implementation. The signatories will follow all requirements of Section 106 and other applicable laws. NJ TRANSIT and FTA shall not be required to expand underwater archaeological investigations beyond what is necessary to investigate discovered resources (e.g. ships, structures) lying completely or partially within the APE-Archaeology and/or potentially disturbed by Project implementation. Additional stipulations for any discoveries that include human remains or cultural artifacts, including tribal discoveries, are detailed in Stipulation IV, Parts E and F below. All survey shall comply with the Bureau of Ocean Energy Management's underwater archaeological survey guidelines presented in the March 2017 *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585* including guidance regarding the Atlantic Ocean.
- C. Mitigation/Archaeological Data Recovery for Vessels 98 and 99. An archaeologist meeting the qualifications set forth in the Secretary of the Interior's Professional Qualifications Standards [48 FR 44738-44739] and with at least ten years of experience in the field of maritime

archaeology shall undertake an on-site evaluation, and as appropriate, complete a Phase III research design and data recovery plan in consultation with the NJSHPO to document the remains of Vessels 98 and 99. The goal of the evaluation shall be to assess and document the integrity and physical characteristics of Vessels 98 and 99 with a data recovery plan to be implemented concurrently as appropriate.

1. Any data recovery plan shall include a schedule for the completion of all field and lab work, public outreach initiatives, and the submission of draft and final reports within an agreed upon time frame. The archaeologist will submit the Phase III scope of work/research design and data recovery plan to the NJSHPO, FTA, and NJ TRANSIT for review and approval prior to conducting the Phase III archaeological data recovery. Phase III fieldwork will be initiated upon NJSHPO, FTA, and NJ TRANSIT's approval of the data recovery plan and completed within a time frame to be specified by the Phase III research design and data recovery plan. All work will be completed in advance of the commencement of construction activities.
2. In addition, the remains of Vessels 98 and 99 shall also be documented with digital photographs and measured drawings of hull remains, with a historic context component addressing canal boat design and maritime traffic on the Raritan River between the Delaware and Raritan Canal Outlet Lock at New Brunswick and the Raritan Bay. This documentation will be provided to NJSHPO and local archives and other relevant repositories determined in consultation with NJSHPO and consulting parties.
3. If excavations at this location are not feasible due to logistical factors, alternative mitigation options will be evaluated in consultation with NJSHPO, FTA, and NJ TRANSIT.

D. General Provisions for Archaeology

1. Records and artifacts from sites eligible or listed in the NRHP will be curated in accordance with 36 CFR Part 79. All materials resulting from archaeological survey work will be maintained in accordance with 36 CFR Part 79 until their analysis is complete. A good faith effort will be made to find a suitable repository that will accept collections from NRHP-eligible sites. Should such a repository not be identified, the artifacts will be transferred to NJ TRANSIT for storage.
2. All final archaeological reports will be distributed to the NJSHPO. In addition, other qualified agencies and consulting parties may obtain final archaeological reports upon request in order to ensure the security of archaeological sites in keeping with the requirements of Section 304 of the National Historic Preservation Act.
3. Upon completion of the field investigations and receipt of a written release from the NJSHPO, FTA, and NJ TRANSIT, construction work may proceed within the limits of the archaeological site.
4. In all instances, the NJSPHO shall have thirty (30) days to review and comment on all submissions.

E. Discovery of Human Skeletal Remains. If human skeletal remains are encountered anywhere on the Project site, they will be treated in accordance with the current guidelines of the

NJSHPO, and with the applicable provisions of the New Jersey Cemetery Act, 2003, N.J.S.A. 45:27-1 *et seq.* If it is determined that the skeletal remains (and any associated grave artifacts) are Native American, NJ TRANSIT will promptly notify the NJSHPO and the FTA and the responsible Tribal Official(s). The NJ TRANSIT and FTA will comply with the Native American Graves Protection and Repatriation Act (“NAGPRA”) of 1990 and its implementing regulations at 43 CFR Part 10. NJ TRANSIT will cease construction activities at the location of the discovery until such time as the significance and disposition of said discoveries can be determined. In addition, if any discovered human remains or cultural items are identified as affiliated with the Delaware Tribe, NJ TRANSIT will comply with the “Delaware Tribe of Indians Policy for Treatment and Disposition of Human Remains and Cultural Items That May Be Discovered Inadvertently during Planned Activities” (see Attachment 6).

- F. Unanticipated Discoveries. All unanticipated historic and/or pre-contact archaeological discoveries resulting from Project activities made anywhere on the Project site shall be treated in accordance with the procedures outlined in 36 CFR 800.11 and CFR 800.13. In the event that unanticipated discoveries made during execution of the Project include Native American cultural archaeological resources, NJ TRANSIT will cease construction in the area of the discoveries until such time as the significance and disposition of said discoveries can be determined. NJ TRANSIT and FTA will notify the responsible Tribe Officials and consult with the affected Tribe on how to treat archaeological resources as required prior to resuming construction activities.

## **V. PROFESSIONAL QUALIFICATIONS**

NJ TRANSIT will ensure that all work proscribed by this PA is carried out by/under the direct supervision of a person or persons meeting at a minimum the appropriate Secretary of the Interior’s Professional Qualifications Standards [48 FR 44738-44739].

## **VI. DESIGN REVIEW**

NJ TRANSIT, in consultation with the NJSHPO and FTA, shall ensure that the design drawings and technical specifications for the proposed project adhere to the recommended approaches to the Secretary of the Interior’s Standards and Treatments for Historic Properties and are compatible with the character defining features of historic resources within the project APE. NJ TRANSIT shall submit design plans and specifications (as appropriate) at the 30%, 60% and 90% phases for NJSHPO review and approval. NJ TRANSIT shall submit final design drawings and technical specification to the NJSHPO for review and approval prior to the initiation of the bidding process. The NJSHPO shall have thirty (30) days to comment on each of these submissions.

NJ TRANSIT shall submit copies of shop drawings, as appropriate, based upon consultation with the NJSHPO, prepared in response to the approved plans and specifications for NJSHPO review and comment. Samples of new materials, finishes and elements, as appropriate, based upon consultation with the NJSHPO, shall also be submitted, by NJ TRANSIT, to the NJSHPO for review and approval before or during construction. Samples may take the form of physical objects or printed visual representations, whichever form is more appropriate to the material, finish or element as determined in consultation with the NJSHPO.

## **VII. DESIGN MODIFICATIONS**

NJ TRANSIT shall not alter any plan, scope of service, or other document that has been reviewed and commented on pursuant to this PA (except to finalize documents commented on in draft form

or at the preliminary or pre-final engineering phases of the design) without first affording the parties to this PA the opportunity to review the proposed change and determine whether or not it shall require that this PA be amended. NJ TRANSIT will furnish to the NJSHPO and FTA a plan sheet or design sketch showing the proposed change; a written description of why the change is needed; effects to historic properties, if any; and a description of alternatives considered to achieve the same goals, if needed. Within fifteen (15) days of receipt of the documents, the NJSHPO shall either provide written comments to the FTA through NJ TRANSIT or notify NJ TRANSIT that the NJSHPO requires additional time to complete its review. If one or more of the signatories determines that an amendment is needed, then the parties to this PA shall consult in accordance with Stipulation XII. AMENDMENTS below.

### **VIII. CHANGES IN PROJECT AREA/SCOPE**

- A. In the event of any changes to the project scope and/or geographic area, the following measures shall be implemented in consultation with the Signatories:
- B. NJ TRANSIT in consultation with FTA and the NJSHPO shall assess and revise the project APE as needed to incorporate any additional areas that have the potential to affect historic properties.
- C. NJ TRANSIT in consultation with FTA and the NJSHPO shall carry out additional investigations to identify historic architectural and archaeological properties that may be affected.
- D. NJ TRANSIT in consultation with FTA and the NJSHPO shall assess the project's effect on any new historic properties and explore measures to avoid, minimize, or mitigate effects on historic properties.
- E. NJ TRANSIT in consultation with the NJSHPO shall ensure the preparation of appropriate reports and documents, notify Section 106 consulting parties, including Tribal Officials(s), of any changes in the project's effect on historic properties, and provide the NJSHPO and consulting parties an opportunity for review and comment.
- F. If a change in project scope results in additional adverse effects to historic properties, the FTA and NJ TRANSIT shall consult with NJSHPO and all consulting parties to amend the PA in accordance with Stipulation XII. AMENDMENTS below.

### **IX. MONITORING AND REPORTING**

Each year following the execution of this PA until it expires or is terminated, NJ TRANSIT shall provide all signatories to this PA a summary report detailing work undertaken pursuant to its terms. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in FTA's efforts to carry out the terms of this PA.

### **X. DISPUTE RESOLUTION**

- A. In the event that a signatory or concurring party to this PA objects to any actions proposed or the manner in which the terms of this PA are implemented, FTA and NJ TRANSIT shall consult with such party to resolve the objection. Except in exigent circumstances as provided in Paragraph E., FTA and NJ TRANSIT will meet with the concurring party within 30 calendar days to resolve the objection.

- B. If, after consultation with the objecting party in Paragraph A above, the FTA determines that the objection has not been satisfactorily resolved, FTA will, within 15 days of determination, forward documentation relevant to the dispute to the ACHP.
- C. Except in exigent circumstances as provided in Paragraph E. below, when a dispute occurs, and if ACHP agrees to participate, FTA will follow ACHPS's recommendations or comments in reaching a final decision regarding the dispute.
- D. Except in exigent circumstances as provided in Paragraph E below, in the event ACHP declines to accept FTA's requests for recommendations or does not provide comments within 30 calendar days of receiving pertinent documents, FTA may resolve the dispute without requiring ACHP's concurrence. Prior to reaching a final decision, FTA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the PA, and provide them and the ACHP with a copy of such written response.
- E. In the case of disputes arising under exigent circumstances (such as when construction activities have been suspended or delayed pending resolution of the matter), relevant parties will endeavor to resolve any dispute within seven calendar days.

## **XI. DURATION**

This PA will expire if its terms are not carried out within ten (10) years from the date of its execution. Prior to such time, the FTA through NJ TRANSIT may consult with the other signatories to reconsider the terms of the PA and amend it in accordance with Stipulation XII. AMENDMENTS below.

## **XII. AMENDMENTS**

Any signatory to this PA may request an amendment to this PA at any time, whereupon the signatories will consult in accordance with 46 CFR Section 800.14(b) to consider such amendment. The amendment will be effective on the date a copy is signed by all of the signatories.

## **XIII. TERMINATION**

If any signatory to this PA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment per Stipulation XII, above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the PA upon written notification to the other signatories.

Once the PA is terminated, and prior to work continuing on the undertaking, the FTA must either (a) execute a PA pursuant to 36 CFR 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR 800.7. The FTA through NJ TRANSIT shall notify the signatories as to the course of action it will pursue.

Execution of this PA by the FTA, NJ TRANSIT, and the NJSHPO, and implementation of its terms evidence that the FTA has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

#### **XIV. CONTACT INFORMATION**

For purposes of notices and consulting pursuant to this PA, the following addresses and contact information should be used for the respective agencies:

##### **NJ TRANSIT**

Dara Callender  
Environmental Services Unit  
NJ TRANSIT  
One Penn Plaza East  
Newark, NJ 07105-2246  
Tel: (973) 491-7205  
Fax: (973) 863-4538

##### **FTA**

Daniel V. Moser  
Federal Transit Administration  
1 Bowling Green, Room 429  
New York, NY 10004-1415  
Tel: (212) 668-2326  
Fax: (212) 668-2136

##### **NJ SHPO**

Katherine J. Marcopul  
Deputy State Historic Preservation Officer  
Mail Code 501-04B  
State of New Jersey  
Department of Environmental Protection  
Historic Preservation Office  
P.O. Box 420  
Trenton, NJ 08625-0420  
Tel: (609) 984-0176  
Fax: (609) 984-0578

## REFERENCES:

Bureau of Ocean Energy Management (US DOI)

2015 *Phase I Underwater Archaeological Survey Guidelines*. Available at [www.boem.gov](http://www.boem.gov).

New Jersey Historic Preservation Office (HPO)

1994 *Guidelines for Preparing Cultural Resource Management Archaeological Reports*. On file, Historic Preservation Office, Trenton, New Jersey.

1996 *Guidelines for Phase I Archaeological Investigations: Identification of Archaeological Resources*. On file, Historic Preservation Office, Trenton, New Jersey.

Richard Grubb & Associates, Inc.

2014 Phase IA Archaeological Survey and Historic Architectural Resources Background Study (HARBS) and Effects Assessment Report, NJ TRANSIT County Yard/Delco Lead Emergency Train Storage and Service and Inspection Facility Project, City of New Brunswick and Township of North Brunswick, Middlesex County, New Jersey, July 2014 [revised November 14, 2014]. On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

## ATTACHMENTS

Attachment 1: Area of potential effect map

Attachment 2: Table of Adversely Affected Resources

Attachment 3: Photos of Historic Resources –Adverse Effects

Attachment 4: NPS NR digital photographic standards

Attachment 5: HAER Level 3 Standards

Attachment 6: Delaware Tribe of Indians Policy for Treatment and Disposition of Human Remains and Cultural Items That May Be Discovered Inadvertently during Planned Activities

PROJECT PROGRAMMATIC AGREEMENT  
AMONG  
THE FEDERAL TRANSIT ADMINISTRATION,  
THE NEW JERSEY TRANSIT CORPORATION,  
AND THE NEW JERSEY STATE HISTORIC PRESERVATION OFFICER  
REGARDING THE  
NEW JERSEY TRANSIT NORTH JERSEY COAST LINE  
RARITAN RIVER BRIDGE REPLACEMENT PROJECT  
CITY OF PERTH AMBOY AND CITY OF SOUTH AMBOY,  
MIDDLESEX COUNTY, NEW JERSEY

FEDERAL TRANSIT ADMINISTRATION

By: 

 Stephen Goodman, Regional Administrator, FTA Region II

Date: 8-21-17

**PROJECT PROGRAMMATIC AGREEMENT  
AMONG  
THE FEDERAL TRANSIT ADMINISTRATION,  
THE NEW JERSEY TRANSIT CORPORATION,  
AND THE NEW JERSEY STATE HISTORIC PRESERVATION OFFICER  
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NEW JERSEY TRANSIT NORTH JERSEY COAST LINE  
RARITAN RIVER BRIDGE REPLACEMENT PROJECT  
CITY OF PERTH AMBOY AND CITY OF SOUTH AMBOY,  
MIDDLESEX COUNTY, NEW JERSEY**


**NEW JERSEY TRANSIT CORPORATION**

By:   
Eric R. Daleo, Assistant Executive Director

Date: 7/20/17

Approved as to Form only for NJ TRANSIT:

Christopher S. Porrino  
Attorney General of New Jersey

By:   
Joseph E. Snow  
Deputy Attorney General

Date: 7/24/17

**PROJECT PROGRAMMATIC AGREEMENT  
AMONG  
THE FEDERAL TRANSIT ADMINISTRATION,  
THE NEW JERSEY TRANSIT CORPORATION,  
AND THE NEW JERSEY STATE HISTORIC PRESERVATION OFFICER  
REGARDING THE  
NEW JERSEY TRANSIT NORTH JERSEY COAST LINE  
RARITAN RIVER BRIDGE REPLACEMENT PROJECT  
CITY OF PERTH AMBOY AND CITY OF SOUTH AMBOY,  
MIDDLESEX COUNTY, NEW JERSEY**

**NEW JERSEY STATE HISTORIC PRESERVATION OFFICER**

By: Katherine J. Marcopul  
Katherine J. Marcopul, Deputy State Historic Preservation Officer

Date: 7/21/2017

**Attachment 1**  
**AREA OF POTENTIAL EFFECT MAP**



Aerial view of the project area in Perth Amboy, showing locations of the historic architectural resources and photo locations and directions in the APE-Architecture



Aerial view of the project area in Perth Amboy, showing locations of the historic architectural resources and photo locations and directions in the APE-Architecture

**Attachment 2**  
**TABLE OF ADVERSELY AFFECTED RESOURCES**

## Attachment 2: Historic Resources in the Area of Potential Effect

| Map ID | Property Name/Address   | Municipality                | NR Current Status  | Assessment of Effects  | Plate #s |
|--------|---|-----------------------------|--|--|----------|
| 1      | Raritan River Swing Span Draw Bridge  | Perth Amboy;<br>South Amboy | Eligible (SHPO Opinion: 6/25/1991)   | Adverse Effect   | 1-3      |
| 2      | Overhead Contact System, Pennsylvania Railroad Company  | Perth Amboy;<br>South Amboy | Eligible (SHPO Opinion: 4/26/2002)   | Adverse Effect   | 1-3      |
| 3      | New York & Long Branch Railroad (NY&LBRR) Historic District                                     | Perth Amboy;<br>South Amboy | Eligible (SHPO Opinion: 8/20/2004)   | Adverse Effect   | 4        |
| 3.1    | New York & Long Branch Railroad Electric Substation   | South Amboy                 | Previously un-surveyed   | Contributing Resource; Adverse Effect to NY&LBRRHD                                   | 5        |
| 3.2    | NJ TRANSIT Essay Tower  | South Amboy                 | Contributing (SHPO Opinion: 8/20/2004); Previously un-surveyed                                 | Adverse Effect to NY&LBRRHD  | 6        |
| 3.3    | Concrete Box Culvert, NJ TRANSIT  | South Amboy                 | Previously un-surveyed   | Contributing Resource; No Effect to NY&LBRRHD  |          |
| 3.4    | Pennsylvania Railroad Bridge 60.84 Remains  | South Amboy                 | Previously un-surveyed   | Non-Contributing Resource; No Effect   |          |
| 4      | Perth Amboy & Elizabethport Branch of the Central Railroad of New Jersey Historic District      | Perth Amboy                 | Eligible (SHPO Opinion: 8/30/2000)   | Adverse Effect   | 7        |
| 4.1    | Perth Amboy & Elizabethport Branch of the Central Railroad of New Jersey Railroad Signal Bridge | Perth Amboy                 | Previously un-surveyed   | Contributing Resource of the CRNJ Perth Amboy & Elizabethport Branch; Adverse Effect | 8        |
| 5      | Raritan Copper Works (Former Anaconda Copper Works)   | Perth Amboy                 | New Jersey Register listed; Eligible (SHPO Opinion: 12/23/1977; DOE: 3/7/1978; SR: 11/27/1998) | No Effect  |          |
| 6      | Vessel 98, Traditional Small Barge/Canal Boat   | Perth Amboy                 | Eligible (SHPO Opinion: 7/23/1998)   | Adverse Effect   | 9        |
| 7      | Vessel 99, Traditional Small Barge/Canal Boat   | Perth Amboy                 | Eligible (SHPO Opinion: 7/23/1998)   | Adverse Effect   | 10       |
| 8      | Perth Amboy Pump Station, 2 Second Street   | Perth Amboy                 | Previously un-surveyed   | Not Eligible; No Effect  |          |
| 9      | 52 First Street   | Perth Amboy                 | Previously un-surveyed   | Not Eligible; No Effect  |          |
| 10     | 51 Madison Avenue   | Perth Amboy                 | Previously un-surveyed   | Not Eligible; No Effect  |          |
| 11     | 125 Second Street   | Perth Amboy                 | Previously un-surveyed   | Not Eligible; No Effect  |          |
| 12     | 147 Second Street   | Perth Amboy                 | Previously un-surveyed   | Not Eligible; No Effect  |          |

### Attachment 2: Historic Resources in the Area of Potential Effect

| Map ID | Property Name/Address   | Municipality | NR Current Status  | Assessment of Effects  | Plate #s |
|--------|---|--------------|--|--|----------|
| 13     | 261 Market Street   | Perth Amboy  | Previously un-surveyed   | Not Eligible; No Effect  |          |
| 14     | Camden & Amboy Railroad Main Line Historic District (C&ARRMLHD) | South Amboy  | SHPO Opinion: 3/23/2016 (revised SHPO Opinion; boundary clarified SHPO Opinion: 10/4/1991) | Adverse Effect   |          |
| 14.1   | Pennsylvania Railroad Bridge over Main Street (No. 60.71)       | South Amboy  | Previously un-surveyed   | Contributing Resource to Camden & Amboy RR Main Line HD; No Effect |          |

**Attachment 3**

**PHOTOS OF HISTORIC RESOURCES – ADVERSE EFFECTS**



View of the opened Raritan River Swing Span Draw Bridge from the South Amboy Junction 1



View of the east side of the Raritan River Swing Span Draw Bridge from South Amboy 2



View of the west side of the Raritan River Swing Span Draw Bridge from Perth Amboy

3



A driveway and parking area adjacent to a commercial building to the left, and the NJ TRANSIT Coast Line (former NY&LBRR) to the right

4



View of east elevation of the former railroad electric substation in South Amboy

5



View of the east elevation of the Essay Interlocking Tower in South Amboy

6



Overview of the northern portion of the NJ TRANSIT Coast Line (former NY&LBRR) railroad tracks in the APE-Archaeology

7



View of the signal bridge located on the tracks of the former Perth Amboy & Elizabethport Branch of the CRRNJ

8



Remains of NRHP-eligible Vessel 98 (SHPO Opinion: 7/23/1998) on the beach, west of the Raritan River Swing Span Draw Bridge

9



Remains of NRHP-eligible Vessel 99 (SHPO Opinion: 7/23/1998) on the beach, west of the Raritan River Swing Span Draw Bridge

10

**Attachment 4**  
**NPS NR DIGITAL PHOTOGRAPHIC STANDARDS**

# National Register Photo Policy Factsheet updated 5/15/2013

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## Selecting a Digital Camera

**BEST:** Six megapixel or greater digital SLR camera

Acceptable: Two – five megapixel point-and-shoot digital camera

Not acceptable: Camera phones, disposable or single-use digital cameras, digital cameras with fewer than two megapixels of resolution

## Taking the Picture

- Image file format (Set the camera for highest image quality).

**BEST:** Tag Image File format (TIFF) or RAW format images. This allows for the best image resolution.

Acceptable: JPEGs converted to TIFFs, *by a computer conversion process*, are acceptable; however, JPEGs must not be altered in any way prior to conversion, (other than renaming them).

Do not use the JPEG setting on the camera, if a higher quality setting is available.

RGB color digital **TIFFs** are preferred.

Digital Camera Resolution (Set the camera to the maximum or largest pixel dimension the camera allows).

**BEST:** Six megapixels or greater (2000 x 3000 pixel image)

Acceptable: Minimum two megapixels (1200 x 1600 pixel image)

## Renaming the digital TIFF image

All digital image files must be renamed using a standard naming format.

**The TIFF file name must include:**

**State\_county\_property name (or district name)\_0001**

(Use zeros in image numbers to create 4 digit number, e.g. 0002, 0003, etc.)

Example for individual properties:

**AL\_Jefferson County\_Elizabeth Brown House\_0001**

Example for district labels:

**AL\_Jefferson County\_Birmingham Commercial Historic District\_0125**

Example for nominations within MPS:

**AL\_Jefferson County\_NorwoodMPS\_EBrownHouse\_0001**

## Burning the Images onto an Archival Disk

A CD or DVD containing all TIFF images must accompany the photos.

Reminder: JPEGs converted to TIFFs, *by a computer conversion process*, are acceptable; however, JPEGs must not be altered in any way prior to conversion, (other than renaming them). *When image is open on your computer, right click and you will see the image properties (Dimensions, dpi, etc.).*

**Best: CD-R Archival Gold or DVD-R Archival Gold disk**

Acceptable: CD-R, DVD-R, or any disk obtained from a commercial photo processor.

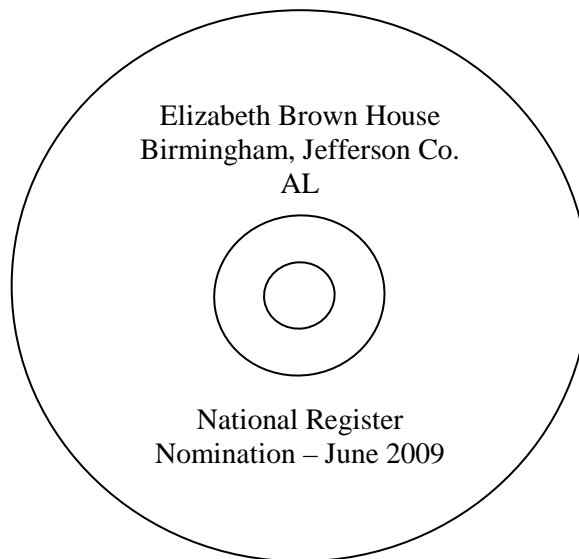
Not acceptable: CD-RW or DVD-RW (if packaging says “rewriteable” do not use).

## Labeling the Disk

**Best: Labels printed directly on the disk by laser printer (non-adhesive).**

Acceptable: Hand-written labels using CD/DVD safe markers OR other markers (Sharpies)

Not Acceptable: Ammonia/solvent-based markers or adhesive stickers



**If you submit the nomination on disk (see our “How to Submit a Nomination on Disk Guidance for how to do this), then you do not need to print the photographs.**

**If you submit the nomination as a paper file then you must print the photographs:**

### **Printing the Images**

**Print photos at 300 dpi (select this option in your computer’s print menu).**

### **Selecting the Paper and Inks**

- We recommend using all materials from one manufacturer (if you have an HP Photo printer, use HP paper and HP inks, likewise if you have an Epson photo printer, then use Epson photo paper and Epson ink.
- Paper specifically designed for photograph printing
- Inks specifically designed for photograph printing

Acceptable: Commercially printed color prints are acceptable (if accompanied by a disk containing the image files produced at the time the prints were made).

Not acceptable: Regular copy/printer papers or the disk only, without prints

### **Identifying Photographic Prints**

Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn’t need to be labeled on every photograph.

**Best:** Write the label information within the white margin **on the front** of the photograph using an archival photo labeling pen. Label information can also be generated by computer and printed directly in the white margin (no adhesive labels).

Acceptable: If information is placed on the back of the photograph, write the information using a soft lead pencil or archival photo-labeling pen.

Do not print information on the actual image – use only the photo margin or back of the photograph for labeling.

**At a minimum**, photographic labels must include the following information:  
**Photograph number, Name of the Property, County, and State.**

## Labeling the photographs

### Acceptable Examples:

AL\_Jefferson County\_Birmingham Commercial Historic District\_0001

OR

Photograph 1 of 25: AL\_Jefferson County\_Birmingham Commercial Historic District\_0001

OR

Birmingham Commercial Historic District, Jefferson County, AL  
1 of 25

OR

Birmingham Commercial Historic District  
Jefferson Co., AL  
Photo 1 of 25

## NR Nomination Photograph Log Page

### Examples of acceptable photo pages

|                                     |                                    |
|-------------------------------------|------------------------------------|
| Name of Property:                   | Belcher-Nixon Building             |
| City or Vicinity:                   | Ensley (Birmingham)                |
| County:                             | Jefferson County                   |
| State:                              | AL                                 |
| Name of Photographer:               | David B. Schneider                 |
| Date of Photographs:                | August 2008                        |
| Location of Original Digital Files: | 411 E. 6th St., Anniston, AL 36207 |

Photo #1 (AL\_JeffersonCounty\_BelcherNixonBld\_0001)  
South façade (left) and east elevation (right), camera facing northwest.

## OR

|                                     |                                    |
|-------------------------------------|------------------------------------|
| Name of Property:                   | Belcher-Nixon Building             |
| City or Vicinity:                   | Ensley (Birmingham)                |
| County:                             | Jefferson County                   |
| State:                              | AL                                 |
| Name of Photographer:               | David B. Schneider                 |
| Date of Photographs:                | August 2008                        |
| Location of Original Digital Files: | 411 E. 6th St., Anniston, AL 36207 |
| Number of Photographs:              | 10                                 |

Photo #1

South façade (left) and east elevation (right), camera facing northwest.

## OR

|                                     |                                    |
|-------------------------------------|------------------------------------|
| Name of Property:                   | Belcher-Nixon Building             |
| City or Vicinity:                   | Ensley (Birmingham)                |
| County:                             | Jefferson County                   |
| State:                              | AL                                 |
| Name of Photographer:               | David B. Schneider                 |
| Date of Photographs:                | August 2008                        |
| Location of Original Digital Files: | 411 E. 6th St., Anniston, AL 36207 |

AL\_JeffersonCounty\_BelcherNixonBld\_0001

South façade (left) and east elevation (right), camera facing northwest.

## 35 mm Photography

Use the following standards:

### Selecting a 35mm Camera

|                 |                             |
|-----------------|-----------------------------|
| <b>BEST:</b>    | 35MM SLR Camera             |
| Acceptable:     | 35MM point-and-shoot camera |
| Not acceptable: | Disposable Cameras          |

### Selecting the Film

|             |                       |
|-------------|-----------------------|
| Acceptable: | 35MM black/white film |
|-------------|-----------------------|

Or

35MM color film with accompanying disk containing the image files

### **Choosing Photographic Paper**

Acceptable: Photographic paper specifically designed for black/white prints

Or

35mm black/white images printed on paper designed for *color* prints with an accompanying disk containing digital copies of the images (Disk generated at the time of developing the film)

Or

35mm color images printed on paper designed for *color* images with an accompanying disk containing digital copies of the images

### **Labeling the Disk & Naming the Files**

Follow the same disk labeling and renaming the digital file processes as outlined under the digital photography policy guidelines.

If you use a commercial photo printer and receive a disk of image files to submit with your nomination, you will not be required to rename the files. That disk may be submitted as received from your photo processor.

### **Use of National Register Photographs**

By allowing a photograph to be submitted as official documentation, photographers grant permission to the National Park Service to use the photograph for print and electronic publication, and for other purposes, including but not limited to, duplication, display, distribution, study, publicity, and audiovisual presentations.

### **Embedding Images**

Previous policy stated that embedded images could not be embedded within the text of the nomination. Due to advances in our scanning capabilities you can now embed images throughout the nomination in color, greyscale, or black&white for either digital submission or a paper file.

Historic photographs, views, or maps are acceptable. These items can be labeled as figures (e.g. Fig. 1, Fig 2) and *referenced by this label within the nomination text* (e.g. See Figure 1). An “Index of Figures”, if necessary (similar to a photograph log) identifying these figures, should also be included in the Additional Documentation section

## **Guidelines for Photographic Coverage**

Photographs submitted to the National Register of Historic Places and the National Historic Landmarks Survey as official documentation should be clear, well-composed, and provide an accurate visual representation of the property and its significant features. They must illustrate the qualities discussed in the description and statement of significance. Photographs should show historically significant features and also any alterations that have affected the property's historic integrity.

The necessary number of photographic views depends on the size and complexity of the property. **Submit as many photographs as needed to depict the current condition and significant features of the property.** A few photographs may be sufficient to document a single building or object. Larger, more complex properties and historic districts will require a number of photos. Prints of historic photographs may supplement documentation and be particularly useful in illustrating changes that have occurred over time.

### **Buildings, structures, and objects:**

Submit photographs showing the principal facades and the setting in which the property is located.

Additions, alterations, intrusions, and dependencies should appear in the photographs.

Include views of interiors, outbuildings, landscaping, or unusual features if they contribute to the significance of the property.

### **Historic and archeological sites:**

Submit photographs showing the condition of the site and any above-ground or surface features and disturbances.

If relevant to the evaluation of significance, include drawings or photographs illustrating artifacts that have been removed from the site.

At least one photograph must show the physical environment and topography of the site.

### **Architectural and Historic Districts (key all photographs to the sketch map for the district):**

Submit photographs showing major building types and styles, pivotal buildings and structures, and representative noncontributing resources.

Streetscapes and landscapes are recommended. Aerial views may also be useful. Views of significant topographic features and spatial elements should also be submitted.

Views of individual buildings are not necessary if streetscape views clearly illustrate the significant historical and architectural qualities of the district.

### **Archeological Districts:**

Submit photographs of the principal sites and site types within the district following the guidelines for archaeological sites (see above).

**Questions?**

Please contact Alexis Abernathy at (202) 354-2236 or e-mail: [alexis\\_abernathy@nps.gov](mailto:alexis_abernathy@nps.gov). Or Jeff Joeckel at (202) 354-2225 or e-mail: [jeff\\_joeckel@nps.gov](mailto:jeff_joeckel@nps.gov)

**Attachment 5**  
**HAER LEVEL 3 STANDARDS**

Recordation of the Raritan River Swing Span Draw Bridge and related project elements will be informed by the Level III Standards prescribed by the National Park Service for Historic American Engineering Record (HAER) documentation to satisfy the submission requirements of the New Jersey Historic Preservation Office. The Raritan River Swing Span Draw Bridge will be photographed using a large format view camera and 4"x5" black and white film negatives. The remaining elements of the project can be photographed using either a large format view camera and 4"x5" black and white film negatives or a digital single-lens reflex camera. All photographs will be perspective corrected in the field at the time of capture.

Photographic recordation using a large format view camera will consist of the following:

- Digital prints of images taken using a large format view camera will be printed as contact prints on archivally stable paper and placed in archival sleeves. Digital contact prints will be created from scanning the 4"x5" negative which will be saved as an uncompressed TIF file with a minimum resolution of 300ppi. Each print will have a black (bleed) margin and will show the entirety of the negative to ensure no cropping has occurred. Prints will be labeled on the back using either an archivally safe pencil or archival pen and include the following information: name of resource, address of resource, name of photographer, date photograph was taken, and photograph number.
- Archival sleeves will be labeled with the same aforementioned information using an archivally safe pencil. Negatives will also be placed in archivally stable transparent sleeves.
- Negatives will be labeled with the appropriate photo number using an archival pen. The photo number will key to the accompanying photo index.

Photographic recordation using a digital single-lens reflex camera will consist of the following:

- Photographs of the exterior and interior of the resource(s) taken using a digital single-lens reflex camera. Images must be perspective corrected in the field at the time of capture. Image file format will be Tag Image File (TIF) and consist of a minimum resolution of two megapixels (1200x1600 pixel image).
- Photographs will be printed at 4" x 6" on archivally stable photo paper that has a permanency rating of 75 years or greater. The back of each print will be labeled using either an archivally safe pencil or archival pen with the abovementioned information.
- Prints will be placed in archival sleeves which will be labeled with the abovementioned information using an archivally safe pencil.

In addition to the photographic recordation, the state-level HAER documentation package will include:

- Written data including a description and history of the resource(s) being documented.
- A sketch plan drawing of the resource(s) being documented. The drawing(s) will include photo location arrows.
- An index to photographs which will consist of captions noting directional information and any significant details not readily discernable in the image.

The format of the written component of the state-level HAER documentation package will be informed by the guidelines issued by the National Park Service. The final report will be printed on archival paper.

**Attachment 6**

**Delaware Tribe of Indians Policy for Treatment and Disposition  
of Human Remains and Cultural Items That May be Discovered  
Inadvertently during Planned Activities**

Delaware Tribe of Indians  
Policy for  
Treatment and Disposition of Human Remains and Cultural Items  
That May be Discovered Inadvertently during Planned Activities

**Purpose**

The purpose of this policy is to describe the procedures that will be followed by all federal agencies, in the event there is an inadvertent discovery of human remains.

**Treatment and Disposition of Human Remains and Cultural Items**

1. The federal agency shall contact the Delaware Tribe of Indians' headquarters at 918-337-6590 or the Delaware Tribe Historic Preservation Representatives at 610-761-7452, as soon as possible, but no later than three (3) days, after the discovery.
2. Place tobacco with the remains and funeral objects.
3. Cover remains and funeral objects with a natural fiber cloth such as cotton or muslin when possible.
4. No photographs are to be taken.
5. The preferred treatment of inadvertently discovered human remains and cultural items is to leave human remains and cultural items in-situ and protect them from further disturbance.
6. No destructive "in-field" documentation of the remains and cultural items will be carried out in consultation with the Tribe, who may stipulate the appropriateness of certain methods of documentation.
7. If the remains and cultural items are left in-situ, no disposition takes place and the requirements of 43 CFR 10 Section 10.4-10.6 will have been fulfilled.
8. The specific locations of discovery shall be withheld from disclosure (with exception of local law officials and tribal officials as described above) and protected to the fullest extent by federal law.
9. If remains and funeral objects are to be removed from the site consultation will begin between the Delaware Tribe of Indians and the federal agency.