

AAF Segment D09- Wetlands Within ROW

WL & SW ID	UMAM ASSESSMENT AREA NAMES	WL TYPE	WL SIZE within ROW (ACRES)	WL SIZE NOT IMPACTED within ROW (ACRES)	PERMANENT WL & SW IMPACTS
MP234	MP234	6300	0.37	0.37	0.00
MP235	MP235	6300	0.05	0.05	0.00
MP236	MP236	6310	0.14	0.14	0.00
MP241.27-1	MP241.27	6120	0.01	0.00	0.01
MP245	MP245	6190	0.00	0.00	0.00
MP254	MP254	6400	0.13	0.12	0.01
MP258	MP258	6190	0.00	0.00	0.00
MP 259.95 TOTAL FOOTPRINT	MP259.96	6120	0.11	0.03	0.08
MP260	MP260	6310	0.06	0.06	0.00
MP261	MP261	6120	0.04	0.04	0.00
MP 266.58 TOTAL FOOT PRINT	MP266.59	6120	0.04	0.02	0.02
MP266.86 TOTAL FOOT PRINT	MP266.87	6120	0.31	0.21	0.10
MP267.3 TOTAL FOOT PRINT	MP267.3	5100	0.04	0.04	0.00
MP267.7 TOTAL FOOT PRINT	MP267.7	6400	0.04	0.03	0.01
MP275	MP275	6120	0.44	0.44	0.00
MP277W	MP277W	6400	0.00	0.00	0.00
MP277E	MP277E	6400	0.30	0.30	0.00
MP277.7	MP277.7	6400	0.09	0.08	0.01
MP278W	MP278W	6410	0.67	0.67	0.00
MP278E	MP278E	6210	0.65	0.65	0.00
MP278.5W	MP278.5W	6410	0.18	0.18	0.00
MP278.5E	MP278.5E	6410	0.01	0.01	0.00
MP279	MP279	6400	0.97	0.91	0.06
MP282.75	MP282.75	6120	0.06	0.01	0.05
Total			4.71	4.36	0.35

Table 1. Wetland Assessment/Mitigation Summary ERP and USACE Permit Application AAF D09 Segment

Mile Post	Bridge Wetland Impacts (acres)	Non-Bridge Wetland Impacts (acres)	Proposed Total Wetland Impact Area (acres)	FLUCCS	UMAM Delta	WRAP Score	WATER	Functional Loss based on Method for Mitigation Bank	In Basin Mitigation	Cumulative Impact Basin	Mitigation Bank
MP241.27	0.01	0	0.01	6120	0.27	0.37	0.37	0.004	Y	St Lucie	Bear Point Mitigation Bank
MP254	-	0.01	0.01	6300	0.50	0.60		0.006	N	St Lucie	Bluefield Ranch Mitigation Bank
MP259.95	0.01	0.07	0.08	6120	0.57	0.57	0.50	0.046	Y	St Lucie	Bear Point Mitigation Bank
MP266.58	0.01	0.01	0.02	6120	0.53	0.50	0.50	0.010	Y	St Lucie	Bear Point Mitigation Bank
MP266.86	0.03	0.07	0.1	6120	0.60	0.57	0.57	0.057	Y	St Lucie	Bear Point Mitigation Bank
MP267.70	0.01	0	0.01	6400	0.50	0.50		0.005	N	St Lucie	Bluefield Ranch Mitigation Bank
MP277.7	-	0.01	0.01	6400	0.70	0.69		0.008*	N	Loxahatchee	Loxahatchee Mitigation Bank
MP279	-	0.06	0.06	6400	0.70	0.68		0.047*	N	Loxahatchee	Loxahatchee Mitigation Bank
MP282.75	-	0.05	0.05	6120	0.43	0.59	0.43	0.022	N	Loxahatchee	Everglades Mitigation Bank
Totals	0.07	0.28	0.35								

*Functional loss multiplied by 1.15 to calculate credits for Loxahatchee Mitigation Bank

Mangrove Trimming Plan
All Aboard Florida
Segment D09

Project Mile Post	# of Mangroves & Species to be Trimmed	Existing Basal Coverage (sq ft)	Basal area reduction (sq ft)	Lateral branch (Y/N)	Estimated Height Reduction	Reason
241.27	1 (red)	319	79.75	Y	No Reduction	Extend clearance between proposed bridge and red mangrove
259.95	2 (red and black)	502	125.5	Y	No Reduction	Branches overlap with the proposed bridge construction area
266.66	2 (red and black)	437	109.25	Y	No Reduction	Branches overlap with the proposed bridge construction area

Comment 9. Submitted information indicates that the applicant has been coordinating with the U.S. Fish and Wildlife Service (USFWS) and the Florida Fish and Wildlife Conservation Commission (FWC) on potential impacts to fish and wildlife threatened and endangered species. Please provide copies of any correspondence received by the applicant from the FWC and the USFWS regarding impacts to fish and wetland-dependent wildlife and listed species and their habitats. [AH I, 10.2.2]

Response 9. Correspondence with the USFWS and FWC, including the Biological Opinion on the project from the USFWS and concurrence letter from the FWC, are included in **Attachment H**.

Comment 10. Submitted information states that all proposed mangrove trimming will be conducted in accordance with FDEP requirements; however, trimming (if not exempt) will be addressed as part of this application. Please provide a detailed plan which describes and depicts the proposed trimming activities, and demonstrates that the trimming is consistent with the 1996 Mangrove Trimming and Preservation Act, Section 403.9327, Florida Statutes. [AH I, 10.2]

Response 10. The Florida Legislature enacted the 1996 Mangrove Trimming and Preservation Act (1996 Act) in sections 403.9321-403.9334 of the Florida Statutes (F.S.) to protect mangroves from defoliation and death as a result of unregulated trimming. The law regulates the trimming and alteration of mangroves statewide, including at the local level. A list of the locations as well as specific details regarding the proposed trimming of mangroves by AAF project within D09 is provided in **Attachment I**. The heights to which a mangrove tree may be trimmed depends upon the species and condition of the tree, and the provisions of the 1996 Act. AAF will not trim a mangrove to a height lower than 6 feet from the substrate (ground surface) under the exemptions and general permits in the 1996 Act, except for certain maintenance trimming of historically established configurations. AAF will not reduce the vertical height of any mangrove so that more than 25 percent of the total height of the individual specimen is not removed annually. The mangrove trimming proposed by AAF will be limited to lateral branches and the cutting of the aerial/prop roots will not be included as part of the trimming process. In accordance with FDEP guidance, AAF will attempt to phase the construction so that the trimming of the mangroves occurs between October through March which is when mangroves are not growing as vigorously and energy demand for producing propagules is reduced. All activities involving the removal or trimming of mangroves will be performed by a Professional Mangrove Trimmer (PMT) and adhere to all FDEP guidelines (including the 1996 Mangrove Trimming and Preservation Act) on mangrove trimming.

Sincerely,

Amec Foster Wheeler Environment & Infrastructure, Inc.



Tiffany Davies, PE
Senior Engineer
Direct Tel: + 917 204-2504
Direct Fax: + 1 352 333 6622
E-mail: tiffany.davies@amecfw.com



for Charlene A. Stroehlen, PE, with permission
Senior Associate Engineer
Direct Tel: + 1 352 333 2620
Direct Fax: +1 352 333 6622
E-mail: charlene.stroehlen@amecfw.com

Table 2. Wetland Assessment/Mitigation Summary ERP and USACE Permit Application AAF D09 Segment

Mile Post	Bear Point Mitigation Bank	Bluefield Mitigation Bank	Everglades Mitigation Bank	Loxahatchee Mitigation Bank*
MP241.27	0.004			
MP254		0.006		
MP259.95	0.046			
MP266.58	0.01			
MP266.86	0.057			
MP267.70		0.005		
MP277.7				0.008
MP279				0.047
MP282.75			0.022	
Total Credits	0.117	0.011	0.022	0.055

*Functional loss multiplied by 1.15 to calculate credits for Loxahatchee Mitigation Bank

Bluefield Ranch Mitigation Bank

David McIntosh, Trustee
901 North Olive Avenue
West Palm Beach, FL 33401
P (561) 355-3900; F (561) 659-9811
C (561) 346-4072
DaveMcl@bellsouth.net

Memorandum by Email

To: Mr. Scott McNabb, SFWMD (SMcNabb@SFWMD.gov)
Ms. Mindy Parrott, SFWMD (MParrott@SFWMD.gov)

From: Dave McIntosh

Subject: All Aboard Florida – Operations, LLC:
AAF North South Rail Connector Segment D09
Wetland mitigation at Bluefield Ranch Mitigation Bank
App# and Permit # - NOT SUPPLIED BY PERMITTEE

Date: October 23, 2015

Good morning, Scott and Mindy:

All Aboard Florida – Operations, LLC, has completed its purchase of one one-hundredth of one (0.01) herbaceous wetland mitigation credit from Bluefield Ranch Mitigation Bank for its project known as AAF North South Rail Connector Segment D09.

I now authorize and request that you remove that 0.01 herbaceous credit from our ledger that you maintain and permanently associate that 0.01 credit with the Permittee's/Applicant's filings.

As you are aware, Bluefield Ranch Mitigation Bank is permitted for the sale of those credits by the South Florida Water Management District pursuant to Permit #56-00002-M.

If you have any questions, please contact me directly.

All the best to you and your colleagues, with my thanks.



Copy: Ms. Stephanie Savilla, Bio-Tech Consulting (Stephanie@Bio-techConsulting.com)
Dr. Chuck Olson, BRMB (Chuck@BluefieldRanch.com)
Mr. Desmond Duke, BRMB (DDuke@EcoResolve.com)

MITIGATION BANK CREDIT RESERVATION AGREEMENT

THIS AGREEMENT made and entered into this 8 day of December 2015, by and between **ST. LUCIE COUNTY**, a political subdivision of the State of Florida, ("County"), whose address is 2300 Virginia Avenue, Fort Pierce, FL, 34982, and **INDIAN RIVER MITIGATION PARTNERS** ("IRMP"), whose address is 649 Harbor Island, Clearwater, FL 33767.

WITNESSETH

WHEREAS, the County owns and operates the Bear Point Mitigation Bank, ("Bank"); and,

WHEREAS, IRMP previously purchased credits in the Bank; and,

WHEREAS, as indicated in the letter dated November 12, 2015 letter attached hereto and incorporated herein as Exhibit "A", IRMP intends to sell .12 Dual State and Federal credits to All Aboard Florida-Operations, LLC ("Developer") for the All Aboard Florida Segment D-09 Project; and,

WHEREAS, IRMP desires to reserve 0.12 Dual State and Federal Credits in the Bank ("Credit") in order for the Developer to comply with the necessary permits for the proposed development of the Project; and.

WHEREAS, the County is willing to reserve the requested credits pursuant to the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the mutual promises contained herein, the parties agree as follows:

1. The County agrees to reserve 0.12 Dual State and Federal Credits for the Project as set forth in this Agreement. The parties acknowledge that IRMP has previously purchased the Credits from the Bank. The parties acknowledge and agree that release of the reserved credits is not guaranteed until to the 2016 release cycle. Prior release of the reserved Credits will be subject to the approval of the Florida Department of Environmental Protection. The term of this reservation shall begin on the date first written above and shall continue for a period of one year from the date of this Agreement, subject to extension upon the prior written agreement of the parties.

2. Upon sale of the Credits to the Developer, IRMP shall provide proof of the sale to the County. It shall be the responsibility of IRMP to provide the regulatory agencies with a copy of the receipt or other acceptable proof indicating reservation of the Credits.

3. In the event the permits for the Property are issued, the parties shall enter into a Mitigation Bank Credit Release Agreement for the required number of Credits. In the event the permits for the Project are not issued prior to the expiration of this Agreement, this Agreement shall be rendered null and void.

4. Any disputes relating to interpretation of the terms of this Agreement or a question of fact or arising under this Agreement shall be resolved through good faith efforts upon the part of the Developer and the County. Any dispute which is not resolved by mutual agreement shall be decided by the County Administrator who shall reduce the decision to writing. The decision of the County shall be final and conclusive unless determined by a court of competent jurisdiction to be fraudulent, capricious, arbitrary, so grossly erroneous as to necessarily imply bad faith, or not be supported by substantial evidence.

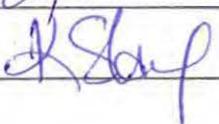
5. Prior to initiating any litigation concerning this Agreement, the parties agree to submit the disputed issue or issues to a mediator for non-binding mediation. The parties shall agree on a mediator chosen from a list of certified mediators available from the Clerk of Court for St. Lucie County. The fee of the mediator shall be shared equally by the parties. To the extent allowed by law, the mediation process shall be confidential and the results of the mediation or any testimony or argument introduced at the mediation shall not be admissible as evidence in any subsequent proceeding concerning the disputed issue.

6. This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior verbal or written agreements between the parties with respect thereto. This Agreement may only be amended by written document, properly authorized, executed and delivered by both parties hereto. This Agreement shall be interpreted as a whole unit. All interpretations shall be governed by the laws of the State of Florida. In the event it is necessary for either party to initiate legal action regarding this Agreement, venue shall be in the Nineteenth Judicial Circuit for St. Lucie County, Florida, for claims under state law and the Southern District of Florida for any claims which are justiciable in federal court.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed on the day first above written.

WITNESSES:





ST. LUCIE COUNTY, FLORIDA

BY:



COUNTY ADMINISTRATOR



TETRA TECH

November 9, 2015

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

RE: Loxahatchee Mitigation Bank
Executed Contract No. 1274
Project: AAF North South Rail Corridor Segment D09

Dear Mr. Reininger:

This letter serves as confirmation that you have executed a contract with Tetra Tech, Inc. for the purchase of 0.06 freshwater herbaceous wetland credits at the Loxahatchee Mitigation Bank for your project known as AAF North South Rail Corridor Segment D09, located in Martin County, for your regulatory agency permits requirement.

Enclosed for your records is your copy of the executed Contract No. 1274 for Sale and Purchase of Mitigation Credits. Also enclosed is a receipt indicating that you have paid to Tetra Tech, Inc. the payment in full.

We truly appreciate your business. Should you have questions concerning the attached documents or other matters related to this transaction, please contact me at (772) 781-3414.

Sincerely,

Kristin K. Bennett
Project Development and Management

Enclosures

cc: (w/o Enclosures) Stephanie Salvilla, Bio-Tech Consulting, Inc.





EVERGLADES
MITIGATION BANK

October 29, 2015

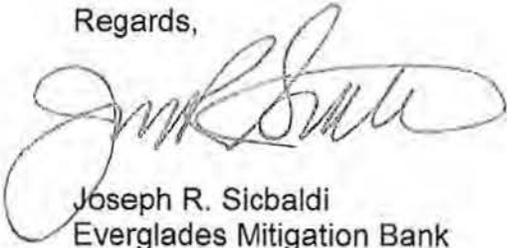
Joe Reyes
All Aboard Florida
8529 South Park Circle
Suite 190
Orlando, FL 32819

**Re: Everglades Mitigation Bank Credit Reservation:
U. S. Army Corps of Engineers Permit Number TBD
South Florida Water Management District Permit Number 13-05321-P**

Please be advised that the Everglades Mitigation Bank (the "EMB") has reserved 0.02 Saltwater mitigation credits necessary to offset the unavoidable wetland impact for the above referenced project. Phase I of the EMB has a signed Mitigation Banking Instrument acknowledged by both FDEP and USACE and sufficient credits are currently available on the EMB ledger to offset the proposed impacts. **The EMB acknowledges receiving payment in full for the above referenced credits.**

Please contact me at 561-694-6388 for any additional information or questions regarding this matter.

Regards,



Joseph R. Sicbaldi
Everglades Mitigation Bank

Bluefield Ranch Mitigation Bank

David McIntosh, Trustee
901 North Olive Avenue
West Palm Beach, FL 33401
P (561) 355-3900; F (561) 659-9811
C (561) 346-4072
[Dave Mci@bellsouth.net](mailto:Dave.Mci@bellsouth.net)

Memorandum by Email

To: Ms Trish Stone (TStone@SFWMD.gov)
Mr. Scott McNabb (SMcNabb@SFWMD.gov)
Ms. Mindy Parrott (MParrott@SFWMD.gov)

From: Dave McIntosh

Subject: All Aboard Florida North-South Rail Corridor Segment D09
SFWMD Permit Application # 150922-3

Date: April 20, 2016

Good afternoon Ms. Stone, Mr. McNabb and Ms. Parrott:

On March 23, 2016, Desmond Duke advised Ms. Stone that All Aboard Florida—Operations, LLC, had reserved twenty-nine one hundredths of one (0.29) herbaceous wetland mitigation credit from Bluefield Ranch Mitigation Bank (“BRMB”). All Aboard Florida—Operations, LLC, has now fulfilled all of its obligations under the terms of its contract with BRMB and has completed the purchase of that 0.29 herbaceous credit pursuant to its Application #150922-3.

I hereby authorize and request that you remove that twenty-nine one hundredths of one (0.29) herbaceous credit from the BRMB ledger that you maintain and that you permanently associate that 0.29 credit with the Permittee’s/Applicant’s filings.

As you are aware, BRMB is permitted for the sale of those credits by the South Florida Water Management District pursuant to Permit #56-00002-M.

If you have any questions, please contact me directly.

All the best to you and your colleagues, with my thanks.



Copy: Ms. Stephanie Salvilla, Bio-Tech (Stephanie@Bio-TechConsulting.com)
Dr. Chuck Olson, BRMB (Chuck@BluefieldRanch.com)
Mr. Desmond Duke, BRMB (DDuke@EcoResolve.com)



DATE: SEPTEMBER 10, 2015
TO: TRISHA STONE, LEAD ENVIRONMENTAL ANALYST
FROM: STEPHANIE SALVILLA, PROJECT MANAGER
CC: JOHN MIKLOS, ALEX GONZALEZ, JOSE GONZALEZ, ADRIAN SHARE
RE: CUMULATIVE IMPACT ANALYSIS –SEGMENT D09
BTC NO: 676-03.03

This memo is being provided to support the utilization of “out-of-basin” mitigation for wetland impacts proposed within the North South Rail Corridor Segment D09 Project. This segment is one of several proposed rail segments that are part of the All Aboard Florida railway system from Miami to Orlando. All avoidance and minimization opportunities within the Florida East Coast (FEC) Railway right-of-way have been implemented, especially within the Jonathon Dickinson State Park. As this project is a linear project and the project limits are restricted to the existing railway right-of-way, on-site mitigation opportunities are not possible.

Project Description

The North South Rail Corridor Segment D09 project proposes 0.35 acres of wetland impacts throughout the 65-mile length of Segment D09 and traverses through the St Lucie and Loxahatchee River Cumulative Impact Basins (Figure 10.2.8-5 SWERP ERP Handbook). Though a cumulative impact evaluation may be appropriate as the applicant proposes to mitigate some of the impacts with out-of-basin mitigation, the proposed impacts are very small, abut an existing and active rail right-of-way, and the proposed mitigation has service areas that include the impacts in question for linear projects. Further, with the exception of the wetland impacts within the Jonathon Dickinson State Park, the majority of the wetland impacts consist of low quality habitat.

Cumulative Impact Analysis

GIS Data used to perform this analysis was obtained from South Florida Water Management District (SFWMD) and Florida Natural Areas Inventory (FNAI). Utilizing the Land Use Cover

Tampa Office
6011 Benjamin Road, Suite 101 B
Tampa, FL 33619

Orlando Office
2002 E. Robinson Street
Orlando, FL 32803

Vero Beach Office
4445 N. AIA, Suite 221
Vero Beach, FL 32960

Key West Office
1107 Key Plaza, Suite 259
Key West, FL 33040

Aquatic & Land Mgmt. Operations
3825 Rouse Road
Orlando, FL 33822

Jacksonville Office
2036 Forbes Street
Jacksonville, FL 32204

BTC MEMO

2008 (SFWMD), Conservation Easements 2012 (SFWMD) and Florida Land Managed Areas (FNAI), specific FLUCCS classifications for the wetland impacts were queried and acreages calculated. Excluding the wetlands within the SFWMD Conservation Lands and Florida Land Managed Areas database provided an inventory for calculating acreages of specific wetlands (FLUCCS 6120, 6400's) available for future development projects. For this analysis, all wetland acreages, impacts and percentages are calculated by the basin that the rail section is located.

St Lucie Cumulative Impact Basin

Within the St Lucie Basin, there are 0.83 acres of freshwater marsh and 0.51 acre of mangrove wetlands located within Segment D09 Right-of-Way. Of the 0.23 acre of proposed wetland impacts within this section, a total of 0.02-acre of impact (freshwater marsh) must mitigate “out-of-basin” as there are no mitigation banks within the St Lucie Basin that offer freshwater credits. These credits will be purchased through Bluefield Mitigation Bank. Overall, this impact acreage equates to 2.41% of all the marshes within Segment D09 of the St Lucie Basin.

Based on the GIS analysis, there are approximately 10,068 acres of freshwater marshes (6400) within the basin with an estimated 5,139 acres (51%) of those wetlands preserved. A review of the wetlands not preserved, estimates 4,929 acres (49%) of wetlands could potentially be considered “at risk” of future development (Figure 1). These “at risk” wetlands were further classified as “high risk” or “low risk” based upon Martin County’s extremely strict wetland regulations. Therefore, a review of the freshwater marshes not preserved estimates that 2,548 acres (25%) of wetlands could potentially be considered “high risk” of future development with 2,381 acres (24%) being considered “low risk” of future development.

When assessing the cumulative loss of mitigating the proposed 0.02 acre of wetland impact outside of the basin, it should be noted that the impacts represents 0.0002% of all the marshes located within the basin and 0.0004% of the “at risk” marshes that could potentially be impacted by future projects. Further, if all the future projects proposed to impact the “at risk” wetlands and mitigate “out-of-basin” at the same percentage as the proposed project, the 2.41% loss (118.79 acres) would not be considered an unacceptable cumulative impact to the basin.

Loxahatchee River Impact Basin

Within the Loxahatchee River Basin, there are 2.22 acres of freshwater marshes and 1.15 acres of mangrove wetlands located within the Segment D09 Right-of-Way. Within this basin, the applicant proposes 0.07 acre of freshwater marsh and 0.05 acre of mangrove impacts. As there are no mitigation banks within the Loxahatchee River Basin, all of the wetland impacts are proposed to be mitigated “out-of-basin” through the purchase of credits at the Loxahatchee River and Everglades Mitigation Banks for freshwater marsh and saltwater marsh impacts.

Freshwater Marsh Impacts

The freshwater marsh impacts directly abut the existing FEC railroad track along the track toe of slope within the Jonathon Dickinson State Park and are 0.01-acre and 0.06-acre in size. Mitigation for these impacts is proposed through the purchase of credits at Loxahatchee River

BTC MEMO

Mitigation Bank. Overall, this impact acreage equates to 3.15% of all the basin marshes within Segment D09 of the Loxahatchee River Basin.

Based on the GIS analysis, approximately 32,400 acres of marshes are located within the Loxahatchee River Basin with an estimated 24,937 acres (77%) being preserved marshes. The remaining 7,463 acres of marshes are not preserved and therefore considered “at risk” for future development projects. These “at risk” wetlands were further classified as “high risk” or “low risk” based upon Martin County’s extremely strict wetland regulations and known future land development projects. Therefore, a review of the wetlands not preserved estimates 4,485 acres (14%) of marshes could potentially be considered “high risk” of future development with 2,978 acres (9%) being considered “low risk” of future development (Figure 2).

When assessing the cumulative loss of mitigating the proposed 0.07 acre of freshwater marsh impacts outside of the basin, it should be noted that the wetland impacts represent 0.0002% of all the herbaceous wetlands located within the Loxahatchee River Basin and 0.0009% of the “at risk” wetlands that could potentially be impacted by future projects. Further, if all the future projects proposed to impact the “at risk” wetlands and mitigate “out-of-basin” at the same percentage as the proposed project, the 3.15% loss (235.08 acres) would not be considered an unacceptable cumulative impact to the basin.

Mangrove Impacts

The third impact consists of a 0.05-acre impact of lower quality mangrove wetland with nuisance and exotics. Based on the GIS analysis, there are approximately 564 acres of mangrove wetlands within Loxahatchee River Basin, of which, an estimated 489 acres (87%) are preserved mangroves. Therefore, a review of the mangrove areas not preserved estimates 75 acres (13%) of mangrove could potentially be considered “at risk” of future development (Figure 2). Overall, this impact equates to 4.35% of the total basin mangrove wetlands within Segment D09.

When assessing the cumulative loss of mitigating the proposed 0.05 acre of mangrove impact outside of the basin, it should be noted that the impact represents 0.0089% of all of the mangroves in the basin and 0.0667% of the “at risk” mangroves that could potentially be impacted by future projects. Further, if all the future projects proposed to impact the “at risk” wetlands and mitigate “out-of-basin” at the same percentage as the proposed project, the 4.35% loss (3.26 acres) would not be considered an unacceptable cumulative impact to the basin.

Conclusion

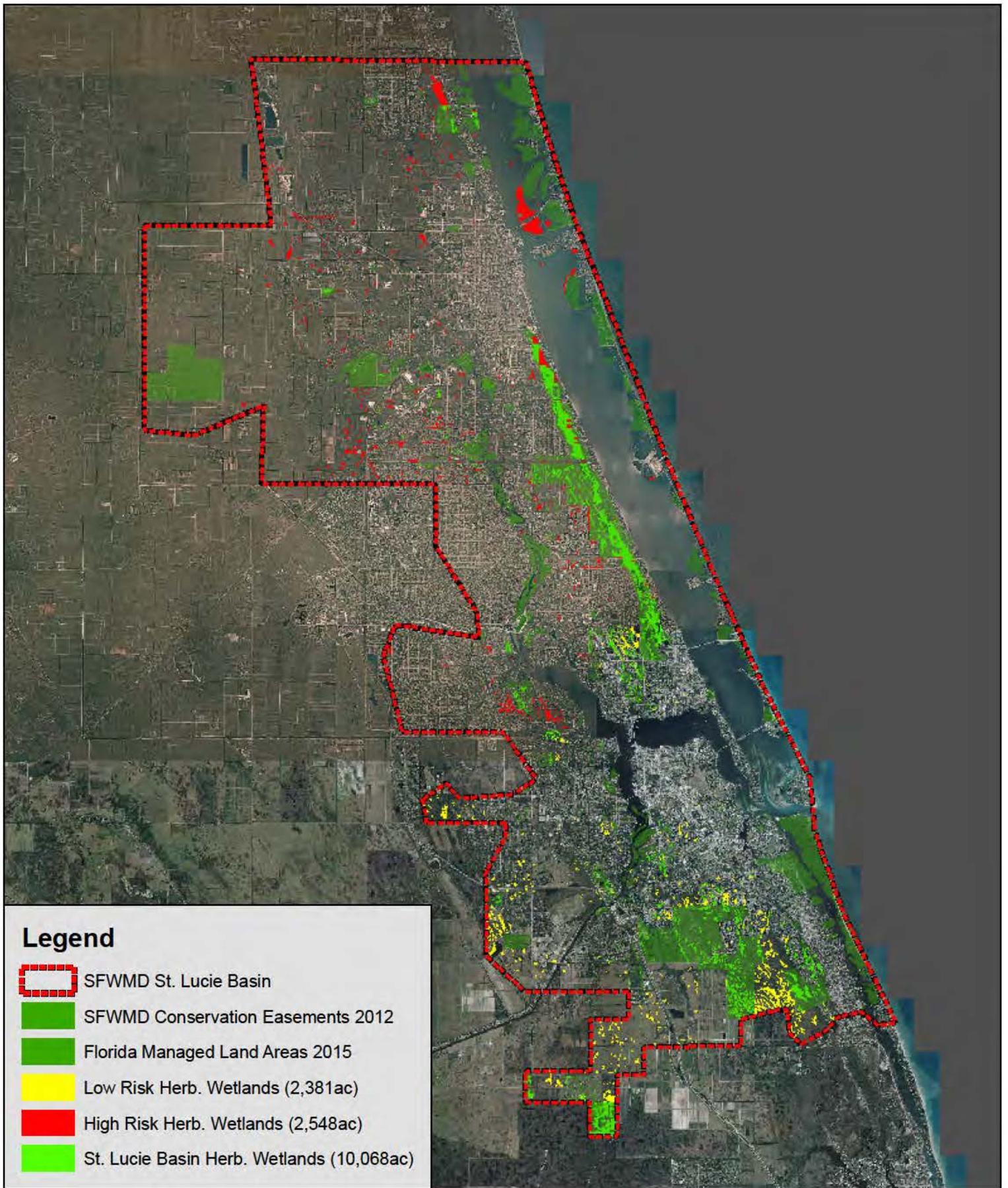
Due to the minute size of the impacts and lack of on-site opportunities available within the FEC right-of-way and/or Government Owned Lands within the two basins, utilizing a mitigation bank is the only viable mitigation option at this time. Additionally, there are no mitigation banks within the St Lucie Basin and/or Loxahatchee River Basin that have the available freshwater or saltwater credits needed in the respective basin in order to address cumulative impacts. It should be noted that this analysis does not take into account the economic feasibility of future wetland impacts which would likely reduce the percentage of “at risk” wetlands within the basins. Further, these “at risk” wetland estimates do not take into account the SFWMD or the Army

BTC MEMO

Corps of Engineers (ACOE) elimination and reduction criteria, which would further reduce potential wetland impacts within the basin. As such, purchasing credits from a mitigation bank outside of St Lucie Basin and Loxahatchee River Basin should not be an unacceptable cumulative loss as:

- The wetland impacts are minute as demonstrated by the overall wetland basin and impact percentages;
- The impacts abut an existing railway system;
- There are no on-site mitigation opportunities within the FEC right-of-way;
- Under Florida Statute 373.4135(1)(b), off-site mitigation opportunities historically available on governmental lands are now cost prohibitive for the governmental agency to participate and provide the lands available for off-site mitigation opportunities for non-governmental development projects;
- There are no available credits for the specific wetland type within the St Lucie Basin or Loxahatchee River Basin;
- There are Bank Service Areas that include the impact areas;
- There is no potential for the loss of these small wetland areas to have an adverse impact on the basins;
- The purchase of credits at a mitigation bank provides greater long term ecological value than the proposed wetland impacts; and
- Due to the small size of the proposed wetland impacts, the purchase of mitigation lands with the St Lucie or the Loxahatchee Basins would be of little ecological value due to the small size of the mitigation land needed to offset the small wetland impacts.

Therefore, the cumulative impact analysis provided supports the applicant's need to purchase out-of-basin mitigation for the proposed wetland impacts when considering past, present and future activities within the St Lucie Basin and the Loxahatchee River Basin. Please see Tables 1 and 2 which detail the proposed wetland impacts, relevant wetland scoring, proposed mitigation banks and proposed credits. The UMAM Functional Loss values for the proposed wetland impacts reflect the District's field review with AMEC staff.

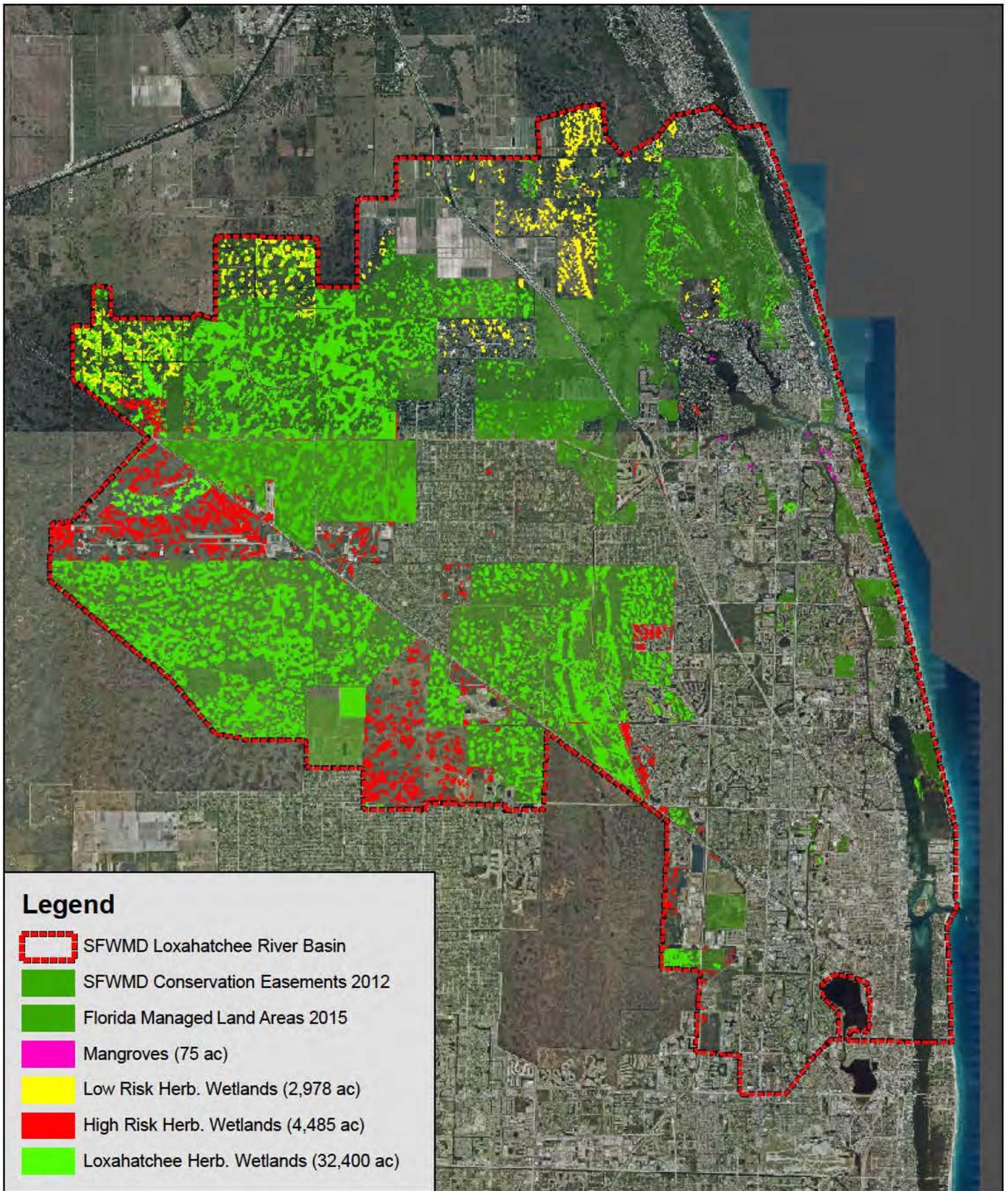


Legend

-  SFWMD St. Lucie Basin
-  SFWMD Conservation Easements 2012
-  Florida Managed Land Areas 2015
-  Low Risk Herb. Wetlands (2,381ac)
-  High Risk Herb. Wetlands (2,548ac)
-  St. Lucie Basin Herb. Wetlands (10,068ac)

AAF Segment D09
 Cumulative Impact Analysis Map
 St. Lucie Basin

Figure 1
EXHIBIT 3.7



AAF Segment D09
 Cumulative Impact Analysis Map
 Loxahatchee River Basin

Figure 2
EXHIBIT 3.7

5
 Miles

Project #: 676-03
 Produced By: JMB
 Date: 8/25/2015

Page 6 of 8

Table 1. AAF North South Rail Corridor Segment D09 Cumulative Impact Analysis

Mile Post	Bridge Wetland Impacts (acres)	Non-Bridge Wetland Impacts (acres)	Proposed Total Wetland Impact Area (acres)	FLUCCS	UMAM Delta	WRAP Score	WATER	Functional Loss based on Method for Mitigation Bank	In Basin Mitigation	Cumulative Impact Basin	Mitigation Bank
MP241 27	0.01	0	0.01	6120	0.27	0.37	0.37	0.004	Y	St Lucie	Bear Point Mitigation Bank
MP254	-	0.01	0.01	6400	0.50	0.60		0.006	N	St Lucie	Bluefield Ranch Mitigation Bank
MP259 95	0.01	0.07	0.08	6120	0.57	0.57	0.50	0.046	Y	St Lucie	Bear Point Mitigation Bank
MP266 58	0.01	0.01	0.02	6120	0.53	0.50	0.50	0.010	Y	St Lucie	Bear Point Mitigation Bank
MP266 86	0.03	0.07	0.1	6120	0.60	0.57	0.57	0.057	Y	St Lucie	Bear Point Mitigation Bank
MP267.70	0.01	0	0.01	6400	0.50	0.50		0.005	N	St Lucie	Bluefield Ranch Mitigation Bank
MP277.7	-	0.01	0.01	6400	0.70	0.69		0.007	N	Loxahatchee	Loxahatchee Mitigation Bank
MP279	-	0.06	0.06	6400	0.70	0.68		0.041	N	Loxahatchee	Loxahatchee Mitigation Bank
MP282.75	-	0.05	0.05	6120	0.43	0.59	0.43	0.022	N	Loxahatchee	Everglades Mitigation Bank
Totals	0.07	0.28	0.35								

Table 2. AAF North South Rail Corridor Segment D09 Mitigation Bank Utilization

Mile Post	Bear Point Mitigation Bank	Bluefield Mitigation Bank	Everglades Mitigation Bank	Loxahatchee Mitigation Bank
MP241.27	0.004			
MP254		0.006		
MP259.95	0.046			
MP266.58	0.01			
MP266.86	0.057			
MP267.70		0.005		
MP277.7				0.007
MP279				0.041
MP282.75			0.022	
Total Credits	0.117	0.011	0.022	0.048



November 14, 2014

Florida Fish and Wildlife Conservation Commission

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Lauren Milligan
Office of Intergovernmental Programs
Department of Environmental Protection
3900 Commonwealth Boulevard, Mail Station 47
Tallahassee, FL 32399-3000
Lauren.milligan@dep.state.fl.us

Re: U.S. Department of Transportation, Federal Railroad Administration, Draft Environmental Impact Statement and Section 4(f) Evaluation, All Aboard Florida Intercity Passenger Rail Project, SAI #FL201409237031C

Dear Ms. Milligan:

Florida Fish and Wildlife Conservation Commission (FWC) staff has reviewed the Draft Environmental Impact Statement (DEIS) and Section 4(f) Evaluation for the All Aboard Florida Intercity Passenger Rail Project and provides the following comments, in accordance with the National Environmental Policy Act, the Coastal Zone Management Act/Florida Coastal Management Program, and Chapter 379, Florida Statutes.

Project Background and Description

All Aboard Florida, LLC (AAF), is proposing to develop a 235-mile long intercity passenger rail service between Miami and Orlando. The project includes two corridors: 1) an approximately 200-mile long corridor from Miami to Cocoa within the existing 100-foot wide Florida East Coast Railway (FEC) right-of-way, and 2) an approximately 40-mile long new railroad line parallel to State Road (S.R.) 528 between Cocoa and the Orlando International Airport (MCO). AAF is implementing the project in two phases. Phase I includes rail service along 66.5 miles of the FEC corridor between Miami and West Palm Beach, and construction of railroad stations in Miami, Fort Lauderdale, and West Palm Beach. The U.S. Department of Transportation Federal Railroad Administration (FRA) and AAF prepared an Environmental Assessment (EA) in 2012, with a Finding of No Significant Impact.

The FRA has prepared a DEIS, dated September 2014, to evaluate alignment alternatives for Phase II of the project. Phase II of the project includes:

- Improvements to approximately 128.5 miles of existing FEC rail line from West Palm Beach to Cocoa, known as the North-South corridor,
- Addition of approximately 109 miles of a second track adjacent to the existing FEC rail line and straightening of curves,
- Addition of 8 miles of a third track adjacent to the existing FEC rail line at specific locations in Brevard, Indian River, and Martin counties,
- Reconstruction of bridges over 18 waterways within the West Palm Beach to Cocoa corridor,

- Construction of a new 40-mile long railroad line parallel to S.R. 528 from Cocoa to MCO, known as the East-West corridor, including new infrastructure, structures, systems, and construction of 5 new bridges over waterways,
- Construction of a vehicle maintenance facility south of MCO, and
- Reconstruction of 7 bridges within the West Palm Beach to Miami corridor not considered in the Phase I EA.

AAF has been coordinating with the FWC in advance of and throughout the project scoping period. The FWC has provided technical assistance regarding fish and wildlife and their habitats within the corridor for use during the initial review. This information has been utilized to inform the development of rail alignment alternatives within the East-West corridor. Consultants for AAF worked with FWC staff on the design of railroad crossings over the Econlockhatchee River and Little Creek to ensure that wildlife movement would not be impeded by the rail line. AAF and their representatives have also coordinated with the FWC regarding the portion of the rail line corridor that will traverse the Tosohatchee Wildlife Management Area. The DEIS includes the information provided previously and also analyzes the following action alternatives for the proposed rail line.

1. No Action Alternative, which would not include any changes to the existing railroad line within the FEC corridor.
2. Alternative A, proposing the following:
 - a. Construction of new railroad line extending north through MCO to S.R. 528 including the proposed vehicle maintenance facility.
 - b. In the East-West corridor, construction of new railroad line within the 17.5-mile right-of-way of S.R. 528 owned by the Orlando-Orange County Expressway Authority (OOCEA) and the 15-mile portion within the Florida Department of Transportation right-of-way.
 - c. Use of the existing FEC railroad line within the North-South corridor with a 100-foot right-of-way, including restoration of a second track, straightening curves, and reconstructing 18 bridges across waterways.
 - d. Modifications to 7 bridges within the West Palm Beach to Miami corridor
 - e. Minor track modifications at the Miami Viaduct.
3. Alternative C, differing from Alternative A only in the proposed E-W corridor alignment. In this alternative, the 17.5-mile new railroad line would be constructed along the boundary of the S.R. 528 OOCEA right-of-way.
4. Alternative E, differing from Alternatives A and C only in the proposed E-W alignment, with the 17.5-mile new railroad line to be constructed 100 feet south of the SR 5.28. OOCEA right-of-way.

The analysis of alternatives includes a 100-foot rail line right-of-way in which direct impacts to resources would be anticipated, and an additional 100 feet on either side of the right-of-way where indirect impacts would be anticipated.

Potentially Affected Fish and Wildlife Resources

Chapter 4 of the DEIS discusses the affected environment of the project. Habitats identified as occurring within the project corridor include coastal scrub, pine flatwoods,

sand pine and xeric oak scrub, hardwood forests, forested wetlands, wet prairies to remnant sandhill and scrub. These habitats may support numerous fish and wildlife species, including some that are managed or protected by the FWC. Section 4.3.6 identifies 21 state-listed species as having the potential to occur in the project corridors, and 12 federally listed species. It is noted that the following species were observed during initial field surveys:

- Audubon's crested caracara (*Polyborus plancus audubonii*, Federally Threatened [FT])
- Bald eagle (*Haliaeetus leucocephalus*, protected under the federal Bald and Golden Eagle Protection Act)
- Florida scrub jay (*Aphelocoma coerulescens*, FT)
- Gopher tortoise (*Gopherus polyphemus*, State Threatened [ST])
- Wood stork (*Mycteria Americana*, Federally Endangered [FE])

Additionally, field surveys also identified suitable habitat for:

- Eastern indigo snake (*Drymarchon corais couperi*, FT)
- Florida manatee (*Trichechus manatus latirostris*, FE)
- Smalltooth sawfish (*Pristis pectinata*, FE)
- Wading birds

Chapter 5 of the DEIS discusses potential environmental consequences of the project. Section 5.3.6 discusses the direct impacts that would occur to potential habitat for the following state-listed species.

- Bald eagle – Nest OR-065 was identified as being located within 600 feet of the proposed East-West corridor
- Burrowing owl (*Athene cunicularia*, State Species of Special Concern [SSC])
- Florida sandhill crane (*Grus canadensis pratensis*, ST)
- Gopher tortoise (*Gopherus polyphemus*, ST). The analysis also states that the following commensal species would potentially be impacted:
 - Eastern indigo (*Drymarchon corais couperi*, FE)
 - Florida mouse (*Podomys floridanus*, SSC)
 - Florida pine snake (*Pituophis melanoleucus mugitus*, SSC)
 - Gopher frog (*Lithobates capito*, SSC)
 - Short-tailed snake (*Stisoma extenuatum*, ST)
- Reddish egret (*Egretta rufescens*, SSC) and rivulus (*Rivulus marmoratus*, SSC)
- Sherman's fox squirrel (*Sciurus niger shermani*, SSC)
- Southeastern American kestrel (*Falco sparverius paulus*, ST)
- American oystercatchers (*Haematopus palliatus*, SSC)
- Wading birds, including habitat for the following species:
 - Limpkin (*Aramus guarauna*, SSC)
 - Little blue heron (*Egretta caerulea*, SSC)
 - Roseate spoonbill (*Platalea ajaja*, SSC)
 - Snowy egret (*Egretta thula*, SSC)
 - Tricolored heron (*Egretta tricolor*, SSC)
 - White ibis (*Eudocimus albus*, SSC)

In a Section 7 consultation under the Endangered Species Act, the U.S. Army Corps of Engineers, with concurrence from the U.S. Fish and Wildlife Service and National

Marine Fisheries, made the following determinations regarding the potential for impacts of the project on federally listed species.

- No effect: Florida panther, Everglade snail kite, red-cockaded woodpecker, and piping plover
- Not likely to adversely affect: wood stork and eastern indigo snake
- May affect but not likely to adversely affect: sea turtles, smalltooth sawfish, Florida manatee, Florida scrub-jay, sand skink, and blue tailed mole skink

Comments and Recommendations

The proposed project seeks to avoid and minimize impacts to fish and wildlife and their habitats, navigation in area waterways, and public access to conservation lands by:

- Utilizing the existing FEC rail line and right-of-way for the North-South corridor.
- Aligning the East-West corridor within the S.R. 528 right-of-way as much as possible.
- Rehabilitating and/or reconstructing rail line bridges in their existing locations and with the same horizontal and vertical clearance.

A navigational study was conducted in New River, Loxahatchee River, and St. Lucie River to assess how additional bridge closure times necessary for the proposed rail line would impact navigation under the bridges. The importance of these rivers for recreational uses and boater access to the Atlantic Ocean and Indian River Lagoon was also discussed in the DEIS. While the study results indicate that the project would not result in major delays during bridge closures, mitigation measures are proposed that would abate potential impacts and reduce vessel delay, including: establishing schedules for closures, providing public access to schedules, coordination with emergency first responders, and a tender at the New River bridge.

Chapter 7 of the DEIS discusses measures for avoidance and minimization of potential impacts to state- or federally listed fish and wildlife species resulting from the project, as well as measures to mitigate for unavoidable impacts to fish and wildlife resources and conservation lands the rail line will traverse. The following avoidance and minimization measures are included:

- Pre-construction:
 - Conduct pre-construction surveys for Audubon's crested caracara, Florida scrub-jay, red-cockaded woodpecker, and sand skink after the alignment of the East-West corridor is selected.
 - Comply with the FWC Bald Eagle Management Plan, and apply for a Bald Eagle Disturbance Permit related to nest OR-065.
 - Conduct gopher tortoise surveys in accordance with FWC methodologies, and obtain relocation permits as appropriate.
- During construction:
 - Adhere to the Standard Manatee Construction Conditions for In-Water Work (2011, U.S. Fish and Wildlife Service [FWS]).
 - Adhere to the Standard Protection Measures for the Eastern Indigo Snake (2013, FWS) as well as the Species Conservation Guidelines: Eastern Indigo Snake (2004, FWS).

- Adhere to the Sea Turtle and Smalltooth Sawfish Construction Conditions (2006, National Marine Fisheries Service).
- Use of best management practices during in-water work, including:
 - Placement of silt barriers and turbidity curtains so as not to trap or entangle sea turtles and manatees.
 - Utilization of floating barges when construction activities take place in the water.
 - Water vessels would follow routes of deep water or operate at no wake/idle speeds at all times.

The following measures are proposed for the post-construction and operational phases to mitigate unavoidable impacts:

- Design wildlife passages under bridges and culverts along the East-West corridor, consistent with those existing along S.R. 528 and future plans for its expansion, including work associated with the Econlockhatchee River and Little Creek.
- Improvements to at-grade rail line crossings within Jonathan Dickinson State Park along the North-South corridor for safety of park visitors.
- Install a wildlife crossing in the Tosohatchee Wildlife Management Area.
- Revegetate areas cleared for construction purposes.
- Purchase credits in a wetland mitigation bank to compensate for impacts to wetlands.

As previously discussed, AAF and their representatives have sought technical assistance from the FWC regarding potential impacts to fish and wildlife resources and have included many of the recommendations to avoid or minimize those impacts. We recognize that AAF has included a commitment to utilize the above identified best management practices during construction activities, conduct specific wildlife species surveys prior to construction, and implement certain measures designed to mitigate anticipated unavoidable impacts. The FWC recommends that the following additional measures be considered in preparation of the Final Environmental Impact Statement.

Listed Species Surveys

Species-specific wildlife surveys have not yet been conducted, but are necessary in order to identify potential project impacts and evaluate appropriate avoidance, minimization, permitting, and mitigation alternatives. We recommend that, in addition to the federally listed species noted above, a commitment be made to conduct pre-construction surveys for the state-listed species indicated above in addition to the gopher tortoise, as well as other state-listed species that may have the potential to occur within the project area based upon existing habitats. Because species usage can change between seasons and years, and some wildlife surveys are time sensitive, we recommend that wildlife surveys for the above mentioned state-listed species occur in the breeding season prior to any construction activities. Survey methodologies and additional species information can be found in the Florida Wildlife Conservation Guide (<http://myfwc.com/conservation/value/fwcg/>).

We encourage AAF to coordinate with the USFWS and FWC as species, nests, rookeries, or dens used by listed species are observed in the project corridor. Coordination with

agency staff can help address avoidance and minimization measures as well as permitting alternatives for listed species occurring within the project corridor. For general information on species avoidance and minimization measures as well as permitting alternatives, please review the Florida Wildlife Conservation Guide at the link above.

Protective Measures for Manatees

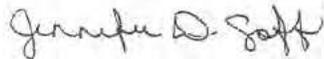
Section 7.2.11.1 states that construction activities will adhere to the Standard Manatee Construction Conditions for In-Water Work. A large number of the waterways in the existing FEC corridor are accessible to manatees, and some are important habitat used by a large number of manatees. Manatee protection measures in addition to the standard conditions are critical in areas of high manatee use, in locations where risk of harm to manatees is higher because of the characteristic of the waterway, and during certain types of construction activities. There is an elevated risk of harm to manatees from in-water work in the narrow waterways located within the project area because of reduced visibility and a confined workspace. The entire width of a waterway accessible to manatees should not be blocked so as to impede manatee movement. In circumstances where construction activity, equipment, and/or turbidity barriers may occupy more than half of narrow waterways, additional manatee observers should be onsite and dedicated to the task of watching for manatees so they can advise personnel to cease operation if a manatee is sighted within 50 feet of any in-water construction activity.

The DEIS discusses the need to replace or rehabilitate 34 bridges in the North-South corridor, with 21 of these requiring in-water work. Section 3.3.3.3 states that bridge plans are currently in the conceptual phase. While no information is provided regarding seasonality of in-water construction, duration of in-water work, or methods for bridge construction, including any related dredging activity, it is possible that protection measures in addition to the standard manatee conditions may be necessary depending on activities occurring during bridge construction to avoid and minimize impacts to manatees. Protection measures could include, but may not be limited to, restrictions on blasting, monitoring of turbidity barriers, exclusionary grating on culverts, manatee observers during in-water work, a seasonal or limited construction work window, and no nighttime work. While blasting is not included in the DEIS as a construction method, should it be included as an alternative, a blast plan and marine species watch plan should be submitted to the FWC and USFWS for approval if blasting is required.

FWC staff is available to discuss any of the potential bridge construction methods or in-water work activities during the planning stages to help identify protective measures for manatees. The protective measures necessary would depend on the type of activities to be conducted during construction. For instance, pile driving can produce impacts similar to blasting events. Noise and pressure wave reduction techniques are sometimes employed to reduce the impact to fish and other marine species; however, the protective benefit to manatees is not well known. There is anecdotal evidence that bubble curtains sometimes employed to attenuate the pile driving pressure waves may attract manatees. We recommend that the AAF take this type of information into consideration when planning the type and methodology of pile installation techniques and pile driving impact reduction measures, and we recommend working with FWC staff when assessing the alternative methodologies to be used during construction.

We appreciate the opportunity to provide input on the DEIS for the All Aboard Florida Project and will continue to coordinate with AAF to protect fish and wildlife resources. We are available to provide technical assistance as needed in preparation of the final Environmental Impact Statement in a manner consistent with FWC's authorities within the Florida Coastal Management Program. If you need any further assistance, please do not hesitate to contact Jane Chabre at (850) 410-5367 or by email at FWCConservationPlanningServices@MyFWC.com. If you have specific technical questions regarding the content of this letter, please contact Laura DiGruttolo at (386) 758-0525 or by email at Laura.DiGruttolo@MyFWC.com.

Sincerely,



Jennifer D. Goff
Land Use Planning Program Administrator
Office of Conservation Planning Services

jdg/ld

ENV 1-3-2

All Aboard Florida Intercity Passenger Rail Draft EIS_19904_111414

cc: Mr. Alex Gonzalez
All Aboard Florida—Operations, LLC
2855 South Le Jeune road, 4th Floor
Coral Gables, FL 33134

Andrew Phillips, ACOE, Andrew.W.Phillips@usace.army.mil
Ernest Marks, South Regional Director, FWC, Ernest.marks@MyFWC.com
Shannon Wright, Northeast Regional Director, FWC,
Shannon.wright@MyFWC.com
Tom O'Neil, Northeast Region, FWC



FLORIDA DEPARTMENT of STATE

RICK SCOTT
Governor

KEN DETZNER
Secretary of State

David Valenstein
Attn: John Winkle
US Department of Transportation
Federal Railroad Administration (FRA)
1200 New Jersey Avenue SE
Washington, D.C. 20590

July 24, 2015

RE: DHR Project File No.: 2015-3404/Received by DHR: July 15, 2015
All Aboard Florida (AAF) Passenger Rail Project – Determination of Effects (DOE)

Mr. Valenstein:

Thank you for providing the Florida State Historic Preservation Officer (SHPO) with the opportunity to comment on the All Aboard Florida Passenger Rail Project Determination of Effects Report. The review was conducted in accordance with Section 106 of the *National Historic Preservation Act of 1966*, and its implementing regulations in *36 CFR 800: Protection of Historic Properties*.

The submission of this determination document demonstrates that the Federal Railroad Administration (FRA) as the lead federal agency, with assistance from All Aboard Florida (AAF), has applied the criteria of adverse effect to the proposed undertaking, as required by *36 CFR 800.5(a)*. An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register of Historic Places (*36 CFR 800.5(a)(1)*). Pursuant to these regulations, the document under review provides FRA's finding of effects for the properties eligible for listing, or listed on, the National Register, as determined by FRA in the 2013 Cultural Resource Assessment Report (CRAR) and 2015 CRAR Addendum.

Based on the definition and description of "adverse effect" provided by *36 CFR 800.5(a)(1)*, the Florida SHPO concurs with FRA's determination that the proposed undertaking will have an adverse effect on the following two historic properties:

- Eau Gallie River Bridge (8BR3058)
- St. Sebastian River Bridge (8BR3062/8IR1569)

Furthermore, our office concurs with FRA's finding of *no adverse effect* to the historic Florida East Coast Railway Corridor (FECR), as well as the eight bridges, 63 historic structures, three historic districts, and six archaeological sites within the proposed undertaking's area of potential effects (APE). This concurrence is subject to the following conditions, as noted in the report:



Division of Historical Resources
R.A. Gray Building • 500 South Bronough Street • Tallahassee, Florida 32399
850.245.6300 • 850.245.6436 (Fax) flheritage.com
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Permanent Effects

Historic Bridges/Historic FECR Corridor

- Section 3.2.3.2: The design of replacement bridges in the FECR Historic District will include SHPO consultation

Historic Properties

- Section 4.2.1: Noise impacts will be minimized through the use of pole-mounted/wayside horns and improved rail infrastructure
- Section 4.2.3: The design of future crossing improvements within the boundaries of historic districts or in proximity of historic properties will include SHPO consultation
- Section 3.2.4: AAF will continue consultation with the SHPO and locally affected parties, including the Cities of West Palm Beach, Fort Lauderdale, and Miami, during the station design process
- Section 3.2.2: The parcel along the east-west corridor that was inaccessible during the 2013 CRAR investigations will be surveyed for historic properties, when access is granted

Archaeological Sites

- Section 3.2.3.3: Avoid effects to Hobe Sound National Wildlife Refuge #3 through the elimination of a curve modification

Temporary Construction Related Effects

Historic Properties

- Section 5.1.1: AAF will utilize appropriate best management practices to reduce construction related noise effects

Archaeological Sites

- Section 3.2.3.3: AAF will develop an archaeological monitoring plan and monitor construction related/ground disturbing activities at all six archaeological sites identified within the APE
- Section 5.1.2: AAF commits to using alternative construction methods, such as vibratory or sonic pile driving, to minimize any potential vibration effects at the Vero Man Site (8IR1/8IR9)
- Section 5.1.3: AAF commits to conducting assessment surveys in the event that staging, borrow, or excess material placement areas are not located within the APE for direct impacts. This need is unpredictable at this time due to undetermined factors such as final design, staging needs, access issues, etc.

Along with the effects document, FRA included a Draft Memorandum of Agreement (MOA) addressing the resolution of adverse effects to historic properties, as identified above. The MOA outlines commitments and mitigation steps to be taken by AAF, including:

- Appropriate design and construction of replacement bridges over the Eau Gallie and St. Sebastian Rivers
- Documentation of the existing Eau Gallie and St. Sebastian River Bridges
- Future SHPO consultation related to construction on bridges that contribute significance to the FECR Historic District
- Future SHPO consultation during the design and construction phases of replacements and upgrades to crossing gates at at-grade crossings within historic districts abutting the FECR Historic District

Mr. David Valenstein
DHR No. 2015-3404
July 24, 2015
Page 3

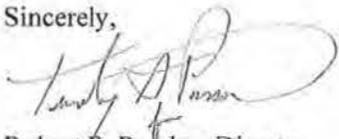
- Development of a website that will highlight the contributions of Henry Morrison Flagler and the history of the FECR
- Future cultural resource assessment surveys as required by project needs unforeseeable at this stage
- The implementation of an archaeological monitoring plan at archaeological sites within the APE for direct effects during ground disturbing/construction activities

In summary, the Florida SHPO concurs with FRA's determinations of effect as presented in the submitted document. We look forward to further coordination with FRA regarding the resolution of the adverse effects noted in this letter, and to consulting on the draft MOA as required by *36 CFR 800.6*.

Our office has been contacted by the Advisory Council on Historic Preservation, and it is our understanding that the Council plans to participate as a signatory on the MOA as described in *36 CFR 800.6(b)(2)*. With that in mind, we recommend sharing the determination document and these comments with consulting parties and stakeholders to inform them of the status of the project, and to keep them abreast of FRA's efforts to fulfill its obligations under Section 106 and *36 CFR 800: Protection of Historic Properties*.

If you have any questions, please contact Ginny Jones, Transportation Compliance & Review Architectural Historian, by email at Ginny.Jones@DOS.MyFlorida.com, or by telephone at 850.245.6333 or 800.847.7278. You may also address correspondence and questions to Dr. Timothy Parsons, Deputy State Historic Preservation Officer, at the same telephone number or by email at Timothy.Parsons@DOS.MyFlorida.com

Sincerely,



Robert F. Bendus, Director
Division of Historical Resources
& State Historic Preservation Officer



Florida Department of Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard, Jr.
Secretary

October 18, 2012

Mr. Steve Lewis, Esquire
Lewis, Longman & Walker
315 South Calhoun Street, Suite 830
Tallahassee, FL 32301

Re: ALL ABOARD FLORIDA-OPERATIONS LLC
Railroad, Bridge Crossings and Abutments from Miami, Florida to Cocoa, Florida-
Between Mile Post 187.37 to 360.27

Dear Mr. Lewis:

Per your request, we have reviewed the listings and exhibits provided that document bridge crossings for reconstruction, maintenance and operation of the All Aboard Florida project segment from Miami, Florida to Cocoa, Florida which will be located in the existing Florida East Coast Railroad right-of-way. Further, we understand these activities will be made a part of an Environmental Resource Permit (ERP) application to be filed in the near future with the South Florida Water Management District and St. Johns River Water Management District. A copy of these listings you and AMEC provided is attached. Based upon the Department's review of our records we have determined that of the 36 crossings, 20 are over sovereign submerged lands. These 20 crossings are highlighted in yellow on "Table 1-2" attached hereof.

On advice of counsel we are further advised that because the proposed activities over the sovereign submerged lands are within the Florida East Coast Railroad right-of-way, this is to confirm that consent is provided pursuant to Section 10, Chapter 1987, Laws of Florida (1874) and no additional proprietary authorization for these twenty (20) crossings is required from the Board of Trustees of the Internal Improvement Trust Fund. Upon issuance of the ERP, please provide this office a copy of the permit for our records. Thank you for your cooperation in this matter.

Sincerely,

Scott Woolam, Chief
Bureau of Public Land Administration
Division of State Lands

Attachment

cc: Lucien D. Tender, PE
Senior Project Manager
AMEC Environment & Infrastructure, Inc.
4919 West Laurel Street
Tampa, Florida 33607

Table 1-2: Bridge Project Locations

MP	Proposed Work
187.37	Construct 72' new independent concrete ballast deck structure for second ML on west. Modify existing abutments. No work to existing bridge.
190.47	Rehabilitate steel both existing bridges. Add precast concrete ballast deck sections to top of new and existing spans. Add second ML back to west spans.
194.36	Rehabilitate steel both existing bridges and add precast concrete ballast deck sections. Replace steel span on old bridge over Melbourne Avenue. Add second ML back to west spans.
197.70	Rehabilitate steel both existing bridges. Add precast concrete ballast deck sections to top of new and existing spans. Add second ML back to west spans.
202.59	Remove both existing timber trestles with ballasted decks. Construct new 106' independent precast concrete ballast deck bridge for each track.
212.07	Rehabilitate steel both existing bridges. Add precast concrete ballast deck sections to top of new and existing spans. Add second ML back to west spans.
223.70	Construct similar new 100' independent concrete ballast deck structure for second ML on west. Modify existing abutments. No work to existing open deck bridge.
226.78	Construct similar new 120' independent concrete ballasted deck structure for second ML on west. Modify existing abutments. No work to existing bridge.
230.03	Construct similar new 125' independent concrete ballast deck structure for second ML on west. Modify existing abutments. No work to existing open deck bridge.
240.10	Rehabilitate existing west bridge and add second ML. Independent concrete ballast deck bridges with steel span in center. No work to existing bridge.
241.22	Modify abutments and add new steel beam span superstructure with concrete ballast deck on existing substructure for new ML on west. No work to existing bridge.
241.27	Construct similar new 75' independent concrete ballast deck structure for second ML on west. Modify existing abutments. No work to existing bridge.
258.45	Two tracks now. No work needed.
259.95	Construct new 94' independent concrete ballast deck structure for second ML on west. Remove existing ML timber trestle and replace with independent concrete ballast deck.
260.93	Movable Bridge: Rehabilitate existing steel and renew controls for local operation.
266.58	Construct similar new 40' independent concrete ballast deck structure for second ML on west. Modify existing abutments. No work to existing bridge.
266.86	Construct new 106' independent concrete ballast deck structure for second ML on west. Remove existing ML timber trestle and replace with independent concrete ballast deck.

267.34	Construct new 34' independent concrete ballast deck structure for second ML on west. Remove existing ML timber trestle and replace with independent concrete ballast deck.
267.70	Construct new 34' independent concrete ballast deck structure for second ML on west. Remove existing ML timber trestle and replace with independent concrete ballast deck.
282.58	Movable Bridge: Rehabilitate existing steel, renew controls for local operation, add second track back to west side, rebalance.
291.86	Construct new 175' independent concrete ballasted deck structure for second ML on west. No work to existing bridge.
304.05	Construct new 200' similar beam span bridge with open deck on west side. Modify existing abutments. No work to existing bridge.
311.45	Construct similar new 142' independent concrete ballasted deck structure for second ML on west. Modify existing abutments. No work to existing bridge.
319.55	Independent precast concrete ballasted deck structures. Clean off ballast from west bridge, rehabilitate deck, add second ML. No work to existing ML bridge.
326.58	Construct new similar 206' beam span bridge with open deck on west side. Modify existing abutments. No work on existing bridge.
334.93	Common structure with concrete ballast deck formerly had two tracks. Add second ML back on west on existing bridge.
337.91	Remove both existing timber trestles. Construct new independent 192' precast concrete ballast deck bridge for each track.
338.52	Remove both existing timber trestles. Construct new independent 190' precast concrete ballast deck bridge for each track.
341.26	Movable Bridge: Renew controls for local operation, rehabilitate steel. Two tracks now.
342.00	Two tracks now. No work needed.
345.41	Two tracks now. No work needed.
353.74	Remove both existing timber trestles. Construct new 82' independent precast concrete ballasted deck bridge for each track.
354.51	Common structure with concrete ballast deck formerly had two tracks. Add second ML on west on existing bridge.
356.53	Construct new 50' DPG on west side on existing abutments. Keep open deck since near two
MP	Proposed Work
	crossings. No work on existing bridge.
358.78	Two tracks now. No work needed.
360.27	Two tracks now. No work needed.

Attachment 1: Public Interest Test

Pursuant to Section 373.414(1)(a), Fla. Stat., Rule 62-330.302, Fla. Admin. Code, and Section 10.2.3 Applicant's Handbook Vol. I, the South Florida Water Management District ("SFWMD") is to consider and balance the following seven criteria to determine if there is reasonable assurance that the proposed project is not contrary to the public interest.

(a) Whether the regulated activity will adversely affect the public health, safety, or welfare or the property of others.

The proposed project, as defined in Application No. 150922-3 ("Project"), will benefit public health, safety, and welfare.

Water Quality:

Specifically, the Project will have a beneficial effect on water quality because the volume of treatment proposed by the overall Project design exceeds the regulatory required treatment volume, and therefore enhances overall water quality treatment. The Project is being designed in accordance with state regulations for water quality treatment as set forth in Chapter 62-330, Fla. Admin. Code, and to assure that the quality of the stormwater discharged to receiving waters is presumed to meet the surface water quality standards set forth in Chapter 62-302, Fla. Admin. Code. In order to protect the water quality within the Project area, treatment swales will be constructed adjacent to newly constructed track to treat stormwater runoff. The Project exceeds the requirement of providing water quality treatment for at least one inch of runoff over the developed area. Additionally, due to varying soil types for different sections of the tracks, the most conservative soil (Hydrologic Group Type D) and associated soil infiltration rate was used when calculating the water quality requirements. See Section 4 of the Drainage Report, in Appendix 1 of the ERP Application for details, as well as Appendix E of the Drainage Report for water quality calculations. Based on the proposed excess water quality treatment capacity, this factor is considered a positive in the balancing test.

Hazardous/Solid Waste:

The Project will not generate hazardous materials or hazardous waste and will not affect the transfer, storage, or transportation of pollutants. The Project is completely within the existing Florida East Coast Railway ("FECR") right-of-way ("ROW") and will result in minimal subsurface disturbance. Based on the results of a contaminated site screening for the Project area, there are no anticipated impacts from existing contaminated areas. Accidental spills of materials such as fuels, lubricants, or other liquids that could harm surface waters will be cleaned up in a timely manner in accordance with a Spill Prevention, Control, and Countermeasures Plan and best management practices ("BMPs"). Construction and demolition debris generated by the Project, such as used railroad ties, creosote-treated bridge timbers, steel rail, excess soil, rock, organic material, asphalt, concrete, and wood, will be handled according to federal, state, and local regulations and industry BMPs. To the extent practical, materials will be recycled. Debris that requires disposal will be transported under applicable transportation manifests and disposed of at licensed disposal facilities.

Shellfish Harvesting:

All waters within the D09 segment are unclassified for shellfish harvesting, and therefore this factor is inapplicable. Harvest of shellfish from unclassified waters is not lawful because current sanitary conditions of the area have not been characterized for the protection of health of shellfish consumers. See Florida Department of Agriculture and Consumer Services -- Division of Aquaculture -- Shellfish Harvesting Area Classification Maps, 2012. In addition, during the initial site

AAF has coordinated at the local, state and federal levels to assess potential impacts to fish and wildlife. As detailed below, the Project is not likely to adversely affect fish or wildlife, including endangered or threatened species and their habitats.

The United States Fish & Wildlife Service (“USFWS”) issued a Biological Opinion regarding the Project on October 9, 2016. The National Oceanic and Atmospheric Administration (“NOAA”) issued two letters of concurrence for the Project, one from its Protective Resource Division (February 26, 2015) and one from its Fisheries Habitat Conservation Division (October 24, 2014), as referenced in Appendix 3 of the ERP Application. Consistent with the findings of the USFWS and NOAA, on balance, the Project will not adversely affect the conservation of fish and wildlife, including endangered or threatened species, or their habitats. In addition, the Ecological Evaluation Reports in Appendix 3 of the ERP Application provide a summary of protected species and the conservation of fish and wildlife and their habitat. It should be noted that the biological opinions and letters of concurrence include species not under SFWMD jurisdiction. The Agency responses for species under the jurisdiction of SFWMD are summarized below in Table 1, as well as in Appendix 3 of the ERP Application in the Ecological Reports.

Table 1. Federal Determinations on Protected Species/Habitat under SFWMD Jurisdiction

Listed Species/ Critical Habitat	Determination of Effect/Decision	Reference (Agency Concurrence Letters)
SFWMD/USFWS		
West Indian Manatee	May affect, not likely to adversely affect	USFWS Biological Opinion dated October 9, 2015
Wood Stork	May affect, not likely to adversely affect	
SFWMD/NOAA		
Smalltooth Sawfish	No effect (may be affected by the Project; however, these species are mobile and can get out of the way of any in-water construction)	NOAA Protected Resource Division Concurrence Letter Issued February 26, 2015
Loggerhead Sea Turtle		
Green Sea Turtle		
Kemp' s Ridley Sea Turtle		
Mangrove Wetlands	Proposed mitigation is acceptable to offset impacts to mangroves within the D09 segment.	NOAA Fisheries Habitat Conservation Division Concurrence Letter Issued October 24, 2014

Protection measures outlined in Appendix 3 of the D09 ERP Application will be utilized to minimize and avoid impacts to protected species listed in Table 1.

For the NOAA species listed in Table 1, there is no critical habitat under NOAA Fisheries purview in the Project area nor any habitat proposed for listing. Impacts to these species will be minimized or avoided via adherence to all best management practices detailed in the Biological Opinions. Impacts to mangroves were also evaluated and NOAA Fisheries concurred with AAF assessment of the proposed impacts within the D09 segment. Mitigation for mangrove impacts at Moore’s Creek, Manatee Creek, and the unnamed creeks will be provided through the purchase of mitigation credits.

A review of the state’s bald eagle nest locator indicated that there were no nests reported anywhere along the D09 Project segment. Additional surveys for Bald Eagles were conducted according to Wildlife Methodology Guidelines provided by the Florida Fish and Wildlife Conservation Commission (“FWC”) and no nests were identified within/or adjacent to the Project area.

In addition to the mitigation of wetland impacts, during construction, wetlands and water quality will be further protected from erosion and sediment transport via visual monitoring by a certified stormwater inspector of all stormwater runoff to assure water quality and quantity is generally maintained in accordance with the design and permit requirements. During construction of the

bridges over any water crossing, the contractor must adhere to erosion control best management practices including the use of floating turbidity curtains and staked turbidity curtains in necessary areas in order to protect the adjacent wetlands and surface waters, thus providing protection for the habitat associated with those systems.

Based on the above-described protection measures, and consistent with the findings of the USFWS and NOAA, on balance, the Project is not anticipated to adversely affect the conservation of fish and wildlife, including endangered or threatened species, or their habitats.

(c) Whether the regulated activity will adversely affect navigation or the flow of water or cause harmful erosion or shoaling.

The proposed Project will result in no adverse impacts to navigation or the flow of water, and will reduce erosion and shoaling.

Navigation:

There are seven fixed railroad bridges that cross the D09 segment with proposed in-water work. The proposed horizontal and vertical clearance of those bridges will meet or exceed existing clearances. In addition, none of the fixed bridges in the D09 segment cross waterways classified as navigable waters. Therefore, the regulated activity will not adversely affect navigation.

AAF has not yet determined what upgrades it will make to the moveable bridges crossing the Loxahatchee and St. Lucie Rivers, and therefore, those bridges are not included in this Application. When AAF proposes any upgrades to those bridges in the future, it will apply for the requisite permits if such permits are required, and will comply with all applicable rules and regulations related to navigation.

AAF, the District, and the USCG, the governmental entity that is responsible for bridge operation, have already begun coordinating regarding the regulations governing the operation of the two moveable bridges. By letter dated January 12, 2016 (Attachment "A"), the USCG informed the District that "[i]f we determine different regulations are needed we will utilize the standard Notice of Proposed Rulemaking process to facilitate any changes.... Our goal with any bridge regulation is to balance the needs of all transportation, while ensuring the reasonable needs of navigation on all waterways of the United States are met."

Flow of Water:

As a result of hydrologic and hydraulic analysis of each of the 7 bridge crossings with in-water work, it was concluded that there are no adverse impacts to the flow of water. Hydraulic analysis confirms there are no anticipated impacts on either the upstream or downstream properties. In addition, there are no proposed activities that will impact the quantity of stormwater generated by the Project area or discharged to the existing conveyances. Please refer to Appendix 11 – Bridge Hydraulic Reports, of the ERP Application for signed and sealed copies of the hydraulic reports.

The existing rail system is designed to allow cross drainage by way of cross culverts underneath the tracks for drainage equalization between both sides of the tracks. A number of these cross drains will need to be extended in order to accommodate the new track. An analysis of the existing culverts and cross drains was performed for the Project, comparing headloss across the culverts in both existing and proposed (extended) conditions. The results indicate that the extensions do not negatively affect the hydraulic capacity or flow of water of the culverts. See Section 4.1 of the Drainage Report in Appendix 1 of the ERP Application.

Erosion/Shoaling:

The Project will reduce erosion and shoaling. Specifically, permanent slope protection and erosion control systems will be repaired or replaced, as needed, during construction. This will be an improvement over current conditions with regard to erosion and shoaling in the vicinity of the regulated activity.

In accordance with Part IV, Volume I of the Applicant's Handbook, an erosion and sediment control plan has been prepared (Appendix 6 of the ERP Application). The plan shows the proposed BMPs to be installed during construction in order to control erosion and sediment. The erosion and sediment control plan includes a site-specific plan that specifies the location, installation and maintenance of BMPs to prevent and control erosion and sediment loss at a construction site. The contractor will prepare a Stormwater Pollution Prevention Plan prior to the start of construction, and submit a Notice of Intent to the Florida Department of Environmental Protection.

Because the Project will reduce erosion and shoaling, and have a neutral effect on navigation and the flow of water, the Project will have a net positive benefit on this public interest criterion.

(d) Whether the regulated activity will adversely affect the fishing or recreational values or marine productivity in the vicinity of the activity.

The proposed Project will have a net positive benefit on fishing and marine productivity, and a neutral effect on recreational values.

(a) Adverse effects to sport or commercial fisheries or marine productivity.

There are no commercial fisheries located in the area of the surface waters or wetlands. Impacts will be located within wetlands/surface waters that are not navigable as defined by the USCG. As such, the Project will not result in any adverse effects to sport or commercial fisheries.

The Project will result in minor impacts to low quality mangrove wetlands. As described in the ERP Application (Appendix 3 Ecological Reports), these impacts will be mitigated through the purchase of mitigation credits. Due to the previously disturbed nature of many of the mangrove wetlands (developed urban areas), impacted mangrove wetlands are of low quality, with invasive exotics and nuisance vegetation. The mitigation provided by mitigation credits will be of high quality wetlands. See the individual bridge Ecological Evaluation Reports in Appendix 3 of the D09 ERP Application.

The Project replaces wooden pile bridges with concrete piles and is adding rip rap protection. This can be beneficial to fish nurseries, especially in shallow, inshore waters. Specifically, concrete pilings could ultimately have a beneficial effect on species/life stages that prefer such hardened structures as habitat, such as adult goliath grouper, gray snapper, and mutton snapper.

The water quality necessary for fishing and recreational values will be protected through the design, permitting, and construction of stormwater management systems in accordance with the SFWMD rules. Mitigation and avoidance measures, in compliance with the NOAA Fisheries Concurrence Letter, will ensure that no adverse effects to fishing result from the Project. In addition, the Project is providing stormwater treatment above what is required by regulation (as outlined in Appendix 1 Drainage Report of the ERP Application).

Therefore, the Project will provide a net benefit to fisheries and marine productivity.

(b) Adverse effects or improvements to existing recreational uses of a wetland or other surface water.

The impacts to wetlands/surface waters do not occur over USCG navigable waters. Within the impacted wetlands and surface waters, access for recreation is restricted by shallow water depths and dense vegetation (See Appendix 3, Ecological Reports, of the ERP Application). In addition, it is illegal to trespass in the FECR ROW. Therefore the recreational use of wetlands or other surface waters from within the FECR ROW is prohibited; and the recreational use of those wetlands and surface waters from outside of the ROW is restricted.

On balance, as the Project is providing enhanced water quality and concrete pilings that will be beneficial to fish nurseries, the Project will provide a net positive for fishing and marine productivity, and is not anticipated to adversely affect recreational values.

(e) Whether the regulated activity will be of a temporary or permanent nature.

The Project has both temporary and permanent impacts within the existing FECR ROW. All proposed impacts will be mitigated as required, but only the track installation, bridge construction and rehabilitation, at-grade crossing improvements, and stormwater system improvements are permanent in nature. It should be noted that the existing FECR ROW is already developed and has been continuously used as a rail corridor since the late 1800s. The ROW was originally designed to support passenger and freight rail operation on shared double mainline tracks, and was used in that fashion from 1895 through 1968. In 1968, the passenger rail service was terminated and some of the double track was removed, but the freight rail service continued and remains in operation today. In connection with the Project, double mainline tracks will be reinstalled where needed, within the previously developed footprint. Keeping the Project within the previously developed footprint to the greatest extent practicable minimizes permanent impacts.

(f) Whether the regulated activity will adversely affect or will enhance significant historical and archaeological resources under the provisions of Section 267.061, F.S.

The Florida State Historic Preservation Officer (“SHPO”) has concurred with the Federal Rail Administration’s (“FRA”) finding that the Project will have an effect, but not an adverse effect, on the FECR Historic District. In addition, the Florida SHPO agrees that the ground disturbing activities associated with Project construction have the potential to cause adverse effects to National Register eligible archeological sites. FRA, however, has proposed that AAF minimize and/or avoid these potential effects through the implementation of an archeological monitoring plan. The Florida SHPO has agreed with FRA’s proposal and will coordinate in the development of the monitoring plan. AAF will comply with the monitoring plan to minimize and/or avoid potential effects to archeological sites.

(g) The current condition and relative value of functions being performed by areas affected by the proposed regulated activity.

The D09 segment is located entirely within an existing rail corridor. Wetland habitat along the D09 segment is of poor quality in most areas and is currently comprised of numerous exotic and nuisance plant species. The majority of wetlands along the corridor have been avoided. Along the 64 mile Project corridor, there will be 0.35 acres of wetland impacts and 0.82 acres of other surface water impacts. Based on a GIS analysis of the Florida Land Use Code 2008, the FECR D09 ROW contains 3.05 acres of freshwater wetlands and 1.66 acres of mangrove wetlands for a combined total of 4.71 acres of wetlands. The proposed impacts to wetlands equate to 7.43% of the total wetlands within the FECR ROW for the D09 segment. Based on the Florida Land Use Code 2008 GIS information, within the surrounding basins (Loxahatchee and St. Lucie), there are approximately 42,468 acres of freshwater wetlands and 564 acres of mangrove wetlands for a combined total of

43,032 acres of wetlands. The combined proposed impacts for D09 segment equate to 0.0008% of the total wetlands within the Loxahatchee and St. Lucie Basins.

Habitat loss and alteration resulting from the Project will be mitigated through the purchase of mitigation credits. The ecological value of the functions provided by the area of wetlands to be adversely affected is low, and AAF proposes mitigation that implements all or part of plans (mitigation banks) that provide regional ecological value and that provide greater long term ecological value than the area of wetlands to be adversely affected. The impacts associated with the Project requires the purchase of 0.21 credits of mitigation, however, AAF is purchasing additional mitigation credits beyond those required, providing 0.5 mitigation credits for the Project.

Current uptake of nutrients within the wetlands adjacent to the Project will not be negatively affected. The storage functions and water levels of remaining wetlands will not be altered. The proposed impacts to wetlands and surface waters will not alter local drainage patterns or characteristics. Floodplain compensation will be provided in accordance with current SFWMD permitting requirements.

Because the mitigation credits being purchased are of high quality and exceed the required mitigation, the Project will result in an improvement to the current condition and relative value of functions being performed by areas affected by the proposed activity.

Conclusion:

Upon consideration and balancing of the above criteria, AAF has provided reasonable assurance that the proposed Project is not contrary to the public interest as set forth in Section 62-330.302(1)(a), F.A.C.

**South Florida Water Management District
Work Schedule Requirements**

Application No : 150922-3

Page 1 of 1

Mitigation Plan ID: BEAR POINT MIT BANK

Activity	Due Date
SUBMIT VERIFICATION OF THE DEBIT OF CREDITS FROM THE LEDGER	19-SEP-16

Mitigation Plan ID: FPL EVERG MIT BANK

Activity	Due Date
SUBMIT VERIFICATION OF THE CREDITS DEBITED FROM THE LEDGER	19-SEP-16

Mitigation Plan ID: LOXAHATCHEE MIT BANK

Activity	Due Date
SUBMIT VERIFICATION OF THE DEBIT OF CREDITS FROM THE LEDGER	19-SEP-16

STAFF REPORT DISTRIBUTION LIST

ALL ABOARD FLORIDA NORTH-SOUTH RAIL CORRIDOR SEGMENT D09

Application No: 150922-3

Permit No: 13-05321-P

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- X Agent - Amec Foster Wheeler
- X Developer - Feci
- X Engr Consultant - H N T B Corporation
- X Other Interested Party - Care FI
- X Other Interested Party - Oertel Fernandez Bryant & Atkinson P A
- X Other Interested Party - Stanbridge
- X Other Interested Party - Town Of St Lucie Village

GOVERNMENT AGENCIES

- X City of Port St Lucie - Planning Div
- X Div of Recreation and Park - District 5 - Miranda Cunningham, FDEP
- X Martin County - County Administrator
- X Martin County Michael Durham
- X Martin County Board of County Commissioners
- X Martin County Engineering Dept. - Don G. Donaldson, P.E.
- X Palm Beach County - Environmental Res Management
- X Palm Beach County - Health Dept Environmental Health & Engineering
- X Palm Beach County - Water Utilities Operations Center
- X Palm Beach County School District of Palm Beach County
- X Palm Beach County Engineer
- X SJRWMD Eric Muldowney
- X SJRWMD Hannah Hernandez
- X St. Lucie County Engineer
- X St. Lucie County Planning and Development Services Mark Satterlee, AICP, Director

OTHER INTERESTED PARTIES

- X Oertel, Fernandez, Bryant & Atkinson, PA Segundo J. Fernandez, Esq.

**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**

Preamble

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 August 4, 2015 for the All Aboard Florida Intercity Passenger Rail Project (Project). On June 27, 2016, FRA notified the U.S. Army Corps of Engineers and U.S. Coast Guard, both cooperating agencies, that it would not be making a decision on All Aboard Florida - Operations, LLC (All Aboard Florida or AAF) application for Railroad Rehabilitation and Improvement Financing program (a/k/a "RRIF") to fund Phase II of the Project. FRA is not executing the draft Programmatic Agreement previously circulated with the Consulting Parties.

The applicant, AAF, will implement the Project through a phased approach. Phase I will 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 to Orlando, Florida.

AAF prepared an Environmental Assessment and Section 4(f) Statement (EA) for Phase I including stations and the vehicle maintenance facility (VMF). The EA was reviewed, revised, and adopted by FRA for public circulation and comment from October 31, 2012 through December 3, 2012. FRA issued a finding of no significant impact (FONSI) on January 31, 2013 for passenger rail service and rail and station improvements proposed by AAF within Phase I. Since the 2013 Phase I FONSI, AAF proposed and FRA has evaluated a new location for the Fort Lauderdale Station and issued a re-evaluation decision that found no significant difference from the location evaluated in the 2012 EA. Also since the 2013 Phase I FONSI, AAF proposed and FRA has evaluated a new location in West Palm Beach for the proposed Fort Lauderdale layover and maintenance facility. FRA issued a Supplemental EA and subsequently issued a FONSI for this element of Phase I in January 2015. FRA concluded in their 2012 EA that Phase I has independent utility from Phase II (that is, it could be advanced and serve a transportation need even if Phase II were not constructed).

The U.S. Army Corps of Engineers (Corps) also concluded that Phase I has independent utility of 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 1 below for Department of the Army (DA) permit numbers and project locations.

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 Boynton 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

Table 1

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 October 14, 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 October 14, 2015, and evaluated these actions as part of the Standard Permit (33 C.F.R. §325.5(b)(1)) evaluation for the Project.

Because Phase I has independent utility from Phase II, the Corps' scope of action is limited to the geographic limits of Phase II of the Project. The Corps is not considering the work proposed within Phase I or within the geographic boundaries within Orlando International Airport (OIA) in this evaluation. Work within OIA has been previously authorized under separate Department of the Army (DA) permits issued to Greater Orlando Aviation Authority. 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 United States.

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.

The identified historic properties within this APE are documented in the Cultural Resources Assessment Reports (CRAR) dated September 2013 and May 2015. Florida State Historic Preservation Officer (SHPO) concurred on November 20, 2013 (amended May 21, 2015) that the properties identified in the CRAR and in the All Aboard Florida – Orlando to West Palm Beach, Florida Intercity Passenger Rail Project – Phase II Determination of Effects Report, Tables 1 through 8 (Attachment 1 to this PA) are listed in and/or eligible for listing in the National Register of Historic Places (NRHP). By letter dated December 29, 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 this PA, SHPO concurred with FRA's determination of "no adverse effect" to these archaeological sites.

By letter dated June 27, 2016, FRA informed the Corps and Coast Guard that it is not making a decision on AAF's Railroad Rehabilitation and Improvement Financing application at this time. FRA also concluded it is not executing the draft Programmatic Agreement (PA) developed June 24, 2016 in consultation with the Advisory Council on Historic Preservation (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.

By letter dated November 15, 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 November 30, 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 defines permit area as those areas comprising water of the United States that will be directly and/or indirectly affected by the proposed undertaking. For the Phase II undertaking, 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, 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 sites have been coordinated with SHPO by letter dated May 2, 2017 and the sites are incorporated into Stipulation IV below and have been added to Table 8 of Attachment 1.

Therefore, the Corps and Coast Guard will execute this PA.

Basis for Agreement

The parties acknowledge the following basis for agreement:

WHEREAS, All Aboard Florida proposes to construct and operate the All Aboard Florida Intercity Rail Project Phase II, which would involve the institution of intercity passenger rail service between Orlando and West Palm Beach, Florida; and

WHEREAS, the Commandant, U.S. Coast Guard, is responsible for issuing Coast Guard Bridge Permits for the construction, replacement, or modification of bridges over the navigable waters of the United States pursuant to 33 C.F.R. Subchapter J; and

WHEREAS, the Jacksonville District of the Corps has received an application for a DA permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. § 1344) (CWA) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 403) (RHA); and

WHEREAS, the Corps and the Coast Guard have determined the undertaking may directly and adversely affect designated historic properties and the Corps' public interest review requirements contained in 33 C.F.R. § 320.4; and

WHEREAS, the Corps has determined there is sufficient Federal control and responsibility to extend the Corps' scope of analysis to entirety of Phase II of the undertaking with the exception of bridges over navigable waters of the United States, for which the Coast Guard will remain the responsible Federal agency. Activities associated with the undertaking outside the waters of the United States within the Phase II APE are included in the permit area, because all of the following tests are satisfied: Such activities would not occur but for the authorization of the work or structures within the waters of the United States; such activities are integrally related to the work or structures that would be authorized within waters of the United States; the work or structures that would be authorized are essential to the completeness of the overall undertaking; and such activities are directly associated with the work or structures to be authorized; and

WHEREAS, the undertaking would require certain permits from the Corps and the Coast Guard, the Corps and Coast Guard are complying with their applicable regulations implementing Section 106 (36 C.F.R. Part 800) which require that the Corps and Coast Guard take into account the effects of the undertaking on properties listed in or eligible for inclusion in the NRHP, and the Corps and Coast Guard have independently evaluated and adopted the Project Phase II consultations completed between FRA, SHPO, and ACHP dated November 20, 2013 (amended May 21, 2015); and

WHEREAS, the Corps and Coast Guard have consulted with the Florida Division of Historical Resources (FDHR), which is the SHPO, under 36 C.F.R. § 800.2(c)(1); and

WHEREAS, the construction of the undertaking will involve the following: (1) the removal and replacement of the Eau Gallie River Bridge (Florida Master Site File Number 8BR3058) and St. Sebastian River Bridge (Florida Master Site File Numbers 8BR3062/8IR1569), which are individually eligible for listing in the NRHP; (2) rehabilitation or replacement of historic bridges contributing to the Florida East Coast Railway (FECR) Historic District; and (3) ground-disturbing activities, including installation or relocation of signal and communication systems, relocation of buried fiber optic cable, and track reconstruction within the existing FECR right of way; and

WHEREAS, through consultation SHPO has concurred on December 29, 2015 with FRA's determination that the undertaking will have an adverse effect on the Eau Gallie River Bridge, St. Sebastian River Bridge, and the ground disturbing activities associated with construction have the potential to cause adverse effects to National Register-eligible archaeological sites under 36 C.F.R. § 800.5(a)(2)(i) through demolition; and

WHEREAS, through consultation FRA has determined, and SHPO has concurred, that the undertaking will not have an adverse effect to the other NRHP-listed or eligible properties in Attachment 1 either through demolition, alteration, change in the character of the property's setting, or the introduction of visible, atmospheric, or auditory elements under 36 C.F.R. § 800.5(a)(2)(ii) through (v); and

WHEREAS, through consultation, the SHPO has concurred on December 29, 2015 with FRA's determination that the ground-disturbing activities associated with construction, performed consistent with the Archaeological Monitoring Plan in Stipulation IV, should not have an adverse effect on archaeological sites; and

WHEREAS, the FRA notified the ACHP on April 24, 2015, of the adverse effect and ACHP agreed to participate in the Section 106 consultation; and

WHEREAS, FRA initiated the National Environmental Policy Act (NEPA) process for the undertaking in April 2013 and involved the public at five scoping meetings in

May 2013 held in Orlando, Miami, West Palm Beach, Fort Pierce, and Fort Lauderdale before the publication of the Draft Environmental Impact Statement (DEIS) for the undertaking; and eight public meetings during the public comment period on the DEIS in October and November 2014 held in accordance with NEPA along the undertaking corridor, where Section 106 considerations (including identification of and potential adverse effects to historic properties) were presented to the public and locally affected parties; and

WHEREAS, on August 4, 2015, FRA published a Final EIS (FEIS) which included as an attachment a draft Memorandum of Agreement (MOA) that will be superseded and replaced by this PA; and

WHEREAS, FRA engaged in government-to-government consultation with the Miccosukee Tribe of Indians of Florida, the Muscogee Creek Nation, the Poarch Band of Creek Indians, the Seminole Nation of Oklahoma and the Seminole Tribe of Florida regarding the undertaking. Of these, the Tribal Historic Preservation Officer of the Seminole Tribe of Florida has consulted with FRA and has requested that FRA continue government-to-government consultation concerning archaeological sites. The Corps continues to engage in government-to-government consultation with the Tribal Historic Preservation Officer for the Seminole Tribe of Florida; and

WHEREAS, FRA identified and contacted local governments and other entities to participate in the Section 106 process as Consulting Parties under 36 C.F.R. § 800.2(c)(3) and (c)(5) on May 19, 2015, and nine entities responded with their intent to participate (Broward County, June 9, 2015; City of Stuart, June 9, 2015; City of Vero Beach, June 4, 2015; Indian River County, June 10, 2015); Indian River County Historical Society Inc., June 6, 2015; Martin County, June 12, 2015; Old Vero Ice Age Sites Committee, June 2, 2015; St. Lucie County, June 12, 2015; and Town of St. Lucie Village, June 12, 2015); and

WHEREAS, FRA has consulted with the Consulting Parties and provided the Consulting Parties a draft Determination of Effects (DOE) Report on May 19, 2015, and a revised draft DOE Report, draft Memorandum of Agreement, and draft Archaeological Monitoring Plan on October 5, 2015, and held a meeting on October 19, 2015, concerning the identification of historic properties within the APE for direct and indirect effects and concerning FRA's determination of effects to those historic properties; and

WHEREAS, FRA, Corps, and Coast Guard received comments from the public and consulting parties regarding the potential effects of the undertaking on historic properties and addressed the comments through development of this PA; and

WHEREAS, AAF has committed to use alternative construction methods such as extended directional drilling to avoid adverse effects to known sites and areas of archaeological sensitivity within the APE identified in Stipulation IV; and

WHEREAS, the FRA, Corps, and Coast Guard have considered the Consulting Parties' comments on the identification of historic properties within APE and on FRA's Determination of Effects to those historic properties and determined that all historic properties within the APE, respectively, have been identified consistent with Section 106 and its implementing regulations for Protection of Historic Properties (36 C.F.R. Part 800) and in compliance with the data analysis and reporting standards embodied in FDHR's Cultural Resource Management (CRM) Standards and Operational Manual (Florida Department of State 2002), and Chapter 1A 46 (Archaeological and Historical Report Standards and Guidelines), Florida Administrative Code, and to professional guidelines set forth in the Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716, as amended); and

WHEREAS, the Corps published a public notice January 10, 2017, advising the Corps and Coast Guard will execute a PA; and

WHEREAS, the Corps and Coast Guard have coordinated a draft PA with the Signatories, and the Consulting Parties by letter dated January 11, 2017; and

WHEREAS, the Corps and Coast Guard held a meeting on February 9, 2017, with the consulting parties concerning the draft PA; and

WHEREAS, the Corps completed field assessments at known archaeological sites and important archaeological areas with representatives of the consulting parties in Indian River and St. Lucie Counties on March 6 and 7, 2017, at the request of the consulting parties; and

WHEREAS, the Corps and Coast Guard amended the PA as a result of the comments received from the consulting parties and field visits completed by the Corps; and

NOW THEREFORE, the Signatories agree that the undertaking shall be implemented in accordance with the following stipulations to take into account the effects of the undertaking on the historic properties listed in Attachment 1.

STIPULATIONS

The Corps and Coast Guard, in coordination with AAF, will ensure that the following measures are carried out:

I. APPLICABILITY

- A. This PA does not apply to elements of the undertaking involving Positive Train Control (PTC) infrastructure covered by ACHP's *Program Comment for Positive Train Control Wayside Poles and Infrastructure* (May 16, 2014).
- B. This PA does not apply to elements of the undertaking involving the construction of new communications towers or the collocation of equipment on existing towers that are

covered by ACHP's *Program Comment to Avoid Duplicative Reviews for Wireless Communications Facilities Construction and Modification* (September 24, 2015).

- C. This PA does not apply to Phase I of All Aboard Florida's Intercity Passenger Rail Project from West Palm Beach to Miami, Florida.

II. STANDARDS AND PROFESSIONAL QUALIFICATIONS

- A. All architectural history work or archaeological work carried out under this PA will be conducted by, or under the direct supervision of, a person or persons meeting the Secretary of the Interior's Professional Qualifications Standards for Architectural History (48 FR 44738-9) and the Secretary of the Interior's Professional Qualifications Standards for Archaeology (48 FR 44738-9).
- B. The Signatories acknowledge that the Corps is the federal agency responsible for coordinating any and all aspects of this PA with the Native American Tribes. AAF shall not contact the Native American Tribes regarding any aspect of this PA.
- C. The Signatories acknowledge that Native American Tribes possess special expertise in assessing the eligibility of historic properties that may possess religious and cultural significance to them.

III. BRIDGE REPLACEMENT, REHABILITATION, AND CONSTRUCTION

- A. Bridges Advisory Group
 - i. The Coast Guard is the federal agency responsible for implementation of Stipulation III.
 - ii. A Bridges Advisory Group will be formed by AAF. The purpose of the Bridges Advisory Group is to review the proposed design of the new replacement bridges at Eau Gallie River and St. Sebastian River and rehabilitation of existing bridges listed in stipulation III.A.IV that are contributing elements to the FECR Historic District and make recommendations to AAF to assist AAF in developing bridge designs consistent with the character of the FECR Historic District. A preliminary navigation clearance determination will be issued by the Coast Guard prior to proposing bridge designs for review by the Bridges Advisory Group.
 - iii. The Bridges Advisory Group will seek input from interested parties on the design of the replacement of the Eau Gallie River Bridge and St. Sebastian River Bridge and the design for the rehabilitation or replacement of historic bridges contributing to the FECR Historic District.
 - iv. The Bridges Advisory Group will consist of AAF, SHPO, the Independent Archeological Monitor described in Stipulation IV.B, and any Consulting Party that expresses an interest in participating and that is situated in the localities where the bridge work will occur. Consulting Parties must notify AAF of their interest in

participating in the Bridges Advisory Group in writing within 15 business days of receiving notification from AAF that the PA has been executed. Any Consulting Party participating on the Bridges Advisory Group may provide written comments to AAF, Coast Guard, and SHPO only on the design of bridges listed below located in the county or city with which they are affiliated.

The Eau Gallie River Bridge is located in Brevard County and the City of Melbourne; the St. Sebastian River Bridge is located in Brevard and Indian River Counties and immediately north of the City of Sebastian. Historic bridges contributing to the FECR Historic District that will be demolished and replaced include:

- Crane Creek Bridge (Brevard County)
- Turkey Creek Bridge (Brevard County)
- Goat Creek Bridge (Brevard County)
- Rio Waterway Bridge (Martin County)
- Salerno Waterway Bridge (Martin County)
- Manatee Creek Tributary 1 Bridge (Martin County)
- Manatee Creek Tributary 2 Bridge (Martin County)

Historic bridges contributing to the FECR Historic District that will be rehabilitated include:

- Taylor Creek (St. Lucie County)
- St. Lucie River (Martin County)
- Loxahatchee River (Palm Beach County)

- v. AAF will provide design plans to the Bridges Advisory Group, Coast Guard, and SHPO for review at the 60 percent design stage for each bridge identified in Stipulation III.A.ii. The Bridges Advisory Group will have 30 business days to review the design plans and provide recommendations to AAF, SHPO, and Coast Guard. AAF and SHPO will meet as needed to review the recommendations of the Bridges Advisory Group. The recommendations of the Bridges Advisory Group are advisory only. AAF is responsible for ensuring that the structural and engineering design of these bridges meets engineering standards for passenger and freight railroads at the specified loadings. In addition, AAF will take into account any recommendations in accordance with this paragraph in preparing the final designs for the bridges and will choose and implement designs for the bridges that are compatible with the character of the historic districts where they are located. The Coast Guard will review the final designs for the bridges to confirm that the recommendations have been taken into account and the final design meets requirements of the General Bridge Act of 1946.

B. Documentation for the Historic Eau Gallie River Bridge and St. Sebastian River Bridge

- i. Prior to the demolition of the historic Eau Gallie River Bridge and St. Sebastian River Bridge, AAF will prepare the following documentation of these bridges in accordance with Historic American Engineering Record (HAER) standards:

- Drawings – Select drawings of both of the existing bridge plans, as available, scanned and provided in an acceptable digital format (i.e. jpeg files);
 - Photographs – Photographs with large-format negatives of context and views from all sides of the bridges and approaches, roadway and deck views, and noteworthy features and details. All negatives and prints will be processed to meet archival standards. One photograph of a principal elevation shall include a scale; and
 - Written Data – Reports with narrative description of both bridges, summary of significance, and historical context.
- ii. AAF will provide copies of the documentation completed in accordance with Stipulation III.B.i as follows:
- An archival copy of documentation for both bridges to the U.S. Department of Interior (DOI), National Park Service Southeast Regional Office for review and approval before demolition of the structure, per HAER guidelines; and
 - An archival copy of the DOI-approved documentation for both bridges to the SHPO for inclusion in the Florida Master Site File (FMSF); and
 - A copy of the DOI-approved documentation for both bridges to the Florida Historical Society in Cocoa, Florida, and copies of the St. Sebastian River Bridge documentation to Indian River County and the Indian River County Historical Society in Vero Beach, Florida.

IV. ARCHAEOLOGICAL MONITORING AND UNANTICIPATED ARCHAEOLOGICAL DISCOVERIES

- A. The Corps is the federal agency responsible for implementation of Stipulation IV.
- B. AAF agrees to submit plans and specification on the means and methods of construction of Main Canal (MP 226.8) and North Canal (MP 223.8) bridges prior to commencement of construction on the bridges. The Corps will review the plans to ensure AAF has taken all reasonable efforts to avoid and minimize ground disturbance activities at the canal banks. The plans shall be submitted to U.S. Army Corps of Engineers, Regulatory Division, P.O. Box 4970, Jacksonville, Florida 32926. Reference DA number SAJ-2012-01564 in any correspondence transmitted.
- C. AAF will use alternative construction methods such as horizontal directional drilling to avoid adverse effects to known sites and areas of archaeological sensitivity within the APE identified in Attachment 2. AAF agrees to monitor the entry and exit locations of the horizontal directional drill as described in Stipulation IV.E and IV.F. If extended directional drilling is not feasible due to physical constraints (e.g. existing utilities that could be

affected by drilling), then the Independent Archaeological Monitor (see section IV.E below)) shall be implemented at these locations using the monitoring protocol in stipulations IV.E and IV.F.

D. This Stipulation is the Archaeological Monitoring/Unanticipated Discoveries Plan (Plan) that AAF will implement during ground-disturbing construction activities of the undertaking along the corridor between West Palm Beach and Orlando that was reviewed in FRA's FEIS. These activities may include the reinstallation of a second track, relocating a buried fiber optic cable line, installing subsurface signals and communications systems, and other construction activities associated with the undertaking. The Plan also establishes a process for identifying and protecting unmarked human remains and identifying archaeological resources that may be encountered during undertaking construction. AAF will implement the Plan in accordance with state and Federal laws, including Florida laws Chapter 872 Offenses Concerning Dead Bodies and Graves and Chapter 267 Historical Resources. The Plan is applicable to the following known sites and areas of archaeological sensitivity:

- Hobe Sound National Wildlife Refuge #3 Site (8MT1287);
- Fort Capron Site (8SL41);
- Vero Man/Vero Locality Site (8IR1/8IR9);
- Fort Pierce (8SL31);
- Fort Pierce Mound (8SL3)
- Railroad Site (8IR846);
- Avenue A-Downtown Fort Pierce (8SL1772)
- Gifford Bones Site (8IR7);
- Savannah North Dunes Site (8SL3063);
- Pinecrest Colored Cemetery (8BR2808);
- Cocoa Cemetery (BR1777);
- City of Melbourne Cemetery;
- Malabar Cemetery;
- Sebastian River;
- Fort Pierce Cemetery (8SL1101);
- Eden Cemetery (8SL1634);
- All Saints Cemetery (8MT1288);
- St. Lucie River;
- Hobe Sound AME Church Cemetery (8MT1290);
- Loxahatchee River;
- Evergreen Cemetery (8BP218);
- Bridge demolition and construction locations; and
- Those areas listed as high probability locations in the monitoring maps included as Attachment 2.

This Plan provides methods to avoid impacts to these sites and areas of archaeological sensitivity during construction through the use of archaeological monitoring.

Implementation of the Plan will ensure that any deposits of archaeological materials are identified, documented, and protected, or mitigated if impacts cannot be avoided.

E. Independent Archaeological Monitor

- i. AAF will submit to the Corps for approval the qualifications of at least three different persons meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology (48 FR 44738-9) (Archaeologist). No person may be affiliated with the same company or organization as another person whose qualifications are submitted. Once approved by the Corps, AAF will engage the services of such person or persons to provide an independent review of the archaeological monitoring undertaken as described in Stipulation IV.E., to be known as the Independent Archaeological Monitor (IAM). The IAM will have knowledge and experience in the archaeology of the undertaking area (i.e., central and eastern coastal Florida). The IAM will consult, as appropriate, with identified professional archaeologists familiar with the sites and archaeologically sensitive areas listed in Stipulation IV.D. (e.g., the Principal Investigator and/or Lead Archaeologist at the Vero Man Site, and the Principle Investigator and/or Lead Archaeologist at the Fort Pierce Mound Site) before initiating and during archaeological monitoring activities. The IAM will provide sufficient qualified personnel to monitor simultaneous construction at multiple locations.
- ii. AAF will bear the costs incurred by the IAM. The IAM will function as an Independent Third Party Contractor. The scope of work of the IAM will be determined by the Corps. The Corps, AAF, and the IAM will enter into a Memorandum of Understanding that is consistent with the terms of this PA and details the scope of work and schedule at least 30 calendar days prior to the start of any ground-disturbing construction activities at the sites or archaeologically sensitive areas listed in Stipulation IV.D.
- iii. AAF's Project Archaeologist will be responsible for communication with the IAM. For each site or archaeologically sensitive area listed in Stipulation IV.D., AAF's Project Archaeologist will provide the IAM with reasonable notice in advance of any ground-disturbing construction activities and will provide the IAM with a description of the specific activities and anticipated construction schedule and duration. AAF will ensure that the IAM has a reasonable opportunity to be present during all ground disturbing and archaeological monitoring activities. The IAM will have discretion to decide whether or not to be present.
- iv. AAF's Project Archaeologist will immediately notify the IAM of any archaeological artifacts or features discovered during ground disturbing activities at the sites or archaeologically sensitive areas listed in Stipulation IV.D., or of any inadvertent discoveries within the APE. The IAM will independently evaluate the find for N and provide a finding within 24 hours.

- v. The IAM will review the Project Archaeologist logs daily (Stipulation IV.E.iv) and will review the Monitoring Report prepared by the Project Archaeologist for each site and archaeologically sensitive areas listed in Stipulation IV.D, and will provide weekly written reports to the Corps and SHPO.
- vi. The IAM will have the authority to stop work if he/she observes a circumstance where any archaeological artifacts or features are at risk of damage or destruction from work being performed at a site or archaeologically sensitive area listed in Stipulation IV.D. AAF, the Corps, and SHPO will follow Stipulations IV.F.i and V.F.ii before work can proceed. This stipulation shall be included in any contracts associated with ground disturbing activities for the AAF project.

F. Monitoring Methods and Documentation

- i. *Personnel:* AAF will engage the services of a person or persons meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology (48 FR 44738-9) (Project Archaeologist) to fulfill its obligations under this Stipulation IV. AAF proposes to use Janus Research as the Project Archaeologist. All archaeological monitoring will be conducted by, or under the direct supervision of, the Project Archaeologist with the exception of the IAM's monitoring activities. The Project Archaeologist will ensure that the archaeological monitors have the education, training, and experience to properly monitor construction activities. The Project Archaeologist will determine the appropriate number and placement of monitors for each site dependent on subsurface conditions and the nature of the construction activity. An archaeological monitor will be present for all ground disturbing activities at the archaeological sites and areas of archaeological sensitivity listed in IV.D and represented on the maps in Attachment 2.
- ii. *Construction Crew Education:* Before the commencement of any ground disturbing activities, AAF's Project Archaeologist will brief a designated construction supervisor on the monitoring goals and procedures, stop work procedures, the stratification in the project area, and applicable Federal, state, and local laws pertaining to the discovery of human remains and archaeological materials. AAF's Project Archaeologist will show construction crew members involved in ground disturbing activities study collections of midden soil, faunal remains, shell, bone, and stone tools, lithic fragments, pottery sherds, and other types of artifacts that could potentially be encountered at each of the archaeological sites and known areas of archaeological sensitivity. AAF's Project Archaeologist will also explain to the construction crew members the stop work procedures they must follow if archaeological materials are encountered. The stipulations in this section shall be included in any contracts associated with ground disturbing activities for the AAF project.
- iii. *Field Methods:* AAF's Project Archaeologist will be present to monitor all ground disturbing activity at each site and archaeologically sensitive area listed in Stipulation IV.D. AAF will inform a designated construction crew supervisor that

the Project Archaeologist and/or IAM will be present and has the authority to stop or redirect work in the event of an unanticipated discovery.

- iv. AAF's Project Archaeologist will be responsible for the observation, collection, and documentation of archaeological features or artifacts encountered during ground disturbing activities. The documentation of archaeological features and artifacts will include: (1) plotting their approximate locations on a map of the project area; (2) writing a description of the resources encountered that includes their location, size, approximate depth, type of material encountered, and any other pertinent information; (3) drawing of profiles; and (4) taking photographs. The Project Archaeologist will keep a daily log of construction and monitoring activities and submit the logs to the IAM weekly.
- v. Any artifacts collected during the course of monitoring will be bagged and recorded separately by AAF's Project Archaeologist with the appropriate provenience information noted on the field bags. Obvious features will be treated as separate collection proveniences. The Project Archaeologist will assign all artifact and soil sample bags Field Specimen numbers in the field. The Project Archaeologist will also conduct laboratory processing, which will consist of the cleaning, inventorying, packaging, and temporary storage of the artifacts recovered. Artifact analysis will involve the morphological and techno-functional classification of artifacts and, if possible, will establish their temporal/cultural affiliations. The Project Archaeologist will make any artifacts available for inspection by the IAM.
- vi. In the event of a find that is potentially eligible for the NRHP, as recommended by AAF's Project Archaeologist or the IAM in the field based on a preliminary assessment, the following procedures will be followed:
 - AAF's Project Archaeologist or the IAM will stop/redirect all work within 100 feet of the find, and flag and secure the find. The Project Archaeologist or IAM will immediately notify the construction supervisor, AAF, and the IAM or Project Archaeologist of the find. The IAM will independently evaluate the find for recommendations on eligibility for inclusion in the NRHP.
 - If the Project Archaeologist recommends and the IAM concurs that the find is NRHP-potentially eligible, AAF will consult with the Corps and SHPO to develop appropriate treatment measures, if necessary. The Corps will share the proposed treatment measures with the Native American Tribes and any Consulting Parties located within the jurisdiction of the find. Such Consulting Parties will have seven (7) calendar days to review and provide written comments to the Corps, SHPO and AAF on any such treatment measures starting from the date on which the Corps contacts the Consulting Parties.
 - If the Project Archaeologist or IAM recommends that the find is eligible or potentially eligible for NRHP listing and the site may be damaged by allowing the ground disturbing activities to continue, AAF will cease all such activities within 100 feet of the find until consultation has been completed between the

Corps, AAF, SHPO, and until the Consulting Parties located within the jurisdiction of the find have been given seven (7) calendar days to review and provide written comments to SHPO, Corps, and AAF. At the conclusion of the comment period, the Corps will provide a DOE based upon the information submitted and a final treatment for the resource property will be developed. The treatment plan must be carried out prior to re-commencement of ground disturbing activities within 100 feet of the find. AAF will provide the funds for such treatment.

- vii. *Curation:* AAF agrees that Janus Research will provide temporary storage and curation of all archaeological material (artifacts, ecofacts, etc.) and related documentation recovered during the course of monitoring. Collected archaeological material will be curated to professional standards and transferred to AAF at the completion of the undertaking. AAF will consult with SHPO, Corps, and Consulting Parties regarding the appropriate transfer or disposition of any artifacts and records, including possible transfer to an appropriate Native American Tribe or other entity. Prior to transfer of ownership of the collection to a Native American Tribe or other entity, AAF must ensure that the recovered artifacts and related records will be curated in a suitable repository as agreed to by SHPO and affected Native American Tribe(s) and that applicable Florida state or Tribal guidelines are followed.
- viii. *Analysis and Report/Documentation:* The Project Archaeologist will present the results of the archaeological monitoring to the IAM, AAF, the Corps, SHPO and any affected Native American Tribes in a Monitoring Report addressing methods, findings, daily logs, and photographs of monitoring operations, at the conclusion of ground disturbing activities at each archaeological site and area of archaeological sensitivity. The Monitoring Report will be submitted within thirty (30) calendar days of the conclusion of ground-disturbing activities. The Project Archaeologist will complete a FMSF Archaeological Site Form (available at <http://dos.myflorida.com/historical/preservation/master-site-file/documents-forms/>) for any archaeological sites identified during the monitoring.

G. Resolution of Disputes between Project Archaeologist and IAM

- i. In the event of a dispute between the IAM and the Project Archaeologist concerning the NRHP eligibility of an archaeological discovery, or the need to stop construction on a temporary basis as a result of a recommended potentially NRHP eligible find under Stipulation IV.F.vii, the Project Archaeologist will notify AAF and the IAM will notify the Corps, Coast Guard, and SHPO.
- ii. If the dispute concerns the need to temporarily stop construction at a specific archaeological monitoring location, AAF will cease ground disturbing activities at that site or archaeologically sensitive area until the Corps, Coast Guard, and SHPO have consulted and concurred on any measures to address the archaeological discovery. The Corps, Coast Guard, and SHPO will conclude their

consultation on the treatment measures within fourteen (14) calendar days and work will resume in accordance with the resolution of the consultation.

- iii. In the event of a dispute concerning an archaeological discovery which is potential eligibility for NRHP that does not require that construction be temporarily stopped, the IAM will provide a written evaluation and recommendations to the Corps, Coast Guard, and SHPO. The Corps and Coast Guard will consult with SHPO. The SHPO will provide the Corps and Coast Guard with a recommendation, and the Corps and Coast Guard will take the recommendation into account in reaching a final decision regarding the dispute
- iii. If AAF or SHPO disagree with the Corps and Coast Guard decision, either party may trigger the dispute resolution procedures in Stipulation IX.

V. AVOIDANCE OF ADDITIONAL POTENTIAL CONSTRUCTION IMPACTS

- A. The Corps is the federal agency responsible for implementation of Stipulation V.
- B. If AAF proposes to use private property or property outside of the APE for direct effects for work site ingress/egress, materials staging, or construction, AAF will consult with SHPO, the Corps, and Consulting Parties located within the jurisdiction of the proposed work area(s) to assess the potential effects of new activities on archaeological and historic resources and will locate such activities in such a manner as to avoid effects to known historic properties listed or eligible for listing on the NRHP, including sites listed in Stipulation IV.B.
- C. If archaeological or historical resources are discovered during ground disturbing activities within the APE or areas that are not listed in Stipulation IV.C, all ground disturbing activities will cease and the Project Archeologist and IAM will be immediately contacted. The archaeological monitors will then follow the procedures outlined in Stipulation IV.E.
- D. AAF will also consider any cumulative and indirect effects to historic properties that may occur as a result of such new activities described in Stipulation V.B.
- E. AAF will use alternative construction methods such as vibratory or sonic pile driving to reduce the vibration impact from pile/sheet pile driving when within 135 feet from archaeological sites and historic districts identified in Stipulation IV.D.
- F. AAF will provide construction crew education, as described in Stipulation IV.F.ii, prior to the commencement of any ground disturbing activities of the undertaking.

VI. HISTORIC INTERPRETATION WEBSITE

- A. The Corps is the federal agency responsible for implementation of Stipulation VI.
- B. AAF will develop and host a website that will focus and highlight the contributions of Henry Morrison Flagler and the history of the FECR and its passenger rail service along the corridor. The website must also provide a background describing the prehistoric and

historic context of the corridor. AAF will consult with SHPO during the development of the website.

- C. Before launching the website, AAF will meet with SHPO and demonstrate the website content to ensure that all historic information is accurate and consistent with historic records.
- D. The website will be available for public access for a minimum of five (5) years from the start of revenue service by AAF or subsequent operator.
- E. AAF will provide a link on its website to the historic website to enable both interested passengers and the general public with access to the historic information.

VII. REPORTING

At least every two months, AAF's public information officer will hold a telephone conference with Consulting Parties, public officials and other interested community representatives and public officials to provide a status report on the implementation of the undertaking. This obligation will continue until completion of the undertaking. AAF will also maintain a public website providing periodic updates on the undertaking's implementation. AAF will notify Consulting Parties in writing seven (7) calendar days prior to commencing construction in proximity to properties listed on or eligible for inclusion in the NRHP (Attachment 1 to this PA), the archaeological sites, and archaeologically sensitive areas listed in Stipulation IV.D.

VIII. POST REVIEW DISCOVERIES

- A. Human Remains. In the case of an unanticipated discovery of human remains or burials during construction activities, AAF shall halt construction in the immediate area (within 50 feet) of the discovery, secure the area, and follow the provisions of the State of Florida's burial laws as set forth in Section 872.05 of Florida Statutes.
- B. Historic Properties. Historic Properties. In the event the Undertaking has an unanticipated adverse effect on above- or below- ground historic properties, AAF will consult with the Corps, USCG, SHPO, and/or ACHP accordance with 36 C.F.R. § 800.13(b).

IX. OBJECTIONS BY SIGNATORIES

- A. Should any Signatory object in writing to the Corps or Coast Guard regarding any action proposed or carried out with respect to the undertaking or implementation of this PA, the Corps and Coast Guard will consult with the objecting party to resolve the objection.
- B. If after initiating such consultation with the objecting party the Corps and Coast Guard determine that the objection cannot be resolved, the Corps and Coast Guard will forward all documentation relevant to the objection to the ACHP, including the Corps' and the Coast Guard's proposed response to the objection and request that the ACHP comment on the proposed resolution within 30 calendar days of receipt. Within 30 calendar days after receipt of all pertinent documentation, ACHP will:

- i. Concur in the Corps and Coast Guard proposed resolution; or
 - ii. Provide the Corps and Coast Guard with recommendations, which the agencies will take into account in reaching a final decision regarding the dispute; or notify the Corps and Coast Guard that it will comment under 36 C.F.R. Part 800, and proceed to refer the objection and comment. Any ACHP comment provided in response to such a request will be taken into account by the Corps and Coast Guard in accordance with 36 C.F.R. § 800.7(c)(4) with reference to the subject of the dispute.
- C. Should ACHP not respond within 30 days of receiving adequate documentation, the Corps and Coast Guard may make a final decision on the dispute and proceed accordingly.
- D. Any recommendations or comments provided by ACHP will be understood to pertain only to the subject of the dispute; The Corps', Coast Guard's, and AAF's responsibility to carry out all other terms of this PA that are not the subject of the dispute will remain unchanged.

X. OBJECTIONS BY THE PUBLIC

If a member of the public believes that this PA is not being implemented according to its terms, that person may provide the Corps and Coast Guard with written notice specifying their concerns. The Corps and Coast Guard will consider those concerns and may consult with the member of the public, consulting parties, or other Signatories, as the Corps and Coast Guard deem appropriate. The Corps and Coast Guard will respond to the member of the public in writing and copy Signatories on its response.

XI. AMENDMENTS

Any Signatory to this PA may request that it be amended, whereupon the signatory parties will consult in accordance with 36 C.F.R. Part 800.6 to consider the amendment. The Corps and Coast Guard will consult, as appropriate based on the nature of the proposed amendment, with Consulting Parties regarding amendments to this PA. All signatories must signify their acceptance of the proposed changes in writing within thirty (30) days of their receipt. This PA shall only be amended by a written instrument executed by all signatories. The amendment will be effective on the date of signature of the last party to sign the amendment. When no consensus can be reached, the PA will not be amended and the dispute resolution process set forth in Stipulation IX will be followed.

XII. TERMINATION

Any of the Signatories may terminate this PA by providing written notice to the other parties, provided that the parties will consult during the period before termination to seek agreement on amendments or other actions that may avoid termination. Termination of this PA must be in compliance with 36 C.F.R. Part 800. This PA may be terminated by the execution of a subsequent Agreement that explicitly terminates or supersedes the terms of the PA.

XIII. DURATION

Unless terminated under Stipulation XII above, this PA will be in effect for ten (10) years following execution by all signatories or until the signatories determine the terms of the PA are satisfactorily fulfilled, whichever is later. This PA will also be terminated if AAF notifies the Signatories in writing that it is unable or has decided not to construct the undertaking.

XIV. COORDINATION WITH OTHER FEDERAL ACTIONS

In the event that another Federal agency is considering funding, permits, licenses, or other approvals or assistance for this Undertaking not covered by this PA as originally executed, and the Undertaking remains unchanged as set forth in this PA, that agency may fulfill its Section 106 responsibilities by stating in writing to the Corps, USCG, Florida SHPO, and the ACHP that it intends to do so and that it concurs with and will abide by the terms of this PA. Any other modifications to the PA will be considered in accordance with the Amendment Stipulation (XI).

Execution of this PA by the Corps, Coast Guard, SHPO, AAF and ACHP, and implementation of its terms, demonstrates that the Corps and Coast Guard have taken into account the effects of the undertaking on historic properties.

**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**

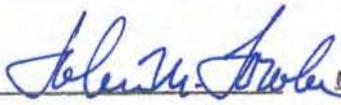
Signatures

 Date: 21 AUG 2017

JASON A. KIRK, P.E.
Colonel, U.S. Army
District Commander

 Date: 8/10/2017

P.J. BROWN
Rear Admiral, U.S. Coast Guard
Seventh Coast Guard District

 Date: 9/13/17

John M. Fowler
Executive Director
Advisory Council for Historic Preservation

 Date: 8/2/2017

Timothy Parsons, Ph.D., RPA
Division of Historical Resources &
State Historic Preservation Officer

 Date: 8/14/17

Vice P. Michael Reiniger
President
All Aboard Florida, Operations, LLC

**ATTACHMENT 1: PROPERTIES LISTED IN OR ELIGIBLE FOR THE
NATIONAL REGISTER OF HISTORIC PLACES, AND DETERMINATIONS
OF EFFECT FINDINGS**

Table 1 Historic Linear Resources Within the N-S Corridor APE for Direct Effects¹				
FMSF #	Site Name / Address	Resource Type	National Register Status	Determination of Effect
8BR1870/ 8IR1497/ 8IR1518/ 8SL3014/ MT1391/ 8MT1450/ 8PB12102	Florida East Coast Railway	Linear Resource	NRHP-Eligible	No Adverse Effect

¹ Includes properties listed in, or eligible for listing in, the National Register of Historic Places. For a full list of surveyed properties, please see the 2013 CRAR and 2015 CRAR Addendum Appendices (online).

Table 2 FECR Historic Bridges Within the N-S Corridor APE for Direct Effects						
Mile Post	County	FMSF #	Site Name / Address	Date Estimate	National Register Status	Determination of Effect
190.47	Brevard	8BR3058	Fixed Railway Bridge over the Eau Gallie River – Steel	1925	Eligible as FECR Contributing Resource/ Individually Eligible	Adverse Effect
194.34	Brevard	8BR3059	Fixed Railway Bridge over the Crane Creek and Melbourne Street – Steel	1925	Eligible as FECR Contributing Resource	No Adverse Effect
197.7	Brevard	8BR3060	Fixed Railway Bridge over the Turkey Creek – Steel	1925	Eligible as FECR Contributing Resource	No Adverse Effect
202.59	Brevard	8BR3061	Fixed Railway Bridge over the Goat Creek – Steel	1959	Eligible as FECR Contributing Resource	No Adverse Effect
212.07	Brevard and Indian River	8BR3062/ 8IR1569	Fixed Railway Bridge over the Sebastian River – Steel	1926	Eligible as FECR Contributing Resource/ Individually Eligible	Adverse Effect
240.1	St. Lucie	8SL3191	Fixed Bridge over the Taylor Creek - Concrete with Steel Beam Span	1961	Eligible as FECR Contributing Resource	No Adverse Effect

Mile Post	County	FMSF #	Site Name / Address	Date Estimate	National Register Status	Determination of Effect
259.95	Martin	8MT1623	Fixed Bridge over the Rio Waterway - Steel and Timber Piles	1958	Eligible as FECR Contributing Resource	No Adverse Effect
260.93	Martin	8MT1382	Movable Bridge over the St. Lucie River – Steel	1938	Eligible as FECR Contributing Resource/ Individually Eligible	No Adverse Effect
266.86	Martin	8MT1624	Fixed Bridge over the Salerno Waterway - Steel and Timber Piles	1958	Eligible as FECR Contributing Resource	No Adverse Effect
267.34	Martin	8MT1625	Fixed Bridge over the Tributary to Manatee Creek 1 - Steel and Timber Piles	1962	Eligible as FECR Contributing Resource	No Adverse Effect
267.70	Martin	8MT1626	Fixed Bridge over the Tributary to Manatee Creek 2 - Steel and Timber Piles	1962	Eligible as FECR Contributing Resource	No Adverse Effect
282.58	Palm Beach	8PB16041	Movable Bridge over the Loxahatchee River – Steel	1935	Eligible as FECR Contributing Resource/ Individually Eligible	No Adverse Effect

FMSF #	Site Name / Address	Resource Type	Construction Date	Style	National Register Status	Determination of Effect
8IR2173	Union Cypress Saw Mill Historic District	Mixed District			NRHP-Eligible	No Adverse Effect
8BR215	Florida Power & Light Co. Ice Plant / 1604 S, Harbor City Boulevard	Building	1926	Industrial Vernacular	NRHP-Listed	No Adverse Effect
8BR759	Marion S. Whaley Citrus Packing House/ 2275 Rockledge Blvd W.	Building	1930	Frame Vernacular	NRHP-Listed	No Adverse Effect
8BR1163	Mattie Lamar House/ 361 Stone Street	Building	c. 1917	Frame Vernacular	NRHP-Eligible	No Adverse Effect

Table 3 Brevard County: Historic Properties within the N-S Corridor APE for Indirect Effects¹

FMSF #	Site Name / Address	Resource Type	Construction Date	Style	National Register Status	Determination of Effect
8BR1710	Jorgensen's General Store/5390 US Hwy 1	Building	1894	Frame Vernacular	NRHP-Listed	No Adverse Effect
8BR1723	Cocoa Cemetery Storage Building/ 101 N. Cocoa Blvd.	Building	c. 1931	Masonry Vernacular	NRHP-Eligible	No Adverse Effect
8BR1739	Ashley's Cafe & Lounge/ 1609 Rockledge Blvd. W.	Building	c. 1932	Tudor Revival	NRHP-Eligible	No Adverse Effect
8BR1741	Rockledge Gardens Nursery & Landscaping/2153 Rockledge Blvd. W.	Building	c. 1930	Industrial Vernacular	NRHP-Eligible	No Adverse Effect
8BR1765	Bohn Equipment Company/ 255 Olive St	Building	c. 1927	Industrial Vernacular	NRHP-Eligible	No Adverse Effect
8BR2779	317 Rosa Jones Drive	FECR Station	c. 1962	International	NRHP-Eligible	No Adverse Effect
8BR1724	Hilltop Cemetery	Cemetery	c. 1887		NRHP-Eligible	No Adverse Effect
8BR1777	Cocoa Cemetery	Cemetery	c. 1890		NRHP-Eligible	No Adverse Effect

¹ Includes properties listed in, or eligible for listing in, the National Register of Historic Places.

Table 4 Indian River County: Historic Properties within the N-S Corridor APE for Indirect Effects¹

FMSF #	Site Name / Address	Resource Type	Construction Date	Style	National Register Status	Determination of Effect
8IR859	McKee Jungle Gardens	Resource Group			NRHP-Listed	No Adverse Effect
8IR1519	Dixie Highway	Linear Resource			NRHP-Eligible	No Adverse Effect
8IR68	Vero Railroad Station/ 2336 14 th Avenue	FECR Station	1903	Frame Vernacular	NRHP-Listed	No Adverse Effect
8IR99	George Armstrong Braddock House/ 1309 Louisiana Avenue	Building	1908	Georgian Revival	NRHP-Eligible	No Adverse Effect
8IR100	Baughman House/ 1525 North Louisiana Avenue	Building	1900	Neo-Classical Revival	NRHP-Eligible	No Adverse Effect
8IR388	5056 North Old Dixie Highway	Building	c. 1920	Bungalow	NRHP-Eligible	No Adverse Effect
8IR624	Old Vero Beach Community Building/ 2146 14 th Avenue	Building	1935	Frame Vernacular	NRHP-Listed	No Adverse Effect
8IR858	Hall of Giants, McKee Jungle Gardens/ US 1 and 4 th Street	Building	1940	Other	NRHP-Eligible (individually and contributing to district)	No Adverse Effect

Table 4 Indian River County: Historic Properties within the N-S Corridor APE for Indirect Effects¹

FMSF #	Site Name / Address	Resource Type	Construction Date	Style	National Register Status	Determination of Effect
8IR975	Vero Beach Diesel Power Plant/ 1133 19 th Place	Building	1926	Masonry Vernacular	NRHP-Listed	No Adverse Effect
8IR1464	Vero Beach Community Center/ 2266 14 th Avenue	Building	1966	Modern	NRHP-Eligible	No Adverse Effect
8IR1475	1146 21 st Street	Building	1966	Modern	NRHP-Eligible	No Adverse Effect

¹ Includes properties listed in, or eligible for listing in, the National Register of Historic Places. For a full list of surveyed properties, please see the 2013 CRAR and 2015 CRAR Addendum Appendices (online).

Table 5 St. Lucie County: Historic Properties Within the N-S Corridor APE for Indirect Effects¹

FMSF #	Site Name / Address	Resource Type	Construction Date	Style	National Register Status	Determination of Effect
8SL2801	Edgar Town Historic District	Historic District			NRHP-Eligible (also local designation)	No Adverse Effect
8SL76	St. Lucie Historic District	Historic District			NRHP-Listed	No Adverse Effect
8SL78	Fairmont Manor/ 5707 South Indian River Drive	Building	1896	Neo-Classical Revival	NRHP-Eligible	No Adverse Effect
8SL220	9015 South Indian River Drive	Building	c. 1890	Frame Vernacular	NRHP-Eligible	No Adverse Effect
8SL227	7901 South Indian River Drive	Building	c. 1910	Craftsman	NRHP-Eligible	No Adverse Effect
8SL229	6109 South Indian River Drive	Building	c. 1915	Colonial Revival	NRHP-Eligible	No Adverse Effect
8SL231	5703 South Indian River Drive	Building	c. 1915	Prairie Style	NRHP-Eligible	No Adverse Effect
8SL234	5309 South Indian River Drive	Building	c. 1935	Colonial Revival	NRHP-Eligible	No Adverse Effect
8SL236	Riverhill/ 4625 South Indian River Drive	Building	1903	Frame Vernacular	NRHP-Eligible	No Adverse Effect
8SL237	Britt House/ 4511 South Indian River Drive	Building	1908	Frame Vernacular	NRHP-Eligible	No Adverse Effect
8SL238	N.E. Card House/ 3915-3917 Indian River Drive	Building	1914	Masonry Vernacular	NRHP-Eligible	No Adverse Effect
8SL247	Hoskins House/ 2929 North Indian River Drive	Building	1910	Frame Vernacular	NRHP-Eligible	No Adverse Effect

Table 5 St. Lucie County: Historic Properties Within the N-S Corridor APE for Indirect Effects¹						
FMSF #	Site Name / Address	Resource Type	Construction Date	Style	National Register Status	Determination of Effect
8SL289	Old Fort Pierce City Hall/ 315 A Avenue	Building	c. 1925	Italianate	NRHP-Listed	No Adverse Effect
8SL799	Sunrise Theater/ 117 2nd Street South	Building	c. 1923	Mediterranean Revival	NRHP-Listed	No Adverse Effect
8SL825	601 South 2nd Street	Building	c. 1935	Masonry vernacular	NRHP-Eligible	No Adverse Effect
8SL826	Frank Tyler House/ 519 2nd Street South	Building	c. 1924	Mediterranean Revival	NRHP-Eligible	No Adverse Effect
8SL917	Banyon Belle Manor/ 1001 South Indian River Drive	Building	1905	Georgian Revival	NRHP-Eligible	No Adverse Effect
8SL918	1009 South Indian River Drive	Building	1925	Mission	NRHP-Eligible	No Adverse Effect
8SL920	1029 South Indian River Drive	Building	1920	Georgian Revival	NRHP-Eligible	No Adverse Effect
8SL926	O.L. Peacock House/ 2211 South Indian River Drive	Building	1920	Mediterranean Revival	NRHP-Eligible	No Adverse Effect
8SL930	Stephen Leshner House/ 2501 South Indian River Drive	Building	1920	Italian Renaissance Revival	NRHP-Eligible	No Adverse Effect
8SL931	Carlton-Vest House/ 2507 South Indian River Drive	Building	1920	Masonry Vernacular	NRHP-Eligible	No Adverse Effect
8SL932	Casa Del Rio/ 2513 South Indian River Drive	Building	1920	Italian Renaissance Revival	NRHP-Eligible	No Adverse Effect
8SL933	Babe Phelps House/ 2521 South Indian River Drive	Building	1935	Monterey	NRHP-Eligible	No Adverse Effect
8SL1599	Shadetre Studio/ 2900 Old Dixie Highway	Building	1950	Frame Vernacular	NRHP-Eligible	No Adverse Effect
8SL1922	East Coast Packers/ 2130 Old Dixie Highway	Building	1950	Industrial Vernacular	NRHP-Eligible	No Adverse Effect

¹ Includes properties listed in, or eligible for listing in, the National Register of Historic Places. For a full list of surveyed properties, please see the 2013 CRAR and 2015 CRAR Addendum Appendices (online).

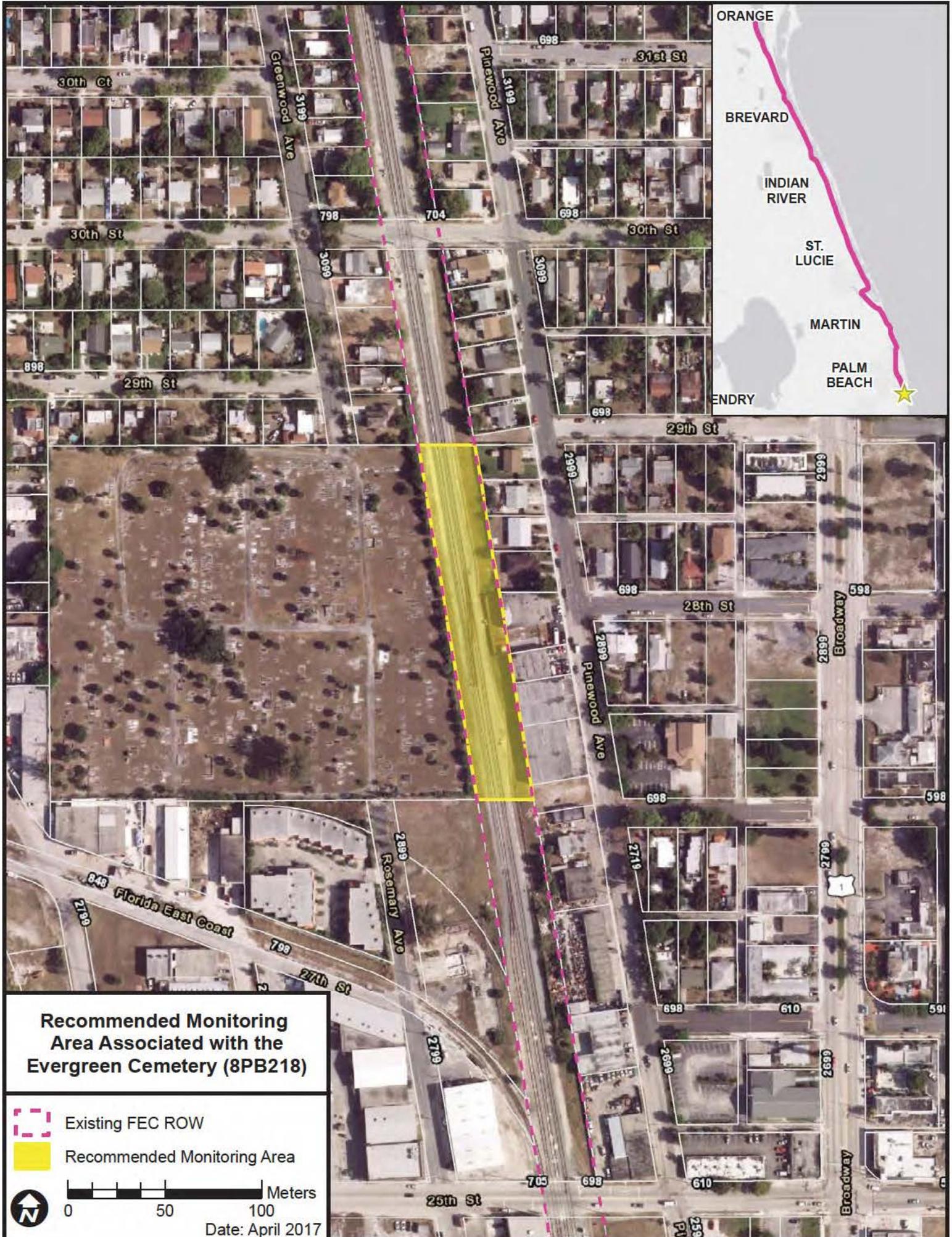
Table 6 Martin County: Historic Properties Within the N-S Corridor APE for Indirect Effects¹						
FMSF #	Site Name / Address	Resource Type	Construction Date	Style	National Register Status	Determination of Effect
8MT1573	Witham Field Airport	Mixed District			NRHP-Eligible	No Adverse Effect
8MT1621	Dixie Highway	Linear Resource			NRHP-Eligible	No Adverse Effect
8MT46	George W. Parks Store/ Stuart Feed/ 101 South Flagler Avenue	Building	1901	Frame Vernacular	NRHP-Eligible	No Adverse Effect
8MT84	Fern Building/ 73 West Flagler Avenue	Building	c. 1950	Masonry Vernacular	NRHP-Eligible	No Adverse Effect
8MT86	Lyric Theatre/ 59 Southwest Flagler Avenue	Building	c. 1926	Mediterranean Revival	NRHP-Listed	No Adverse Effect
8MT130	East Coast Lumber and Supply/ 49 Southwest Flagler Avenue	Building	1917	Frame Vernacular	NRHP-Eligible	No Adverse Effect
8MT131	Hobe South Cabinetry/ 500 South Dixie Highway	Building	1917-c. 1926	Masonry Vernacular	NRHP-Eligible	No Adverse Effect
8MT307	Crary House/ 161 Southwest Flagler Avenue	Building	1925	Tudor Revival	NRHP-Eligible	No Adverse Effect
8MT838	12200 Southeast Nassau Street	Building	c. 1941	Frame Vernacular	NRHP-Eligible	No Adverse Effect
8MT1066	250 North Flagler Road	Building	c. 1940	Masonry Vernacular	NRHP-Eligible	No Adverse Effect

¹ Includes properties listed in, or eligible for listing in, the National Register of Historic Places. For a full list of surveyed properties, please see the 2013 CRAR and 2015 CRAR Addendum Appendices (online).

Table 7 Palm Beach County: Historic Properties within the N-S Corridor APE for Indirect Effects¹						
FMSF #	Site Name / Address	Resource Type	Construction Date	Style	National Register Status	Determination of Effect
8PB13340	Kelsey City Layout	Historic District			NRHP-Eligible	No Adverse Effect
8PB218	Evergreen Cemetery	Cemetery	1916		NRHP-Eligible (also local designation)	No Adverse Effect
8PB6064	St. John's Baptist Church/ 2010 A. E. Isaacs Avenue	Building	1929	Mission	NRHP-Eligible	No Adverse Effect

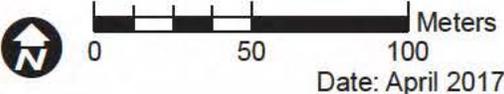
Table 8 Archaeological Sites Located Within the N-S Corridor APE				
FMSF #	Site Name / Address	Site Type	National Register Status	Determination of Effect
8IR846	Railroad	Malabar-Period Shell Midden and Artifact Scatter	Not Evaluated by SHPO	No Adverse Effect
8MT1287	Hobe Sound National Wildlife Refuge #3	Prehistoric Campsite and Prehistoric Shell Midden	Previously recommended as Potentially Eligible: Not Evaluated by SHPO	No Adverse Effect
8SL41	Fort Capron	Historic Fort	Previously recommended as Potentially Eligible: Not Evaluated by SHPO	No Adverse Effect
8SL1772	Avenue A-Downtown Fort Pierce	Precolumbian Habitation, Midden, Campsite, and extractive Site; Historic American Building Remains, Refuse, and Artifact Scatter	Not Evaluated by SHPO	No Adverse Effect
8IR1/8IR9	Vero Man/Vero Locality	Pleistocene Faunal assemblage: Redeposited Precolumbian Burial	NRHP-Eligible	No Adverse Effect
8SL31	Fort Pierce	Historic Fort	NRHP-Listed	No Adverse Effect
Sites added by the U.S. Army Corps of Engineers, May 2017				
8SL3	Ft. Pierce Mound	Midden/Mound	Not Evaluated by SHPO	No Adverse Effect
	High Probability - Site A	Unknown	Not Evaluated by SHPO	No Adverse Effect
	High Probability - Site B	Unknown	Not Evaluated by SHPO	No Adverse Effect
	High Probability - Site C	Unknown	Not Evaluated by SHPO	No Adverse Effect
	High Probability - Site D	Unknown	Not Evaluated by SHPO	No Adverse Effect

**ATTACHMENT 2: KNOWN SITES AND AREAS OF ARCHAEOLOGICAL
SENSITIVITY WHERE MONITORING WILL OCCUR AND LOCATIONS WHERE
HORIZONTAL DIRECTIONAL DRILL WILL BE EMPLOYED**



Recommended Monitoring Area Associated with the Evergreen Cemetery (8PB218)

-  Existing FEC ROW
-  Recommended Monitoring Area

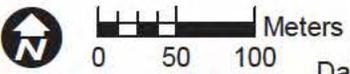


Date: April 2017

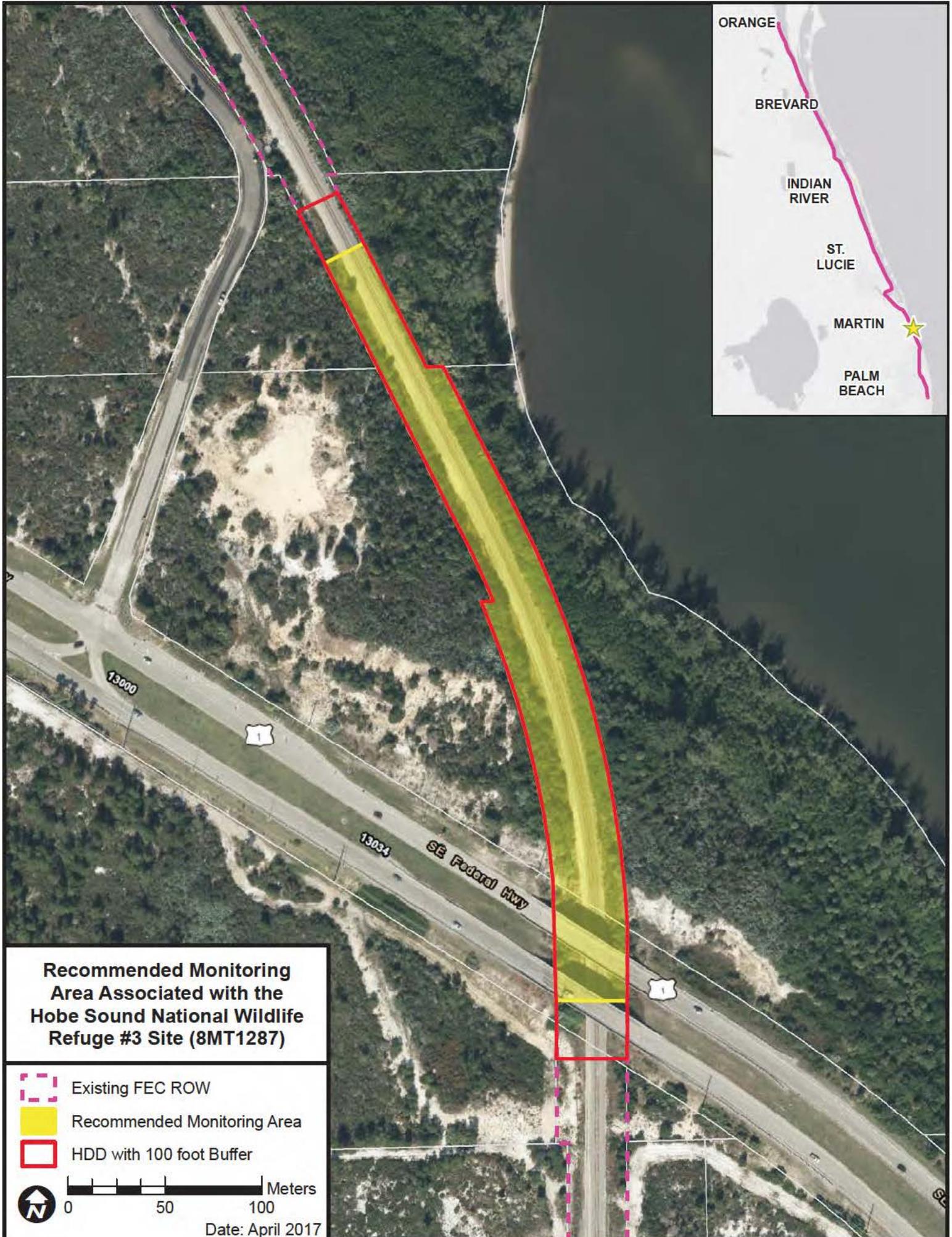


Recommended Monitoring Area Associated with the Loxahatchee River

- Existing FEC ROW
- Recommended Monitoring Area

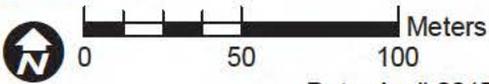


Date: April 2017



Recommended Monitoring Area Associated with the Hobe Sound National Wildlife Refuge #3 Site (8MT1287)

-  Existing FEC ROW
-  Recommended Monitoring Area
-  HDD with 100 foot Buffer



Date: April 2017



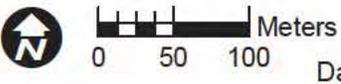
Recommended Monitoring Area Associated with the Hobe Sound AME Church Cemetery (8MT1290)

 Existing FEC ROW
 Recommended Monitoring Area
 0 50 100 Meters
 Date: April 2017



Recommended Monitoring Area Associated with the St. Lucie River (Map 2 of 3)

- Existing FEC ROW
- Recommended Monitoring Area

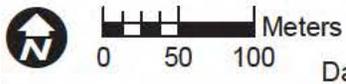


Date: April 2017



Recommended Monitoring Area Associated with the St. Lucie River (Map 3 of 3)

-  Existing FEC ROW
-  Recommended Monitoring Area



Date: April 2017



Recommended Monitoring Area Associated with the All Saints Cemetery (8MT1288)

Existing FEC ROW
 Recommended Monitoring Area

Meters
 Date: April 2017



Recommended Monitoring Area Associated with the Eden Cemetery (8SL1634)

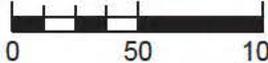
-  Existing FEC ROW
-  Recommended Monitoring Area

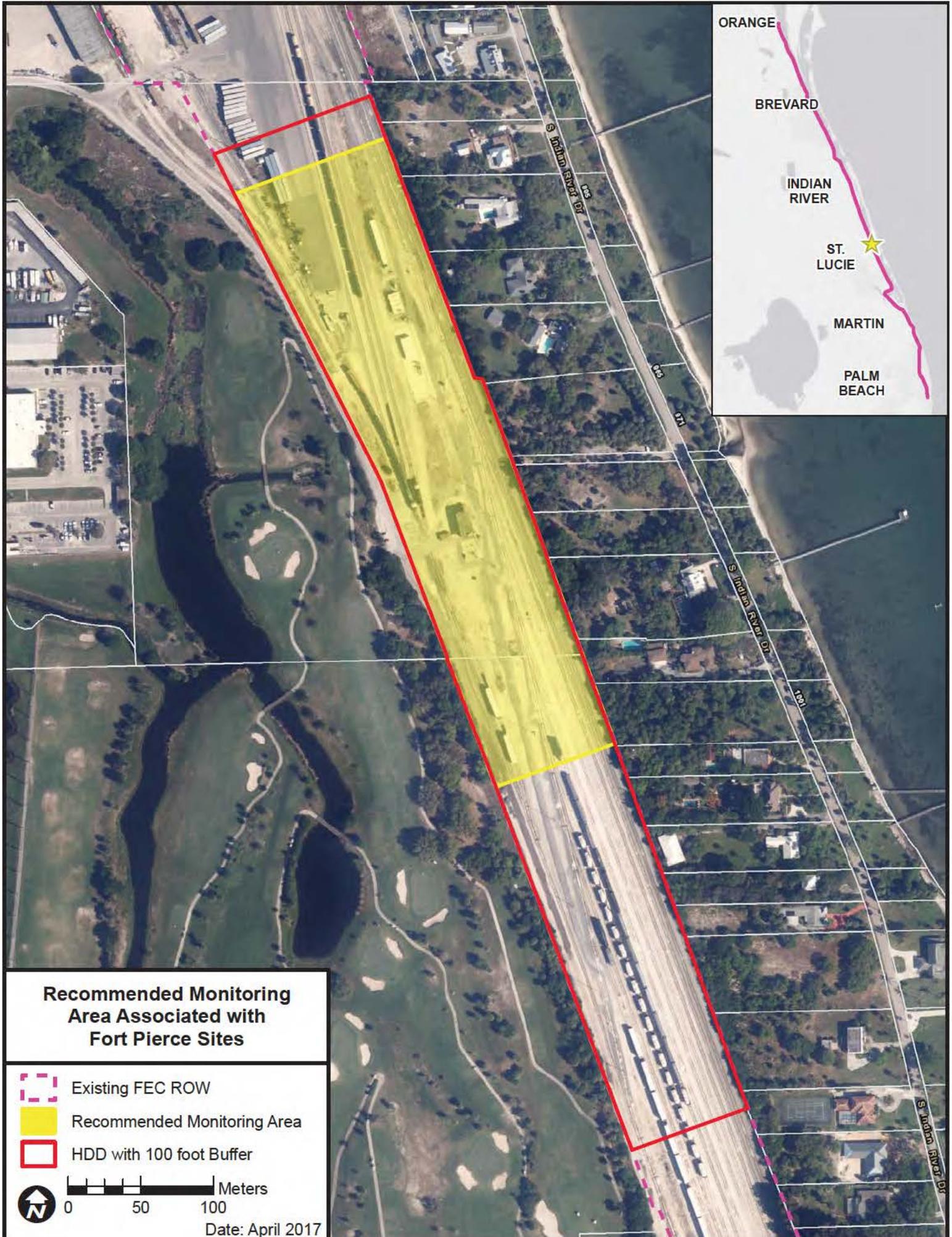
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Date: April 2017



Recommended Monitoring Area Associated with Savannah North Dune (8SL3063)

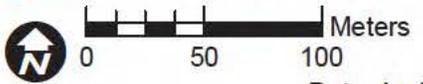
-  Existing FEC ROW
-  Recommended Monitoring Area

  Meters
Date: April 2017

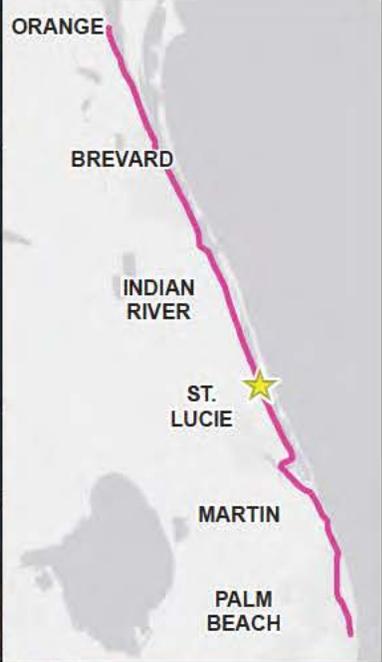


Recommended Monitoring Area Associated with Fort Pierce Sites

-  Existing FEC ROW
-  Recommended Monitoring Area
-  HDD with 100 foot Buffer



Date: April 2017

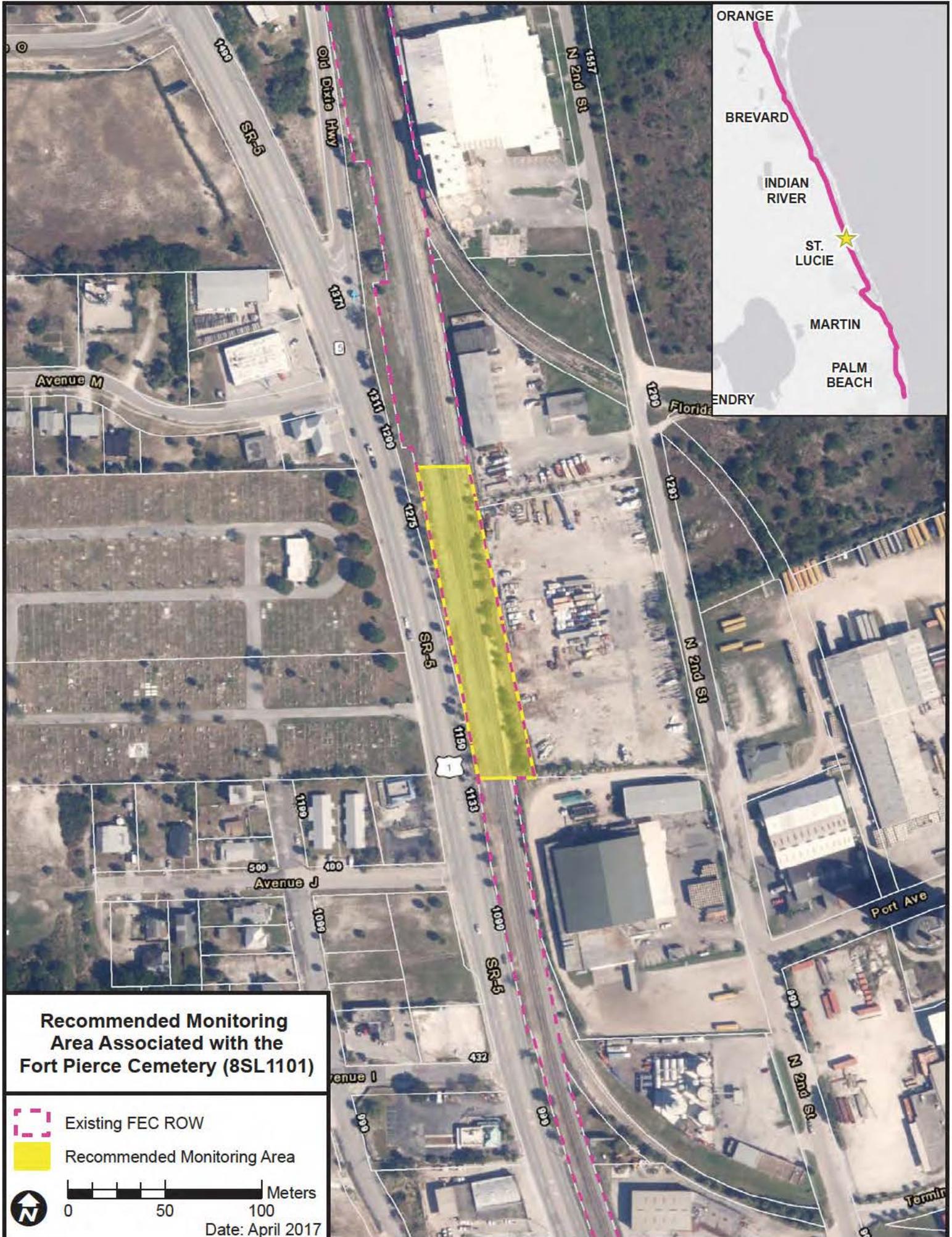




Recommended Monitoring Area Associated with Avenue A-Downtown Fort Pierce (8SL1772)

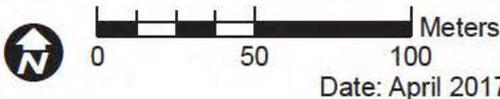
Existing FEC ROW
 Recommended Monitoring Area

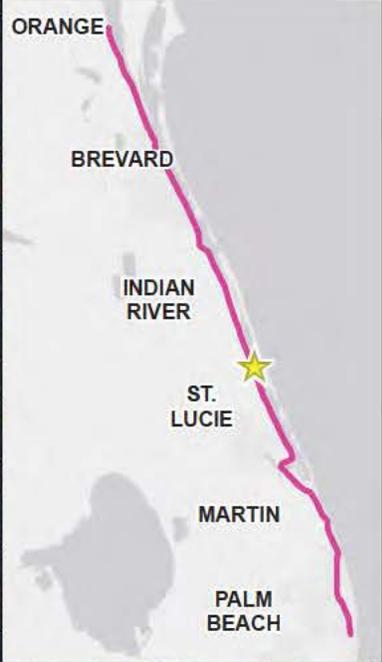
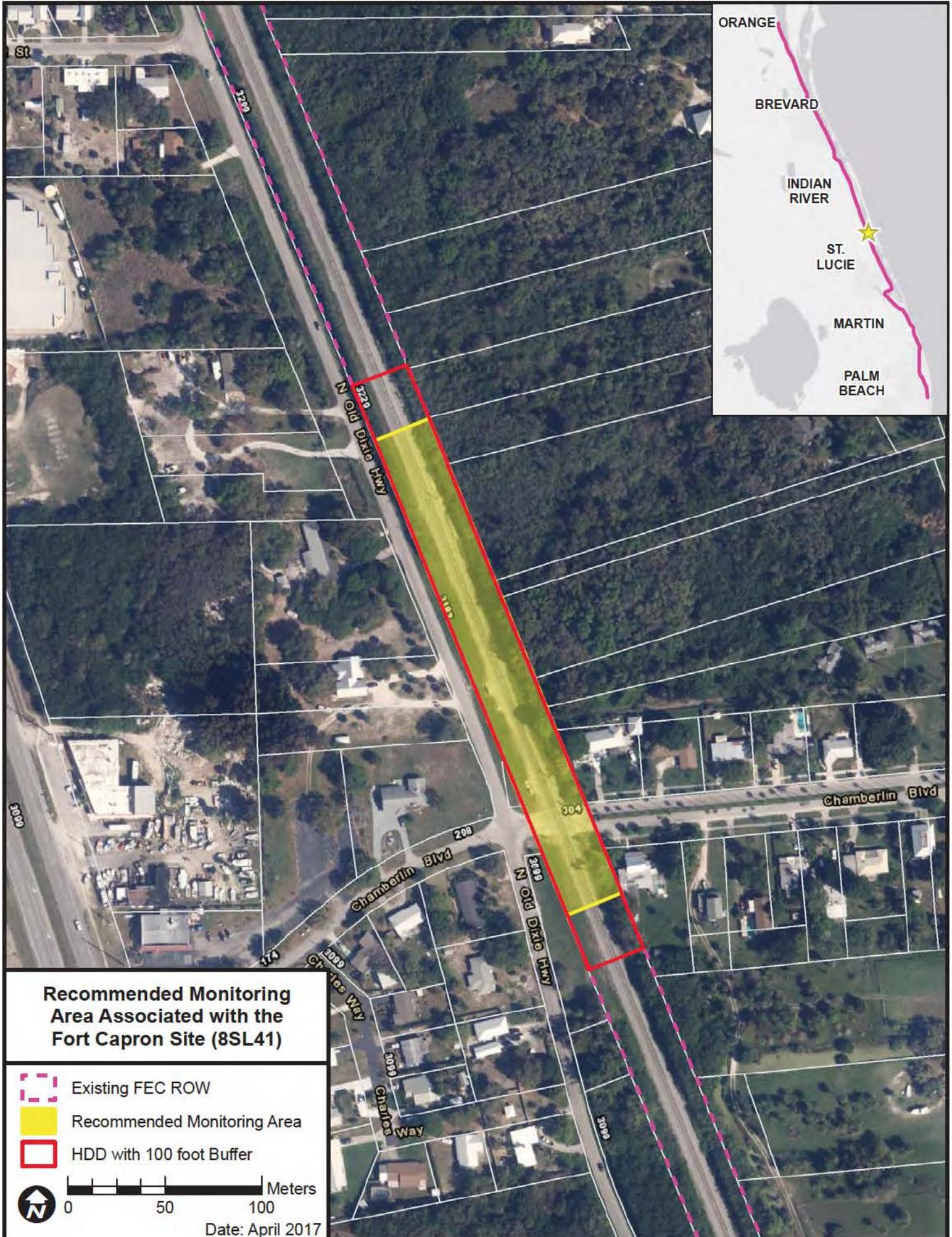
0 50 100 Meters
 Date: April 2017



Recommended Monitoring Area Associated with the Fort Pierce Cemetery (8SL1101)

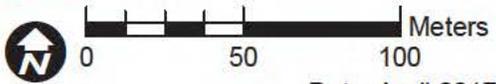
-  Existing FEC ROW
-  Recommended Monitoring Area



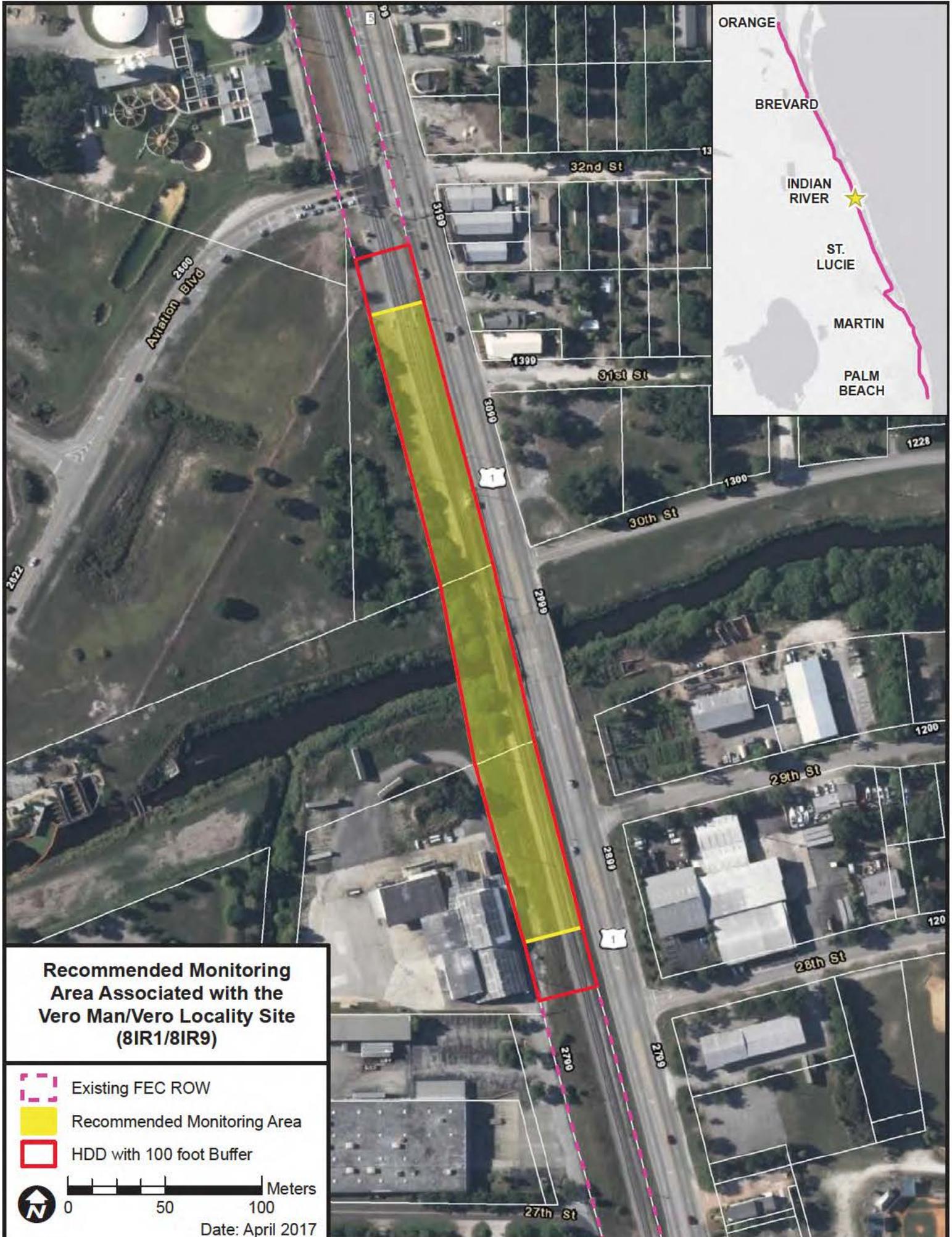


Recommended Monitoring Area Associated with the Fort Capron Site (8SL41)

-  Existing FEC ROW
-  Recommended Monitoring Area
-  HDD with 100 foot Buffer

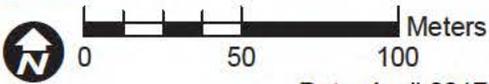


Date: April 2017



Recommended Monitoring Area Associated with the Vero Man/Vero Locality Site (8IR1/8IR9)

-  Existing FEC ROW
-  Recommended Monitoring Area
-  HDD with 100 foot Buffer



Date: April 2017