MEMORANDUM FOR RECORD

SUBJECT: Department of the Army Record of Decision and Statement of Findings (ROD-SOF) for Department of the Army (DA) Permit Application SAJ-2012-01564.

1. NEPA Adoption

a. The Federal Railroad Administration (FRA) served as the lead federal agency for National Environmental Policy Act (NEPA) compliance through publication of a Final Environmental Impact Statement (FEIS) on 4 August 2015 for the All Aboard Florida Intercity Passenger Rail Project which evaluated service from Miami, Florida to Orlando, Florida. The applicant, All Aboard Florida - Operations, LLC (AAF), will implement the All Aboard Florida Intercity Passenger Rail Project through a phased approach. Phase I would provide passenger rail service along 66.5 miles of the Florida East Coast Railroad (FECR) Corridor connecting West Palm Beach, Fort Lauderdale, and Miami. AAF has obtained private financing for Phase I and is proceeding to implement Phase I. Phase II would extend service from West Palm Beach, Florida to Orlando, Florida.

The All Aboard Florida Intercity Passenger Rail Project will impact waters of the U.S. within the jurisdiction of the Jacksonville District U.S. Army Corps of Engineers (Corps) under its authority granted by the Clean Water Act, Section 404 (33 U.S.C § 1344, as amended), or navigable water of the United States within the jurisdiction of the Corps under its authority granted by Sections 10 and 14 of the Rivers and Harbors Act (R&HA) (33 U.S.C § 401 et seq., as amended). The FRA requested and the Corps accepted a request to be a cooperating agency in the FEIS. The Corps provided special expertise with respect to environmental issues concerning the potential discharge of dredged or fill materials into waters of the U.S. and the construction of any structure over navigable waters of the U.S. for Phase II of the proposed action.

The Corps' Scope of Impact Analysis differs from FRA's FEIS published 4 August 2015 and is described in detail in Paragraph 4 below.

A majority of the figures and tables included in this Record of Decision (ROD) were extracted from the Draft Environmental Impact Statement (DEIS) dated 19 September 2014 and FEIS published 4 August 2015. Each table referenced from the DEIS or FEIS provide factual data such as impact acreages, community types, or habitats; but may include data which was not considered by the Corps in its Scope of Impact Analysis. The Corps has referenced these tables because of their factual data and to reduce duplication and or confusion to the reader when cross-referencing numbers. The reader should review and acknowledge the limits of the Corps Scope of Impact Analysis in section 4 below. The loss of waters of the U.S. referenced in sections 2(4) and 11 of this document do not consider losses within Phase I or within the geographic limits of the Orlando International Airport (OIA). The loss of waters of the U.S. within the boundary of Phase I and within OIA were

evaluated in separate stand-alone documents. See section 4 below for more details regarding the Corps Scope of Impact Analysis.
In accordance with 40 C.F.R. § 1506.3(c) and 33 C.F.R. Part 325, Appendix B, Paragraph 8(c), the Corps hereby adopts the FRA's 4 August 2015 FEIS for the All Aboard Florida Intercity Passenger Rail Project. The FEIS is available at: http://www.fra.dot.gov/eLib/Details/L16955. This document constitutes the Record of Decision (ROD), Clean Water Act (CWA) Section 404(b)(1) Guidelines Analysis, Public Interest Review, and Statement of Findings (SOF) for Phase II of the Project excluding project limits within boundaries of OIA in accordance with 40 C.F.R. § 1506.4.

b. In accordance with 40 C.F.R. § 1505.2, the Corps is preparing this ROD-SOF for DA permit application SAJ-2012-01564 which requests authorization to discharge clean fill material into waters of the U.S. to complete construction of Phase II of the All Aboard Florida intercity passenger rail project from the existing station in West Palm Beach, Florida to the existing station within OIA. The Corps has independently reviewed the FEIS prepared by FRA for the All Aboard Florida Intercity Passenger Rail Project, 4 August 2015. The Corps hereby adopts the FRA FEIS.

c. 40 C.F.R. § 1505.2(a) requires the Corps to state what the permit decision was. The Corps' decision is to issue a Department of the Army (DA) permit for the discharge of clean fill material into waters of the U.S., to complete construction of Phase II of the intercity passenger rail project from the existing station in West Palm Beach, Florida to OIA utilizing the Least Environmentally Damaging Practicable Alternative (LEDPA) which is also the Applicant's preferred alternative, documented below in section 7 of this document. The proposed action is described as Phase II of the All Aboard Florida Project, which is more fully discussed below.

d. 40 C.F.R. § 1505.2(b) requires the Corps to "identify all alternatives considered by the agency in reaching its decision, specifying the alternative or alternatives which were considered to be environmentally preferable." FRA is the lead federal agency for the proposed action and completed an alternatives evaluation including a "no action alternative in its FEIS." See FEIS Chapter 3 Alternatives Including Proposed Action, for the full discussion of alternatives considered. The Corps has independently reviewed the FEIS for the All Aboard Florida Phase II Project. The Corps has determined the applicants' preferred alternative is the LEDPA. The Corps' analysis of the alternatives that were considered are documented below in section 7 of this document.

e. 40 C.F.R. § 1505.2(c) requires the Corps to "[s]tate whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not. A monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation." The Corps' analysis included review of

system, route, and alignment alternatives and a "no action alternative." The Corps determined that the Applicants' preferred alternative is the LEDPA. Environmental harm associated with the applicants' preferred alternative will be minimized and mitigated to the maximum extent practicable. A discussion of the mitigation and monitoring program and the Corps' process of minimizing and avoiding environmental harm is described below in Sections 8 and 10 of this document.

2. Application:

a. Applicant:

All Aboard Florida – Operations, LLC
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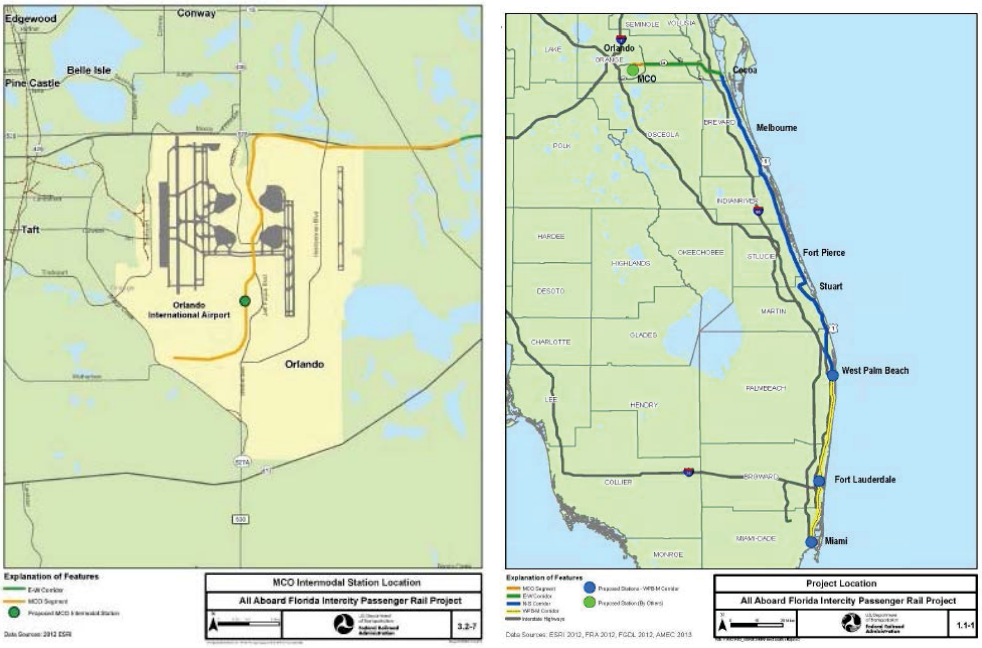
2855 Le Jeune Road, 4th Floor
Coral Gables, Florida 33134

b. Location and Waterways:

(1) Phase II of the All Aboard Florida Intercity Passenger Rail Project (Project) would affect waters of the U.S., including wetlands, in three (3) discrete geographic segments: a terminal segment at OIA (also known as the MCO Segment (The airport code MCO stands for OIA's former name McCoy Air Force Base. The MCO segment is that portion of the project within the geographic footprint of OIA), an East-West Corridor between MCO and Cocoa (E-W Corridor), and a North-South Corridor between Cocoa and West Palm Beach (N-S Corridor).



The MCO Segment is located within the geographic boundaries of OIA. At the MCO terminus, AAF would construct a new Vehicle Maintenance Facility (VMF) and related rail infrastructure. The Project would provide passenger rail service to the new South Terminal Intermodal Station which was constructed by the Greater Orlando Aviation Authority (GOAA) as a separate action. The proposed intermodal station has been evaluated in two previous environmental assessments (EAs) (Federal Aviation Administration (FAA) and GOAA 1998; Federal Transit Administration, Florida Department of Transportation (FDOT), and GOAA 2005), and several DA permits. See Table 1 below for a list of DA permits issued to GOAA and their corresponding features related to the proposed Project. The FAA has recently issued a re-evaluation for this facility due to the lapse of time since the prior finding of no significant impact (FONSI) was issued (FAA 2013). Reference is made to and the Corps is relying on Environmental Assessment-Statement of Findings (EASOF or decision document) for DA permit number SAJ-1998-00201 for work associated with the South Terminal Station and VMF. The South Terminal Complex is primarily associated with functions of OIA and is not dependent upon Phase II to achieve its project purpose.

(2) E-W Corridor: The approximately 35-mile E-W Corridor between MCO and Cocoa, Florida is proposed along the SR 528 alignment, and would be a dedicated rail corridor parallel to the highway. Specifically, this segment begins near Jeff Fuqua Boulevard. A new railroad within this corridor would cross several state highways (SR 417 and SR 520) and Interstate 95 (I-95), and would connect with the N-S Corridor in Cocoa, Florida. The E-W corridor would affect waterways including Jim Creek, Second Creek, Turkey Creek, Econlockhatchee River, and St. Johns River. This segment will also impact

drainage, roadside ditch, and irrigation ditch features.

(3) N-S Corridor: The N-S Corridor is a 128.5-mile segment of the existing active FECR Corridor between Cocoa, Florida and West Palm Beach, Florida. The FECR Corridor was originally built as a double-track railroad, but today it is mostly a single-track system with several sidings. The railbed for the second track in the corridor still exists and would be used for the additional track improvements needed for the Project. The segment would affect waterways including Horse Creek, Goat Creek, North Canal, Main Canal, South Canal, Turkey Creek, Eau Gallie River, Crane Creek, Sebastian River, Moores Creek, Unnamed Creek MP 259.9, Unnamed Tributary MP 266.58, Unnamed Tributary MP 266.86, Tributary to Manatee Creek 1, Tributary to Manatee Creek 2, and Earman River. This segment will also impact drainage, roadside ditch, and irrigation ditch features.

(4) The applicant has further broken down the construction plans into smaller segments which are defined as:

a. Segments PE01, PE04 and PE02GOAA lie entirely within the geographic boundaries of OIA.

b. Segment PE02CFX: This PE02CFX segment of the project is located along the south side of SR 528. For the portion of this segment that lies between Jeff Fuqua Boulevard and Goldenrod Road in Orange County, Orlando, FL, the PE02CFX portion is the northern half of the railway corridor, as this portion of the segment is split with the southern portion of the corridor lying within GOAA property (PE02GOAA - a modification to an existing permit), and the northern portion of the corridor being included in this segment as PE02CFX. Starting at Narcoosee Road and continuing east, the entire width of the corridor is included in PE02CFX. This section of the Project Corridor is new track construction, approximately 23 miles in length. Construction activities within this section of the Project Corridor include the addition of new railroad tracks within the SR 528 ROW. The new section is a double track railway, with no public at-grade roadway crossings. Portions of the track will be elevated where required for roadway or waterway crossings. The Goldenrod Road crossing will be via an underpass. This segment includes a proposed rail bridge crossing over the Econlockhatchee River, a proposed box culvert crossing of Little Creek to the east of the Econlockhatchee River and a proposed box culvert crossing of Turkey Creek to the west of the Econlockhatchee River. Additional infrastructure include: box culverts, utility cable installation, pipes and stormwater infrastructure, stormwater treatment swales, floodplain compensation ponds, and stormwater treatment ponds.

c. Segment PE03W: The Project Corridor represents those portions of the project within the SR 528 ROW from the east side of its intersection with SR 520 in Orange County to the west side of I-95 in Brevard County. This section of the Project Corridor is

approximately 9 miles in length. Construction activities within this section of the Project Corridor include the addition of new railroad within the SR 528 ROW, including the elevated crossing of the St. John's River. Additional water crossings will occur at Taylor Creek (a braided chain of the St. Johns River), Second Creek, and Jim Creek. The Proposed Project will include a new wildlife crossing within the William Beardall Tosohatchee State Reserve. The St. Johns River Bridge, Taylor Creek Bridge, and other stream crossings are designed similar to the existing structures to maintain existing wildlife passage features. Additional infrastructure include: box culverts, utility cable installation, pipes and stormwater infrastructure, and stormwater treatment swales. The new section will be a combination of single and double track railway.

d. Segment PE03E: Represents those portions of the ROW on SR 528 from the west side of the I-95 intersection in Brevard County, through the I-95 intersection to the west side of US Highway 1 in Brevard County. This section of the corridor is approximately 6 miles in length. Construction activities within this section of the corridor include the addition of new railroad within the SR 528 ROW, including the I-95 elevated crossing, underpass crossings of SR 528, utility cable installation, and multiple stormwater ponds with associated piping and infrastructure. The new section will be double track. In addition, portions of SR 528 will be realigned in order to provide safe crossings of the railroad.

e. Segment D08 (Vero to Cocoa Curve): Spans approximately 67 miles from MP 166.9 to MP 233.4, beginning in Cocoa, FL adjacent to SR 528 and extending south to the Indian River – St. Lucie County Line. The D08 segment lies entirely within the existing FECR corridor. Proposed activities within the 67-mile segment include replacing approximately 51 miles of rail that would restore the second main track within the existing FECR corridor; installing new additional track totaling 74,250 linear feet, and installing approximately 3.2 miles of upland train crossovers (pedestrian crossings). Approximately 2.83 miles of third track would be constructed in this segment. Triple track would occur at Mile Post (MP) 169.9 to 170.7. Additional triple track would occur at MP 173.1 to 175.1. Bridge work at Horse Creek (MP 187.37), Goat Creek (MP 202.59), North Canal (MP 223.7), Main Canal (MP 226.8), and South Canal (MP 230.03), installation of stormwater management features, culvert extensions/modifications, and utility cable installation.

f. Segment D09 (WPB to Vero): Spans approximately 64 miles between the Indian River – St. Lucie County Line (MP 233.4) to just north of the West Palm Beach Station (MP 298.4). 48 miles of rail that will provide a second main track within the existing FECR corridor, rehabilitation of one bridge deck crossing an upland road, re-establishing a second track at MP 241.22, and installing 2.4 miles of upland train crossovers (pedestrian crossovers), installation of stormwater management features, culvert extensions/modifications, and utility cable installation. Approximately 3.6 miles of third track would be constructed in this segment. Triple track would occur at MP 243.7 to 246.5 and

MP 296.6 to 297.4. The D09 segment lies entirely within the existing FECR corridor. The D09 work activities in-water bridge work at the Earman River (MP 291.86), Moores Creek (MP 241.27), Tributary to Manatee Creek 2 (MP 267.34), Tributary to Manatee Creek 1 (MP 267.7), Unnamed Creek (MP 259.95), Unnamed Tributary 2 (MP 266.58), and Unnamed Tributary 1 (MP 266.86), Other bridges that are included in the project area are at Taylor Creek (MP 240.10) and at the St. Lucie River (MP 261); however, construction activities are not proposed at these locations.

c. Approximate Central Coordinates:

(1) MCO Segment: latitude 28.4520°, longitude -81.0155°

(2) E-W Corridor: latitude 28.4520°, longitude -81.0155°

(3) N-S Corridor: latitude 27.5071°, longitude -80.3467°

d. Existing Conditions:

(1) E-W corridor: The corridor would be a dedicated rail corridor parallel to the SR 528 highway. This corridor is characterized by a mixture of disturbed and undisturbed upland and aquatic resource habitats; see section 4.3.3 of the 4 August 2015 FEIS for vegetative descriptions of the wetland communities. Many of the habitats have previously experienced indirect effects from the agricultural development and establishment of the SR 528, SR 520, International Corporate Park, and SR 417 highway systems. Approximately 243 acres of waters of the U.S. including streams and waterways, reservoirs, mixed wetland hardwoods, willow and elderberry, cypress, hydric pine flatwoods, wetland forested mixed, freshwater marsh, wet prairie, and treeless hydric savannah would be directly impacted by the proposed work. This total excludes wetlands within the geographic boundaries of OIA.

(2) N-S corridor: The FECR Corridor was originally built as a double-track railroad, but today it is mostly a single-track system with several sidings. The railbed for the second track in the corridor still exists and would be used for the additional track improvements proposed in association with this project. The improvements would include relocating and upgrading existing tracks, as well as installing new tracks. The Project would also include improving or replacing existing bridges and grade crossings, as well as new signalization, and new communication and train control systems. Approximately 4 acres of acres of waters of the U.S. including streams and waterways, mangrove swamps, mixed wetland hardwoods, freshwater marsh, and wet prairie would be directly impacted by the proposed work.

(3) The affected Natural Environment is described in detail in the FEIS, chapter 4, pages 4-49.

(2) Site Visits:

(a) A site inspection was conducted 4 October 2012 to assess Essential Fish Habitat and estuarine resources within the N-S segment Phases I and II with representatives from the Corps; National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (FWS), and Amec Foster Wheeler (project agent) participating.

(b) A site inspection was conducted 23 January 2013 in the N-S corridor in order to verify information presented in the applicant's submittals regarding the locations of wetlands and other waters (i.e. preliminary jurisdictional information). Attendees included representatives from the Corps and Amec Foster Wheeler.

(c) A site inspection was conducted 13 November 2013 in Brevard County in order to verify information presented in the applicant's submittals regarding the locations of wetlands and other waters (i.e. preliminary jurisdictional information). Attendees included representatives from the Corps and Amec Foster Wheeler.

(d) A site inspection was conducted 5 February 2014 within Orange County in order to verify information presented in the applicant's submittals regarding the locations of wetlands and other waters (i.e. preliminary jurisdictional information). Attendees included representatives from the Corps and Amec Foster Wheeler.

(e) A site inspection was conducted 26 March 2014, the Corps evaluated wetland limits from International Corporate Park to SR 520. Attendees included representatives from the Corps, Bio-Tech and Amec Foster Wheeler.

(f) A site inspection was conducted 2 April 2014 within Jonathan Dickinson State Park in order to verify information presented in the applicant's submittals regarding the locations of wetlands and other waters (i.e. preliminary jurisdictional information). Attendees included representatives from the Corps, NMFS, and Amec Foster Wheeler.

(g) A site inspection was conducted 16 April 2014 within the Tosohatchee State Reserve in order to assess the potential for use of existing abandon borrow pits abutting SR 528 and the enhancement of the ponds as compensatory mitigation. Attendees included representatives from the Corps and Amec Foster Wheeler.

(h) On 30 April 2014, the Corps and representatives of St. Johns River Water Management District (SJRWMD) and Orange County Environmental Protection Department

(EPD) met with the applicant at the Econlockhatchee Bridge to assess the ecological conditions and discuss bridge design.

(I) On 3 March 2015, the Corps and representatives of SJRWMD and Amec Foster Wheeler conducted a site inspection and evaluated the jurisdictional limits of wetlands and assessed the functional value of the systems in the Cocoa Curve.

(j) On 17 September 2015, the Corps conducted a site inspection and evaluated wetland limits within Brevard County, specifically Goat Creek. Attendees included Amec Foster Wheeler and the Corps.

(k) A site inspection was conducted 23 September 2015 in order to verify information presented in the applicant's submittals regarding the locations of wetlands and other waters (i.e. preliminary jurisdictional information) east of OIA to west of SR 417 within the PEO2 segment (E-W segment). Attendees included representatives from the Corps and Amec Foster Wheeler.

(l) A site inspection was conducted 27 January 2016 within the E-W corridor in order to verify information presented in the applicant's submittals regarding the locations of wetlands and other waters (i.e. preliminary jurisdictional information). Attendees included representatives from the Corps and Amec Foster Wheeler.

(m) A site inspection was conducted 16 June 2016 within Indian River County to re-verify information presented in the applicant's submittals regarding the locations of wetlands and other waters (i.e. preliminary jurisdictional information). Attendees included representatives from the Corps and Amec Foster Wheeler.

(n) Site inspections were conducted 6 and 7 March 2017 within Indian River and St. Lucie Counties to evaluate known archaeological sites and important archaeological areas. Attendees included representatives from the Corps, Indian River County, Indian River County Historical Society, Old Vero Man Site representatives (Andy Hemmings and Randy Old), and Consulting Party representatives (Anne and Paul Sinnott).

e. Project Purpose and Need:

1) Information regarding the purpose and need for the proposed project is provided in Chapter 2, Section 2.2 of the FEIS dated 4 August 2015. The Corps is required to consider alternatives in the context of the applicant's purpose and need for a proposed project. See 33 C.F.R. Part 325, Appendix B, which outlines the NEPA implementation procedures for the Corps' regulatory program, states that the Corps needs to consider in detail only those reasonable alternatives that are feasible, and that such feasibility must focus on the

accomplishment of the underlying purpose and need (of the applicant or public) that would be satisfied by the proposed federal action (permit issuance by the Corps). The Corps will generally focus on the applicant's statement of purpose and need. However, the Corps will exercise independent judgment in defining the purpose and need both from the applicant's and the public's perspective. In addition to NEPA, the Corps' review must include a consideration of the purpose of the proposed project in light of the CWA Section 404 (b)(1) Guidelines (Guidelines) found at 40 C.F.R. Part 230. Under the Guidelines, the Corps determines both a basic and an overall project purpose. Defining the basic project purpose enables the Corps to determine whether the activity is water dependent (40 C.F.R. § 230.10(a)(3)), while the overall project purpose is used to identify and evaluate practicable alternatives within a specific geographical area (40 C.F.R. §230.10(a)(2)). Finally, the Corps considers the public and private need for the project in evaluating whether the project is contrary to the public interest. See 33 C.F.R. § 320.4.

2) Project purpose as stated in the Corps' 11 April 2016 public notice: Construct an intercity passenger railroad between OIA and West Palm Beach, Florida utilizing as much of the existing FECR ROW as feasible.

f. Proposed Work:

(1) MCO: Work within OIA has been previously authorized under separate DA permits issued to GOAA. Work within MCO is not considered in this ROD. The Corps will rely on decision documents referenced above.

(2) E-W Corridor: A new railroad within this corridor would cross several state highways (SR 417 and SR 520) and Interstate 95 (I-95), and would connect with the N-S Corridor in Cocoa, Florida. The new rail infrastructure would include new tracks; bridges over and under highways; bridges over waterways; new signalization; and new communication and train control systems. The E-W Corridor would require that AAF execute leases with the Central Florida Expressway Authority (CFX, formerly the Orlando-Orange County Expressway Authority) and FDOT, and secure Federal Highway Administration (FHWA) approval for occupancy of the I-95 ROW. The FEIS dated 4 August 2015 has identified Alternative E as its preferred alternative within the E-W Corridor. Alignment Alternative E would be located approximately 200 feet south of the current SR 528 Right-of-Way (ROW) within the CFX segment, on property acquired by CFX for its future highway improvements. This alignment would be within the SR 528 ROW in the FDOT segment, east of SR 520.

(3) N-S Corridor: The railbed for the second track in the corridor still exists and would be used for the additional track improvements proposed for the project. The improvements would include relocating and upgrading existing tracks, as well as installing new tracks. The

project would also include improving or replacing existing bridges and grade crossings, as well as new signalization, and new communication and train control systems.

g) Draft Environmental Impact Statement (DEIS):

(1) Table 5.3.3-3 from the September 2014 DEIS (copy below) summarizes the proposed draft direct aquatic resources loss based on available Geographic Information System (GIS) wetland mapping.

Table 5.3.3-3 Alternative E - Direct Aquatic Resource Effects (acres)

FLUCCS	Description	MCO Segment	E-W Corridor	N-S Corridor	WPB-M Corridor	Total
510	Streams and Waterways	0.5	1.4	1.6	<0.1	3.6
525	Marshy Lake	0.5	0	0	0	0.5
530	Reservoirs	1.4	0.3	0	0	1.7
610-612	Wetland Hardwood Forest	0	0	0.3	<0.1	0.4
617	Mixed Wetland Hardwoods	24.0	13.4	0	0	37.4
618	Willow and Elderberry	0	1.5	0	0	1.5
621	Cypress	6.9	18.0	0	0	24.9
625	Hydric Pine Flatwoods	0	6.7	0	0	6.7
630	Wetland Forested Mixed	5.6	22.6	0	0	28.2
640	Vegetated Non-Forested Wetlands	0	0	< 0.1	0	< 0.1
641	Freshwater Marsh	4.5	9.4	0	0	13.9
643	Wet Prairie	0	7.7	0	0	7.7
646	Treeless Hydric Savannah	0	30.9	0	0	30.9
	Total Direct Effects	43.4	111.9	2.0	0.1	157.5

(2) Additional work within uplands along the project corridor would include the installation or relocation of signal and communication systems, relocation of buried fiber optic cable, installation of fencing, and improvements to existing at grade crossings. Table 5.3.5-3 from the September 2014 DEIS (copy below) summarizes, the proposed losses of upland environments from the work proposed based on available Geographic Information System (GIS) mapping. Alternative E incorporates the MCO Segment and VMF, the E-W Corridor parallel to SR 528, and the N-S Corridor within the FECR Corridor.

Table 5.3.5-3 Alternative E – Effects to Upland Communities (acres)

FLUCCS	Description	MCO Segment	E-W Corridor	Total
190	Open Land	0.5	0	0.5
310	Dry Prairie	0	9.7	9.7
320	Shrub and Brushland	0	7.9	7.9

330	Mixed Rangeland	6.1	3.5	9.6
411	Pine Flatwoods	28.0	26.4	54.4
420	Upland Hardwood Forest	2.9	0.1	3
434	Hardwood-Coniferous Mixed	21.0	3.3	24.3
	Total Direct Effects	58.5	50.9	109.4

h) Changes to the Project:

(1) The DEIS was based on 30 percent design plans. Following these initial planning efforts, more detailed design plans were developed once the NEPA process had progressed and the environmental permit application process was initiated. Table 5.3.3-4 from the 4 August 2015 FEIS (copy below) provides **field delineated acreages** of direct losses of aquatic resources for the MCO Segment, E-W Corridor, N-S Corridor, and WPB-M Corridor under the preferred alternative.

Table 5.3.3-4 Alternative E - Direct Aquatic Resource Effects (acres) based on Delineated Wetlands

Description	MCO Segment	E-W Corridor	N-S Corridor	WPB-M Corridor	Total
Streams and Waterways	0	27.1	6.2	<0.1	33.3
Vegetated Wetlands	38.7	188.7	2.8	0	230.2
Total Direct Effects	38.7	215.8	9.0	0.1	263.6

Alternative E, based on updated wetland delineation data, would result in the loss of approximately 263.6 acres of aquatic resources, including 21 acres of surface waters/aquatic habitat and 167.5 acres of wetlands, of which 104 acres are forested and 63.5 acres are non-forested.

(2) Table 5.3.5-3 from the 4 August 2015 FEIS (copy below) summarizes, the affected upland environments of the work proposed based on available Geographic Information System (GIS) mapping.

Table 5.3.5-3 Alternative E – Effects to Upland Communities (acres)

FLUCCS	Description	MCO Segment	E-W Corridor	Total
190	Open Land	0.5	0	0.5
310	Dry Prairie	0	9.7	9.7
320	Shrub and Brushland	0	7.9	7.9
330	Mixed Rangeland	6.1	3.5	9.6
411	Pine Flatwoods	28.0	26.4	54.4
420	Upland Hardwood Forest	2.9	0.1	3
434	Hardwood-Coniferous Mixed	21.0	3.3	224.3

	Total Direct Effects	58.5	50.9	109.4

(3) Changes to the Project: By letter dated 10 June 2016, the applicant submitted a response to public notice comments which included revised construction plans and updated wetland delineations.

(4) Final Project Description: The dredging and filling of 247.47 acres of waters of the U.S. (wetlands and waters) for the construction of an intercity passenger railroad between the eastern boundary of OIA and West Palm Beach, Florida.

3) Authority:

a. Rivers and Harbors Act of 1899 (RHA): In accordance with Section 10 of the RHA (33 U.S.C. § 403), the Corps regulates the construction, excavation, or deposition of materials in, over, or under navigable of the United States, or any work which would affect the course, location, condition, or capacity of navigable waters of the U.S. Navigable waters of the U.S. are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Navigable waters of the U.S. are defined at 33 C.F.R. Part 329.

b. Clean Water Act of 1972 (CWA): In accordance with Section 404 of the CWA (33 U.S.C. § 1344), the Corps regulates the discharge of dredge or fill material into waters of the U.S. Waters of the U.S. are defined at 33 C.F.R. Part 328.

c. Section 14 of the RHA: Section 14 of the RHA states any proposed modification to an existing Federal project (either federally or locally maintained) that go beyond those modifications required for normal Operation and Maintenance require approval under 33 USC § 408. The regulation also states that there shall be no temporary or permanent alteration, occupation, or use of any public works including but not limited to levees, sea walls, bulkheads, jetties, and dikes for any purpose without the permission of the Secretary of the Army. Under the terms of 33 U.S.C. § 408, any proposed modification requires a determination by the Secretary of the Army that such proposed alteration or permanent occupation or use of a Federal project is not injurious to the public interest and will not impair the usefulness of such work. The authority to make this determination and to approve modifications to Federal works under 33 USC § 408 has been delegated to the Chief of Engineers. Table 4.3.4-3 from the 4 August 2015 FEIS summarizes the full list of Federal projects that could be impacted by the project.

d. Chapter 1, Section 1.3 of the FEIS further defines the federal agency actions and legislative authority.

4) Scope of Analysis:

a. NEPA

(1) Scope of Action: The Corps was a cooperating agency, with the FRA as the lead Federal agency, in the preparation of the DEIS and FEIS for the Project. The Corps participated in the compilation of the EIS as the proposed project would result in impacts to waters of the U.S., including wetlands, if implemented. The FEIS was released to the public on 4 August 2015. The project area encompasses wetlands and uplands, as well as open waterbodies, such as rivers, streams, canals, and ditches. Due to the complex mosaic and juxtaposition of wetlands, uplands, and waterbodies, construction of the project requires work affecting waters of the U.S., including wetlands. In consideration of this information, the scope of action under NEPA for the project includes all of the various locations for the proposed railroad and ancillary features (Positive Train Control). The extent of Federal control and responsibility for the project include authorities under Section 10 of the RHA, Section 14 of the RHA, Section 404 of the CWA, the National Historic Preservation Act (NHPA), the Endangered Species Act (ESA), the Fish and Wildlife Coordination Act (FWCA), and the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA).

(2) Scope of Impact Analysis: OIA is a multi-modal facility with multiple businesses utilizing its facilities. OIA is managed by GOAA, which is governed by a seven-member board; the mayor of the City of Orlando, the Mayor of Orange County, and five other members who are appointed by the Governor of the State of Florida, subject to confirmation of the senate. OIA has executed a long-term conceptual development plan which required impacts to aquatic resources regulated by the Corps. The Corps has previously evaluated and approved numerous actions within OIA boundaries which would be utilized by the proposed intercity passenger rail project. See Table 1 below for Department of the Army (DA) permit numbers and corresponding features of AAF and OIA.

Table 1

DA Permit No.	Project Name	Date Approved	Corresponding Feature
SAJ-1989-00232	OIA - Runway 4	11 April 1997	Airport infrastructure
SAJ-1998-00201	OIA - South Terminal Complex	1 September 1998	Multi-Modal Terminal and VMF
SAJ-2006-02640	East Airfield Expansion	Pending	Rail Corridor through OIA property
SAJ-2006-00245	OIA – Parking Lot	5 December 2007	Passenger Parking
SAJ-2012-03052	Approved JD	12 February 2013	Future High Speed Rail

The Corps will rely on the decision documents for each of these previously reviewed actions because the work has already been completed and/or was considered during the respective permit evaluation. The actions are standalone and not dependent on the proposed intercity passenger rail project to achieve their overall project purpose.

The (FAA) completed an EA and FONSI for the Eastern Airfield project on 1 February 2016. The Eastern Airfield EA included an evaluation of wetland impacts which are located within the rail corridor which would be utilized by the Project. The Corps was a commenting agency in the evaluation completed by FAA. The Corps has completed an independent evaluation of the Eastern Airfield project because the proposed action requires a DA permit to achieve its overall project purpose. GOAA proposes to fill the wetlands within the proposed rail corridor to reduce wildlife hazards at the OIA regardless of the Project is constructed. The review was assigned DA number SAJ-2006-02640 and the evaluation is ongoing. DA permit number SAJ-1998-00201 authorized the construction of a VMF within the OIA property boundaries. The DA permit evaluated multiple factors including alternatives, avoidance and minimization, and compensatory mitigation necessary to offset anticipated lost functions and values. GOAA has been authorized to construct a VMF regardless if AAF constructs the Project. The Project can achieve its project purpose without the VMF at OIS; but would not operate at optimal capacity. The U.S. Coast Guard (Coast Guard) is the federal regulatory agency responsible for approving the locations and plans for bridges over navigable waters of the U.S. of the Project. The Coast Guard has issued permits and is currently evaluating bridge permits for multiple bridges within the Project corridor. Chapter 4, Section 4.1.3 of the 4 August 2015 FEIS describes impacts to navigation and Coast Guard regulated bridges. The proposed action is multi-phased project that would be implement through a phased approach. Phase I has been constructed and is providing passenger rail service along 66.5 miles of the Florida East Coast Railroad (FECR) Corridor connecting West Palm Beach, Fort Lauderdale, and Miami. The applicant has obtained private financing for Phase I and Phase I is constructed and operational and is completely independent of Phase II which is the subject of this ROD.

The FRA and the Corps concluded that Phase I has independent utility from Phase II. The Corps issued single and complete Nationwide permit verifications (33 C.F.R. §325.5(c)(2)) for minor shoreline stabilization and loss of mangrove habitats required to implement bridge improvements associated with Phase I. See Table 2 below for Department of the Army (DA) permit numbers and project locations.

Table 2

DA Number	Mile Post	Waterway	Latitude (north)	Longitude (west)	City	County
SAJ-2013-00379	MP 304.05	C-51 Canal	26.6188	80.0590	Lake Worth	Palm Beach
SAJ-2013-00378	MP 311.45	C-16 Boyton Beach Canal	26.5254	80.0590	Boynton Beach	Palm Beach
SAJ-2013-00383	MP 326.58	Hillsboro River	26.3401	80.0814	Deerfield Beach	Palm Beach
SAJ-2013-00376	MP 337.91	N. Fork Middle River	26.1803	80.1372	Oakland Park	Broward
SAJ-2013-00382	MP 338.52	S. Fork Middle River	26.1531	80.1233	Ft. Lauderdale	Broward
SAJ-2013-00381	MP 353.74	Oleta River	25.9484	80.1506	Ojus	Miami-Dade

Phase II would extend service from West Palm Beach to Orlando, Florida and would require the discharge of fill in waters of the U.S. to achieve its overall project purpose. Phase II of the project is dependent upon Phase I to satisfy the overall project purpose.

The Corps is not extending the scope of impact analysis into Phase I; because, Phase I is already constructed and operates with independent utility. The Corps is not extending the scope of impact analysis into within the geographic boundaries within OIA in this evaluation because it has been previously authorized under separate DA permits issued to GOAA. The Corps has determined the installation of new railroad tracks within the E-W corridor would likely cause secondary impacts beyond the footprint of the tracks themselves. The Corps has expanded its scope of impact analysis to include the following areas outside the Phase II segment:

- E-W corridor: For wetlands on the outside edge of the ROW the secondary impacts are based on a 100-foot buffer extending from the outer edge of the proposed project footprint into the adjacent portions of wetlands.

- E-W corridor: For wetlands between the proposed project footprint and the existing SR 528, the secondary impacts are based on a 75-foot buffer extending from the edge of the proposed project footprint into the adjacent portions of the wetlands.

- E-W corridor: For wetlands within the Econlockhatchee River the secondary impacts are based on a 150-foot buffer extending from the edge of the proposed project footprint into the adjacent portions of wetlands.

(3) Scope of Analysis: The scope of analysis includes the specific activity requiring a Department of the Army permit. Other portions of the entire project are included because the Corps does have sufficient control and responsibility to warrant federal review.

Based on an examination of NEPA (33 C.F.R. Part 325, Appendix B) and applicable program guidance (e.g. Council on Environmental Quality's (CEQ) Considering Cumulative Effects Under National Environmental Policy Act and the Standard Operating Procedures for the U.S. Army Corps of Engineers Regulatory Program, July (2009)). This scope of analysis is consistent with the scope of analysis for the FEIS and the additional areas described in section 2 above.

b. NHPA "Permit Area": As the initial lead federal agency for National Historic Preservation Act (NHPA) compliance, FRA was responsible for fulfilling the collective responsibilities under Section 106 (36 C.F.R. Part 800). As part of the FEIS, FRA 1) defined the Project as an "Undertaking" pursuant to 36 C.F.R. § 800.16; 2) defined an Area of Potential Effects (APE) for the undertaking; 3) identified historic properties within the APE; 4) assessed adverse effects; and 5) attempted to resolve adverse effects. By letter dated 27 June 2016, FRA informed the Corps and Coast Guard that it would not be making a decision on AAF's Railroad Rehabilitation and Improvement Financing application at this time. FRA also concluded it is not executing the draft Section 106 Programmatic Agreement developed 24 June 2016 in consultation with the ACHP; Broward County; City of Stuart; City of Vero Beach; Indian River County; Indian River County Historical Society Inc.; Martin County; Old Vero Ice Age Sites Committee; St. Lucie County; and Town of St. Lucie Village for the undertaking.
The Coast Guard and Corps assumed the lead roles for completion of compliance with the NHPA in July 2016. An exact date nor formal memorandum of agreement was completed memorializing the assumption from FRA. By letter dated 30 August 2016, the Corps provided a substantially modified draft PA to the Coast Guard for review and comment.

The Corps independently evaluated and adopted the consultations completed between FRA, State Historic Preservation Officer (SHPO), and ACHP in accordance with 33 C.F.R. § 325 Appendix C Paragraph 2(c) and 36 C.F.R. § 800.2(a)(2). In accordance with the procedures at 33 C.F.R. § 325 Appendix C(1)(g) the Corps' Regulatory Program defines

permit area as those areas comprising waters of the U.S. that will be directly and/or indirectly affected by the proposed undertaking. FEIS section 4.4.5.1 defines the methodology FRA used to establish the Area of Potential Effect (APE). The portion of the APE in which physical disturbance would occur is termed the direct effects APE; the portion of the APE in which changes in noise, vibration, or visual setting could occur is termed the indirect effects APE. For the Project, the APE is defined as follows:

• MCO Segment: the APE for direct effects was defined as the construction footprint and the APE for indirect effects extended 150 feet from either edge of the proposed rail easement.

• VMF: the APE for direct and indirect effects was defined as the entire 47-acre site.

• E-W Corridor: the APE for direct effects was defined as the construction footprint of all of the alternatives and the APE for indirect effects extended 150 feet south of the proposed ROW, except for areas where the limits of disturbance were limited to the north or south side of the existing SR 528. In those areas, the APE did not extend across the existing roadway.

• N-S Corridor: the APE for direct effects is the FECR ROW and the APE for indirect effects was defined as 150 feet on either side of the right-of-way for the consideration of indirect impacts.

The Corps determined there was enough federal control to expand the permit area to align with the APE defined by FRA. See paragraph 10(d) below for additional information.

c. Endangered Species Act (ESA) "Action Area": The Corps was the lead federal agency for compliance with the ESA. U.S. Fish and Wildlife Service (FWS) defines the ESA Action Area in their 9 October 2015 Biological Opinion (BO) as*: The action area for Phase II of the AAF Project is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. Phase II will result in: the construction of an additional track within an existing railroad right-of-way from Miami to Cocoa; the extension of a double-tracked railroad from Cocoa to Orlando, and the construction and installation of ancillary facilities including stations and a maintenance facility; and the establishment high-speed passenger rail service consisting of 16 round trips per day from Miami to Orlando to Miami. The Service notes that the establishment of the AAF Project will increase noise and disturbance along lands adjacent to the rail corridor. However, the extent of the Phase II's effects to surrounding lands is difficult to discern. Consequently, the Service has established the action area for Phase II as all lands within the footprint, and all lands within 500 ft (152.4 m) of the footprint. The 500-ft (152.4 m) buffer is an estimate by the Service of how far disturbance (i.e., noise from moving trains)*

that could potentially affect scrub-jays and other wildlife is likely to extend from the project footprint. In addition, the action area includes all lands within the SPSP to account for the transplanting of fragrant prickly-apple specimens from the project footprint to the SPSP. The Service has determined that an action area of this size is sufficiently large to capture the direct and indirect effects resulting from Phase II of the proposed AAF Project.

The proposed federal actions and anticipated impacts to federally listed species are described in detail in the final Biological Assessments (BA) submitted to the FWS in the FEIS Appendices 5.3.6-A – ESA Section 7 Consultation.

5. Chronology:

a. FRA Action

(1) FRA published the Notice of Intent for the proposed action on 15 April 2013.

(2) A series of public scoping meetings for the proposed action were held in April and May 2013 in Orlando, Fort Pierce, West Palm Beach, Fort Lauderdale, and Miami and an agency scoping meeting was held in April 2013.

(3) FRA prepared and published a DEIS on 26 September 2014 in coordination with the FAA, Corps and Coast Guard, and informed the public through a notice in the Federal Register, newspaper ads, and press releases. Public information meetings on the DEIS were held during the 75-day public comment period.

(4) FRA has prepared and published a FEIS on 4 August 2015 in coordination with the FAA, USACE, and Coast Guard, and informed the public through a notice in the Federal Register, newspaper ads, and press releases. Comments from agencies and the public to the DEIS were responded to in the FEIS.

(5) On 27 June 2016, FRA notified the Corps and Coast Guard, both cooperating agencies, that it would not be making a decision on AAF's application for Railroad Rehabilitation and Improvement Financing program (RRIF) to fund Phase II of the Project. FRA would not executing the draft Section 106 Programmatic Agreement to satisfy the requirements of the National Historic Preservation Act. See paragraph 10 (d) below for additional information.

b. Corps Action:

(1) The Corps and FRA executed a Memorandum of Understanding on 31 October 2013 to establish an agreement between the two agencies regarding the procedures to be

followed in preparing an EIS that complies with the laws and regulations pertaining to NEPA (FRA's Procedures for Considering Environmental Impacts (64 FR 28545, 26 May 1999); Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR parts 1500-1508); Department of Transportation Act of 1966 (49 U.S.C. § 303(c); CEQ Regulations for Adoption 40 C.F.R. § 1506.3(c) and CWA 33 C.F.R. Part 325, Appendix B). The resulting goal of agency cooperation was the completion of a FEIS which could be adopted by the Corps to support a permit decision in accordance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.

(2) By letter dated 22 November 2013, the Corps provided comments on the DEIS to FRA and requested a meeting to discuss the necessary changes to the DEIS prior to publication.

(3) By letters dated 6 and 21 March 2014, the Corps authorized modifications to the Central and South Florida projects at C-16 and C-51 canals.

(4) By letter dated 28 March 2014, the Corps provided additional comments on the DEIS to FRA. The Corps continued to request a meeting to discuss the necessary changes to the DEIS prior to publication.

(5) By letter dated 26 August 2014, the Corps provided recommended changes to and requested clarification of various chapters of the DEIS.

(6) On 7 October 2014, the Corps circulated a public notice with a 30-day comment period for the Project. The comment period ended 6 November 2014. The notice advertised the dates and locations of the eight (8) Public Information Meetings for the DEIS.

(7) By letter dated 13 January 2015, the Corps provided electronic copies of all comments received in response to the DEIS dated 19 September 2014 and the Corps' Public Notice dated 7 October 2014 to the FRA.

(8) By letters dated 13 and 29 January 2015, the Corps provided electronic copies of all comments received in response to the DEIS dated 19 September 2014 and the Corps' Public Notice dated 7 October 2014 to AAF.

(9) By letters dated 8 and 10 June 2015 and 28 July 2015, the Corps provided comments and recommended changes on the FEIS.

(10) By letter dated 3 August 2015, the Corps concluded the FEIS complies with its statutory and regulatory requirements of NEPA (42 USC § 4321 *et seq*.), CEQ NEPA regulations (40 C.F.R. parts 1500-1508), CWA 33 C.F.R. Part 325.

(11) The Corps issued Regional General Permit, SAJ-14, verifications (33 C.F.R. §325.5(c)(1)) to All Aboard Florida for the installation of fiber optic cable using directional drilling at nine (9) separate and distinct locations within Phase II (D-08 segment) of the Project area on 14 October 2015. The Corps later determined the work authorized by the Regional General Permit Verifications do not have independent utility and are a component of the Phase II Project. The Corps rescinded the Regional General Permit verifications dated 14 October 2015, and will evaluate these actions as part of the Standard Permit (33 C.F.R. §325.5(b)(1)) evaluation for the Project.

(12) The Corps issued single and complete Nationwide permit verifications (33 C.F.R. §325.5(c)(2)) for minor shoreline stabilization and loss of mangrove habitats required to implement bridge improvements associated with Phase I on 18 November 2015.

(13) The Corps received an application for the proposed action on 23 March 2016.

(14) The Corps circulated a second public notice with a 21-day comment period for the Project on 11 April 2016 and receipt of a permit application for the Project (33 C.F.R. §325.3). The comment period ended 2 May 2016. The second public notice was issued commensurate with the publication of the DEIS to ensure dissemination of information and seek comments to the DEIS as well as the Corps permit evaluation.

(15) The Corps issued a news release (release number 16-027) for the posting of the public notice on 12 April 2016.

(16) The Corps circulated a third public notice on 2 May 2016 extending the comment period for an additional nine (9) days. The comment period ended 11 May 2016.

(17) By letter dated 12 May 2016, the Corps provided electronic copies of all comments received in response to the FEIS dated 4 August 2015 and the Corps' Public Notice dated 11 April 2016 to AAF for consideration and response.

(18) By letter dated 24 June 2016, the Corps authorized modifications to the Central and South Florida projects at C-17 canal.

(19) The Corps circulated a fourth public notice on 10 January 2017, advising the public that the Corps and Coast Guard have independently evaluated and adopted the Project consultations completed between FRA, SHPO, and ACHP on 20 November 2013 (amended 21 May 2015) in accordance with 33 C.F.R. § 325 Appendix C Paragraph 2(c) and 36 C.F.R. § 800.2(a)(2). Therefore, the Corps and Coast Guard would execute a Programmatic Agreement.

(20) By letter dated 26 July 2017, the Corps requested FRA consider comments the Corps received specific to noise, vibration, and safety assessments completed in the FEIS and the engineering designs submitted to the State of Florida for water quality certification. The Corps advised that it would consider the FRA response to comments in the Corps public interest evaluation.

b. FRA Action:

(1) FRA Notice of Intent (NOI) to Prepare an EIS – 15 April 2013: The NOI was published in the Federal Register on 15 April 2013 (78 FR 22363) with a 30-day comment period. The NOI opened a scoping period. FRA held a series of public scoping meetings for the Project in April and May 2013 in Orlando, Fort Pierce, West Palm Beach, Fort Lauderdale, and Miami and an agency scoping meeting in April 2013.

(2) FRA Notice of Availability of DEIS – 26 September 2014: The FRA filed the draft EIS with the U.S. Environmental Protection Agency (EPA) and issued a formal notice of availability in the Federal Register (79 FR 57929 (Sep. 26, 2014)), which established a 75-day comment period on the draft EIS that ended on 10 December 2014. The FRA posted the DEIS at https://www.fra.dot.gov/Page/P0672.

(3) FRA Notice of Availability of FEIS – 21 August 2015: The FRA posted the FEIS at https://www.fra.dot.gov/Page/P0819. The notice of availability was published in the Federal Register on 24 August 2015 (80 FR 51256) with a 30 day comment period which ended 23 September 2015.

6. Public Involvement:

a. Public Meetings:

(1) FRA Scoping Meetings: Five public scoping meetings were held in May 2013 (see FEIS Chapter 8, Public Involvement).

(2) FRA Public Meetings: During the DEIS public comment period, FRA held eight public information meetings to provide the public with the opportunity to learn about the proposed project, ask questions, and obtain information about the project and the DEIS, and to comment on the DEIS (reference the FEIS, Summary and Appendix 8.5-B6).

b. Individual Meetings:

(1) The Corps attended an informational meeting on 5 November 2015 with representatives of Indian River, Martin, and St. Lucie Counties. Table 3 below is a list of meeting attendees.

Table 3

Attendee	Affiliation	Title
Donald West	St. Lucie County Public Works	Director
Segundo Fernandez	Oertel, Fernandez, Bryant & Atkinson, P.A	Outside Counsel for St. Lucie and Martin Counties
Andy Woodruff	Passarella and Associates	environmental consultant St. Lucie County
Dylan Reingold	Indian River County	Attorney
Kate Cotner	Indian River County	Attorney
Amy Petra	Martin County	Attorney
Kevin Healy		Outside Counsel for Indian River County
Roland	Indian River County Community Development	
Dave Jackson	Congressman Posey's office	
Andrew Phillips	Corps	Project Manger
Irene Sadowski	Corps	Section Chief
Christina Storz	Corps	Attorney

The Corps answered questions related to types of permit evaluation, NEPA requirements, Scope of Action, Evaluation Process, Section 106, completeness determination, mitigation, and permit time frames.

(2) The Corps, Andrew Phillips accepted hand delivered comments from Rick Creech, Martin County consultant on 29 September 2016.

(3) The Corps, Andrew Phillips, Seth Johnson, and Clif Payne, Chief North Permits Branch, met with Indian River County Attorneys Dylan Reingold and Kate Cotner on 9 February 2017. Indian River County briefed Mr. Payne on their position regarding the

proposed Project and provided information regarding anticipated challenges regarding public funding of the Project.

(4) The Corps, Andrew Phillips, Robin Moore, Corps' archaeologist, and Seth Johnson met with Kate Cotner, Ruth Stanbridge, Indian River County Historical Society on 6 March 2017, to view numerous archaeological sites within Indian River County. Sites visited included the St. Sebastian Bridge, Sebastian Historic District, North Canal, Main Canal, Vero Man Site, South Canal, and Hallstrom House/Farmstead.

(5) The Corps, Robin Moore met with Ruth Stanbridge and Paul and Anne Sinnott on 7 March 2017 to review the Fort Capron historic site in St. Lucie County.

(6) The Corps, Irene Sadowski, Seth Johnson, Andrew Phillips, met with Ruth Holmes, Martin County Attorney, Dylan Reingold, Kate Cotner to discuss the following topics: overall Corps permit status, scope of project, discuss deficiencies in the FEIS and whether the Corps is going to correct them, the secondary impacts review associated with the bridges, any information relating to permitting the bridges including the FRA's review of the engineering integrity of the bridges, the status of the issuance of the ROD, whether the Corps knows if the USFWS considered secondary impacts to the federally threatened West Indian manatee based on the boat traffic model provided by AAF/FEC contractors, where the Corps is with any other alternatives that have been discussed by AAF/FEC or other interested organizations, and whether we can provide them any further information. The Corps generally responded to the questions, but did not provide any specific timeframes for completion of a ROD or issuance of a DA permit.

c. Comments Submitted During the Corps Public Notice Comment Period:

(1) The Corps received numerous submittals in response to the 7 October 2014 public notice. Submittals were made via electronic mail, traditional mail, and phone. A majority of the comments were from individuals using a form letter to express objections to the public meetings held by FRA, the level of analysis completed in the DEIS, and to request a public hearing be held by the Corps. All of the comments received in response to the Corps' October public notice were coordinated with the FRA. FRA evaluated the comments, amended the FEIS, and provided a responded to the comments in the FEIS.

The Corps acknowledged the individuals who requested a public hearing by letter or electronic letter depending on their format of submission. Comments submitted by local governments and some individual objectors were re-submitted in response to the Corps' 11 April 2016 public notice and are summarized below. The comments are also addressed in the FEIS, development of the Section 106 Programmatic Agreement, FRA's evaluation of

noise and vibration, safety analysis, the Corps' evaluation of the applicant's compensatory mitigation proposal, FRA's ROD, FRA's response to comments, and this ROD.

(2) The Corps received diverse submittals in response to its 11 April 2016 public notice. Submittals were made via electronic mail, traditional mail, and phone. A majority of the comments were from individuals expressing concerns about potential adverse impacts to quality of life such as decreased property values, safety, ability to cross the railroad tracks, and road closures. Comments from individuals have been separated by issue: effecting quality of life, environmental, noise and vibration, general objection, general support.

(a) Quality of life: Quality of life comments included concerns about increased trains; longer wait times at crossings; severing communities/access to other side of the tracks; decreased quality of life; increased traffic; decreased property values; increased noise and vibration; potential road closures; damage to local business; separation of barrier islands from first responders; no benefit to residents; physical damage to structures from noise and vibration; general safety and quality of life concerns; safety of high-speed trains including potential loss-of-life from derailment; concern that the passenger service would be changed to freight service in the future; and general concerns regarding impacts to navigation. Additionally, several commenters were concerned that the project was not financially viable and would fail and was a waste of taxpayer dollars. Public comments included requests to relocate the train route to a different area and build a wall to protect property values.

(b) Environmental: Environmental concerns included concerns regarding pollutants discharged in waters; spills in area waters; toxic materials spills and contamination; inadequate FEIS evaluation of endangered species, pollution in waters, wetlands, and cultural resources; general concerns regarding endangered species; impacts to natural resources within St. Lucie Village including ecosystems, flora and fauna, wetlands, groundwater and well fields, retention and detention; noise and vibration concerns; and FRA has not properly identified or acknowledged the historical, cultural, and archaeological resources within and immediately adjacent to the AAF project ROW in St. Lucie Village in the DEIS or FEIS. Commenters stated that more surveys and research should be conducted so that the FEIS is complete and factually accurate. Commenters also requested a public hearing.

(c) Noise and Vibration: Noise and vibration concerns included statements that the current noise from freight trains is already high and additional traffic will make it worse; general noise and vibration concerns; damage to existing structures from additional railway activity; decrease in property values; general opposition to additional traffic on the railway; and impacts to endangered species from noise and vibration. Comments included requests

for a sound barrier wall; additional information characterizing the noise, speed, vibration and frequency of the proposed railway system as compared to the existing system; and additional information regarding recording the different noise levels at different points on the tracks when trains are passing. Finally, one commenter wanted to know who is responsible for the cracks in the foundation of his house caused by the vibrations from the train.

(d) General objections: Commenters generally objected to work connected to the project adjacent to their property. One commenter did so in the form of poems.

(e) General support: Twelve letters of support were received during the comment period. The commenters stated the Project will improve Florida's infrastructure by providing a transportation alternative, provide benefits to public health, safety, and air quality. The Project would have a direct economic impact through the creation of jobs.

(3) Local governmental comments:

(a) Dylan Reingold, County Attorney, Indian River County, provided comments by letter dated 19 April 2016. Indian River County formally requested an extension to the public notice comment period. Construction plans are not sufficient to fully evaluate the proposal. Indian River County requested access to the railroad corridor to evaluate the extent of wetlands and to fully appreciate the potential impact and necessary mitigation measures.

(b) Kate Pingolt Cotner, Assistant County Attorney, Indian River County, provided comments by letter dated 21 April 2016. Indian River County requested a public hearing stating a public hearing is necessary due to the substantial nature, complexity and importance of the issues raised by the underlying project and the Application and the Corps cannot rely on the information contained in the deficient FEIS to support its public interest analysis or its ROD.

Some examples of the FEIS deficiencies referenced by Ms. Cotner include, but are not limited to: (1) the FEIS analysis of noise and vibration impacts did not follow FRA's own guidance and therefore the estimated impacts to wildlife may be inaccurate; (2) the FEIS discussion of mitigation measures for the Project's environmental impacts is grossly inadequate; in some cases it is non-existent; (3) the FEIS improperly disregarded all of the mitigation that may be necessary for the direct, indirect and cumulative impacts to more than 50 listed plant species that may occur in or near the project; and (4) the FEIS is silent about the mitigation measures that could, or should, be used to address: (i) habitat fragmentation and barriers; (ii) state and federal park encroachment, (iii) harms to other listed plant and wildlife species; and (iv) harms to preferred habitat (such as pasture for caracara nesting).

(c) Deana Falce of Shubin Bass Professional Association, provided comments on behalf of Indian River County by letter dated 2 May 2016. The comments supplement and incorporate comments contained in Indian River County's letters dated 19 and 21 April 2016. Ms. Falce stated the FEIS is grossly deficient and cannot be used by the ACOE, or any other agency, to support a Record of Decision ("ROD"). The application is also incomplete and does not properly address the required criteria that must be satisfied prior to the issuance of a Department of the Army permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. §1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. §403). The FEIS fails to take the "hard look" at the environmental impacts of the Project as required by NEPA. The FEIS does not: (1) adequately analyze the viable alternatives to the Florida East Coast Railway ("FECR" or "FEC") corridor; (2) provide a thorough examination of the negative environmental impacts the Project will have on the communities and wildlife along the North-South corridor and East-West corridor; (3) include a properly conducted noise and vibration analysis to showcase the negative impacts the Project will have on surrounding wildlife, cultural resources, businesses, and communities; or (4) adequately identify and assess effective measures to mitigate such impacts. FEIS and the Application fail to identify (and as a result address) the existence of certain wetlands within the County. FEIS is both legally and factually insufficient and does not meet the requirements of the Clean Water Act. The FEIS fails to provide the Corps with the information it needs to issue a ROD that meets the requirements of NEPA, or to perform a public interest review sufficient to satisfy the requirements of the Corps regulations. The FEIS is deficient in its analysis of impacts that would be caused in areas under the direct jurisdiction of the Corps. The letter wetland systems are not accurately identified. Cultural resources are not adequately address. The application is insufficient for the Corps to fully evaluate the impacts to floodplains. The Corps should work with the Indian River Farms Water Control District (IRFWCD) to ensure flood hazards are avoided at the three lateral canals within Indian River County. Indian River County and the Corps cannot fully appreciate or analyze the total impact the Project will have on the safety of the local community. The County disputes AAF's assertion that this Project is needed when there are currently multiple transportation modes and carriers available to transport commuters and tourists alike between Miami and Orlando. The County maintains that due to the deficiencies of the identification, information and evaluation associated with wetland resources, cultural resources, floodplain management, flood hazards, and safety in the Application and the FEIS, the Corps must fully evaluate the "practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work" pursuant to 33 C.F.R. § 320.4(2)(ii). The ACOE should prepare a supplemental environmental impact statement to address the deficient alternatives analysis. A supplemental EIS is necessary because there is new information concerning the feasibility of using a portion of the CSX corridor for the Project.

(d) Deana Falce of Shubin Bass Professional Association, provided a second letter on behalf of Indian River County by letter dated 11 May 2016. The construction plans are not sufficient for Corps evaluation. The construction plans for the Sebastian River bridge are not included. The Sebastian River bridge is an essential element of the Project. Without construction plans for the bridge the County is unable to address whether it will involve discharge of dredge or fill into navigable waters. Plans provided are not sufficient to evaluate floodplain impacts. Indian River County reiterated their concerns about flood hazards and potential indirect impacts from directional drilling.

(e) Dylan Reingold, County Attorney, Indian River County, provided additional comments by letter dated 2 September 2016. Indian River County has reviewed the materials submitted on behalf of AAF by Amec Foster Wheeler dated 10 June 2016. Indian River County is compelled to point out some of the more glaring deficiencies in the response and is requesting a re-review of the permit application.

The FEIS is not sufficient for the Corps to complete its public interest review. The FEIS fails to disclose risk to public safety and does not identify mitigation measures that would be employed to address safety risks. Corps is unable to consider the detrimental economic impacts of the Project to this broad geographic area because such impacts have never been identified or assessed. The FEIS fails to identify the Project's adverse noise and vibration impacts, cumulative impacts, relies on a deficient BO, accurate wetland delineations, alternatives analysis.

(f) By letter dated 30 March 2017, Dylan Reingold, County Attorney, Indian River County, reiterated his comments regarding safety. Mr. Reingold referenced FRA's withdrawal from the Private Activity Bonds process on 22 November 2016, and requested the Corps require AAF to provide safety improvements as part of its NEPA and permitting process. Mr. Reingold continued to request a supplemental EIS.

(g) Amy Taylor Petrick, Esq., Senior Assistant County Attorney, Martin County Attorney's Office submitted comments by letter dated 22 April 2016. Martin County requested the public notice comment period be extended by 30 days and requested a public hearing.

(h) Michael Durham, Martin County Attorney, submitted comments by letter dated 2 May 2016. Martin County stated the FEIS does not provide the legal basis required for the issuance of a proper ROD by the Corps or any other Federal Agency because it fails to take a "hard look" at the environmental impacts of the Project. The document does not "adequately analyze the viable alternatives to the FECR corridor, (2) provide a thorough examination of the negative environmental impacts the Project will have on the communities and wildlife along the North-South corridor and East-West corridor, (3) include properly

conducted noise and vibration analysis to showcase the negative impacts the Project will have on surrounding wildlife, cultural resources, businesses, and communities, or (4) adequately identify and assess effective measures to mitigate such impacts." Stated the FEIS does not meet the requirements of the Clean Water Act and fails to provide the Corps with the information it needs to issue a ROD that meets the requirements of NEPA, or to perform a public interest review sufficient to satisfy the requirements of the ACOE regulations.

(i) Mr. Segundo Fernandez of Oertel, Fernandez, Bryant & Atkinson, P.A. provided a letter response dated 11 May 2016, on behalf of Martin County. Mr. Fernandez stated Martin County has identified wetlands within the project footprint which were not identified in plans submitted by AAF. The FEIS fails to accurately consider alternative routes, take a "hard look" at project impacts such as public safety, navigation and the marine industry, quality of life, cultural resources, and natural and water resources and the environment. The FEIS fails to adequately discuss mitigation measures. The FEIS and application fail to accurately address flood hazards and floodplain management. Mr. Fernandez provided recommended protection measures to reduce violations of State and Federal water quality standards. Mr. Fernandez urged the Corps to consider comments received regarding potential impacts to navigation and stated the application is incomplete and fails to address the criteria needed for the issuance of a Department of the Army permit pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. The Corps should demand that the Applicant provide the Corps with additional information as outlined above.

(j) Michael Durham, Martin County Attorney, submitted a preliminary wetland delineation report and associated summary by letter dated 29 September 2016.

(k) By letter dated 28 April 2016, Richard Neill Jr., Village Attorney, Town of St Lucie Village (Village) requested the public notice comment be extended by 30 days and requested a public hearing. The Village is concerned about the completeness of the information provided in the AAF application. The Project has the potential to adversely affect our land use, water resources, wetlands, biological communities, protected species, social and economic conditions, cultural resources, parks and recreation areas and utilities. Increased noise and vibration, and change of setting will have negative impacts on our biological communities, our historic resources and our National Register listed historic district. The application does not plan to minimize, avoid, or compensate for the Project's environmental impacts on the Village.

(l) By letter dated 2 May 2016, Mr. Neill inquired about the installation of noise barriers where the project is adjacent to residential properties.

(m) Mr. Segundo Fernandez of Oertel, Fernandez, Bryant & Atkinson, P.A. provided a letter response dated 25 April 2016, on behalf of St. Lucie County. St. Lucie County requested and extension to the comment for an additional 30 days and requested a public hearing.

(n) City of Orlando, Mayor Buddy Dyer, provided a letter response dated 18 April 2016, stating the proposed project will meet a demand for passenger rail in Florida. The project would result in long-term regional and statewide benefits.

(o) City of Palm Bay, Mayor William Capote, provided a letter response dated 22 April 2016, stating the FEIS is sufficient and the proposed project would provide benefits.

(p) City of Palm Bay, City Manager Gregg Lynk, provided a letter response dated 25 April 2016. Mr. Lynk expressed the City's support for the approval of the proposed permit. The proposed action would result in transportation, economic, air quality, public health, and safety benefits.

(q) Canaveral Port Authority provided a letter response dated 22 April 2016, stating the proposed project will enhance public health and safety and recommended approval of a permit.

(r) Orange County Government, Assistant County Administrator James Harrison, responded by letter dated 27 April 2016. Mr. Harrison expressed Orange County's support for the proposed action. The project will assist in meeting demand for passenger rail and expanding transportation challenges within the County. The project will have transportation, economic, air quality, public health, and safety benefits.

(s) West Palm Beach, City Commissioner, District 4, Keith James, responded by letter dated 27 April 2016. Mr. James expressed his strong support for the proposed project and that the project is already having a positive impact in the City of West Palm Beach. The project will aid in meeting the increased transportation demands.

(t) City of Cocoa, City Manager John Titkanich, Jr., responded by letter dated 4 May 2016. Mr. Titkanich expressed the City's support for the proposed project and recommended permit approval. The propose project will help to meet the growing transportation needs utilizing private funding.

(u) MetroPlan Orlando, Executive Director Harold Barley, responded by letter dated 9 May 2016. MetroPlan Orlando is the federally designated metropolitan planning organization (MPO) for the Orlando metropolitan area created under the provisions of Chapter 23, United States Code. Metroplan Orlando is responsible for regional

transportation planning in Orange, Seminole and Osceola Counties. Mr. Barley stated the growth in travel between Florida's major metropolitan areas cannot be served by additional highway capacity alone. High quality rail service such as Brightline will be an attractive, efficient alternative that is needed for residents and visitors. Mr. Barley recommended permit issuance.

(v) Space Coast Transportation Planning Organization (SCTPO) responded by letter dated 5 May 2016, expressing support for the proposed project. The SCTPO is a federally authorized agency composed of nineteen local elected officials who are responsible for establishing multi-modal transportation policy, developing long range transportation plans and programming state and federal transportation improvement funds within Brevard County. The transportation benefits include an alternative transportation mode that will remove autos from over-crowded roadways; improved railroad grade crossing safety that will reduce the frequency of crashes; and the creation of a new east-west rail line that could become part of a future Central Florida regional passenger commuter rail network.

(x) Jay Kramer, Mayor, City of Vero Beach provided comments by letter dated 25 April 2016. Mayor Kramer requested an extension to the public notice comment period and a public hearing to help local governments understand how the project will impact their local responsibilities.

(y) By letter dated 3 May 2016, City of Vero Beach, Monte Falls, Public Works Director, state the City supports the request from Indian River County and the Indian River Historical Society for a time extension to the public notice and public hearing on the referenced permit application. Without the 90% plans a meaningful review of the permit application cannot be made.

(z) City of Sebastian, City Manager, Joe Griffin responded by letter dated 28 April 2016. Mr. Griffin stated the Corps is not being reasonable in expecting the City of Sebastian to effectively comment without receiving the 90% or 100% construction plans. AAF, or the FRA, has not properly identified the historical and archaeological resources along the rail bed in Sebastian. The City of Sebastian requested a sixty (60) day public comment period commencing after the AAF 100% plans are delivered to the City of Sebastian Engineer.

(aa) Canaveral Port Authority, Jim Dubea, Deputy Executive Director, responded by letter 22 April 2016, stating the Project will improve public health and safety by taking more cars off the road, improving rail line safety, and the new trains will be state of the art. The new trains would include noise abatement and vibration reduction technology. The Canaveral Port Authority recommended approval of the permit.

(4) Non-governmental organization comments:

(a) Ruth Stanbridge on behalf of Indian River County Historical Society responded by letter dated 23 April 2015 (letter miss dated, should be 2016). Ms. Stanbridge requested the public notice comment period be extended 30 days and that a public hearing be scheduled in Indian River County. FRA and AAF did not properly identify or acknowledge the historical, cultural, and archaeological resources within and immediately adjacent to this ROW in their DEIS or FEIS. The construction plans provided in the public notice are not sufficient. The issuance of general permits for fiber optic cable installation could jeopardize "below" ground cultural and archaeological sites at many locations in Indian River County.

(b) Ruth Stanbridge submitted a second letter on behalf of the Indian River County Historical Society dated 2 May 2016. Ms. Stanbridge reiterated the comments provided in her 23 April 2015 letter. The Cultural Resource Assessment Report provided by the FRA and AAF did not properly identify or acknowledge significant archaeological and National Register sites such as the Vero Man, Gifford Bones, the Hallstrom Farmstead and others. The plans and information provided is missing, incomplete, and not available. The permit should be denied.

(c) Virginia Sherlock on behalf of The Guardians of Martin County, submitted comments by letter dated 2 May 2016. The Guardians of Martin County requested the Corps' public notice comment period be extended by 30 days and requested a public hearing. The letter also served as objection to issuance of any Corps permits for the Project based upon the failure of the applicant to meet the 404(b)1 Guidelines of the Clean Water Act, provisions of the National Environmental Policy Act, and other federal requirements related to projection of wetlands and protected species.

(d) Ms. Sherlock submitted a second letter dated 11 May 2016 on behalf of The Guardians of Martin County stating they are in opposition to issuance of any proposed permits by the Corps. Ms. Sherlock stated the analysis did not consider impacts to tidal wetlands in the screening process and requested a detailed consideration of inland routes. The Guardians requested wildlife crossings and identification of compensatory mitigation to tidal wetlands.

(e) Chelle Woods, Micco Home Owners Association responded by electronic letters dated 27 April and 2 May 2016. Requested a 30 day extension to the public notice comment period and requested a public hearing. Ms. Woods stated AAF failed to hold scoping meetings in Martin, Indian River, and Brevard Counties. AAF failed to follow NEPA guidelines or CEQ regulations. Failed to determine the full scope of issues and failed to contact any county governments or cities officials regarding any local impacts of the Project.

(f) In their second letter the Micco Homeowners Association requested the Corps deny the permit application and no permits should be granted until there is a complete construction plan and detailed inventory of endangered species and mitigation plan available for the Project. The DEIS fails to acknowledge the sensitive nature of their area. Ms. Wood stated the Corps should consider impacts to environmental and natural resources and natural wetlands and waterways. The DEIS failed to include any economic benefit from recreational boating, commercial fishing, scenic tour operators, or fishing guides in Indian River and Brevard Counties. The DEIS fails to discuss the importance of the Lagoon's tributaries to maintaining the estuary. The DEIS fails to comment on the importance of the St. Sebastian River or any other identified tributary to the Lagoon as a transition zone between fresh and salt water sources. The DEIS on Page 4-89 in Table 4.3.5-4 Essential Fish Habitat within the Project Study Area states that NO Habitat Areas of Particular Concern (HAPC) exist in the St. Sebastian River. The DEIS fails in the document and the appendices to report any critical essential fish habitat in the St. Sebastian River. Expressed concerns about federally listed species including: the scrub jays eastern indigo snake, smalltooth sawfish and West Indian manatee being present in St. Sebastian River.

(g) David Gunter, Superintendent, IRFWCD responded by letters dated 29 April and 2 May 2016. IRFWCD is a water control district organized under chapters 189 and 298, Florida Statutes. IRFWCD owns and maintains the South (Mile Post 230), Main (Mile Post 227), and North (Mile Post 224) canals in Indian River County. IRFWCD requested AAF submit detailed bridge design plans for the three canals within their jurisdiction which would be traversed by the Project. Mr. Gunter noted that the erosion control plans called for floating turbidity curtains to be extended across the three canals. Floating turbidity curtain extending across the canal is not appropriate design method.

(h) George Simons, Carter and Associates, provided comments on behalf of IRFWCD by electronic letter on 9 May 2016. IRFWCD expressed concerned about the need for early coordination in bridge design over bridged within their jurisdiction. Also requested a "canal flow" maintenance agreement between themselves and FECR. The intent of the agreement is to outline the protocol for routine canal clearing to provide assurance that the removal of future sand bars from under any bridge within their area of responsibility is completed on a timely basis.

(i) Joe Idlette III, President of the Progressive Civic League of Gifford, Florida responded by electronic letter dated 28 April 2017 stating the applicant has not communicated with the Town of Gifford. Mr. Idlette states the Project would negatively impact the Gifford Community due increase in freight and new trains proposed by the applicant. Access to emergency services would be impacted. More risk to pedestrians who must cross the tracks. Noise levels will rise creating a more hostile environment for residents.

(j) Honey Minuse on behalf of the Indian River Neighborhood Association responded by electronic letter on 28 April 2016. Ms. Minuse requested an extension to the public notice comment period and requested a public hearing. The DEIS and FEIS has not identified impacts to natural and human environments. Scoping was deficient and public meetings by AAF did not improve acknowledgement of impacts. The proposed action is expected in increase freight traffic, increase noise and vibration impacts, impacts to vehicular and pedestrian traffic, impacts to waters and wetlands, and impact potable water supplies.

(k) Kenneth Miller, Breezy Village Association responded by letter dated 25 April 2016, requesting the Corps to deny the Project. Mr. Miller acknowledged some of their homes are within 200-feet of the railroad ROW. The project will likely result in increased vibration and noise and emergency response time for the lone access to their development. Also expressed concerns about property values and health and safety of the community.

(l) Stephen Ryan, Esq., McDermott Will and Emery, LLP submitted comments on behalf of Citizens Against Rail Expansion in Florida (CARE FL) by letter dated 26 April 2017. CARE FL requested an extension to the public notice comment period. CARE FL also requested a public hearing.

(m) Deana Falce of Shubin and Bass, PA, submitted comments on behalf of CARE FL by letter dated 10 May 2016. CARE FL hereby adopted, and incorporates by reference, the comments submitted by Indian River County and Martin County, dated 2 May 2016 (and any supplemental comments submitted thereafter), regarding this application. CARE FL formally requested a public hearing. Ms. Falce stated the FEIS is incomplete and does not provide the legal basis required for the issuance of a proper Record of Decision by the ACOE or any other federal agency referencing comments provided by Indian River and Martin County's.

(n) Florida Chamber of Commerce responded by letter dated 9 May 2016, stating they support the Project. The Project would enhance Florida's most populated region by providing a much-needed transportation alternative. With any major infrastructure project, there will be impacts that must be mitigated. Florida must effectively managed growth with reliable, alternative ways for people to travel and do business.

(o) GOAA, Phillip Brown, Executive Director, responded by letter dated 26 April 2016. The Project would connect Florida's major population centers and providing for convenient rail-to-air or rail-to-rail transfers. The implementation of an intercity passenger rail service is part of the State's Transportation Plan. The use of existing transportation corridor would minimize environmental impacts. Additional benefits include air quality

improvements, economic benefits, and public health and safety improvements. GOAA recommended a favorable and timely permit issuance.

(p) KW Coastal Land & Commercial Group, Anthony Donovan, responded by letter dated 2 May 2016, stating the Project would meet growing transportation needs and would provide public health and safety benefits through the reduction of car emissions and use of new train technology. KW Coastal Land & Commercial Group recommended approval of project.

(q) Reverend Glenn Dames of the St. James A.M.E Church responded by letter dated 26 April 2016. Reverend Dames expressed his support for approval of the project.

(r) Craig Technologies, Carol Craig, CEO, responded by letter dated 22 April 2016, expressing support for the Project.

(s) Southeast Petro Distribution, Inc., Summit Shah, Vice President, responded by letter dated 25 April 2016, expressing support for the Project.

(t) Baron Sign Manufacturing, Sandie Foland, CEO, responded by letter dated 20 April 2016, expressing support for the Project.

(u) Crossroads Environmental, Tobin Overdorf, President, responded by letter dated 11 May 2016, expressing support for the Project.

(v) Off the Traxx, Bill Puzino, responded by letter dated 31 May 2016, expressing support for the Project.

(x) Deseret Cattle & Citrus, W. Don Whyte, Vice President, responded by letter dated 18 April 2016, expressing support for the Project.

(y) Breezy Village 55 plus community submitted a letter dated 12 May 2016, they are not in favor of the Project because their subdivision is limited to one way in and out to US Hwy 1 and at times they have to wait for trains to pass to access their site. Additional trains would impact their ingress/egress. Thirty-two of the residents signed the letter.

(z) Floridians for Better Transportation, Matthew Ubben, President responded by letter dated 5 May 2016, expressing support for the Project.

(aa) Florida Coalition of Rail Passengers, Stephen Sayles, President responded by letter dated 7 May 2016, expressing support for the Project. In addition to Mr. Sayles

letters the Corps received twelve letters of support from individual members of the Florida Coalition of Rail Passengers.

(bb) Friends of Sebastian River, Tim Glover, President, responded by electronic letter dated 11 May 2016, requesting a public hearing.

(cc) Florida East Coast Railway Society, Mikey and Anita Starck, each responded by letters dated 18 April 2016, expressing support for the Project.

(dd) I'm All Aboard Neighborhood Coalition responded by letter dated 28 April 2016, expressing support for the Project.

(ee) Old Vero Ice Ages Sites Committee, Randy Old responded by letter dated 14 May 2016, expressed concerns about construction related impacts to the Vero Man Site and Gifford Bone site.

(ff) Train Impact Coalition of Indian River County, Honey Minuse responded by electronic letters dated 28 April 2016 and 11 June 2016, requesting extension of the comment time, a public hearing, and denial of any permits because detailed track plans have not been provided which identify specific impacts to public health, safety and economic well-being.

(5) Congressional comments:

(a) Congressman Bill Posey (8th District, Florida) provided a letter dated 22 April 2016, requesting the Corps give full and fair consideration under the law to Indian River County's request for a 30 day extension to the public comment period and holding a public hearing.

(b) Congressman Bill Posey provided a letter dated 19 August 2016, stating Indian River County officials are concerned that the lack of attention to detail in the design plan indicates that AAF may not complete the required permitting process. Posey expressed the need for AAF to adhere and complete the legally required permitting process in order to obtain the necessary permits for the construction of the project.

(c) Members of congress John Mica (7th District, Florida), Frederica Wilson (17th District, Florida), Mario Diaz-Balart (25th District, Florida), Allan Grayson (9th District, Florida), Ileana Ros-Lehtinen (27th District, Florida), Daniel Webster (11th District, Florida), Carlos Curbelo (26th District, Florida), and Dennis Ross (15th District, Florida) submitted a letter dated 28 April 2016, requesting the Corps adhere to the current 21-day comment period.

(6) State representatives:

(a) Florida State Representative, Debbie Mayfield (District 24) responded by letter dated 26 April 2016, requesting full consideration of Indian River County's comments and extension of the public notice comment period for 30 days and to hold a public hearing.

(7) Governmental agencies:

(a) EPA: EPA responded to the Corps' 7 October 2014 public notice by letter dated 8 December 2014. EPA stated from a strictly quantitative perspective of impacts to jurisdictional resources, it environmentally prefers Alternative A. EPA has recommended that the FEIS include functional assessments for the build alternatives, avoidance and minimization measures, as well as specific compensatory mitigation plans for unavoidable impacts to jurisdictional wetlands. The EPA requested the Corps coordinate with them once the FRA FEIS for the All Aboard Florida project is published.

By electronic letter dated 16 May 2017, the Corps advised EPA that it was moving forward with completion of its ROD and 404(b)(1) analysis and solicited any comments from EPA's Wetlands and Stream Section. EPA did not respond to the Corps letter.

(8) Time extension requests to 11 April 2016 public notice: Fourteen (14) separate requests for extension to the 21-day public notice comment period were received.

(9) Public hearing requests in response to April 2016 public notice:

Table 4 below identifies the congressional representative, state representative, local governments, non-governmental organizations, and individuals who requested the Corps hold a public hearing and the date their request was acknowledged.

Table 4		
Requestor	**Date Received**	**Date acknowledged by Corps**
United States Representative; The Honorable Bill Posey	22 April 2016	2 May 2016
Florida House of Representative; The Honorable Debbie Mayfield	26 April 2016	27 April 2016

Indian River County	21 April 2016	21 April 2016
Martin County	22 April 2016	25 April 2016
St. Lucie County	25 April 2016	26 April 2016
Mayor of City of Vero Beach; The Honorable Jay Kramer	25 April 2016	27 April 2016
Town of St. Lucie Village	28 April 2016	4 May 2016
Indian River County Historical Society	25 April 2016	25 April 2016
Citizens Against Rail Expansion in Florida	26 April 2016	26 April 2016
Micco Home Owners Association, Inc.	27 April 2016	27 April 2016
Indian River Neighborhood Association	28 April 2017	9 May 2016
Progressive Civic League of Gifford FL, Inc.	28 April 2016	4 May 2016
The Guardians of Martin County, Inc.	2 May 2016	9 May 2016
Michael Sinnott	28 April 2016	4 May 2016
Angela and Paul Sinnott	26 April 2016	4 May 2016

The Corps acknowledged each request individually by letter advising the requester they would be notified of a final decision regarding a public hearing. The stated need for a public hearing varied greatly by each requester; but generally followed a theme. The requestors want a forum to address the concerns of the individual or organization raised to the DEIS and FEIS. The Corps formally and informally notified the requesters that the Corps has used the public notice process to receive and evaluate comments regarding the FEIS and the Department of the Army permit application. The Corps has considered the information provided by individuals, governmental organizations, businesses and non-governmental organizations and has included additional analysis when necessary.

d. Corps review of comments:

(1) The Corps forwarded all comments received to the FRA for incorporation into the FEIS and to respond to comments. At the same time the Corps provided technical assistance to FRA, completed additional field evaluations to obtain additional details of the project corridor, completed consultation with FWS and NMFS, assumed the co-lead role for completion of the Section 106 Programmatic Agreement, and developed a compensatory mitigation plan.

(2) By public notice dated 2 May 2016, the Corps extended the public notice comment period to 11 May 2016.

e. Issues identified by the Corps: In consideration of the information contained within the FEIS and submitted to the Corps in conjunction with the permit application, the Corps concluded that additional information was necessary regarding compensatory mitigation, direct and indirect impacts to waters of the U.S., the federally listed Nassau grouper, and known archaeological sites and important archaeological areas.

f. Issues/comments forwarded to the applicant:

(1) By letter dated 29 January 2015, the Corps requested the applicant provide a detailed response to the 7 October 2014 public notice comments received and specifically describe how the proposed work would affect the following public interest factors: conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, consideration of property ownership, needs and welfare of the people.

(2) By letter dated 12 May 2016, the Corps requested the applicant revise the functional assessments and figures to quantify direct and indirect impacts; to the extent practicable address the comments received in response to the 11 April 2016 public notice; provide whatever specific scientific and factual information AAF may believe is relevant to clearly demonstrate that the project meets the 404(b)(1) guidelines (40 CFR 230.10(a)) and how the preferred alternative is the least environmentally damaging practicable alternative when compared to the CSX alternative identified by Indian River and Martin Counties. Requested the applicant to provide additional information relevant to supplement the Evaluation of Public Interest letter dated 31 March 2015 included in the AAF FEIS.

(3) By letter dated 7 March 2017, the Corps requests that AAF amend the biological assessments completed for the proposed action to include anticipated effects to the Nassau grouper.

(4) By letter dated 13 April 2017, the Corps requested that AAF utilize horizontal directional drill to avoid direct impacts to known archaeological sites and important archaeological areas.

g. Applicants replied/provided views:

(1) By multiple letters dated 31 March 2015, AAF responded to the Corps' 29 January 2015 request for additional information and provided a public interest evaluation matrix, a response to public comments, and considerations of wildlife impacts.

(2) By letter dated 10 June 2016, AAF responded to the Corps stating the FECR corridor route is the least environmentally damaging practicable alternative (LEDPA) because it bests meets the project purpose and need while remaining feasible to construct and operate based on ridership and cost projections. AAF stated, no adverse effects to fish and wildlife or the aquatic environment are expected within this alternative. AAF also stated, the CSX alternative is not a practicable alternative because it is not available to AAF and AAF would have to execute a shared use agreement which would increase the likelihood for delays to the schedule. The CSX alternative would likely have greater adverse effects because it would result in more loss of high quality wetland habitats which have not been impacted or fragmented by development. AAF is committed to public safety and would install positive train control on the entire corridor as well where train speeds exceed 79 mph in the West Palm Beach to Cocoa corridor, crossings would be rehabilitated to include either four-quadrant gates or raised median separators to prevent cars from going around gates. Those same crossings would have vehicle presence detection devices and crossing health monitoring, to provide the highest degree of information to oncoming trains regarding vehicles potentially located on the crossings. The monitoring would also determine the status of crossing's functionality. AAF is continuing to work closely with the FRA's Office of Rail Safety. Lastly, the proposed action would create another effective means of evacuation within the project's corridor. The applicant also provided a copy of the construction plans, functional assessments, and a mitigation plan.

(3) By letter dated 20 July 2016, AAF responded to two letters which were received from IRFWCD, and its consultants, dated 29 April and 9 May 2016, respectively. AAF stated it intended to meet with the IRFWCD in an effort to answer the questions raised in the letters.

(4) By electronic letter received on 27 April 2017, AAF committed to directionally drill through areas "A, B and C", and monitor Area D as defined in the Section 106 Programmatic Agreement.

(5) By electronic letter received on 6 December 2017, AAF provided a copy of the Final Order in State of Florida Division of Administrative Hearings Case (DOAH) No. 16-5718 and 17-2566, Martin County and St. Lucie County and Town of St. Lucie Village vs. AAF; Florida East Coast Railway, LLC; and South Florida Water Management District (SFWMD) done 16 November 2017. Marin and St. Lucie Counties jointly filed petitions challenging the SFWMD Environmental Resource Permit (ERP) Modification and the 2017 Exemption. The two cases were consolidated. The Town of St. Lucie Village was granted leave to intervene in opposition to the challenged agency actions. The Counties challenged the issuance of the permit because the SFWMD did not consider the following topics: Segmentation, Stormwater Management System, The Emergency Access Way, Water Quantity Impacts, Water Quality Impacts, Soil and Sediment Contamination, Functions Provided by Wetlands and Other Surface Waters, Secondary Impacts, Elimination and Reduction of Impacts, Mitigation, Cumulative Impacts, Public Interest, Compliance With Other Permit Conditions, Exemption Verification for Roadway Crossings. The DOAH found in favor of the SFWMD.

(6) By electronic letter received on 6 December 2017, AAF provided a copy of the Final Order in State of DOAH No. 16-6165, IRFCD vs. AAF, Ram Land Holdings, LLC; J. Acquisitions Brevard, LLC; and SJRWMD done 27 June 2017. The order found in favor of the SJRWMD. IRFWCD objected to the issuance of the SJRWMD for several reasons including obstruction of water flow resulting from installation of new bridges or improvements to existing bridges and the existing bridge pilings at North Canal have caused a sand bar to form. Shoaling and erosion would likely increase with construction of additional pilings at this location. The DOAH found in favor of the SJRWMD.

7. Alternatives Analysis

a. FEIS Alternatives Analysis:

(1) The FRA and the Corps identified and evaluated reasonable alternatives to the specific Project, as proposed by the applicant in their respective applications and associated supplements, to make independent determinations according to each agency's governing regulations. Both agencies must meet the NEPA requirements for their respective evaluations of alternatives; and, must fulfill additional agency-specific regulations in making their independent determinations. The FRA and the Corps evaluated the no action alternative and route alternatives. The separate and independent Corps evaluation must also meet the requirements of the CWA and the Corps' public interest review.

(2) Chapter 3 of the 4 August 2015 FEIS presents the details of the NEPA alternatives analysis for the Project. The details provided in the FEIS were used by the Corps to select the least environmentally damaging practicable alternative (LEDPA). Alternatives included (4) build alternatives for the N-S segment, four (4) build alternatives for the connection to the E-W segment, and four (4) build alternatives for the E-W segment, which included the applicant's preferred alternative (see (4) below).

b. Clean Water Act Section 404(b)(1) Alternatives Analysis:

(1) Basic and Overall Project Purpose and Need:

(a) Basic: Railroad (reference the Corps Public Notice dated 11 April 2016)

(b) Overall: Construct an intercity passenger railroad between OIA and West Palm Beach, Florida utilizing as much of the existing FECR ROW as feasible (reference the Corps Public Notice dated 11 April 2016).

(2) Water Dependency Determination: The Project does not require access or proximity to or sighting within a special aquatic site to fulfill its basic purpose. Therefore, the activity is not water dependent.

(3) Screening Criteria: In order to be practicable, an alternative must be available, achieve the project purpose (as defined by the Corps), and be feasible when considering cost, logistics and technology. The screening criteria are defined in FEIS Chapter 3, Section 3.2 and included the following factors.

(a) A tiered approach to alternative evaluation was utilized to first determine practicability. The Level 1 screening analysis identified and screened four (4) overall routes, including the applicant's preferred alternative, connecting Orlando with the previously reviewed West Palm Beach to Miami service (FRA EA 2012), and identified a preferred route alternative. Alternatives considered practicable were carried forward for further evaluation and comparison.

(b) The Level 2 screening was a more detailed evaluation of segment alternatives within the preferred route. This screening considered four routes between the existing FEC rail line and the E-W corridor.

(c) Level 3 screening evaluated four alternatives within one segment (the Central Florida Expressway Authority [CFX], formerly the Orlando-Orange County Expressway Authority-controlled segment of the East-West Corridor) of the preferred route. These

alternative considered the proximity of the Project to the existing ROW owned by FDOT and CFX.

(d) Site selection criteria: In order to identify and consider alternatives that would satisfy the Project's purpose, including its feasibility as a private enterprise, AAF developed evaluation criteria, including six critical determining factors (Critical Determining Factors) that must be met in order for AAF to be able to proceed with the Project. These screening criteria recognize that AAF is a private enterprise that cannot rely on government operating subsidies and that does not have the authority to acquire property by eminent domain (condemnation). To be feasible as a private enterprise, AAF stated it must be able to:

• Provide reliable and convenient intercity passenger rail transportation connecting Orlando and Miami, Florida, by extending previously reviewed passenger rail service between West Palm Beach and Miami (FRA EA 2012);

• Gain access to the lands on which alternatives are proposed through viable acquisitions, leases, licenses, permits, or other arrangements that do not preclude the feasibility of the Project as a private enterprise;

• Deliver a travel time that will meet the ridership targets necessary for a sustainable commercial initiative;

• Commence construction in the near term in order to control costs, as delayed or increased construction times would add to the cost of construction and would delay initiating revenue service;

• Remain in close proximity to existing or planned transportation corridors in order to limit land acquisitions and related impacts; and

• Limit cost of development, including cost of land acquisitions, access, construction, and environmental mitigation.

(4) Applicants preferred alternative: Identified as Alternative E, in the FEIS dated 4 August 2015, Chapter 3, Section 3.3.5 is the construction of a new rail alignment 200 feet south of the existing SR 528 Central Florida Expressway Authority (CFX) ROW, use of the FDOT ROW east of SR 520, and use the existing FECR ROW from Cocoa, Florida to West Palm Beach, Florida.

(5) Avoidance Alternatives:

(a) No Action Alternative: The No Action Alternative is described in detail in the FEIS Chapter 3, Section 3.3.2. The No-Action Alternative involves no changes to the rail line within the FECR Corridor beyond regular maintenance and improvements that have been currently planned and funded and assumes that this project could not be constructed. Under the No-Action Alternative, existing freight operations and infrastructure would be maintained by FECR. The No-Action Alternative would also include future planned and funded roadway, transit, air, and other intermodal improvements likely to be completed within the Project study area by the 2016 target date.

(b) Route Alternatives: Route Alternatives are described in detail in the 4 August 2015 FEIS Chapter 3, Sections 3.2.1 and 3.2.2 and considers four route alternatives: 1) CSX Route, 2) Florida's Turnpike Route, 3) Interstate 95 (I-95), and 4) FECR Route.

In the second level of analysis, the FEIS identifies and evaluates route modifications to connect the SR 528 corridor to the OIA and with the FECR ROW on the east. Further screening consider four (4) corridor connections linking the FECR Route to the E-W corridor. These include 1) SR 407 Alternative, 2) Cocoa Curve, 3) GOAA South Loop, and 4) Melbourne South Loop.

A third level analysis evaluated alignment alternatives parallel to SR 528. Alternative E, would be a new rail alignment 200 feet south of the existing SR 528 CFX ROW. Alternative A differs from Alternative E within the SR 528 (CFX) ROW section of the E-W Corridor, from SR 417 to SR 520, where this alternative would be entirely within the existing SR 528 ROW. Alternative C differs from Alternative E within this section of the E-W Corridor, where the new rail alignment would run along the edge of the existing SR 528 CFX ROW. Alternatives A and C would require structures to cross all of the highway ramps and cross-streets. See FEIS table 3.2-3 Screening Analysis Results – East-West Corridor Alignment Options for additional details.

AAF executed a lease agreement with CFX that allows them to construct any of the three alternatives, pending a CFX Board vote establishing that the land to be occupied by AAF is "surplus." AAF has provided design concepts, which have been reviewed by CFX, that show any of the three alternatives can be constructed provided CFX was able to acquire all of the necessary property, and not preclude future SR 528 widening. The CFX Board voted against declaring any of the land within their existing ROW to be "surplus." Therefore, Alternatives A and C have been dismissed since it would not be possible to lease the land. According to the CFX Board, Alternative E is the only feasible alternative. Therefore, Alternative E is the Applicant's Preferred Alternative. All land acquisitions required for this segment of the Project would be carried out by CFX.

(c) Alternative A is the Environmentally Preferable Alternative. Alternative A was designed to be within the existing CFX ROW and would have the least amount of direct and indirect impacts to aquatic resources. Alternative A is not the applicant's preferred alternative because the CFX Board found that the land required for Alternatives A is not surplus and therefore the CFX would not make that land available for the Project. FRA's analysis of wetland impacts within the E-W corridor were calculated based on a combination of previously-approved wetland delineations, project-specific wetland delineation, and GIS wetland mapping (Florida water management district provided land use data). Impacts were calculated based on a 60-foot ROW where the alternative is within the SR 528 ROW and a 100-foot ROW where the alternative was outside of the state highway ROW. Alternative A would result in approximately 130 acres of direct impacts to aquatic resources (wetlands and surface waters) while alternative E would result in approximately 159 acres of direct impacts to aquatic resources. Subsequent to the DEIS, the aquatic resource impacts of Alternative E were re-assessed using field based delineated wetland analysis and direct impacts were estimated at approximately 188 acres. Indirect effects were not quantified in the FEIS; however, the Corps quantifies indirect effects to Alternative E in section 8(g) below.

(d) Least environmentally damaging practicable alternative (LEDPA): Based on the analysis of alternatives in the FEIS, the applicant's preferred alternative, which combines Alternative E in the E-W segment, the Cocoa Curve and the FECR alignment is the LEDPA that would best achieve the overall project purpose while considering cost, logistics, and existing technology. Other alternatives do not meet the project purpose, are not practicable because land or leases are not available, and/or result in other significant environmental impacts.

The proposed discharge of dredge or fill material associated with the proposed action will not cause or contribute to any violations of applicable water quality standards nor will it violate any applicable toxic effluent standard or prohibition under Section 307 of the Clean water Act.

8. Evaluation of the CWA Section 404(b)(1) Guidelines - (40 C.F.R. 230) For each of the below listed evaluation criterion, this section describes the potential impact, any minimization measures that will be required to be used to reduce the level of impact, and the resultant impact level. For the purpose of this evaluation, the fill associated with the discharge of fill for the construction of the Project (Construct an intercity passenger railroad between OIA and West Palm Beach, Florida utilizing as much of the existing FECR ROW as feasible).

a. Potential Impacts on Physical and Chemical Characteristics of the Aquatic Ecosystem (40 C.F.R. Part 230, Subpart C):

(1) Physical Substrate (40 C.F.R. § 230.20): Minor Effect (long term) – Discharges of dredged or fill material into waters of the U.S. will alter the substrate of those waters, usually replacing the aquatic area with dry land, and changing the physical, chemical, and biological characteristics of the substrate. The original substrate will be removed or covered by other material, such as concrete, asphalt, soil, gravel, etc.

Within the N-S corridor the Project largely includes the re-installation of a second track, but will also include third track installation and curve reductions. Portions of the E-S corridor would occur outside of the ROW of SR 528 and CFX and include the addition or subtraction of material to raise or lower the elevations of certain aquatic resources (wetlands and surface waters).

Wetlands and surface waters would be filled to a sufficient height to facilitate construction of the Project and the associated drainage features. The fill areas will be compacted and sloped in accordance with the design plans. Appropriately sized drainage structures would be installed in flow ways (streams, creeks). Bridges would be constructed at the major river crossings.

The dredged material is predominantly organic, silt with some sand and clay. Fill materials would include suitable structural fill materials such as clean sand, rock, limestone, and clays. These materials will be compacted and sloped in accordance with the design plans.

Any authorization of the project would be specifically conditioned to require the implementation of erosion controls. Additionally, the various State Section 401 Water Quality Certifications, as well as any required National Pollutant Discharge Elimination System (NPDES) permits, for the Project require the implementation of erosion, sediment controls, and monitoring. Compliance with the conditions of the Section 401 Water Quality Certifications and any NPDES permits would be incorporated as special conditions of any Corps authorization for the project. Therefore, the applicant would be required to implement and maintain erosion and sediment control Best Management Practices (BMPs) to retain sediment on-site and to prevent violations of state water quality standards.

(2) Suspended Particulates / Turbidity (40 C.F.R. § 230.21): Minor Effect (Long Term) - Depending on the method of construction, soil erosion and sediment control measures, equipment, composition of the bottom substrate, and wind and current conditions during construction fill material placed in open waters will temporarily increase water turbidity. The turbidity plume would normally be limited to the immediate vicinity of the disturbance and should dissipate shortly after each phase of the construction activity.

No dredge/fill movement is expected. The applicant would remove organic material and replace with clean suitable fill materials capable of compaction. The applicant would install silt fence and other erosion control measures to restrict the fill material to the discharge location. Waterbody banks would be stabilized as soon as possible after construction, in compliance with the requirements of the CWA Section 401 State permits, to prevent indirect impacts such as sloughing. Permanent erosion control structures would be installed in accordance with the applicants' construction plans

If a DA permit is issued, it would be specifically conditioned to require the implementation of erosion controls, as follows:

Erosion Control: Prior to the initiation of any work authorized by this permit, the Permittee shall install erosion control measures along the perimeter of all work areas to prevent the displacement of fill material outside the work area. Immediately after completion of the final grading of the land surface, all slopes, land surfaces, and filled areas shall be stabilized using sod, degradable mats, barriers, or a combination of similar stabilizing materials to prevent erosion. The erosion control measures shall remain in place and be maintained until all authorized work has been completed and the site has been stabilized.

Additionally, the Section 401 Water Quality Certifications for this project, which were issued by the SFWMD and SJRWMD in the form of an ERP, would require, as part of surface-water management, an Erosion and Sediment Control Plan. The conditions of the Section 401 Water Quality Certification would be incorporated as special conditions of a DA permit, if issued. Therefore, the applicant would be required prior to and during construction, and during operation of the Project, to implement and maintain erosion and sediment control BMPs needed to retain sediment on-site and to prevent violations of state water quality standards.

(3) Water (40 C.F.R. § 230.22): Minor Effect (long term) – Construction of the Project is expected to affect some characteristics of water, such as water clarity, chemical content, dissolved gas concentrations, pH, and temperature, and those effects will occur mostly during construction and maintenance activities. The Project could result in changes in the chemical and physical characteristics of wetlands and waters within the project area by introducing suspended or dissolved chemical compounds or sediments into the water. Changes in water quality can affect the species and quantities of organisms inhabiting the aquatic area. The FEIS, section 5.3.1 and 5.3.3, analyzes potential direct and indirect (secondary) effects upon water resources and wetlands. The project if constructed would include the use of BMPs during construction as well as compliance with state and federal water quality standards.

(4) Current Patterns & Water Circulation (40 C.F.R. § 230.23): Minor Effect (short term) – A limited amount of work proposed within wetlands is contiguous to stream systems but is not expected to directly or indirectly affect current patterns or water circulation of any stream system or downstream waterways affiliated with the overall Project. The Project would affect the movement of water in the aquatic environment where stream and river crossings are required. Bridges and culverts will be designed to meet or exceed flow and flood control standards.

A majority of the dredging and filling of wetlands occurs within the E-W segment of the proposed action. These wetlands are connected to open water bodies (Econ River and St. Johns River) through a continuum of adjacent wetlands, and generally do not directly abut the open water bodies. Work within the N-S corridor is limited to the existing FECR ROW which has been substantially cleared and filled. The proposed action would require the discharge of fill into “other waters” (ditches and storm water management features).

Bridge replacements or improvements would occur at crossings of the following major rivers and streams: Econlockhatchee River, St. Johns River, Horse Creek, Goat Creek, North Canal, Main Canal, South Canal, Turkey Creek, Eau Gallie River, Crane Creek, Sebastian River, Moores Creek, Unnamed Creek MP 259.9, Unnamed Tributary MP 266.58, Unnamed Tributary MP 266.86, Tributary to Manatee Creek 1, Tributary to Manatee Creek 2, and Earman River. The installation, improvement, or replacement of bridges and culverts, including shoreline stabilization, at these locations is not expected to obstruct flow or change the direction or the velocity of water flow or circulation.

The Project includes the implementation of stormwater management features where none currently exist. The Project is expected to reduce nutrient introduction through the capture and treatment within an authorized stormwater management feature. The Project if constructed would include the use of BMPs during construction as well as compliance with state and federal water quality standards.

Overall, the discharge of dredged or fill material into wetlands and surface waters would result in no more than minor modifications to current patterns and water circulation.

(5) Normal Water Fluctuations (40 C.F.R. § 230.24): Negligible Effect (long term) – In the vicinity of the Project, the activities authorized by this proposed action are not expected to adversely affect normal patterns of water level fluctuations due to tides and flooding. The Project will maintain existing cross-drains, culverts, and bridge crossings within the N-W corridor. The drainage analysis completed as part of the Section 401 Water Quality Certification ensures the appropriate location, sizing, and design of cross-drains, culverts, and bridge crossings. With the implementation of these design features no prolonged periods of inundation are expected. The Project is not expected result in a change in salinity

patterns, alter erosion or sedimentation rates, change water temperatures, or upset the nutrient and dissolved oxygen balance of the aquatic ecosystem. The project if constructed would include the use of BMPs during construction as well as compliance with state and federal water quality standards.

(6) Salinity Gradients: Minor Effect (long term) – Where the Project is constructed in estuarine and marine waters the activities are expected to have minor adverse effects on salinity gradients. Conversion of estuarine wetland habitats to upland habitats will reduce assimilation of freshwater prior to entering the estuarine and marine environments. Stormwater runoff from the Project may temporarily reduce the salinity of the waterbody in the vicinity of the Project.

Any authorization of the Project would be specifically conditioned to require the implementation of erosion controls. Additionally, the various State Section 401 Water Quality Certifications, as well as any required National Pollutant Discharge Elimination System (NPDES) permits, for the Project require the implementation of erosion, sediment controls, and monitoring for turbidity. Compliance with the conditions of the Section 401 Water Quality Certifications and any NPDES permits would be incorporated as special conditions of any Corps authorization for the project. Therefore, the applicant would be required to implement and maintain erosion and sediment control BMPs to retain sediment on-site and to prevent violations of state water quality standards.

b. Potential effects on biological characteristics of the aquatic ecosystem (Subpart

(1) Threatened or Endangered Species:

(a) For this project the Corps is the lead federal agency for the coordination and conduct of environmental reviews under the ESA. Through a review of various resources, numerous federally listed species (including proposed, petitioned, or candidate species) and species protected at only the state level could occur within the Project area.

The FEIS, section 5.3.6, conveys specific information regarding special status species, including federally listed threatened or endangered species.

(b) The ESA is administered by the Secretary of the Interior, and the FWS and NOAA-Fisheries share responsibilities for administering the ESA. The FWS prepared a BO, dated 9 October 2015 (Service Consultation Code: 04EF2000-2013-F-0295). The BO analyzes the effects of the Project on the threatened Florida
scrub-jay (*Aphleocoma coerulescens*; scrub-jay) and the endangered fragrant prickly-apple (*Cereus eriophours* var.*fragrans* = *Harissiafragrans*). It also includes and summarized FWS's concurrence with the Corps' determination of may affect, but not likely to adversely

affect for the endangered West Indian manatee (*Trichechus manarus*) and Lakela's mint (*Dicerandra immaculata*), as well as the threatened Atlantic salt marsh snake (*Nerodia clarkii taeniata*), Audubon's crested caracara (*Caracara plancus audubonii*), blue-tailed mole skink (*Eumeces egregius lividus*), eastern indigo snake (*Drymarchon corais couperi Drymarchon couperi*), Everglade snail kite (snail kite; *Rosirhamus sociabilis*), sand skink (*Neoseps reynoidsi*), and wood stork (*Mycteria americana*).

FWS's BO concluded that the Project is not likely to jeopardize the continued existence of the scrub-jay or the fragrant prickly-apple. FWS reached this conclusion because: 1) the AAF Project will not result in a significant loss of scrub-jay habitat; 2) the mortality of scrub-jays due to collisions with trains is a small fraction of the number of birds occupying the area and will not result in the loss of any existing territories; 3) scrub-jays are anticipated to acclimate to the presence of the high-speed passenger trains over time, thereby reducing the level of anticipated scrub-jay mortality; and 4) AAF will translocate fragrant prickly-apple specimens found in the project footprint; therefore, few individuals are expected to be lost. Critical habitat has not been designated for these species and will not be affected. The BO also conveyed reasonable and prudent measures; and, terms and conditions that must be implemented. The Corps would incorporate the FWS BO into any authorization granted; and, incorporate a special condition requiring the implementation of any measures noted by the FWS as reasonable and prudent measures or specific terms and conditions.

By letter dated 26 February 2015, NMFS, PRD concurred with the Corps' determinations that the Project may affect, but is not likely to adversely affect, smalltooth sawfish and sea turtles (loggerhead (*Caretta caretta*), Kemp' s ridley (*Lepidochelys kempii*), green (*Chelonia mydas*), hawksbill (*Eretmochelys imbricate*), and leatherback (*Dermochelys coriacea*). The Project will not affect Atlantic sturgeon, tlantic sturgeon (*Acipenser oxyrinchus),* shortnose sturgeon (*Acipenser brevirostrum*), Johnson's seagrass (*Halophia johnsonii*), or result in an adverse modification of Johnson' s seagrass- designated critical habitat. AAF has agreed to use an impact hammer to install concrete piles and use bubble curtains to attenuate noise during construction.

The Corps initially determined the Project may affect, but is not likely to affect the Nassau grouper. By electronic letter dated 19 May 2017, NMFS recommended the Corps amend its determination to no effect due to the general absence of Nassau grouper outside of the Florida Keys. The Corps concludes the Project will have no effect to the Nassau grouper.

Any permits issued by the Corps would include the following conditions: Manatee Construction Conditions, Smalltooth Sawfish and Swimming Sea Turtle Construction Conditions, and the Standard Eastern Indigo Snake Protection Measures.

Additional mitigation measures and project commitments are found in the FEIS in Section 7.2.5.

(2) Fish, Crustaceans, Mollusks, and Other Aquatic Organisms: Minor Effect (long term) – Fish and other motile animals will avoid the project site during construction. Sessile or slow-moving animals in the path of discharges, equipment, and building materials will be destroyed. Some aquatic animals may be smothered by the placement of fill material. Motile animals will return to those areas that are temporarily impacted by the activity and restored or allowed to revert back to preconstruction conditions. Aquatic animals will not return to sites of permanent fills. Benthic and sessile animals are expected to recolonize sites temporarily impacted by the proposed action, after those areas are restored. Activities that alter the riparian zone, especially floodplains, may adversely affect populations of fish and other aquatic animals, by altering stream flow, habitat, flooding patterns, and surface and groundwater hydrology. The Project if constructed would include the use of BMPs during construction as well as compliance with state and federal water quality standards. The impact of construction on fish and stream biota is expected to be localized and short-term because in-stream conditions and suspended sediment concentrations would return to background condition levels soon after in-stream construction has been completed.

(3) Other Wildlife: Minor Effect (long term) – The FEIS, section 5.3.5.3, conveys a detailed analysis of potential direct and indirect (secondary) effects upon wildlife and wildlife habitats. The Project would result in adverse effects on other wildlife associated with aquatic ecosystems, such as resident and transient mammals, birds, reptiles, and amphibians, through the destruction of aquatic habitat, including breeding and nesting areas, escape cover, travel corridors, and preferred food sources. Effects on wildlife species are dependent on the species' ability to leave the project work areas and successfully utilize adjacent habitats during the implementation of project construction and restoration activities. Much of the wildlife that would be displaced by construction would relocate to similar adjacent habitats; however, if there were a lack of adequate territorial space, inter- and intra-specific competition, lower reproductive success, and lower survival success may result. Where similar adjacent habitat is present, displacement effects would generally be short-term for species that utilize herbaceous habitats and longer-term for species that utilize scrub or forested habitats.

Construction of the Project may result in mortality of less mobile animals such as small rodents, reptiles, amphibians, and invertebrates, which may be unable to escape the immediate construction area; and, disruption of bird courting, breeding, or nesting behaviors on and adjacent to construction work areas.

The Project if constructed would not jeopardize the continued existence of Federally-listed endangered and threatened species or result in the destruction or adverse modification of

critical habitat. AAF has purchased two scrub jay credits from the Morgan Lake Whales Preserve Conservation Bank as conservation measure to help minimize the adverse effects of the Project to the scrub-jay. AAF will translocate fragrant prickly-apple specimens found in the project footprint; therefore, few individuals are expected to be lost. Compensatory mitigation for aquatic habitat loses would be provided at federally approved mitigation banks whose service area covers the project site.

c. Potential Effects on Special Aquatic Sites (Subpart E):

(1) Sanctuaries and Refuges: Negligible Effect (long term) – The Project is not located within a national sanctuary or refuge. Chapter 6.4.1 of the FEIS describes the public parks, recreation areas and wildlife refuges within the project area. The FEIS concluded the proposed action would not result in any direct impacts to any publically-owned park, recreation area, wildlife or wildlife and waterfowl refuge of national, State, or local significance. Paragraph 6.5.2 of the FEIS concluded the Project would not result in any indirect impacts to sanctuaries or refuges resulting from adverse proximity impacts from the Project. The Project would incorporate noise mitigation (wayside horns in lieu of using individual locomotive mounted horns) to reduce noise impacts. The Project would result in minor vibration impacts along the N-S Corridor due to the increase (greater than doubling) of vibration events as a result of adding passenger train service to the existing freight operations. Section 4.2.2 if the FEIS defines noise and vibration and provides information on existing noise and vibration levels. The Project will not introduce any new visual elements. The Project along the E-W Corridor would be constructed primarily within or adjacent to the SR 528 ROW. SR 528 dominates the existing viewshed along the majority of the E-W Corridor; modifications proposed for this corridor would not substantially change existing aesthetic conditions. The N-S Corridor is within the existing FECR Corridor, and modifications proposed for this corridor would maintain the general aesthetics of this active rail line.

(2) Wetlands: Minor Effect (long term) – Section 5.3.3, Wetlands, of the FEIS describes these environmental impacts in detail, along with indirect and secondary impacts and temporary construction impacts. Chapter 7, Mitigation Measures and Project Commitments of the FEIS describes the proposed mitigation measures.
AAF completed functional assessments to ensure the compensatory mitigation is commensurate with the functional loss, see section 11 below for additional details.

(3) Mud Flats: Not applicable – Mud flats are broad flat areas along the sea coast and in coastal rivers to the head of tidal influence and in inland lakes, ponds, and riverine systems. When mud flats are inundated, wind and wave action may resuspend bottom sediments. Coastal mud flats are exposed at extremely low tides and inundated at high tides with the water table at or near the surface of the substrate. The substrate of mud flats

contains organic material and particles smaller in size than sand. They are either unvegetated or vegetated only by algal mats. No mud flats occur within the project footprint.

(4) Vegetated Shallows: No Effect – Vegetated shallows are permanently inundated areas that under normal circumstances support communities of rooted aquatic vegetation, such as turtle grass and eelgrass in estuarine or marine systems as well as a number of freshwater species in rivers and lakes. Vegetated shallows occur in numerous waterways traversed by the Project; however, no vegetated shallows occur within the project area. The construction of new bridges, rehabilitation, and/or modifications to existing bridges would not result in direct effects to vegetated shallows. The Project if constructed, would include the use of BMPs during construction as well as compliance with state and federal water quality standards.

(5) Coral Reefs: Not applicable – No coral reefs occur within the project area.

(6) Riffle and Pool Complexes: No Effect – Steep gradient sections of streams are sometimes characterized by riffle and pool complexes. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. Pools are characterized by a slower stream velocity, a steaming flow, a smooth surface, and a finer substrate. Riffle and pool complexes are particularly valuable habitat for fish and wildlife. No riffle and pool complexes occur within the project area.

d. Potential effects on human use characteristics (Subpart F):

(1) Municipal and Private Water Supplies: Minor Effect (long term) – Potable water is not expected to be utilized to construct the Project. Potable water will be used at the existing terminals, but is not expected to impact the needs of the regional water supply network.

(2) Recreational and Commercial Fisheries: No Effect – The proposed action, if constructed is not expected to adversely affect waters of the U.S. that act as habitat for populations of economically important fish and shellfish species.

(3) Water-related recreation: Minor Effect (long term) – Section 5.1.3, Navigation, of the FEIS describes an analysis of proposed navigation conditions. The Project would increase the number of bridge closures and vessel wait times at the two moveable bridges (St. Lucie and Loxahatchee) in Phase II, however there would not be a substantial increase in the length of time for any single closure.

Rehabilitating the two moveable bridges, reconstruction of the St. Sebastian and Eau Gallie River bridges, and modifications to the St. Johns River bridge in Phase II may require short closures of the bridges in order to complete construction. AAF would coordinate with the Coast Guard in advance of bridge rehabilitation and identify a schedule and notification protocols that minimize temporary impacts on navigation at these structures. Replacing the other fixed bridge along the N-S Corridor and the WPB-M Corridor will require installing new pilings and superstructure, but will maintain navigability on these waterways.

Mitigation measures are described in Section 7.2.2 of the FEIS. AAF would implement a series of mitigation measures to reduce vessel delays at the two operable bridges within Phase II. These measures would include publishing a set schedule for each bridge, consistent with existing USCG regulations; providing public access to bridge closure schedules; and implementing a notification sign/signal/horn at each location with countdowns to indicate the times at which the bridge will begin to open and close. Additionally, AAF will establish a point of contact with first responders and emergency personnel to promptly respond to unforeseen waterway emergencies. AAF will also rehabilitate the lift mechanisms on all three moveable bridges, thereby ensuring more reliable openings and closings.

(4) Aesthetics: Minor Effect (long term) – The N-S Corridor is within the existing FECR Corridor, and modifications proposed for this corridor would maintain the general aesthetics of this active rail line. Changes to aesthetics/viewshed associated with the Project would not result in constructive use to recreation resources within or adjacent to the Project Study Area. The E-W Corridor primarily crosses undeveloped wooded areas, wetlands, and agricultural pasture, parallel to SR 528. The design and construction of the railroad through the E-W Corridor would comply with FDOT and FRA guidelines. New communications towers would be required along the E-W Corridor to support the communications systems. These towers would be either monopole or lattice-type towers, and would be less than 100 feet in height. While these towers would be visible to motorists on SR 528, they would not substantially change views along this corridor. Section 5.4.7, Visual and Scenic Resources of the FEIS, discusses changes to aesthetics associated with the Project.

The analysis of aesthetic impacts or benefits is extraordinarily subjective. Several organizations and individuals within the United States are vociferous in their objection to any development and/or the loss of any natural ecosystem. Other organizations and individuals observe beauty in developed areas (e.g., building architecture). In consideration of the information within the FEIS and discussed herein, the Corps expects that any adverse direct or indirect effect upon aesthetics would be minor and, in general.

e. Contaminant Evaluation and Testing (40 C.F.R. Part 230, Subpart G):

(1) General Evaluation of Dredged or Fill Material (40 C.F.R. § 230.60): The following has been considered in evaluating the biological availability of possible contaminants in dredge or fill material. See Table 5 below:

Table 5 – Possible Contaminants in Dredged/Fill Material	
Physical characteristics	X
Hydrography in relation to known or anticipated sources of contaminants	
Results from previous testing of the material or similar material in the vicinity of the project	X
Known, significant sources of persistent pesticides from land runoff or percolation	
Spill records for petroleum products or designated (Section 331 of CWA) hazardous substances	
Other public records or significant introduction of contaminants from industries, municipalities, or other sources	
Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge activities	

FEIS Section 4.2.4 (Hazardous Material and Solid Waste Disposal) included an evaluation for the presence of potentially contaminated sites. Potential contamination sites are located throughout the project area, but most are located outside of the planned construction area. The Corps expects that the discharged dredged and fill material would be derived from a combination of off-site and on-site excavation and reshaping of the surface of the project site. The specific source(s) of off-site derived fill material is unknown at this time.
If a DA permit is issued, it would be specifically conditioned to require the implementation and use of clean fill material, as follows:

The Permittee shall use only clean fill material for this project. The fill material shall be free from items such as trash, debris, automotive parts, asphalt, construction materials, concrete block with exposed reinforcement bars, and soils contaminated with any toxic substance, in toxic amounts in accordance with Section 307 of the Clean Water Act.

If a DA permit is issued, it would be specifically conditioned to require the implementation of measures to identify and handle contaminated sites, as follows:

Any contamination that is discovered in the existing FECR Corridor and associated structures as a result of current or historical usage will be managed in accordance with applicable federal, state and local law or regulations.

Turbidity and erosion controls would be maintained during construction of the project, as required by the Corps' erosion control special condition, if a DA permit is issued, and by the Section 401 Water Quality Certification. Turbidity, erosion and stormwater controls would be maintained in the post-construction operation of the project, as required by the Section 401 Water Quality Certification. Additional mitigation measures and project commitments are found in the FEIS in Section 7.2.5.

Since the off-site derived fill material would be clean material and the fill disposal sites are not known to have contaminants, it is unlikely that contaminants would be release in association with the proposed discharges of fill material.

Where the discharge site is adjacent to the extraction site and subject to the same sources of contaminants, and materials at the two sites are substantially similar, the fact that the material to be discharged may be a carrier of contaminants is not likely to result in degradation of the disposal site.

(2) Chemical, Biological, and Physical Evaluation and Testing: In consideration of the information presented in section 5.2.4 of the FEIS and constraints to reduce contamination testing listed above is not required because of the following factors: 1.) Material brought to the project site from outside sources, ie. borrow pits, is not likely to be a carrier of contaminants because it is comprised of sand, gravel or other naturally occurring inert material; 2.) for areas which require reshaping without the import of fill material; the discharge and extraction sites are adjacent, subject to the same sources of contaminants and have substantially similar materials. Although the discharge material may be a carrier of contaminants, it is not likely to degrade the disposal site; and 3) Any contamination that is discovered in the Project area will be managed in accordance with applicable federal, state and local law or regulations; along with the constraints the to reduce contamination to acceptable levels within the disposal site and to prevent contaminants from being transported beyond the boundaries of the disposal site.

f. Actions to minimize adverse effects (40 C.F.R. Part 230, Subpart H): Actions to be undertaken in response to 40 C.F.R. Section 203.10(d) to minimize the adverse effects of discharges of dredged or fill material: If a DA permit is issued, it would be specifically conditioned to require the implementation and use of clean fill material; implementation of measures to identify and handle contaminated sites; implementation of turbidity and erosion controls that would be maintained during construction of the project, as required by the

Corps' erosion control special condition, and by the Section 401 Water Quality Certification. Additional actions to minimize adverse effects are discussed below.

(1) The proposed action has been sited within the existing FECR and SR 528 ROWs to reduce the work area directly affecting aquatic resources and wildlife.

(2) Actions concerning the location of the discharge (40 C.F.R. § 230.70): The discharge of fill material into waters of the U.S., including wetlands, associated with the Project is limited to the specific work areas associated with the construction of the project and the establishment of requisite and attendant features. Within the overall corridor, the applicant sited the proposed project within existing ROWs, to the extent practicable, to reduce the work area directly affecting wetlands. The project has been designed to meet water quality standards which includes a stormwater management plan. The implementation of a stormwater management system and receipt of ERP's from the SJRWMD and SFWMD ensures the Project would not result in adverse flooding. The stormwater management system would also manage surface water, protect water quality, wetlands, and other surface waters. Demucking is anticipated at most of the wetland sites and would be controlled by AAF's implementation of Section 120 of the FDOT's Standard Specifications for Road and Bridge Construction. Unsuitable materials would be disposed of on- or off-site, outside of waters of the U.S. Debris would be removed in accordance with local and state regulatory agencies permitting. AAF has committed to employing temporary erosion control features, as specified in the FDOT's Standard Specifications for Road and Bridge Construction, Section 104, which consist of temporary grassing, sodding, mulching, sandbagging, slope drains, sediment basins, sediment checks, silt fences, and berms.

(3) Actions concerning the material to be discharged (40 C.F.R. § 230.71): The Corps expects that the discharged dredged and fill material would be derived from a combination of off-site and on-site excavation and reshaping of the surface of the project site. Discharge would only be clean fill material. The permittee would implement BMPs that shall ensure that no debris, soil, silt, sand, sawdust, rubbish, cement or concrete washings thereof, oil or petroleum products, from construction shall be allowed to enter into waters of the U.S.

(4) Actions controlling the material after discharge (40 C.F.R. § 230.72): The FEIS, section 5.3.3.4; section 7.2.9.2; and, section 7.2.6 convey specific information regarding the control of fill material after the placement of that material. The permittee agrees to implement BMPs and FDOT's Standard Specifications for Road and Bridge Construction, Section 104, which consist of temporary grassing, sodding, mulching, sandbagging, slope drains, sediment basins, sediment checks, silt fences, and berms. The use of the stormwater management and pollution prevention plan, BMPs, and FDOT's Standard Specifications ensure the discharged material will be properly contained and prevent point and nonpoint sources of pollution.

(5) Actions affecting the method of dispersion (40 C.F.R. § 230.73): The applicant would utilize silt screens, turbidity curtains, hay bales, and construction barriers to confine discharged material and prevent secondary/indirect effects. These mechanisms would be in place prior to and during construction and would assist in preventing accidental encroachments by personnel, machinery and sediment.

(6) Actions related to technology (40 C.F.R. § 230.74): Work associated with the project incorporates current construction technology and modern equipment. The Rail Safety Improvement Act requires that railroads implement Positive Train Control (PTC) Systems to prevent train-to-train collisions on certain rail lines by the end of 2015. The current requirement for PTC is defined in 49 C.F.R. Part 236; subpart I. As part of the Project, a Positive Train Control (PTC) system will be implemented along the entire corridor. This system would include integrated command, control, communications, and information systems for controlling train movements which improves railroad safety by significantly reducing the probability of collisions between trains, casualties to roadway workers, and damage to equipment.

The project has been designed to include bridges and culverts to span waterways and open channels. These structures are designed to allow the both low and high water flows, accommodate fluctuating water levels, and maintain circulation and faunal movement.

(7) Actions affecting plant and animal population (40 C.F.R. § 230.75): The project avoids and minimizes work affecting plant and animal populations to the maximum extent practicable. The project has been designed to provide wildlife passage under bridges and through culverts.

The applicant plans to incorporate the following elements into the design of the railroad bridge crossings over the Econlockhatchee River and Little Creek to allow for dry wildlife passage:

- Creating a concrete ledge along the western wall of the bridge;
- Constructing an elevated shelf within the eastern most culvert to allow for dry passage during bank-full events; and
- Placing security fencing and potentially funnel fencing in select areas to encourage migration through the culvert and bridge.

To minimize impacts to EFH, the applicant would construct bridges over waterways in a manner to reduce erosion and sedimentation through implementation of BMPs (such as the use of silt fences and turbidity curtains) in accordance with an Erosion and Sedimentation Control Plan.

(8) Actions affecting human use (40 C.F.R. § 230.76): FEIS section 7.2.9 describes the biological resources and natural ecological systems within the project corridor. By siting the project within the existing ROW of the FECR and SR 528 and adjacent to the CFX ROW adverse effects on human use are minimized. Aquatic resources within and adjacent to the ROW's have diminished ecological services due to their proximity to the railroad and highway. The project is not expected to change existing conditions along the existing FECR Corridor or increase existing barriers to wildlife.

Chapter 6 of the FEIS completes a Section 4(f) Determination. Section 4(f) of the U.S. Department of Transportation Act of 1966 requires Department of Transportation (DOT) agencies to protect certain resources when making transportation improvements. These resources, collectively referred to as Section 4(f) resources, include publicly owned parks, recreation areas, wildlife or waterfowl refuges, and historical properties of national, state, or local significance. Chapter 6 summarizes FRA's identification of protected properties and potential impacts to those properties. No construction is proposed outside of the existing FECR, FDOT, or CFX ROW within parks or other recreational areas. The project is not sited within municipal or private water supplies.

(9) Other actions (40 C.F.R. § 230.77): AAF has committed to complete demucking in accordance with Section 120 of the FDOT's Standard Specifications for Road and Bridge Construction; unsuitable materials would be disposed of on- or off-site outside of waters of the U.S.; debris would be removed in accordance with local and state regulatory agencies permitting this operation. AAF has also committed to employing temporary erosion control features, as specified in the FDOT's Standard Specifications for Road and Bridge Construction, Section 104, which consist of temporary grassing, sodding, mulching, sandbagging, slope drains, sediment basins, sediment checks, silt fences, and berms. BMP's which may include the use of turbidity curtains and construction barriers would also be implemented to control runoff and other discharges.

The applicant has submitted functional assessments which evaluated the functions and services of the aquatic ecosystems proposed for impact. The assessment considered direct and indirect impacts from the Project. Please see paragraph 10 below for more information regarding compensatory mitigation.

g. Cumulative and secondary effects on the aquatic ecosystem: Constructing and operating the Project would primarily occur within existing transportation corridor ROW's. A portion of the E-W corridor would extend outside of the CFX ROW substantially increasing the amount of permanent affects to the aquatic ecosystem. The Project would affect, to some degree, geology, soils, water resources, vegetation, wetlands, wildlife, and some land uses within the entire project corridor. The Corps, though, expects that nearly all of the project-related effects would be contained within, or adjacent to, the project corridor.

Permanent effects resulting from the discharge of fill into aquatic ecosystems as a result of the Project would be mitigated through the acquisition of federally approved mitigation bank credits. The FEIS evaluates potential cumulative effects associated with the work proposed (reference the FEIS, section 5.5). The Corps reviewed the FEIS cumulative effect analysis and concurs with the determinations of that analysis.

The FEIS, Section 5.3.3.3 describes indirect and secondary and temporary construction impacts to wetlands but does not quantify the anticipated acreage or functional loss.

The Corps concluded the replacement of a second track, addition of 6.43 miles of a third track, and curve reductions within the N-S corridor would not result in measurable indirect effect to aquatic resources; because, the FECR corridor has existed for 120 years, the aquatic systems have acclimated to the train operations and maintenance. Triple track is a series of adjacent mainline tracks built to allow multiple train movements at various speeds and directions. Based off the FEIS, the AAF and FECR operating plan does not call for holding trains in any triple track section.

The Corps established the following parameters to quantify anticipated indirect effects to wetlands within E-W segment:

- E-W segment: For wetlands on the outside edge of the ROW the secondary impacts are based on a 100-foot buffer extending from the outer edge of the proposed project footprint into the adjacent portions of wetlands.

- E-W segment: For wetlands between the proposed project footprint and the existing SR 528, the secondary impacts are based on a 75-foot buffer extending from the edge of the proposed project footprint into the adjacent portions of the wetlands.

- E-W segment: For wetlands within the Econlockhatchee River the secondary impacts are based on a 150-foot buffer extending from the edge of the proposed project footprint into the adjacent portions of wetlands.

The applicant completed a functional assessment to determine the anticipated loss of functions and services resulting from secondary impacts. Table 6 below quantifies those assessments.

Table 6						
PE02 CFX	**Proposed Secondary Wetland Impact Area (acres)**			**Secondary Wetland Impact Functional Loss (WRAP)**		
	Forested	**Herbaceous**	**Mangrove**	**Forested**	**Herbaceous**	**Mangrove**
Total for St. Johns River (Canaveral Marshes to Wekiva) (18)	23.88	10.12	0.00	2.14	1.57	0.00
Total for Econlockhatchee River Nested (19)	31.07	5.66	0.00		0.71	0.00
Total for Lake Hart Basin (83) MWRAP	65.84	0.62	0.00	6.19	0.20	0.00
PE03	**Proposed Secondary Wetland Impact Area (acres)**			**Secondary Wetland Impact Functional Loss (WRAP)**		
	Forested	**Herbaceous**	**Mangrove**	**Forested**	**Herbaceous**	**Mangrove**
Total for St. Johns River (Canaveral Marshes to Wekiva) (18)	31.51	65.91	0.00	3.46	5.12	0.00
Total for Southern SJR (20)	0.00	1.88	0.00	0.00	0.63	0.00
AAF WPB to Orlando Total (outside GOAA)	**Proposed Secondary Wetland Impact Area (acres)**			**Secondary Wetland Impact Functional Loss**		
	Forested	**Herbaceous**	**Mangrove**	**Forested**	**Herbaceous**	**Mangrove**
	152.31	84.19	0.00	14.53	8.24	0.00
	Total Acres of Secondary Impact: 236.5			**Total Secondary Impact Functional Loss: 22.77**		

The Corps has reviewed, amended, concurs with the functional assessments provided by the applicant. The Corps expects 236.5 acres of secondary impact to wetlands resulting in 22.77 functional units of loss. The anticipated secondary impacts include decrease in wildlife utilization, modification in ground cover, and decrease in natural buffers. The Corps does not expect a measurable change in the canopy/shrub conditions, hydrology, or water quality. With the proposed compensatory mitigation, implementation of wildlife crossings, and use of cross-drains secondary impacts are expected to be minor, but long term.

h. Restrictions on discharges (40 C.F.R. § 230.10).

(1) It has been demonstrated in Paragraph 7 that there are no less environmentally-damaging practicable alternatives which could satisfy the project's overall purpose. The activity is located in a special aquatic site (e.g., wetlands). The activity does not need to be located in a special aquatic site to fulfill its basic purpose.

(2) The proposed activity does not violate applicable State water quality standards or Section 307 prohibitions or effluent standards; reference section 10 below for a list of all water quality certifications issued for the Project. The issuance of a BO by the USFWS ensures the proposed activity does not jeopardize the continued existence of federally listed threatened or endangered species or adversely modifies designated critical habitat; section 10(e) for endangered species. The proposed activity does not violate the requirements of a federally designated marine sanctuary; because it is not located within a marine sanctuary.

(3) The activity would not cause or contribute to significant degradation of waters of the U.S. AAF has committed to the adherence to mitigation and project commitments defined in section 11 of the FEIS. Any DA permit issued would include special conditions requiring the adherence to stormwater management design and implementation, water quality monitoring, and turbidity controls defined in the WQC issued by SJRWMD and SFWMD.

(4) Appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem (reference section 8 for a description of avoidance/minimization actions, section 10(e) for endangered species, and, section 11 for a description of compensatory mitigation actions).

i. Factual determinations (40 C.F. R. Part 230, Subpart B) – The determinations below are based on the determinations of effects described in detail in the preceding sections (sections 8.a-h):

(1) Physical Substrate (40 C.F.R. § 230.11(a)): Minor Effect (long term)

(2) Water circulation, fluctuation, and salinity (40 C.F.R. § 230.11(b)): Minor Effect (long term)

(3) Suspended particulate/turbidity (40 C.F.R. § 230.11(c)): Negligible Effect (long term)

(4) Contaminant Availability (40 C.F.R. § 230.11(d)): Minor Effect (long term)

(5) Aquatic Ecosystem Effects (40 C.F.R. § 230.11(e)): Minor Effect (long term)

(6) Proposed Disposal Site (40 C.F.R. § 230.11(f)): Minor Effect (long term)

(7) Cumulative Effects (40 C.F.R. § 230.11(g)): Minor Effect (long term)

(8) Secondary Effects (40 C.F.R. § 230.11(h)): Minor Effect (long term)

9. Public Interest Review (33 C.F.R. § 320.4): The Corps reviewed all of the public interest factors. The Corps considers the public interest factors identified below as relevant to this proposal. The Corps considered both cumulative and secondary impacts on these public interest factors within the geographic scope as described in section 4, above; and, within the FEIS, section 1.2. For the analysis of the public interest review factors the Corps has used information as provided in the FEIS to the maximum extent, as appropriate. Additional information evaluated by the Corps in its determination for any of the specific public interest review factors, is described below in the section for the specific factor.

a. Wetlands (33 C.F.R. § 320.4(b); Corps' Wetland Policy): Neutral as a result of mitigative action – The FEIS documents and evaluates work potentially affecting wetlands (reference the FEIS, sections 4.3.3, 5.3.3, 7.2.7). The project would result in loss and alteration of palustrine and estuarine wetland systems. These systems include both forested and non-forested systems. The Corps physically evaluated much of the project corridor with representatives of the FWS and NMFS and neither agency identified a unique or scarce wetland resource, either regionally or locally. The Corps in conjunction with EPA, FWS, and NMFS have established federally approved mitigation banks which compensate for the functions and services lost through dredging and filling of wetlands.

The affected wetlands will be permanently filled, especially where the tracks, roads, communication towers utilities, and other permanent fills are located, resulting in the permanent loss of aquatic resource functions and services. Wetlands may also be converted to other uses and habitat types. Permanent and indirect unavoidable adverse effects upon wetlands would be compensated through the purchase of mitigation bank credits (reference section 11, below). The Corps has reviewed the proposed mitigation plan and determined that the plan provides sufficient wetland functional replacement to compensate the loss of wetland functions and services associated with the implementation of the work proposed.

b. Fish and wildlife (33 C.F.R. § 320.4(c)): Neutral as a result of mitigative action – The FEIS documents and evaluates work potentially affecting fish and wildlife (reference the FEIS, sections 4.3.5, 5.3.5, 7.2.9). The proposed action will alter the habitat characteristics

of wetlands and waters. The proposed work within open waters is not expected to decrease the quantity and quality of fish and wildlife habitat.

The applicant plans to incorporate the following elements into the design of the railroad bridge crossings over the Econlockhatchee River and Little Creek to allow for dry wildlife passage:

• Creating a concrete ledge along the western wall of the bridge;
• Constructing an elevated shelf within the eastern most culvert to allow for dry passage during bank-full events; and
• Placing security fencing and potentially funnel fencing in select areas to encourage migration through the culvert and bridge.

The applicant also proposes to construct a new wildlife crossing approximately 4,100 feet east of Long Bluff Road, and will provide a passage with 8 to 10 feet of vertical clearance and approximately 50 feet of horizontal clearance. This wildlife crossing will match the wildlife crossing proposed by FDOT as part of the future SR 528 widening.

The Corps would incorporate the FWS BO into any authorization granted; and, incorporate a special condition requiring the implementation of any measures noted by the FWS as reasonable and prudent measures or specific terms and conditions. Any permits issued by the Corps would include the following conditions: Standard Eastern Indigo Snake Protection Measures and Standard Manatee Construction Conditions, Smalltooth Sawfish and Swimming Sea Turtle Construction Conditions.

Any authorization of the project would be specifically conditioned to require the implementation of erosion controls. Compliance with the conditions of the Section 401 Water Quality Certifications and any NPDES permits would be incorporated as special conditions of any Corps authorization for the project. Therefore, the applicant would be required to implement and maintain erosion and sediment control BMPs to retain sediment on-site and to prevent violations of state water quality standards reducing potential adverse impacts to fish and wildlife values.

Any permit issued would include compensatory mitigation to offset losses of jurisdictional wetlands through the acquisition of credits at a federally approved mitigation bank.

c. Water Quality: Neutral as a result of mitigative action – The FEIS documents and evaluates work potentially affecting water quality (reference the FEIS, sections 4.3.1 and 5.3.1). Reference section 10 below for a list of all water quality certifications issued for the Project.

The majority of the surface waters within N-S corridor are either being spanned by bridges or are surface water ditches which run parallel to the existing rail. Impacts to surface waters total approximately 12 acres for the N-S project area.
The E-W corridor, would require direct impacts to approximately 36 acres of surface waters (21 acres of ditch impacts and 15 acres of stormwater pond/ open water). All existing SR 528 and associated interchange stormwater infrastructure (ditches and ponds) will be replaced and/or relocated. The E-W proposed project plans include the installation of approximately 88 acres of stormwater management ponds where none currently exist.

d. Historic Properties (33 C.F.R. § 320.4(e)): Neutral as a result of mitigative action – The FEIS documents and evaluates work potentially affecting historic, cultural, scenic, and recreational values (reference the FEIS, sections 4.4.5, 5.4.5, 6.4.2, 7.2.12) and, section 10.d, below, conveys additional coordination initiated or received by the Corps after the publication of the FEIS.

The SHPO has concluded the proposed action would have an effect, but not an adverse effect, on the FECR Linear Resource Group; and that the ground disturbing activities associated with construction have the potential to cause adverse effects to National Register-eligible archaeological sites. The Corps, Coast Guard, SHPO, ACHP and AAF have executed a Programmatic Agreement to specifically outline a monitoring plan, independent Archaeological monitor, and unanticipated finds.

e. Effects on limits of the territorial sea (33 C.F.R. § 320.4(f)): None - The Project would not affect any territorial sea.

f. Consideration of property ownership (33 C.F.R. § 320.4(g): Neutral - The FEIS, sections 1.7.7 (Social and Economic Environment), 4.4 (Social and Economic Environment), 5.1.1 (land use) documents and evaluates work potentially affecting land owners. The N-S corridor is located within the FECR corridor which is an active freight rail corridor, currently with approximately 14 round-trip freight trains per day under current conditions, projected to increase to 20 by 2019. In recent years, the number of freight trains was substantially higher, with 24 daily trains in 2006. The AAF passenger service would occur with consolidated control of both freight and passenger train movements, and the incremental effects of adding passenger trains would not substantially degrade the quality of life in municipalities and communities along the rail line. The applicant proposes the use of wayside horns which would reduce noise impacts within the N-S corridor.

Within the E-W corridor, AAF has purchase privately owned land resulting in the permanent conversion of land use on 45 acres from "undeveloped" or "low density residential" to "transportation". Less than 2 acres are considered residential. Any other private property that would need to be acquired or condemned in order to facilitate construction and

operation of the proposed intercity passenger rail line would be the responsibility of FDOT and CFX. The Project would be consistent with relevant land use plans.

g. Activities affecting coastal zones (33 C.F.R. § 320.4(h): Neutral as a result of mitigative action - The Project would traverse areas designated as coastal zone (Palm Beach, Martin, St. Lucie, Indian River and Brevard Counties), as associated with the Coastal Zone Management Act (CZMA) within Florida. The FEIS, sections 4.2.5 and 5.2.5, provides a discussion of coastal zone consistency. The Florida State Clearinghouse has coordinated on the Project and concurred the proposed action is consistent with applicable coastal zone policies; however, several provisions of the Florida Coastal Management Program would require mitigation. Separately, the SFWMD and SJRWMD issued ERP which convey CZMA coastal zone consistency determination. Reference section 10 below which identifies the CZM approvals for the Project.

h. Activities in marine sanctuaries (33 C.F.R. § 320.4(i)): None - The Project would not affect any marine sanctuaries.

i. Other Federal, state, or local requirements (33 C.F.R. § 320.4(j)):

(1) The Corps has approved minor modifications to the federally authorized Central & Southern Florida (C&SF) Project in accordance with 33 U.S.C. 408. Specifically, SAJ has approved 1.) requests for the directional drilling of fiber optic communication cables encased in HDPE conduit under the C-7, C-9, C-14, C-15 (Hidden Valley Canal), C-16 (Boynton Beach Canal), and C-51 canals using the Horizontal Directional Drill method; and 2.) bridge expansion and subaqueous crossing of C-17 Canal (Earman River).

The SFWMD is responsible for the quality control for performance of the work and for ensuring these modifications do not interfere with the functioning of the canal and/or the flood control project.

(2) The Corps is not aware of other Federal, state, or local requirements or restrictions (pending or denied).

j. Safety of impoundment structures (33 C.F.R. § 320.4(k)): None – The Project does not incorporate any unsafe impoundment structures nor would the project affect existing impoundment structures.

k. Floodplain management (33 C.F.R. § 320.4(l)): Neutral as a result of mitigative action -

(1) Executive Order 11988 (EO 11988) directs Federal agencies to demonstrate a comprehensive approach to floodplain management and establishes avoidance of actions

within the 100-year floodplain as the preferred method for complying with EO 11988. The FEIS, sections 4.3.4, 5.3.4 and 7.2.8, identifies work affecting flood zones. Based on a review of Federal Emergency Management Agency (FEMA) flood hazard maps the Project would occur within 195 acres of the 100-year floodplain. The N-S Corridor would total 68.6 acres. Within the E-W Corridor, alignment Alternative E would impact 115.0 acres of 100-year floodplain. The E-W Corridor and N-S Corridor also cross regulated floodways. A regulated floodway "means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height (FEMA 2013b)." All work within the 100-year floodplain would comply with the applicable FEMA-approved state and/or local floodplain management requirements. The use of compensating storage would further reduce the likelihood of adverse effects within the floodplain.

(2) Sea level rise combined with periodically severe storm events could lead to overtopping of the Project. Design measures and project commitments (e.g., hydrology connectors, wildlife crossings, and culverts) in both the E-W and N-S Corridors will avoid changes in flood hazards and ensure maintenance of surface water flow patterns. The Project will also satisfy all stormwater management and flood hazard requirements established by SFWMD and SJRWMD, reference section 10 below.

In consideration of the information within the FEIS, the Corps concludes that the Project, with mitigation measures, would not have an adverse impact to floodplain management.

l. Water supply and conservation (33 C.F.R. § 320.4(m)): Negligible - The FEIS documents and evaluates work affecting water resources (FEIS, section 4.3.1), including work that could affect water supplies and/or water conservation. The FEIS, section 5.3.1, conveys conclusions and recommendations associated with water resources. The construction of the terminals or rail portion of the project would not require the use of potable water. The finished terminals would require the use of potable water from the respective municipal supplier, but is not expected to impact the needs of the regional water supply network.

m. Energy conservation and development (33 C.F.R. § 320.4(n)): Negligible – The FEIS documents and evaluates work affecting Utilities and Energy Resources (FEIS, sections 4.4.8 and 5.4.8). This project will result in energy consumption during construction and operation. The locomotives are planned as diesel-electric units and will not place any additional load on the existing electrical and utility services. Based on the estimated annual quantities of diesel consumption, the impact on energy resources would be negligible. The increase in electrical service/demand due to signals is minimal and will require no major changes or construction of electrical or other utility infrastructure. Operating the VMF at the northern terminus would require additional energy through existing electrical services. The

Project is expected result in a net reduction in petroleum-based fuels consumed and vehicle miles traveled within the State of Florida and, therefore, would have a beneficial or enhanced effect on energy use; reference Florida Standard Urban Transportation Model Structure Regional Transportation Model Highway Evaluation output and the investment-grade ridership study (Louis Berger Group 2013), FEIS section 5.4.8.2.

n. Navigation (33 C.F.R. § 320.4(o)): Neutral with mitigation – The FEIS documents and evaluates work affecting Navigation (FEIS, sections 4.1.3 and 5.1.3). The FEIS identifies mitigation measures and project commitments related to navigation in section 7.2.5. The Project traverses navigable waters utilizing existing bridges within the N-S corridor; but would require construction of four new bridges (parallel) within the WPB-M Corridor, and an additional three bridges would be reconstructed. This would consist of replacing the existing bridges with two new single-track rail bridges, or adding a new single-track bridge parallel to the existing bridge. Four new bridges would be constructed over waterways within the east-west segment, including the St. Johns and Econlockhatchee Rivers.

AAF would implement a series of mitigation measures to reduce vessel delay and queueing at the three operable bridges (St. Lucie River and Loxahatchee River). Mitigation measures would include:

- Manage train schedules to minimize bridge closures

- Provide marine industry with bridge closure schedules to facilitate planning by boaters

- Develop a set schedule for the down times of each bridge location. This schedule will include both freight and passenger rail service.

- Provide that schedule of bridge closures in an internet-accessible format to offer the public with access to that information, including the boating community and marinas. This will be posted on the AAF website and/or the US Coast Guard website.

- Implement a notification sign/signal at each bridge location with warning count downs to indicate the times at which the bridge will begin to close and open and how long before a train will arrive.

- Develop formal contact with first responders and emergency personnel.

- Develop coordination plans between AAF and local authorities during peak vessel travel times on holidays and major public events

AAF has also committed to replacing or repairing the mechanical and electrical systems for each of the two moveable bridges within Phase II to ensure their operational condition and reliability is maintained, establishing methods to notify mariners of the bridge closure times and to make closure times more predictable.
The Coast Guard is responsible for establishing bridge closure schedules and the operating schedule may change as part of its rule making process.

In consideration of the information within the FEIS, the Corps concludes that the Project could generate a minor impact to navigation; however, the applicant has proposed mitigation measures which would advise mariners of bridge opening and closures at the movable bridges and the Coast Guard is evaluating the operation schedule of the bridges. Replacement of the Eau Gallie, St. Sebastian, and St. Johns River will be evaluated by the Coast Guard to ensure navigation clearances are maintained. With these and other (future mitigative actions taken by AAF, Coast Guard, and/or the local municipality) mitigative actions the Project is not expected to not have an adverse impact on navigation.

o. Environmental benefits (33 C.F.R. § 320.4(p)) – general environmental concerns: Negligible – Multiple sections of the FEIS and this document identify, review, and evaluate potential direct, indirect/secondary, and cumulative effects to the general environment within the overall Project corridor and associated work areas. The FEIS supports the Corps' determination that the vast majority of any effects upon the general environment would be negligible or minor in degree due to the implementation of the construction plans evaluated by the Corps, water quality certifications issued by the State of Florida (reference section 10 below), mitigation actions defined in the FEIS section 7.2, and conservation measures proposed by the applicant (reference USFWS BO). Moreover, the FEIS supports the Corps' determination that the implementation of the proposed compensatory mitigation plans would offset any unavoidable adverse effects to waters of the U.S., including wetlands (reference section 11, below).

Separately, the construction of the Project does not generate direct environmental benefits. Project is expected to provide a net regional air quality benefit as compared to the No-Action Alternative (reference the FEIS, section 5.2.1). In consideration of the information within the FEIS, the Corps concludes that the Project could generate a minor environmental benefit.

p. Economics (33 C.F.R. § 320.4(q)): Minor - The FEIS documents and evaluates socioeconomic factors (FEIS, sections 4.4 and 5.4). Many commenters suggested the Project would result in lowering residential property values. Property values are discussed in sections 1.7.7, 5.4.3, 5.4.3.3 of the FEIS. The N-S Corridor is an active freight rail corridor established over 120 years ago and is highly urbanized throughout the entire corridor with residential houses, commercial, and industrial facilities constructed against its ROW. Freight operations include approximately 14 round-trip freight trains per day under

current conditions with operations projected to fluctuate based on freight demand. AAF would operate the proposed passenger rail service within the FECR Corridor in coordination with FECR's continued freight service. The Project, if constructed, would include mitigation strategies such as wayside horns to reduce noise and a track and wheel maintenance plan to reduce vibration, improved safety at crossings and rail corridor by installing PTC, and implement navigation measures identified in section 9(n) above.

After considering the following factors:

- The no build alternative would not include implementation of the Project, but would allowed continued use of freight operations. Property values are expected to remain consistent with the no build condition.
- The FECR corridor has been in place for 120 years and is already heavily urbanized. Residential development of vacant land adjacent to the ROW is expected to continue as market demand increases.
- Property values are expected to fluctuate with real estate housing demands within the project region.
- The freight operations will fluctuate in frequency and duration and these operations are not solicited with adjacent property owners or controlled by local municipalities.
- The Project would result in the consolidated control of both freight and passenger train movements.
- Passenger rail train sets would use the latest technology in construction and emissions, be lighter and shorter than freight train sets moving through intersections faster.
- Noise and vibration reference section 9.v, safety reference section 9.v, and navigation related mitigation measures reference section 9.n would not be implement if the Project is not constructed.
- Some individuals may be attracted to the aesthetics beauty of the Project and desire to live adjacent to the FECR ROW.
- A study completed by the FRA "neither established nor excluded the possibility of adverse effects on property values"; see FEIS section 5.4.1.2.

The Corps concludes the Project may have a negligible short term impact on residential property values. These impacts may include lowering of property values in some geographic locations of the project, but property values may also increase near the Stations. If the Project were constructed and the mitigation measures realized property values may not decrease at all.

The Project would result in revenue from construction workers and locally procured goods and services. The applicant has voluntarily assumed the cost of grade crossing safety improvements related to the introduction of passenger rail service. Indirect economic effects would improve accessibility and mobility between Orlando and Miami, as well as other

communities in southeast Florida. The FEIS, Table 5.4.3-1, summarizes the direct economic benefits of project operations.

Table 5.4.3-1 Summary of Direct Economic Benefits of Project Operations

	Average Annual[1]	Cumulative (2016-2021)[1]
Jobs[2]	1,113	1,113
Labor Income ($ Mil.)	$48.9	$293.7
Gross Domestic Product ($ Mil.)	$62.9	$377.3
Total Economic Impact ($ Mil.)	$84.5	$507.2
Federal. State, and Local Revenue ($ Mil.)[3]	$20.9	$125.5

Source: WEG 2014
1 Includes Miami-Dade and Broward Counties
2 To avoid double counting net new jobs, the average of all years was used to estimate the number of jobs created per year.
3 Includes indirect and induced economic benefits

Therefore, in consideration of the information within the FEIS, the Corps concludes that the Project would benefit this public interest factor.

q. Mitigation (33 C.F.R. § 320.4(r)): Neutral - The Project avoids and minimizes work affecting waters of the U.S., including wetlands, to the maximum extent practicable (reference numerous sections of the FEIS; and, section 7 above). In addition, the Project incorporates compensatory mitigation for unavoidable adverse effects to aquatic resources reference FEIS Chapter 7, Mitigation Measures and Project Commitments, section 11, below, the USFWS BO which includes conservation measures to avoid and mitigate potential adverse impacts to federally listed species, and the PA to avoid and mitigated potential adverse impacts to cultural and historical resources. In consideration of the information within the FEIS, the Corps concludes that the Project satisfies the parameters of this public interest factor.

r. Conservation: Neutral with mitigation - In consideration of the information within the FEIS and discussed herein, the Corps expects that any impacts to adjacent conservation areas would be negligible within the proposed mitigation. The Project would require the modification of two conservation easements which were implemented as compensatory mitigation for DA permits. Specifically, DA permits SAJ-2002-00464 - Alafaya Tail Extension and SAJ-2006-04040 - Randall Park included on-site mitigation in the form of conservation easements. AAF has proposed to offset the modification of these conservation easements through the purchase of federally approved credits at a mitigation bank whose service area

covers the conservation area. AAF has provided a functional assessment which ensures modification of the conservation easements would fully compensate the originally authorized impact and functions and values provided by the conservation easements, reference section 11 below.

The functional assessment concluded 1.39 functional units of loss would occur at the Alafaya Trail Extension and 0.03 functional units of loss would occur at Randall Park. Functional losses would be mitigated at federally approved mitigation banks ensuring no net loss of functions or values to conservation areas.

No other conservation areas would be acquired for project development. Where the Project bisects conservation areas the applicant will implement standard construction BMPs. The Project has been designed to provide wildlife passage under bridges and through culverts.

s. Shore erosion and accretion: Neutral with mitigation –

(1) The proposed work is expected to have beneficial effect on shore erosion or accretion within the N-S corridor. The applicant will improve or install shoreline stabilization material at existing bridge abutments where stabilization does not currently exist. The installation or improvement is expected to reduce sedimentation and erosion at those locations.

(2) AAF agrees to implement BMPs and FDOT's Standard Specifications for Road and Bridge Construction, Section 104, which consist of temporary grassing, sodding, mulching, sandbagging, slope drains, sediment basins, sediment checks, silt fences, and berms. The use of the stormwater management and pollution prevention plan, BMPs, and FDOT's Standard Specifications ensure the discharged material will be properly contained and prevent point and nonpoint sources of pollution. Any authorization of the project would be specifically conditioned to require the implementation of erosion controls. Additionally, the various State Section 401 Water Quality Certifications for the Project require the implementation of erosion and sediment controls. The conditions of the Section 401 Water Quality Certification would be incorporated as special conditions of any Corps authorization for the project. Therefore, the applicants would be required to implement and maintain erosion and sediment control BMPs to retain sediment on-site and to prevent violations of state water quality standards.

(3) Most of the fill discharge would occur in freshwater wetlands, contained within the fill areas, and would not affect stream systems in the vicinity of the work. However, especially where work would occur within wetland systems contiguous to stream systems or channelized flow, the project incorporates erosion prevention measures to avoid the discharge of particulate material into local waterways and downstream waters. Waterbody

banks would be stabilized as soon as possible after construction to prevent indirect impacts such as sloughing. Any permit issued would include requirements for erosion control measures along the perimeter of all work areas to prevent the displacement of fill material outside the work area. Immediately after completion of the final grading of the land surface, all slopes, land surfaces, and filled areas shall be stabilized using sod, degradable mats, barriers, or a combination of similar stabilizing materials to prevent erosion. The erosion control measures would remain in place and be maintained until all authorized work has been completed and the site has been stabilized.

(4) In consideration of the information within the FEIS and as discussed in paragraphs (s)(1)-(3), above, the Corps concludes that the project would not adversely affect shore erosion or accretion.

t. Food and fiber production: Negligible - The FEIS, sections 4.2.3 and 5.2.3, conveys information pertinent to the potential effects that the Project may have on farmland. FEIS table 4.2.3-1 identifies prime and unique farmland soils within the E-W corridor. Approximately 431.6 acres of Farmland Characteristics were identified within Alternative E; of that approximately 31 acres of prime farmland could be affected by constructing the Project. This represent less than 0.1 percent of unique farmland soils within the Alternative E corridor. Additionally, the FRA consulted with the Natural Resources Conservation Commission who concluded there would be no significant impact to farmland soils. In consideration of the information within the FEIS, and less than 0.1 percent of prime farmland soil within Alternative E corridor could be impacted, the Corps concludes that the adverse effect on food and fiber production would be negligible.

u. Mineral needs: minor but long term - The project, if authorized by this permit, could require considerable amounts of construction material such as steel, sand, granite, limerock, concrete, asphalt, etc. These mineral resources are expected to be readily available. The Corps concludes that the adverse effect on mineral needs would be minor but long term.

v. Needs and welfare of the people: The Corps concludes that the effects on needs and welfare of the people would be neutral with mitigation. The FEIS, sections 4.4.4, 5.4.4, and 7.2.11, conveys extensive information regarding safety concerns/issues and mitigation measures associated with the Project. If implemented the Project would result in safety improvements at crossings through the installation of a PTC system. The PTC is expected to enhanced security within the corridor and improved communications among emergency responders.

AAF has voluntarily agreed to incorporate recommended grade crossing safety improvements related to the introduction of passenger rail service, in conjunction with county and municipal execution of amendments to existing crossing license agreements as

described in the On-Site Engineering Field Report Part 1 and Part 2 (included as attachments to the 4 August 2015 FEIS). The range of grade crossing improvements includes pedestrian gates, Vehicle Presence Detection, four and three quadrant gates, locked gates, raised medians, and other crossing improvements as appropriate.

AAF will conduct ROW Field Surveys to observe, document, and provide recommendations to minimize trespassing by employing fencing, warning signage, public outreach/information, and other appropriate measures as required. AAF will also develop a Hazard Analysis and System Safety Program Plan prior to the start of operations, which will identify potential system risks based on an evaluation of potential risk severity and frequency.

AAF has proposed the installation and use of wayside horns to reduce noise impacts within the project corridor. The implementation of Quite Zones within the project corridor can be initiated through the corresponding municipality.

The Corps has determined the Project would not have an adverse effect to traffic patterns or emergency response times because 1) the Project would be constructed within existing transportation corridors; 2) the limited number of cars within the passenger car train set, and 3) the limited amount of time expected for the train set to pass through each at grade crossing.

The FEIS, sections 4.2.2, 5.2.2, and 7.2.4, conveys extensive information regarding noise and vibration concerns/issues associated with the Project. Noise and vibration has been assessed according to guidelines specified in the FRA's High-Speed Ground Transportation Noise and Vibration Impact Assessment guidance manual and the Federal Transit Administration's (FTA) Noise and Vibration Impact Assessment guidance manual.

The FRA concluded the Project will result in minor vibration impacts along the N-S Corridor due to the increase (greater than doubling) of vibration events as a result of adding passenger train service to the existing freight operations, reference FEIS section 5.2.2. There is no potential vibration impact along the MCO Segment because of low train speeds and the absence of sensitive receptors. Along the E-W Corridor, minor vibration impacts would occur where residences are close to the proposed tracks. Vibration levels are not projected to exceed structural damage levels (100 VdB) at any location.

Some maintenance measures can help to mitigate noise and vibration. AAF has committed to maintaining their equipment to minimize noise and vibration emissions, including repairing wheel flats, truing wheels to optimize the wheel/rail interface, and periodic rail grinding. AAF would install a wheel truer that will be housed at the Orlando VMF, AAF would perform rail grinding as needed as part of the overall maintenance regime for the FRA Class 6 & 7 standards; 49 C.F.R. Part 231. As a project commitment in the FEIS, during final design,

AAF would conduct soil characterization and pre-construction soil analyses to determine if vibration mitigation measures, other than wheel and rail maintenance, are warranted, such as in areas that may be subject to liquefaction or are otherwise vulnerable to vibration.

A commenter expressed a concern regarding environmental and safety regarding FECR trains caring liquid natural gas as a fuel and a commodity, and Panamax Cargos. The Corps analysis in this document is specific to the implementation of a intercity passenger rail and does not consider what FECR may or may not utilize or carry on their trains. The FRA and Surface Transportation Board are the federal agencies charged with oversite of rail and freight operations.

x. Aesthetics: Adverse (minor) – The Corps concludes that the effects on aesthetics would be minor but long term. The FEIS considers aesthetics throughout chapter 5 and in the Section 4(f) evaluation section 6.5.2.3. Within the E-W corridor the proposed action will alter the visual character of the project area. This alteration is expected to be minimal because it would be located within the ROW of an existing limited access highway system. The extent and perception of these changes will vary by individual opinions. Within the N-S corridor the Project is not expected to alter the visual character of the project area because it is located within an active railroad corridor. The proposed action may also modify other aesthetic characteristics, such as air quality and the amount of noise, during construction and maintenance activities.

y. Climate Change. The proposed activities within the Corps federal control and responsibility likely will result in a negligible release of greenhouse gases into the atmosphere when compared to global greenhouse gas emissions. Greenhouse gas emissions have been shown to contribute to climate change. Aquatic resources can be sources and/or singles of greenhouse gases. For instance, some aquatic resources sequester carbon dioxide whereas others release methane; therefore, authorized impacts to aquatic resources can result in either an increase or decrease in atmospheric greenhouse gas. The impacts are considered de minimis and are negated through compensatory mitigation. Greenhouse gas emissions associated with the Corps federal action may also occur from the combustion of fossil fuels associated with the operation of construction equipment, increases in traffic, etc. The Corps has no authority to regulate emissions that result from the combustion of fossil fuels. These are subject to federal regulations under the Clean Air Act and/or Corporate Average Fuel Economy Program. Greenhouse gas emissions from the Corps action have been weighed against national goals of energy independence, national security, and economic development and not contrary to the public interest. See FEIS section 5.2.1 for discussion on Air Quality which includes greenhouse gas emissions.

10. Other Federal, State, and Local Requirements:

a. Section 401 of the Clean Water Act (33 U.S.C. 1341) – Water Quality Certification (WQC): Pursuant to CWA § 401 a federal agency cannot issue a permit or license for an activity that may result in a discharge to waters of the U.S. until the state where the discharge would originate has granted or waived § 401 certification. Section 33 C.F.R. § 325(1)(b)(ii) prohibits the issuance of a DA permit until the required certification has been obtained or waived. Water quality standards regulation are published in 40 C.F.R. 131. Florida's surface water quality standards system is published in 62-302 (and 62-302.530) of the Florida Administrative Code (F.A.C.). SJRWMD and SFWMD have been delegated authority to issue WQC within their prospective geographic boundaries. The Project occurs within boundaries of both districts and the Project has been submitted in segments to the respective district. SJRWMD and SFWMD have issued separate ERP, which includes WQC, for each segment listed below. The Corps would include the corresponding ERP/WQC in any permits issued for the Project.

(1) Segment PE01 (GOAA alignment): The SFWMD issued WQC with Special Conditions dated 5 May 2016 (ERP 48-00063-S, ERP application 151218-21).

(2) Segment PE02 (GOAA): The SFWMD issued WQC with Special Conditions dated 11 January 2017 (ERP 48-0063-S, ERP application 160719-8).

Segment PE02 (GOAA to International Corporate Park): The SFWMD issued WQC with Special Conditions dated 3 May 2017 (ERP 48-02603-P).

Segment PE02 (ICP to SR 520): The SJRWMD issued WQC with Special Conditions dated 20 December 2017 (ERP 136255-6).

(3) Segment PE03 (SR 520 to US Hwy 1): The SJRWMD issued WQC with Special Conditions dated 20 December 2017 (ERP 136255-5).

(4) Segment PE04 (GOAA VMF): The SFWMD issued WQC with Special Conditions dated 16 May 2017 (ERP 48-00063-S).

(5) Segment D08 (Vero to Cocoa Curve): The SJRWMD issued WQC with Special Conditions dated 24 August 2016 (ERP 135214-2).

(6) Segment D09 (WPB to Vero): The SFWMD issued WQC with Special Conditions dated 19 August 2016 (ERP 13-05321-P).

b. Section 307(c) of the Coastal Zone Management Act – Coastal Zone Consistency: Section 307(c) of the Coastal Zone Management Act of 1972, as amended (16 U.S.C. 1456(c)), requires federal agencies conducting activities, including development projects, directly affecting a state's coastal zone, to comply to the maximum extent practicable with an approved state coastal zone management program. The Coastal Zone Management Act also requires any non-federal applicant for a federal license or permit to conduct an activity affecting land or water uses in the state's coastal zone to furnish a certification that the proposed activity will comply with the state's coastal zone management program. Generally, no permit will be issued until the state has concurred with the non-federal applicant's certification. (See 15 CFR part 930 and Section 33 C.F.R. § 325(2)(b)(ii)). The Coastal Zone Management Act is discussed in detail in FEIS sections 4.2.4 and 5.2.5. FEIS table 5.2.5-3 defines the Florida Coastal Management Program Consistency Review regulations, scope, and consistency. The FRA coordinated the proposed action with the appropriate state regulatory offices and the Florida State Clearinghouse, agency for responsible for coordination and response for Coastal Zone Management Act concurred the project is consistent with Coastal Zone Management Act standards and provided a concurrence letter to FRA dated 3 March 2015 (FDEP, 2015).

The issuance of ERP permits by SJRWMD and SFWMD ensure consistency with CZMA.

c. Fish and Wildlife Act of 1956, Migratory Marine Game-Fish Act, Fish and Wildlife Coordination Act, and other acts protecting fish and wildlife resources: The FEIS incorporates numerous sections identifying, reviewing, and evaluating potential effects to fauna (e.g., FEIS, sections 4.3.5, 4.3.6, 5.3.5, and 5.3.6). The Corps has reviewed the information within the FEIS, compensatory mitigation for the loss of aquatic habitats, conservation measures proposed by the applicant, and the BO authored by the FWS. The Corps concludes that the Project complies with the various laws protecting fish and wildlife resources because the project has been reviewed by the FWS and Florida Fish and Wildlife Conservation Commission. The applicant has implement the conservation measures requested by these agencies into the project design. The applicant agrees to implement avoidance and minimization measures described in section 10.e below and purchase compensatory mitigation described in section 11 below.

d. National Historic Preservation Act of 1966 (NHPA):

(1) The FEIS incorporates numerous sections identifying, reviewing, and evaluating potential effects to historic properties and cultural resources (e.g., FEIS, sections 4.4.5, 5.4.5, 7.2.12, and 8.3). As the initial lead federal agency associated with compliance of this legislation, FRA was responsible for fulfilling the collective responsibilities under Section 106 (36 C.F.R. Part 800). As part of the FEIS, FRA: 1) defined the Project as an "Undertaking" pursuant to 36 C.F.R. § 800.16; 2) defined an Area of Potential Effects (APE) for the

undertaking; 3) identified historic properties within the APE; 4) assessed adverse effects; and 5) attempted to resolve adverse effects.

The identified historic properties within this APE are documented in the Cultural Resources Assessment Reports (CRAR) dated September 2013 and May 2015, reference FEIS Appendix 4.4.5-C and 4.4.5-D. SHPO concurred on 20 November 2013 (amended 21 May 2015) that the properties identified in the CRAR and in the Project Determination of Effects Report are listed in and/or eligible for listing in the National Register of Historic Places (NRHP). By letter dated 29 December 2015, SHPO provided an updated determination document concluding that they concur with FRA's finding that the proposed undertaking will have an effect, but not an adverse effect, on the FECR Linear Resource Group; and that the ground disturbing activities associated with construction have the potential to cause adverse effects to National Register-eligible archaeological sites. Conditioned upon the successful completion of the Programmatic Agreement (PA) and the implementation of the archaeological monitoring plan outlined in a PA, SHPO concurred with FRA's determination of "no adverse effect" to these archaeological sites.

By letter dated 27 June 2016, FRA informed the Corps and Coast Guard that it would not be making a decision on AAF's Railroad Rehabilitation and Improvement Financing application at this time. FRA also concluded it is not executing the draft PA developed 24 June 2016 in consultation with the ACHP; Broward County; City of Stuart; City of Vero Beach; Indian River County; Indian River County Historical Society Inc.; Martin County; Old Vero Ice Age Sites Committee; St. Lucie County; and Town of St. Lucie Village for the undertaking.

The Corps, Coast Guard, SHPO, and ACHP conducted informal meetings to discuss a path forward in response to FRA's withdrawal from the Section 106 Process. During these meetings the Corps and Coast Guard informally agreed to partner in the completion of the Section 106 PA. By letter dated 30 August 2016, the Corps provided a substantially modified draft PA to the Coast Guard for review and comment. The Corps advised Coast Guard it would use its public notice process to advise the public of the change in lead agency. The Corps circulated a public notice on 10 January 2017, advising the public that the Corps and Coast Guard have independently evaluated and adopted the Project consultations completed between FRA, SHPO, and ACHP on 20 November 2013 (amended 21 May 2015) in accordance with 33 C.F.R. § 325 Appendix C Paragraph 2(c) and 36 C.F.R. § 800.2(a)(2). Therefore, the Corps and Coast Guard would execute a Programmatic Agreement.

By letter dated 15 November 2016, the Corps coordinated a second addendum, dated November 2016, to the Cultural Resources Assessment Report with SHPO. The CRAR addendum included: 1) a previously inaccessible private property parcel; 2) the revised footprint for the Cocoa Curve; and 3) various ponds and drainage features which were not

evaluated in the original CRAR, by the FRA or SHPO. The Corps determined that no effect to historic properties are likely within the second addendum APE and no further survey work is required. By letter dated 30 November 2016, SHPO concurred with the determination made by the Corps that no historic properties are located in the areas surveyed in the second addendum and the proposed undertaking will have no effect on historic properties within the addendum's APE.

The Corps has independently evaluated and adopts the consultations completed between FRA, SHPO, and ACHP in accordance with 33 C.F.R. § 325 Appendix C Paragraph 2(c) and 36 C.F.R. § 800.2(a)(2). In accordance with the procedures at 33 C.F.R. § 325 Appendix C(1)(g) the Corps' Regulatory Program defined permit area for the Project as those areas comprising waters of the U.S. that will be directly and/or indirectly affected by the proposed undertaking. For the Project, the Corps has determined there is enough federal control to expand the permit area to align with the APE as previously defined by FRA. The Coast Guard has independently evaluated and adopted the bridge-related consultations completed between FRA, SHPO, and ACHP in accordance with 36 C.F.R. § 800.2(a)(2).

After considering comments received from the consulting parties and completing field assessments (6 and 7 March 2017), the Corps has determined there are five (5) distinct archaeological sites within Phase II, North-South Corridor Area of Potential Effect (APE) for direct effects which were not documented in AAF's Cultural Resource Assessment Report or FRA's Determination of Effect. The Corps coordinated these sites with SHPO by letter dated 2 May 2017 and the sites are incorporated into the PA.

The Corps executed the PROGRAMMATIC AGREEMENT AMONG U.S. ARMY CORPS OF ENGINEERS, U.S. COAST GUARD, THE FLORIDA STATE HISTORIC PRESERVATION OFFICER, ALL ABOARD FLORIDA – OPERATIONS, LLC, AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION REGARDING COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT FOR THE ALL ABOARD FLORIDA INTERCITY PASSENGER RAIL PROJECT PHASE II ORLANDO TO WEST PALM BEACH, FLORIDA on August 2017.

Based on a review of the above information, the Corps has determined that it has fulfilled its responsibilities under Section 106 of the NHPA.

e. Endangered Species Act (ESA): The Corps was the lead Federal agency associated with compliance of this legislation. The Corps implemented all necessary coordination associated with this legislation. Reference FEIS, sections 4.3.6, 5.3.6, 5.3.6.5; and the FWS BO associated with the Project.

(1) Regarding FWS, in a letter to the FWS dated 19 September 2013, the Corps determined that the Project may affect, but is not likely to adversely affect, the eastern indigo snake, scrub-jay, West Indian manatee, and wood stork.

On 4 November 2013, the FWS provided concurrence to the Corps' determination that the portion of the proposed project in Orange and Brevard Counties may affect but is not likely to adversely affect the Audubon's crested caracara, blue-tailed mole skink, eastern indigo snake, scrub-jay, sand skink, West Indian manatee, and wood stork.

On 10 February 2014, the Corps requested re-initiation and evaluation of the proposed action with the Jacksonville Ecological Services Office to evaluate the effects of additional railroad bridges crossing the Eau Gallie River, Crane Creek, Turkey Creek, and Sebastian River. The FWS provided concurrence with the Corps determinations on 13 March 2014, for the effects of the project modifications on blue-tailed mole skink, eastern indigo snake, scrub jay, sand skink, West Indian manatee, and wood stork.

By electronic letter dated 6 November 2014, the FWS advised the Corps that they had revised their determination on scrub-jay and concluded Project will result in adverse effects and take of the scrub-jay.

By electronic letter dated 17 November 2014, the FWS advised the Corps to request that the FWS initiate formal consultation for the Project's adverse effects to the scrub-jay.

By letter dated 21 November 2014, the Corps requested that the FWS initiate formal consultation on the Project for adverse effects the scrub-jay pursuant to section 7 of ESA.

By electronic letter dated 9 March 2015, the Corps provided verification that AAF had purchased two scrub-jay credits from the Morgan Lake Wales Preserve Conservation Bank in Highlands County, Florida. The purpose of the credit acquisition was to help minimize the adverse effects of the Project to the scrub-jay.

By electronic letter dated 9 March 2015, the FWS stated that it had received photo documentation from Florida Department of Environmental Protection (FDEP) staff at the Savannas Preserve State Park (SPSP) that several specimens of the fragrant prickly-apple occur within the Project ROW near the SPSP. The FWS notified the Corps that based on this evidence the FWS finds that the Project may affect, and is likely to adversely affect, the fragrant prickly-apple. Consequently, the FWS would initiate formal consultation for the Project's adverse effects to the fragrant prickly-apple.

By letter dated 26 March 2015, the Corps determined that the Project may affect, but is not likely to adversely affect, the fragrant prickly-apple and Lakela's mint, and requested the FWS concurrence for these determinations.

The FWS concluded consultation with a BO dated 9 October 2015. The BO analyzed the effects of the Project on the threatened scrub-jay and the endangered fragrant prickly-apple. It also includes and summarized FWS's concurrence with the Corps' determination of may affect, but not likely to adversely affect for the endangered West Indian manatee and Lakela's mint, as well as the threatened Atlantic salt marsh snake, Audubon's crested caracara, blue-tailed mole skink, eastern indigo snake, Everglade snail kite, sand skink, and wood stork.

The Corps would incorporate the FWS BO into any authorization granted; and, incorporate special conditions requiring the implementation of the measures noted by the FWS as reasonable and prudent measures or specific terms and conditions. Additionally, any permit issued would include the following special conditions to reduce adverse effects to endangered species:

- **Eastern Indigo Snake Protection Measures: The Permittee shall comply with U.S. Fish and Wildlife Service (USFWS) "Standard Protection Measures for the Eastern Indigo Snake" (dated August 12, 2013) during project site preparation and construction. The following shall also apply:**

- **All gopher tortoise burrows, active or inactive, will be evacuated prior to site manipulation in the burrow vicinity. If excavating potentially occupied burrows, active or inactive, individuals must first obtain state authorization via a Florida Fish and Wildlife Conservation Commission Authorized Gopher Tortoise Agent permit. The excavation method selected should also minimize the potential for injury of an indigo snake.**

- **b. Holes, cavities, and snake refugia other than gopher tortoise burrows will be inspected each morning before planned site manipulation of a particular area, and if occupied by an indigo snake, no work will commence until the snake has vacated the vicinity of proposed work.**

- **Manatee Conditions: The Permittee shall comply with the "Standard Manatee Conditions for In-Water Work – 2011".**

By electronic letter dated 22 February 2018, the Corps requested technical assistance from FWS to determine if the level of potential effect to the manatee increased beyond what was previously evaluated based on the expected operational change of the movable bridges at

the St. Lucie River and Loxahatchee River bridges. The proposed action does not require any in-water work at St. Lucie River and Loxahatchee River. The FWS responded by electronic letter 26 February 2018, stating with mitigation measures to reduce vessel delay and queueing at the bridges, implementation of the Manatee Construction Conditions, slow speed zones are in operation for manatees, and since vessels are already queueing at these locations the previous determination of “may affect, but is not likely to adversely affect” the West Indian manatee still applies.

The FWS, through consultation with the Corps, provided programmatic determination keys on 25 January 2010 and 13 August 2013 Update Addendum (Eastern Indigo) and September 2008 (Wood Stork) that satisfies consultation responsibilities under the Endangered Species Act of 1973, as amended (87 Statute 884: 16 U.S.C. 1531 et seq). Issuance of the BO on 9 October 2015 concluded formal consultation with the FWS. Based on a review of the above information, the Corps has determined that it has fulfilled its responsibilities under Section 7(a)(2) of the ESA.

(2) Regarding NMFS, the Corps completed informal consultation with NMFS Protected Resource Division (PRD), see FEIS appendix 5.3.6 A1. PRD concluded that the smalltooth sawfish and sea turtles are not likely to be adversely affected by any project-related activities and there will be no effect on Nassau grouper, Atlantic sturgeon, shortnose sturgeon, and Johnson’s seagrass. The Atlantic sturgeon, shortnose sturgeon, and Johnson’s seagrass are not present in the project area, and the individual project sites do not occur within or near Johnson' s seagrass designated critical habitat. Hawksbill or leatherback sea turtles will not be present or affected because of their very specific life history, sheltering, and foraging requirements, which are not met in or near the action area- hawksbills are associated with coral reefs while leatherbacks are a deepwater, pelagic species. The applicant proposed conservation measures to reduce adverse effects to smalltooth sawfish and swimming sea turtles. The conservation measures include: 1) limit construction activities to daylight- only hours; 2) restrict installation to 3 piles daily; 3) the piles will be driven into place with an impact hammer; 4) bubble curtains will be used around each pile during installation to dampen sound; 5) construction equipment will be brought in by vehicle or train and staged either in the uplands or from a barge via the larger water bodies (Eau Gallie River, Sebastian River, St. Lucie River, Loxahatchee River, Hillsboro River, North Fork of the Middle River, and South Fork of the Middle River); 6) Floating turbidity barriers will be used to isolate small areas of the construction sites where piles are being driven. Any DA permit issued in waters accessible to sea turtles or smalltooth sawfish would include the *Sea Turtle and Smalltooth Sawfish Construction Conditions*, dated March 23, 2006, which requires construction to cease should a sawfish or turtles be observed within 50 ft of construction activities.

(4) Based on a review of the above information, the Corps has determined that it has fulfilled its responsibilities under Section 7(a)(2) of the ESA.

f. Marine Mammal Protection Act of 1972: Jurisdiction for the Marine Mammal Protection Act (MMPA) is shared by the USFWS and the NMFS. The Project is within the geographic range of the West Indian manatee, a marine mammal. No other marine mammals occur with the geographic limits of the Project. The Corps determined the proposed action may affect, but is not likely to adversely affect the West Indian manatee in accordance with Section 7 of the ESA. To protect the West Indian manatee, the AAF has agreed to follow the Florida Fish and Wildlife Conservation Commission's (FWC) Standard Manatee Conditions for In-Water Work during construction of the project (FWC 2011). Phase II will not result in impacts to seagrasses or West Indian manatee foraging sites. Corps would incorporate special conditions requiring the applicant to conduct construction activities in accordance with Standard Manatee Construction Conditions for In-Water Work. The Corps completed formal consultation with the FWS, reference section 10.e above. FWS did not include any reference to the MMPA; however, under Section 7 of the ESA, the USFWS is obligated to analyze the direct, indirect, interrelated, and interdependent effects of actions on manatee mortality and harassment, as well as manatee habitat, and cannot authorize incidental take that is reasonably certain to result from Federal actions until incidental take authorization is in place under the MMPA. The ESA Section 7 process does not authorize incidental takes of listed or non-listed marine mammals. The Corps concludes the Project would not result in the take of a species projected under the MMPA and no further consultation is required. If a take should occur the Corps would re-initiate consultation with USFWS. Based on a review of the above information, the Corps has determined that no additional requirements regarding the MMPA are required pursuant to Corps regulations.

g. Section 7(a) of the Wild and Scenic Rivers Act: The FRA is the lead Federal agency associated with compliance of this legislation. The FEIS (section 4.3.2) indicates that the Project would not cross any component of the National Wild and Scenic River System.

The Project would cross the Econlockhatchee, St. Johns, and St. Sebastian Rivers at locations where they have been included in the Nationwide River Inventory, prepared by the Heritage Conservation and Recreation Service of the Department of the Interior. The President's directive under this legislation requires federal agencies "to take care to avoid or mitigate adverse effects on rivers identified in the Nationwide Inventory."

The FRA and the Coast Guard are the lead Federal agencies associated with compliance of this legislation, because they have the most federal control over bridges and the Corps does not regulate bridges over waters of the U.S. The FRA has concluded the proposed work would not adversely affect Outstanding Remarkable Values of the Econlockhatchee or St. Johns Rivers. A bridge design has not been proposed for the crossing of the St. Sebastian

Bridge; therefore, a determination cannot be made for this river. The Coast Guard or FRA will make an effect determination for the crossing of the St. Sebastian River prior to Coast Guard permit issuance for the bridge replacement. Based on a review of the above information, the Corps has determined that no additional requirements regarding the WSRA are required pursuant to Corps regulations. However, the USCG or FRA may implement actions independent of the Corps if additional requirements are determined to be needed pursuant to their regulations.

h. Section 402 of the Clean Water Act: The NPDES Stormwater Permit Program as established in Section 402 of the federal CWA is responsible for the protection of surface water quality through the State by regulating point source discharges of pollutants to surface watercourses. The Florida Department of Environmental Protection (FDEP) is responsible for issuing and enforcing NPDES permits within the geographic limits of the Project. The FEIS (sections 4.3.1 and 5.3.1) discuss water quality. AAF would obtain NPDES permits prior to construction and utilize the Erosion and Sediment Control Plans approved by the SJRWMD and SFWMD. The NPDES permits cannot be obtained at this time because an approved on-site monitor has to be identified and submitted to FDEP for approval. See paragraph 10(a) above for information regarding water quality certification permits issued by SJRWMD and SFWMD. Compliance with the conditions of any NPDES permits would be incorporated as special conditions of any Corps authorization for the Project.

i. Magnuson-Stevens Fishery Conservation and Management Act (MSA): The Corps was the lead Federal agency associated with compliance of this legislation. The Corps implemented all necessary coordination associated with this legislation. Specifically, the Corps initiated consultation with the NMFS, Habitat Protection Division (HCD) by letters dated 18 September 2013 and 24 September 2014 and concluded the Project would not have a substantial adverse impact on EFH or Federally managed species within the geographic limits of the project. By letters dated 28 October 2013 and 24 October 2014, NMFS, HCD agreed with the Corps' determinations that the proposed project would not have a substantial adverse impact on EFH, and NMFS offered no conservation recommendations pursuant to the EFH provisions of the Magnuson-Stevens Act. The FEIS conveys specific information associated with the consultation (reference the FEIS sections 4.3.5 and 5.3.5.). Based on a response from NMFS, HCD, the Corps has fulfilled its responsibilities under the MSA.

j. Migratory Bird Treaty Act: The FRA is the lead Federal agency associated with compliance with this legislation. The FEIS, sections 4.3.5 and 5.35, conveys information regarding potential effects to migratory birds. Based on a review of the information in the FEIS, and lack of comments from the USFWS regarding Migratory Birds, the developed condition of the existing transportation corridors, and FRA's lead role in satisfying

requirements of the Act, the Corps has determined that no actions are required pursuant to Corps regulations.

k. Archaeological Resources Protection Act: This legislation governs the excavation of archaeological sites on Federal and Indian lands in the United States, and the removal and disposition of archaeological collections from those sites. The FEIS, section 4.4.5, conveys information regarding the FRA consultations with various federally recognized tribes. The FRA and the Corps are co-lead Federal agency associated with compliance of this legislation. The Project is not located on Federal and/or Indian lands. The Corps, USCG, SHPO, AAF, and ACHP have signed a Section 106 PA which defines specific mitigation measures related to cultural and historical resources which must be implemented during project construction. The PA outlines specific consultation requirements which must be completed if a cultural or historical resource is located. Pursuant to the PA, all consultation with the federally recognized tribes is the responsibility of the Corps. The Corps has determined that any work or actions associated with the Project regulated by this legislation would be completed in accordance with the legislation.

l. Native American Graves Protection and Repatriation Act: The FRA and the Corps are co-lead Federal agency associated with compliance of this legislation. The FEIS, section 4.4.5, conveys information regarding FRA's consultations with various federally recognized tribes. The applicant completed CRAS's and no Native American graves were identified. Federally recognized tribes did not provide comments specific to known grave site or culturally important areas. The Corps completed consultation with the Seminole Tribe of Florida (STOF) by seperate letter dated 15 November 2016 regarding work within the E-W segment. STOF responded by letter dated 24 February 2017, stating they have no objections to the project at this time. The PA includes specific mitigation measures and consultation requirements if a cultural or historical resource is located during construction. Based on the information in the FEIS, visual assessments completed the Jacksonville District Archaeologist within Indian and St. Lucie County's reference section above, the developed condition of the transportation corridor, and consultations completed with STOF and SHPO; the Corps is not aware of any work or actions associated with the Project regulated by this legislation.

J. Estuary Protection Act of 1968: This legislation requires all Federal agencies to give consideration to estuaries, their natural resources and their importance for commercial and industrial developments in planning for the use or development of water and land resources. An adjunct to the Estuary Protection Act was the creation of the National Estuary Program (NEP) in 1987, through amendments to the CWA. The NEP was designed to identify, restore, and protect nationally-significant estuaries of the U.S., which are included in the program through a designation process. The EPA administers the program, with committees consisting of local government officials, private citizens, and representatives from other

federal agencies, academic institutions, industry, and estuary user-groups managing program decisions and activities.

The Indian River Lagoon was nominated as an Estuary of National Significance and joined the NEP in 1990 under the sponsorship of the St. Johns and South Florida Water Management Districts. The Program's Comprehensive Conservation and Management Plan (CCMP) was published in 1997 and updated in 2008.

The Indian River Lagoon (IRL) spans 156 miles (approximately 40%) of Florida's east coast, extending from Ponce de Leon Inlet near New Smyrna Beach in Volusia County to Jupiter Inlet, the southern border of Martin County. The IRL is also an economic driver for the 5 counties it borders. A 2016 economic valuation study by the East Central Florida and Treasure Coast Regional Planning Councils showed the total annual economic output (value received) from the IRL in 2014 is about $7.6 billion. (IRL Council 2017).

Challenge facing the lagoon include excessive freshwater inflows, pollutant loadings, Algae blooms, loss of seagrass, impacts to fish and wildlife populations, loss of wetlands, and change abutting and adjacent landuse. Only two federally approved mitigation banks are located with the IRL and provide federally approved credits to offset the impacts to estuarine habitats.

The Project would traverse the IRL using existing bridge crossings beginning at the Martin/West Palm Beach county line extending north through the Cocoa curve. Improvements to bridges along the FECR corridor within the IRLNEP would include the installation of a parallel structures, structural improvements, and likely the full replacement of the Eau Gallie River and St. Sebastian River bridges. These actions are not expected to obstruct flow or change the direction or the velocity of water flow or circulation within the IRL because the footprints would remain the same. These actions are not expected to affect the commercial and industrial developments currently occurring within the IRL because no new bridges, only replacement of existing structures. The USCG would ensure the vertical and horizontal clearance would remain consistent with the existing structures.

AAF would provide water quality measures in the form of stormwater treatment (retention, detention, and treatment) as part of the Project to mitigate for creating additional impervious surface area and converting vegetated areas to ballasted railbed. This mitigation would be completed during project construction and is required by WQC permits. The Project would include the implementation of stormwater management features where none currently exist. The N-S corridor was constructed prior to the needs for water quality treatment. The only treatment features which currently exist are swales which convey surface waters out of the FECR ROW. The Project is expected to reduce nutrient introduction through the capture and treatment within an authorized stormwater management features. The Project if

constructed would include the use of BMPs during construction as well as compliance with state and federal water quality standards. These stormwater management improvements are consistent with the goal number one of the IRL Council.

The project has not been coordinated within the IRL Council; however, the IRL Council Board of Directors is comprised of commissioners from Brevard, Indian River, Martin, St. Lucie all of which are involved in discussions related to the Project. Additionally, the IRL Council's Management Council is comprised of members who are individually familiar with the Project. No comments have been received from the IRL Council's Board of Directors or Management Council. EPA did not provide any comments related to the IRLNEP.

Based on a review of the above information and lack of comments from the IRL Council and EPA, the Corps has determined that no further action is required pursuant to the Estuary Protection Act of 1968.

m. Formerly Used Defense Sites (FUDS): The E-W Corridor will bisect the Pinecastle Jeep Range. The former range is a 12,483-acre site located near OIA. The E-W corridor is located outside of the USACE investigation area. See FEIS section 4.4.4.2 for details regarding the Pinecastle Jeep Range and FUDS.

n. Significant issues of overriding national importance: N/A

11. Compensation and other mitigation actions:

a. Description of impacts: Proposed impacts to wetlands and streams are generally outlined in the FEIS; however, subsequent to the release of the FEIS adjustments were made to the proposed impact tallies. The differences between the published information and the information presented here are due primarily to the completion of the design process and the receipt of finalized construction plans. A summary of the applicants proposed wetland and stream impacts and anticipated functional loss are detailed in Table 7. The project would result in the placement of fill (permanent loss of wetlands) over 247.23 acres (163.51 acres of forested wetlands, 83.25 acres of herbaceous wetlands, 0.47 acres of estuarine (mangrove) wetlands). Secondary impacts have been estimated to 236.50 acres of wetlands (152.3 acres of forested wetlands and 84.19 acres of herbaceous wetlands).

Impacts to other waters, commonly referred to as surface waters, are also required to achieve the overall project purpose. These aquatic resources include streams or rivers, stormwater management features, conveyance systems, and open waters not classified as streams or rivers. These impacts total 11.86 acres within the N-S corridor and 33.88 acres within the E-W corridor. Mitigation would occur at systems classified as streams and rivers

where the Corps has concluded there is a functional loss. No mitigation is proposed or required for impacts to stormwater management features, conveyance systems, or open waters not classified as streams or rivers because the filling, conversion, modification of these system would not isolate wetland or waters upstream or expected to result in a functional loss. The addition of stormwater management features where none currently exist will provide additional conveyance systems similar to those being impacted or lost.

Table 7

PE02 CFX

	Proposed Direct Wetland Impact Area (acres)			Proposed Secondary Wetland Impact Area (acres)			Direct Wetland Impact Functional Loss (WRAP/MWRAP)			Secondary Wetland Impact Functional Loss (WRAP)		
	Forested	Herbaceous	Mangrove	Forested	Herbaceous	Mangrove	Forested	Herbaceous	Mangrove	Forested	Herbaceous	Mangrove
Total for St. Johns River (Canaveral Marshes to Wekiva) (18)	22.70	4.58	0.00	23.88	10.12	0.00	14.30	2.49	0.00	2.14	1.57	0.00
Total for Econlockhatchee River Nested (19)	33.65	4.99	0.00	31.07	5.66	0.00	19.78	2.42	0.00	2.74	0.71	0.00
Total for Lake Hart Basin (83) MWRAP	66.96	1.29	0.00	65.84	0.62	0.00	43.44	0.61	0.00	6.19	0.20	0.00

PE03

	Proposed Direct Wetland Impact Area (acres)			Proposed Secondary Wetland Impact Area (acres)			Direct Wetland Impact Functional Loss (WRAP)			Secondary Wetland Impact Functional Loss (WRAP)		
	Forested	Herbaceous	Mangrove	Forested	Herbaceous	Mangrove	Forested	Herbaceous	Mangrove	Forested	Herbaceous	Mangrove
Total for St. Johns River (Canaveral Marshes to Wekiva) (18)	36.74	61.29	0.00	31.51	65.91	0.00	21.25	32.10	0.00	3.46	5.12	0.00
Total for Southern SJR (20)	0.00	10.99	0.00	0.00	1.88	0.00	0.00	5.59	0.00	0.00	0.63	0.00

D08

	Proposed Direct Wetland Impact Area (acres)			Proposed Secondary Wetland Impact Area (acres)			Direct Wetland Impact Functional Loss (UMAM/WRAP)			Secondary Wetland Impact Functional Loss (UMAM/WRAP)		
Basin	Forested	Herbaceous	Mangrove	Forested	Herbaceous	Mangrove	Forested	Herbaceous	Mangrove	Forested	Herbaceous	Mangrove
Basin 21 (WRAP)	1.43	0.02	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00
Basin 22 (WRAP/UMAM)	1.97	0.03	0.22	0.00	0.00	0.00	0.85	0.00	0.14	0.00	0.00	0.00

D09

	Proposed Direct Wetland Impact Area (acres)			Proposed Secondary Wetland Impact Area (acres)			Direct Functional Loss (WATER/WRAP/MWRAP)			Secondary Wetland Impact Functional Loss (WATER/WRAP/MWRAP)		
Basin	Forested	Herbaceous	Mangrove	Forested	Herbaceous	Mangrove	Forested	Herbaceous	Mangrove	Forested	Herbaceous	Mangrove
St. Lucie Basin 17	0.01	0.01	0.21	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00
Loxahatchee Basin 19	0.00	0.07	0.05	0.00	0.00	0.00	0.00	0.04	0.02	0.00	0.00	0.00

	Proposed Direct Wetland Impact Area (acres)			Proposed Secondary Wetland Impact Area (acres)			Direct Wetland Impact Functional Loss			Secondary Wetland Impact Functional Loss		
	Forested	Herbaceous	Mangrove	Forested	Herbaceous	Mangrove	Forested	Herbaceous	Mangrove	Forested	Herbaceous	Mangrove
AAF WPB to Orlando Total (outside GOAA)	163.46	83.27	0.48	152.31	84.19	0.00	100.22	43.25	0.28	14.53	8.24	0.00

Total Credit: 166.51

b. Mitigative Actions (33 C.F.R. Part 320.4(r) and 40 C.F.R. Part 230, Subpart F):

(a) The majority of the mitigative actions (avoidance and minimization) associated with the Project are conveyed in the FEIS, section 7.2. Mitigation measures are proposed for traffic and at-grade crossings, noise and vibration, water, navigation, wetlands, biological resources and natural ecological systems, essential fish habitat (EFH), threatened and endangered species, and historic properties. Implementation of the following actions would reduce or mitigate potential adverse impacts to cultural and historical resources, federally threatened and endangered species, and aquatic resources.

1. For cultural and historical resources:

i. Cultural Resources/Historic Properties: Within 60 days of the date of this permit and prior to the commencement of any permitted work within the areas identified within the PROGRAMMATIC AGREEMENT AMONG U.S. ARMY CORPS OF ENGINEERS, U.S. COAST GUARD, THE FLORIDA STATE HISTORIC PRESERVATION OFFICER, ALL ABOARD FLORIDA – OPERATIONS, LLC, AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION REGARDING COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT FOR THE ALL ABOARD FLORIDA INTERCITY PASSENGER RAIL PROJECT PHASE II ORLANDO TO WEST PALM BEACH, FLORIDA (Section 106 PA) the Permittee must perform stipulation IV of the Section 106 PA.

2. For aquatic resources:

i. Erosion Control: Prior to the initiation of any work authorized by this permit, the Permittee shall install erosion control measures along the perimeter of all work areas to prevent the displacement of fill material outside the work area. Immediately after completion of the final grading of the land surface, all slopes, land surfaces, and filled areas shall be stabilized using sod, degradable mats, barriers, or a combination of similar stabilizing materials to prevent erosion. The erosion control measures shall remain in place and be maintained until all authorized work has been completed and the site has been stabilized.

ii. Fill Material: The Permittee shall use only clean fill material for this project. The fill material shall be free from items such as trash, debris, automotive parts, asphalt, construction materials, concrete block with exposed reinforcement bars, and soils contaminated with any toxic substance, in toxic amounts in accordance with Section 307 of the Clean Water Act.

iii. Mitigation Credit Purchase: 49.66 palustrine federal mitigation bank credits from the Reedy Creek Mitigation Bank (SAJ-1995-07852); 115.11 palustrine federal mitigation bank credits from the TM Econ Mitigation Bank (SAJ-2001-07089); 0.6 palustrine

federal mitigation bank credits from the East Central Florida Mitigation Bank (SAJ-1995-06135); 0.14 estuarine federal mitigation bank credits from the CGW Mitigation Bank (SAJ-1996-05563); 0.85 palustrine forested federal mitigation bank credits from the Basin 22 Mitigation Bank (SAJ-2009-01420); 0.12 estuarine federal mitigation bank credits from the Bear Point Mitigation Bank (SAJ-1997-07812); 0.08 palustrine emergent federal mitigation bank credits from the Loxahatchee Mitigation Bank (SAJ-1997-07816); 0.03 palustrine emergent federal mitigation bank credits from the Reedy Creek Mitigation Bank (SAJ-1995-07852); and 0.08 palustrine emergent federal mitigation bank credits have been purchased from the TM Econ Phase IV Mitigation Bank (SAJ-2007-00401).

3. For threatened and endangered species:

i. Conservation measures, terms and conditions, and reasonable and prudent measures of the USFWS BO.

ii. Eastern Indigo Snake Protection Measures: Smalltooth Sawfish and Swimming Sea Turtles conservation measures proposed by the applicant:

iii. Construction activities in waters accessible to small tooth sawfish and swimming sea turtles work is limited to daylight- only hours; piling installation is restricted to installation to three (3) piles daily, the piles will be driven into place with an impact hammer, and bubble curtains will be used around each pile during installation to dampen sound.

iv. Construction equipment will be brought in by vehicle or train and staged either in the uplands or from a barge via the larger water bodies (Eau Gallie River, Sebastian River, St. Lucie River, Loxahatchee River, Hillsboro River, North Fork of the Middle River, and South Fork of the Middle River).

v. Floating turbidity barriers will be used to isolate small areas of the construction sites where piles are being driven.

vi. National Marine Fisheries Service's "Sea Turtle and Smalltooth Sawfish Construction Conditions", which also applies to sturgeon.

vii. The implantation of the Standard Manatee Construction Conditions for In-Water Work-2011 and AAF shall ensure wharf fenders are installed to reduce the risk of a vessel crushing a manatee. The wharf fenders shall be installed with appropriate materials to provide sufficient standoff space of at least 3 feet under compression. Fenders or buoys providing a minimum standoff space of at least 3 feet under compression shall be utilized between two vessels moored together.

c. Compensatory Mitigation for Unavoidable Impacts to Aquatic Resources (33 C.F.R. Part 332):

1) Generally, mitigation should be provided within the impact watershed. However, the agencies, writing in the preamble for the 2008 Mitigation Rule (33 C.F.R. 332) provided additional clarification when considering linear projects: "For linear projects, such as roads and utility lines, district engineers may determine that consolidated compensatory mitigation projects provide appropriate compensation for the authorized impacts, and are environmentally preferable to requiring numerous small permittee-responsible compensatory mitigation projects along the linear project corridor" (FR Vol. 73, No. 70, page 19605). In the case of this project, the applicant has proposed to mitigate for unavoidable impacts to waters of the U.S. by purchasing the appropriate number and type of mitigation credits from Corps approved mitigation banks; however, a minor amount of mitigated impacts occur outside the service area of a bank.

A total of 1.44 acres of forested wetlands with an estimated functional loss of 0.6 units occur outside the Mitigation Service Area (MSA) of a federally approved mitigation bank. The MSA is the area within which adverse wetland impacts may be adequately offset by a mitigation bank. Pursuant to the Federal Guidance for the Establishment, Use, and Operation of Mitigation Banks 60 Fed. Reg. 58,605-58,614 (November 28, 1995).

When evaluating compensatory mitigation options for the 1.44 acres of wetland impacts the applicant considered and proposed various options including permittee responsible mitigation and the use of federally approved mitigation banks. The applicant submitted a proposal which included the acquisition, preservation, and long term maintenance of several individual parcels located 4.5 miles west of the project site, within the Cape Canaveral hydrologic unit code (HUC) defined by the U.S. Geological Service (USGS). The parcels totaled 4.49 acres of undisturbed forested and freshwater marsh wetlands located within the Brevard Coastal Scrub Ecosystem (BCSE) boundary (Valkaria/Malabar Expansion and Ten Mile Ridge) and 3.75 acres of undisturbed pine flatwoods.

The Corps considered the ecologically suitability of these parcels and concluded the ecological lift provided by preservation, the challenges associated with securing a conservation easement, and long term financial assurance suitable to Corps' requirements were insurmountable. Therefore, the applicant and the Corps evaluated the mitigation bank permit instruments of mitigation banks adjacent to the 1.44 acre impact areas to determine which banks are practicable and ecologically sufficient to offset the proposed functional losses. The Corps identified East Central Florida and Colbert Cameron as mitigation banks whose permit instruments allow compensation of impacts beyond the MSA on a case-by-case basis, where it is determined to be practicable and environmentally desirable.

When determining if the 1.44 acres of impact could be mitigated at the East Central Florida Mitigation Bank the Corps considered the physical characteristics of the bank and the watershed features which it serves in relation to each wetland proposed for impact and its likely effects on important resources. Additional information contributing to the appropriateness, feasibility, or practicability included endangered species, wildlife corridors, unique habitat, etc.

The proposed wetland impacts identified in Table 8 below are located east of the defined MSA of the East Central Florida Mitigation Bank.

Table 8

Wetland ID	Total Wetland Size	Impact Size	Habitat Type	Functional Loss	HUC	Bank Proposed	Within Service Area of a Bank
MP177.8	1.22	0.16	Forested	0.07	Cape Canaveral	ECFMB	No
MP178E	4.83	0.38	Forested	0.16	Cape Canaveral	ECFMB	No
MP178W	2.38	0.03	Forested	0.01	Cape Canaveral	ECFMB	No
MP178.8	2.28	0.20	Forested	0.08	Cape Canaveral	ECFMB	No
MP184	1.95	0.30	Forested	0.12	Cape Canaveral	ECFMB	No
MP184.5E	1.53	0.02	Forested	0.01	Cape Canaveral	ECFMB	No
MP184.5W	4.3	0.25	Forested	0.11	Cape Canaveral	ECFMB	No
MP187.5	0.1	0.07	Forested	0.03	Cape Canaveral	ECFMB	No
MP187.4	0.77	0.03	Forested	0.01	Cape Canaveral	ECFMB	No
Total		**1.44**		**0.6**			

Wetland MP 177.8 is located immediately north of Barnes Blvd. and boarded by FECR ROW to the west, US Hwy 1 to the east, and cleared land to the north. The wetland is not located near a wildlife corridor and is only expected to be used by small mammals and song birds. The wetland is surrounded by development and does not receive hydrologic inputs from surrounding landuse other than US Hwy 1 and FECR. A large box culvert drains untreated runoff from the east side of US Hwy 1 into the subject wetland. No federally listed species were observed within the wetland, but the wetland could provide habitat for the eastern indigo snake. Wood storks are not expected to utilize the wetland due to its

forested condition and the availability of perennial surface waters nearby. Approximately 13 percent of this wetland would be eliminated by the project. This wetland is 0.19 mile outside the MSA of the mitigation bank.

Wetland MP 178 E and W are located immediately south of Barnes Blvd. The wetlands are boarded by US Hwy 1 to the east, undeveloped land and commercial development to the west and commercial development to the south. The wetland is not located near a wildlife corridor and is only expected to be used by small mammals and song birds. The wetlands receives untreated runoff from US Hwy 1 and FECR. No federally listed species were observed within the wetlands, but the wetlands could provide habitat for the eastern indigo snake. Wood storks are not expected to utilize the wetlands due to their forested condition and the availability of perennial surface waters nearby. These wetlands are hydrologically connected to the Indian River via stormwater conveyance. Approximately 8 percent of this wetland would be eliminated by the project. This wetland is 0.15 mile outside the MSA of the mitigation bank.

Wetland MP 178.8 is located 0.36 miles north of Carver Road and boarded by FECR ROW to the west, US Hwy 1 to the east, commercial development to the north and a small sliver of undeveloped lands to the south. The wetland is not located near a wildlife corridor and is only expected to be used by small mammals and song birds. The wetland receives untreated runoff from US Hwy 1 and FECR. No federally listed species were observed within the wetland, but the wetland could provide habitat for the eastern indigo snake. Wood storks are not expected to utilize the wetland due to its forested condition and the availability of perennial surface waters nearby. This wetland is hydrologically connected to the Indian River via stormwater conveyance. Approximately 1.0 percent of this wetland would be eliminated by the project. This wetland is 0.12 mile outside the MSA of the mitigation bank.

Wetland MP 184 is located 0.4 mile north of Pineda Causeway west of Jen Drive. The wetland is boarded by the FECR ROW on the east, and commercial development to the west and north. The wetland is not located within a wildlife corridor, but 25 acres of undeveloped lands occurs north of the site and it is feasible for medium size mammals to reach the network of conservation lands within the Suntree area of Brevard County. This wetland does not receive untreated runoff from adjacent areas other than the FECR ROW. The wetland is hydrologically connected to the Indian River via manmade conveyance systems. No federally listed species were observed within the wetland, but the wetland could provide habitat for the eastern indigo snake. Wood storks are not expected to utilize the wetland due to its forested condition and the availability of perennial surface waters nearby. Approximately 15 percent of this wetland would be eliminated by the project. This wetland is 1.46 miles outside the MSA of the mitigation bank.

Wetland MP 184.5E is located immediately north of Pineda Causeway. The wetland is boarded by the FECR ROW on the west, residential development to the west, and commercial development to the north. The wetland is not located within a wildlife corridor, but is abutting Wetland MP 184.5W and it is feasible for medium size mammals to reach the network of conservation lands within the Suntree area of Brevard County. This wetland does not receive untreated runoff from adjacent areas other than the FECR ROW. The wetland is likely hydrologically connected to the Indian River via manmade conveyance systems. No federally listed species were observed within the wetland, but the wetland could provide habitat for the eastern indigo snake. Wood storks are not expected to utilize the wetland due to its forested condition and the availability of perennial surface waters nearby. Approximately 1.0 percent of this wetland would be eliminated by the project. This wetland is 1.46 miles outside the MSA of the mitigation bank.

Wetland MP 184.5W is located immediately north of Pineda Causeway. The wetland is boarded by the FECR ROW on the east, residential and commercial development to the west, and commercial development to the north. The wetland is not located within a wildlife corridor, but is surrounded by more than 30 acres of undeveloped land and it is feasible for medium size mammals to reach the network of conservation lands within the Suntree area of Brevard County. This wetland does not receive untreated runoff from adjacent areas other than the FECR ROW. The wetland is likely hydrologically connected to the Indian River via manmade conveyance systems. No federally listed species were observed within the wetland, but the wetland could provide habitat for the eastern indigo snake. Wood storks are not expected to utilize the wetland due to its forested condition and the availability of perennial surface waters nearby. Approximately 6 percent of this wetland would be eliminated by the project. This wetland is 1.46 miles outside the MSA of the mitigation bank.

Wetland MP 187.5 is located west of the terminus of Riverside Drive abutting the FECR ROW. The wetland is bound by residential development to the east and undeveloped lands to the north and south. The system is not located within a wildlife corridor; however small mammals could utilize the system from the Horse Creek ecoregion. The system is 0.1 acre in size and does not receive a measurable amount of stormwater inputs from adjacent sources. No federally listed species were observed within the wetland, but the wetland could provide habitat for the eastern indigo snake. Wood storks are not expected to utilize the wetland due to its forested condition and the availability of perennial surface waters nearby. Approximately 70 percent of this wetland would be eliminated by the project. This wetland is 1.65 miles outside the MSA of the mitigation bank. This wetland is within the service area of the federally approved Lake Washington Mitigation Bank; however, the mitigation bank does not have the appropriate kind of credits available to compensate for the functional losses of this wetland.

Wetland MP 187.4 is located on the north side of Horse Creek and bound by FECR ROW on the east, a stormwater management pond to the north, and undeveloped lands to the west. This system is abutting Horse Creek and is expected to be used by small and medium size mammals. There are no known adverse water quality inputs into this system. Because the northern boundary of this system is developed and the eastern boundary is FECR ROW it is unlikely that it provides a meaningful amount of flood attenuation or treatment. No federally listed species were observed within the wetland, but the wetland could provide habitat for the eastern indigo snake. Wood storks are not expected to utilize the wetland due to its forested condition and the availability of perennial surface waters nearby. Approximately 4 percent of this wetland would be eliminated by the project. This wetland is 1.63 miles outside the MSA of the mitigation bank. This wetland is within the service area of the federally approved Lake Washington Mitigation Bank; however, the mitigation bank does not have the appropriate kind of credits available to compensate for the functional losses of this wetland.

The subject wetlands are typical for the area and do not provide substantial functions or features to the Cape Canaveral watershed. Each of the individual impacts is less than 0.5 acre in size and the average proposed impact is 0.16 acre in size. Only one wetland, 0.1 acre in size, would be eliminated entirely. Wetlands at MP 187.4 and MP 184.5E are within the floodplain as defined by Federal Emergency Management Agency (FEMA). The primary ecological benefits provided by these wetlands is water storage and treatment and would be maintained in a post development scenario because the wetland would not be entirely filled by the Project. The applicant completed functional assessments of each system to determine its individual ecological value and concluded the cumulative loss of the 1.44 acres would result in the loss of 0.6 functional units with an average of 0.06 functional unit loss per wetland.

The project goals for the East Central Florida Mitigation Bank are the restoration of degraded hydrology and enhancement of forested and herbaceous wetland communities on the site and adjacent public lands. The bank and its MSA are located within the Upper St. Johns HUC. The mitigation site is large and well connected to offsite wildlife corridors.

The Corps determined the use of the East Central Florida Mitigation Bank to compensate for the 1.44 acres of direct impacts would be practicable and environmentally desirable and ecologically preferable because of proximity to the MSA of the bank, the high quality palustrine wetland functions and services provided at the bank versus low quality palustrine impacted wetlands, benefits to wildlife through protection of wildlife corridors through the establishment of the bank. An additional consideration is the fact that the proposed project would not totally eliminate the wetlands proposed for impact and functions and services provided would remain in a diminished capacity. Further, the Project would result in the

implementation of stormwater management features which do not currently exist in various sections of the existing FECR ROW.

2) Wetland impacts occurring at MP 203 (203E, 203W) are not located within the MSA of a federally approved mitigation bank but are located approximately 570 feet outside (west of) the MSA of the CGW Mitigation Bank. The wetland at this location is classified as an estuarine system in the Cape Canaveral HUC and is hydrologically connected to Goat Creek which flows into the Indian River. The wetlands are bound by FECR ROW to the west, US Hwy 1 to the East, and undeveloped lands to the north and south. The wetlands provide habitat for small mammals which are likely to use the Goat Creek ecotone, water attenuation and treatment, as well as other important functions and sevices to the Indian River. No federally listed species are known to utilize this wetland system. The delineated wetlands totals 10.39 acres in size of which 0.21 acres would be directly impacted by the project. The applicant has completed a functional assessment and determined the proposed impact would result in the loss of 0.14 functional units.

The applicant has proposed to compensate for the direct impacts occurring at MP 203 at the CGW mitigation bank. The objectives of the bank include hydrologic enhancement, salt marsh restoration, and exotic vegetation eradication which contribute functions and services to the Indian River Lagoon which includes the Cape Canaveral and the Vero Beach HUC's. The mitigation bank is available to offset estuarine, salt water, and related habitats. The Corps determined the use of the CGW Mitigation Bank to compensate for the 0.14 functional units of loss would be practicable and environmentally desirable and ecologically preferable given its proximity to the service area, the estuarine wetland functions and services provided at CGW Mitigation Bank, only 2 percent of wetland MP 203 would be lost, compensating storage through the creation of compensating storage areas approved by SJRWMD's WQC would be provided to mitigate the loss of flood storage, and the Project would result in the implementation of stormwater management features which do not currently exist in various sections of the existing FECR ROW

3) To compensate for all remaining direct and indirect wetland impacts and losses the applicant has proposed the purchase of the appropriate type and kind of federal credits from the following federally approved mitigation banks: TM Econ, Reedy Creek, East Central Florida, Basin 22, CGW, Bear Point, Loxahatchee, and Everglades. The applicant has utilized the appropriate functional assessment tools (Modified Rapid Wetland Assessment (MWRAP), Uniform Mitigation Assessment Methodology (UMAM), etc.) to determine the individual ecological value of wetlands and waters that would be directly and indirectly impacted by the Project. A summary of the functional assessments are included as Attachment 1 of this ROD.

Table 9 below summaries the proposed mitigation credit acquisitions by type and mitigation bank.

Table 9

ACOE Mitigation Basins	Mitigation Bank	Forested Credits	Herbaceous Credits	Estuarine Credits	Wetland Assessment Methodology
Lake Hart (Basin 83)	Reedy Creek	49.63	NA	NA	MWRAP
Lake Hart (Basin 83)	TM Econ Ph 1-3	NA	0.81	NA	WRAP
SJR (Basin 18)	TM Econ Ph 1-3	41.15	41.28	NA	WRAP
Econ (Basin 19)	TM Econ Ph 1-3	22.52	3.13	NA	WRAP
Southern SJR (Basin 20)	TM Econ Ph 1-3	NA	6.22	NA	WRAP
Northern IRL (Basin 21)*	ECFMB	0.95	NA	NA	WRAP
Central IRL (Basin 22) CGW	CGW	NA	NA	0.14	MWRAP
Central IRL (Basin 22) Basin 22 MB	Basin 22	0.85	NA	NA	UMAM
St Lucie (Basin 17)	Bear Point	NA	NA	0.12	WRAP
Loxahatchee (Basin 19)**	Loxahatchee	NA	0.06	NA	MWRAP
Loxahatchee (Basin 19)	Everglades	NA	NA	0.02	WATER
Randall Park Mitigation CE Release	Reedy Creek	0.03	NA	NA	UMAM
Alafaya Trail Extension CE Release	TM Econ Ph 4	1.39	NA	NA	UMAM
Total		**116.52**	**51.5**	**0.28**	
Total Credits					**168.30**

* Funtional Loss for herbaceous wetlands in Basin 21 is 0.60. 0.35 Extra Credits have been purchased at ECFMB
** Funtional Loss for Basin 19 Herbaceous is 0.04. 0.02 extra credits have been purchased from Loxahatchee Mitigation Bank

4) When considering the Federal preference for mitigation banks the Corps has determined that the applicant's compensatory mitigation proposal complies with the Federal preference for compensatory mitigation as discussed at 33 C.F.R. 332.3 (b), and would be considered both environmentally and programmatically preferable to other mitigation alternatives in the hierarchy because the federally approved banks whose service area covers the project is capable of compensating for the aquatic resource functions that would be lost as a result of the Project, consolidate mitigation in to ecologically appropriate sites, reduces temporal loss, provides in-kind compensatory mitigation utilizing a watershed approach, and has a greater likelihood of offsetting the permitted impacts to off-site permittee responsible mitigation.

d. Special Conditions:

(1) The following special conditions would be included in any permits issued by the Corps.

- Prior to the commencement of any permitted work in waters of the U.S., the Permittee shall schedule a pre-construction meeting between its representatives, the contractor's representatives and the appropriate Jacksonville District Project Manager to ensure that there is a mutual understanding of all terms and conditions contained within the Department of the Army permit. The Permittee shall notify the Jacksonville District Project Manager a minimum of fourteen (14) days in advance of the scheduled meeting in order to provide that individual with ample opportunity to schedule and participate in the required

meeting.

- Reporting Address: The Permittee shall submit all reports, notifications, documentation and correspondence required by the general and special conditions of this permit to the following address:

  - For standard mail: U.S. Army Corps of Engineers, Regulatory Division, Special Projects and Enforcement Branch, P.O. Box 4970, Jacksonville, Florida 32232-0019.

  - For electronic mail: SAJ-RD-Enforcement@usace.army.mil (not to exceed 10 MB). The Permittee shall reference this permit number, SAJ-2012-01564(SP-AWP), on all submittals.

- Assurance of Navigation and Maintenance: The Permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structures or work herein authorized, or if in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the Permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

- Commencement Notification: Within 10 days from the date of initiating the authorized work, the Permittee shall provide to the Corps a written notification of the date of commencement of work authorized by this permit.

- Cultural Resources/Historic Properties: Within 60 days of the date of this permit and prior to the commencement of any permitted work within the areas identified within the PROGRAMMATIC AGREEMENT AMONG U.S. ARMY CORPS OF ENGINEERS, U.S. COAST GUARD, THE FLORIDA STATE HISTORIC PRESERVATION OFFICER, ALL ABOARD FLORIDA – OPERATIONS, LLC, AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION REGARDING COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT FOR THE ALL ABOARD FLORIDA INTERCITY PASSENGER RAIL PROJECT PHASE II ORLANDO TO WEST PALM BEACH, FLORIDA (Section 106 PA) the Permittee must perform stipulation IV of the Section 106 PA.

- Erosion Control: Prior to the initiation of any work authorized by this permit, the Permittee shall install erosion control measures along the perimeter of all work areas to prevent the displacement of fill material outside the work area. Immediately after completion of the final grading of the land surface, all slopes, land surfaces, and filled areas shall be

stabilized using sod, degradable mats, barriers, or a combination of similar stabilizing materials to prevent erosion. The erosion control measures shall remain in place and be maintained until all authorized work has been completed and the site has been stabilized.

- Fill Material: The Permittee shall use only clean fill material for this project. The fill material shall be free from items such as trash, debris, automotive parts, asphalt, construction materials, concrete block with exposed reinforcement bars, and soils contaminated with any toxic substance, in toxic amounts in accordance with Section 307 of the Clean Water Act.

- Any contamination that is discovered in the existing FECR Corridor and associated structures as a result of current or historical usage will be managed in accordance with applicable federal, state and local law or regulations.

- Mitigation Credit Purchase: Within 30 days from the date of initiating the authorized work the Permittee shall provide verification to the Corps that 49.66 palustrine federal mitigation bank credits have been purchased from the Reedy Creek Mitigation Bank (SAJ-1995-07852). The required verification shall reference this project's permit number (SAJ-2012-01564).

- Within 30 days from the date of initiating the authorized work the Permittee shall provide verification to the Corps that 115.11 palustrine federal mitigation bank credits have been purchased from the TM Econ Mitigation Bank (SAJ-2001-07089). The required verification shall reference this project's permit number (SAJ-2012-01564).

- Within 30 days from the date of initiating the authorized work the Permittee shall provide verification to the Corps that 0.6 palustrine federal mitigation bank credits have been purchased from the East Central Florida Mitigation Bank (SAJ-1995-06135). The required verification shall reference this project's permit number (SAJ-2012-01564).

- Within 30 days from the date of initiating the authorized work the Permittee shall provide verification to the Corps that 0.14 estuarine federal mitigation bank credits have been purchased from the CGW Mitigation Bank (SAJ-1996-05563). The required verification shall reference this project's permit number (SAJ-2012-01564).

- Within 30 days from the date of initiating the authorized work the Permittee shall provide verification to the Corps that 0.85 palustrine forested federal mitigation bank credits have been purchased from the Basin 22 Mitigation Bank (SAJ-2009-01420). The required verification shall reference this project's permit number (SAJ-2012-01564).

- Within 30 days from the date of initiating the authorized work the Permittee shall

provide verification to the Corps that 0.12 estuarine federal mitigation bank credits have been purchased from the Bear Point Mitigation Bank (SAJ-1997-07812). The required verification shall reference this project's permit number (SAJ-2012-01564).

- Within 30 days from the date of initiating the authorized work the Permittee shall provide verification to the Corps that 0.08 palustrine emergent federal mitigation bank credits have been purchased from the Loxahatchee Mitigation Bank (SAJ-1997-07816). The required verification shall reference this project's permit number (SAJ-2012-01564).

- Within 30 days from the date of initiating the authorized work the Permittee shall provide verification to the Corps that 0.03 palustrine emergent federal mitigation bank credits have been purchased from the Reedy Creek Mitigation Bank (SAJ-1995-07852). The required verification shall reference this project's permit number (SAJ-2012-01564). This credit deduction is associated with the Conservation Easement release at Randall Park (SAJ-2006-04040).

- Within 30 days from the date of initiating the authorized work the Permittee shall provide verification to the Corps that 0.08 palustrine emergent federal mitigation bank credits have been purchased from the TM Econ Phase IV Mitigation Bank (SAJ-2007-00401). The required verification shall reference this project's permit number (SAJ-2012-01564). This credit deduction is associated with the Conservation Easement release at Alafaya Trail Extension (SAJ-2002-00464).

- Biological Opinion: This permit does not authorize the Permittee to take an endangered species, in particular the Florida scrub jay. In order to legally take a listed species, the Permittee must have separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit, or a BO under ESA Section 7, with “incidental take” provisions with which you must comply). The enclosed FWS Biological Opinion (BO) contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with “incidental take” that is also specified in the BO. Authorization under this permit is conditional upon compliance with all of the mandatory terms and conditions associated with incidental take of the enclosed BO, which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the BO, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute noncompliance with this permit. The FWS is the appropriate authority to determine compliance with the terms and conditions of its BO, and with the ESA.

- Eastern Indigo Snake Protection Measures: The Permittee shall comply with U.S. Fish and Wildlife Service (USFWS) “Standard Protection Measures for the Eastern Indigo Snake” (dated August 12, 2013) during project site preparation and construction. The

following shall also apply:

o All gopher tortoise burrows, active or inactive, will be evacuated prior to site manipulation in the burrow vicinity. If excavating potentially occupied burrows, active or inactive, individuals must first obtain state authorization via a Florida Fish and Wildlife Conservation Commission Authorized Gopher Tortoise Agent permit. The excavation method selected should also minimize the potential for injury of an indigo snake.

o Holes, cavities, and snake refugia other than gopher tortoise burrows will be inspected each morning before planned site manipulation of a particular area, and if occupied by an indigo snake, no work will commence until the snake has vacated the vicinity of proposed work.

- Smalltooth Sawfish and Swimming Sea Turtles conservation measures proposed by the applicant:

- Construction activities are limited to daylight- only hours.

- pilings installation is restricted to installation to three (3) piles daily.

- The piles will be driven into place with an impact hammer.

- Bubble curtains will be used around each pile during installation to dampen sound.

- Construction equipment will be brought in by vehicle or train and staged either in the uplands or from a barge via the larger water bodies (Eau Gallie River, Sebastian River, St. Lucie River, Loxahatchee River, Hillsboro River, North Fork of the Middle River, and South Fork of the Middle River).

- Floating turbidity barriers will be used to isolate small areas of the construction sites where piles are being driven.

- Sea Turtle/Sawfish/Sturgeon Guidelines: The Permittee shall comply with the National Marine Fisheries Service's "Sea Turtle and Smalltooth Sawfish Construction Conditions", which also applies to sturgeon.

- Manatee Protection: The Permittee shall ensure wharf fenders are installed to reduce the risk of a vessel crushing a manatee. The wharf fenders shall be installed with appropriate materials to provide sufficient standoff space of at least 3 feet under compression. Fenders or buoys providing a minimum standoff space of at least 3 feet under compression shall be utilized between two vessels moored together.

- Manatee Conditions: The Permittee shall comply with the “Standard Manatee Conditions for In-Water Work – 2011”.

- As-Builts: Within 60 days of completion of the authorized work or at the expiration of the construction authorization of this permit, whichever occurs first, the Permittee shall submit as-built drawings of the authorized work and a completed As-Built Certification Form to the Corps. The drawings shall be signed and sealed by a registered professional engineer and include the following:

  - A plan view drawing of the location of the authorized work footprint (as shown on the permit drawings) with an overlay of the work as constructed in the same scale as the attached permit drawings (8½-inch by 11-inch). The drawing should show all "earth disturbance," including wetland impacts, water management structures, and any on-site mitigation areas.

  - b. List any deviations between the work authorized by this permit and the work as constructed. In the event that the completed work deviates, in any manner, from the authorized work, describe on the As-Built Certification Form the deviations between the work authorized by this permit and the work as constructed. Clearly indicate on the as-built drawings any deviations that have been listed. Please note that the depiction and/or description of any deviations on the drawings and/or As-Built Certification Form does not constitute approval of any deviations by the U.S. Army Corps of Engineers.

  - The Department of the Army Permit number.

  - Include pre- and post-construction aerial photographs of the project site, if available.

- Regulatory Agency Changes: Should any other regulatory agency require changes to the work authorized or obligated by this permit, the Permittee is advised that a modification to this permit instrument is required prior to initiation of those changes. It is the Permittee’s responsibility to request a modification of this permit from the Cocoa Regulatory Office.

12. General evaluation criteria under the public interest review:

a. Relative extent of the public and private need for the proposed structure or work: The Project would provide intercity passenger rail service from Miami to Orlando, Florida. This form of transportation service does not currently exist. The use of alternative transportation is expected to decreased congestion resulting in the potential for fewer vehicular crashes. The Project maximizes the use of existing transportation corridors

thereby reducing acquisition costs and potential commercial and residential relocations. The Project would include the implementation of safety improvements at crossings which includes upgraded PTC, enhanced security, and improved communication among emergency responders. The addition of the Project is expected to result in a net regional air quality benefit, reference FEIS, section 5.2.2. In addition, the Project is expected to provide employment and tax revenue benefits to local communities during construction; and, to a lesser extent, during operation and associated facilities (reference the FEIS, table 5.4.3-1, which summarizes the potential economic benefits associated with the Project). The State of Florida would collect sales and use taxes on locally purchased goods and services during construction and operation of the project.

b. Practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed work where there are unresolved conflicts as to the resource use: The Corps received correspondence from numerous individuals, local governments, and organizations requesting the Corps to deny the Project; or, at a minimum, require relocation of the Project to the west of existing development, adjacent to Florida's Turnpike (reference section 6.b., above). The FRA also received correspondence from numerous individuals, local governments, and organizations expressing concerns/objections to the Project (reference the FEIS, Appendix 8.5 B1-B.6, FRA's ROD and ROD Appendix 3). During the evolution of the Project, in response to coordination with the FRA and the Corps, the applicant revised the project, as practicable, to address concerns/objections specific to safety, cultural and historical resources, noise and vibration, wetlands and wildlife, navigation, and stormwater management. The applicant has proposed conservation measures and compensatory mitigation to reduce anticipated human and environmental effects. The Project utilizes existing transportation corridors. Use of an alternative site would require the applicant to expend substantial financial resources to acquire ROW, increase fragmentation of biological and natural ecological resources, and introduce noise and vibration to areas where they do not currently exist. The applicant has an operating agreement with FECR which allow utilization of the existing FECR tracks. In consideration of the unresolved concerns/objections, the FEIS and this ROD document that less environmentally damaging practicable alternatives are not available (reference the FEIS, Executive Summary Table S-2 which summarizes the anticipated environmental effects of each of the alternatives, chapter 5; and, section 7 of this ROD).

c. Extent and permanence of beneficial and/or detrimental effects, which the proposed work is likely to have on the public and private uses to which the area is suited: Beneficial effects associated with the Project include a transportation alternative which does not currently exist, temporary and long-term economic benefits, and an expected long-term decreases in greenhouse gases. A summary of economic benefits associated with the Project is conveyed in the FEIS, table 5.4.3-1 and section 9.q above.

13. Determinations:

a. Public Hearing Evaluation (33 C.F.R. § 327.4(b)):

(1) The FRA held numerous public meetings that conveyed information about the Project and solicited public commentary during the scoping process. (reference section 5.a., above; and, the FEIS, section 8.1). FRA provided an extended public comment period of 75 days from the issuance of the DEIS. The Corps circulated a 30-day public notice on 7 October 2014, which advised the public of the availability of the DEIS, dates of eight public information meetings hosted by FRA, provided additional information associated with the Corps' evaluation of the Project, and solicited public commentary. The Corps circulated a second 21-day public notice on 11 April 2017, which advised the public of the availability of the FEIS, provided detailed construction plans, additional information associated with the Corps' evaluation of the Project, and solicited public commentary. The Corps extended the initial comment period of the 11 April 2017 public notice an additional 9 days beyond the 21-day notice to allow the public adequate time to review the documents associated with the proposed project. During the comment periods of both public notices and during the entire evaluation of the proposal the Corps received comments from members of the general public, nongovernmental organizations, and Federal and State agencies. Substantive comments are addressed in the appropriate sections of the FEIS. FEIS, Chapter 1, Introduction identifies and provides FRA's responses to general comments and to comments that appeared frequently in individual and form letters, and to which FRA can provide general responses. Comments received after publication of the FEIS were addressed by FRA in a separate document associated with FRA's ROD.

(2) The Corps received numerous requested for a public hearing (reference section 6.b., above). In accordance with 33 C.F.R. § 327.3, a public hearing is a proceeding conducted for the purpose of acquiring information or evidence which would be considered in evaluating a proposed Department of the Army permit action. The Corps has reviewed the extensive correspondence submitted in conjunction with the circulation of the DEIS, the Corps' public notices, and the FEIS. In consideration of that review, the Corps has determined that the issues raised have been addressed by individual meetings with commenting parties, completion of the Section 106 PA, within the FEIS, and the FRA's ROD; therefore, a public hearing is not necessary at this time.

b. Section 176(c) of the Clean Air Act General Conformity Rule Review: The proposed permit action has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities proposed under this permit will not exceed de minimis levels of direct or indirect emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the Corps' continuing program responsibility and

generally cannot be practicably controlled by the Corps. For these reasons a conformity determination is not required for this permit action.

c. Relevant Presidential Executive Orders (EO).

(1) EO 13175, Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians: This action has no substantial effect on one or more Indian tribes, Alaska or Hawaiian natives.

(2) EO 11988, Floodplain Management: Alternatives to location within the floodplain, minimization and compensatory mitigation of the effects were considered above.

(3) EO 12898, Environmental Justice: Environmental justice is discussed in FEIS section 4.4.2 and 5.2.2. The FRA has concluded "There would be no disproportionate impacts to environmental justice communities along the MCO Segment, as there are no minority or low-income populations within the census tract encompassing this segment. Neither the E-W Corridor nor the N-S Corridor would result in residential displacement, job loss, or neighborhood fragmentation due to the use of property; therefore, there would be no disproportionate impacts to environmental justice communities from changes in land use. Although changes in noise would affect 109 residential parcels (105 moderate and four severe impacts) along the E-W Corridor, none of these parcels are within environmental justice communities. Potential impacts resulting from changes to noise in environmental justice communities would not be appreciably more severe or greater in magnitude than the impacts experienced by non-environmental justice communities along the N-S Corridor. There would be no adverse vibration impacts to environmental justice communities along the E-W Corridor under the Project, and mitigation would limit any changes in vibration along the N-S Corridor such that there would be no resulting vibration impacts." The Corps concurs with findings of FRA and has determined that this proposed project would not use methods or practices that discriminate on the basis of race, color or national origin nor would it have a disproportionate effect on minority or low-income communities.

(4) EO 13112, Invasive Species: FEIS section 5.3.5.2 provides a discussion on the *Introduction of Invasive Species* and concludes that Project has the potential to increase invasive species occurrences in natural habitats, particularly along the E-W Corridor, where new disturbance would occur adjacent to natural communities. However, this does not represent a significant change, as the existing SR 528 corridor provides opportunities for the spread of invasive species. AAF has committed to revegetate cleared areas when required by standard BMPs and applicable laws and reduce the potential for invasive species spread by using imported soil for fill material that has been certified free of invasive species seeds and rhizomes. The Corps would include a special condition in any permit issued to reduce spread of invasive species.

(5) EO 13212 and EO 13302, Energy Supply and Availability: The project will not increase the production, transmission, or conservation of energy, or strengthen pipeline safety.

(6) EO 13547, Stewardship of the Ocean, Our Coasts, and the Great Lakes: The project would not adversely affect America's stewardship of the ocean, coasts, or Great Lakes.

(7) EO 13045, Protection of Children: The project as currently proposed should not cause any environmental health risks or safety risks that would disproportionately affect children and is therefore in compliance with the EO.

d. Compliance with NEPA: The Corps acted as a Cooperating Agency in the preparation of the FEIS for this project. The FRA was the Lead Agency in the preparation of the FEIS. The Corps has adopted FRA's FEIS pursuant to 40 C.F.R. § 1506.3(c). All practicable means to avoid or minimize environmental harm from the alternative selected have been adopted. The applicant agrees to implement the mitigative measures and Project Commitments outlined in the FEIS, USFWS BO, and the Section 106 PA.

e. Compliance with the Section 404(b)(1) Guidelines: Having completed the evaluation in Section 8, the Corps has determined the proposed discharge complies with the Section 404(b)(1) Guidelines, with the inclusion of the appropriate and practicable special conditions to minimize pollution or adverse effects to the affected ecosystem.

f. Public Interest Determination: I find that issuance of DA permit application SAJ-2012-01564 is not contrary to the public interest.

14. Effective Date: This Record of Decision shall become effective on the date executed by the District Engineer for Jacksonville District.

PREPARED BY:

Date: 23 March 2018

ANDREW W. PHILLIPS
Project Manager

REVIEWED BY:

Date: 3/23/18

DONALD W. KINARD
Chief, Regulatory Jacksonville District

APPROVED BY:

Date: 23 MAR 18

JASON A. KIRK, P.E.
Colonel, EN
Commanding