SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE PERMIT NO. 13-05321-P
DATE ISSUED:March 7, 2014

PERMITTEE: ALL ABOARD FLORIDA OPERATIONS L L C
C/O JOSE GONZALEZ
2855 LE JEUNE ROAD 4TH FLOOR
CORAL GABLES, FL 33134

FLORIDA EAST COAST RAIL WAY L L C
C/O ROBERT B LEDOUX
7411 FULLERTON STREET SUITE 100
JACKSONVILLE, FL 32256

PROJECT DESCRIPTION: Construction and operation of 11 railway facilities totaling 81.45 acres collectively known as All Aboard Florida - Miami to West Palm Beach.

PROJECT LOCATION:

MIAMI-DADE COUNTY,	SEC 9,21 TWP 52S RGE 42E
	SEC 7,18,19,25,30,36 TWP 53S RGE 42E
	SEC 1 TWP 54S RGE 42E
	SEC 11,26 TWP 49S RGE 42E
	SEC 26,35 TWP 48S RGE 42E
	SEC 31 TWP 47S RGE 43E
	SEC 3,22 TWP 45S RGE 43E
	SEC 16,34 TWP 44S RGE 43E
BROWARD COUNTY,	SEC 11,26 TWP 49S RGE 42E
	SEC 26,35 TWP 48S RGE 42E
	SEC 31 TWP 47S RGE 42E
PALM BEACH COUNTY,	SEC 3,22 TWP 45S RGE 43E
	SEC 16,34 TWP 44S RGE 43E

PERMIT DURATION: See Special Condition No:1.

This is to notify you of the District's agency action for Permit Application No. 130409-2, dated April 9, 2013. This action is taken pursuant to the provisions of Chapter 373, Part IV, Florida Statues (F.S).

Based on the information provided, District rules have been adhered to and an Environmental Resource Permit is in effect for this project subject to:

1. Not receiving a filed request for a Chapter 120, Florida Statutes, administrative hearing.
2. the attached 18 General Conditions (See Pages : 2 - 4 of 6),
3. the attached 10 Special Conditions (See Pages : 5 - 6 of 6) and
4. the attached 12 Exhibit(s)

Should you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights," we will assume that you concur with the District's action.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a "Notice of Rights" has been mailed or electronically transmitted to the Permittee (and the persons listed in the attached distribution list) no later than 5:00 p.m. on this 7th day of March, 2014, in accordance with Section 120.60(3), Florida Statutes.

BY: Anita R. Bain

Anita R. Bain
Bureau Chief - Environmental Resource Permitting
Regulation Division

GENERAL CONDITIONS

1. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with Rule 62-330.315, F.A.C. Any deviations that are not so authorized shall subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S. (2012).

2. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the Agency staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.

3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the "State of Florida Erosion and Sediment Control Designer and Reviewer Manual" (Florida Department of Environmental Protection and Florida Department of Transportation June 2007), and the "Florida Stormwater Erosion and Sedimentation Control Inspector's Manual" (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.

4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the Agency a fully executed Form 62-330.350(1), "Construction Commencement Notice" indicating the expected start and completion dates. If available, an Agency website that fulfills this notification requirement may be used in lieu of the form.

5. Unless the permit is transferred under Rule 62-330.340, F.A.C., or transferred to an operating entity under Rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms and conditions of the permit for the life of the project or activity.

6. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:
   a. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex- "Construction Completion and Inspection Certification for Activities Associated With a Private Single-Family Dwelling Unit"[Form 62-330.310(3)]; or
   b. For all other activities- "As-Built Certification and Request for Conversion to Operational Phase" [Form 62-330.310(1)].
   c. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.

7. If the final operation and maintenance entity is a third party:
   a. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as- built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.3 of Applicant's Handbook Volume I) as filed with the Department of State, Division of Corporations and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.
   b. Within 30 days of submittal of the as- built certification, the permittee shall submit "Request for Transfer of Environmental Resource Permit to the Perpetual Operation Entity" [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.

8. The permittee shall notify the Agency in writing of changes required by any other regulatory agency that

GENERAL CONDITIONS

require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.

9. This permit does not:
a. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;
b. Convey to the permittee or create in the permittee any interest in real property;
c. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or
d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.

10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.

11. The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.

12. The permittee shall notify the Agency in writing:
a. Immediately if any previously submitted information is discovered to be inaccurate; and
b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.

13. Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.

14. If any prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, work involving subsurface disturbance in the immediate vicinity of such discoveries shall cease. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section, at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Such subsurface work shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and notification shall be provided in accordance with Section 872.05, F.S.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.

16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other

GENERAL CONDITIONS

uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.

17. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the Agency will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.

18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with Rule 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

SPECIAL CONDITIONS

1. The construction phase of this permit shall expire on March 7, 2019.

2. Operation of the stormwater management system shall be the responsibility of the permittee.

3. Discharge Facilities:

   Basin: 3RD TRACK MP331.88, Structure: DB 17521+00

   1 - 6' WIDE OTHER weir with crest at elev. 17.9' NAVD 88.

   Receiving body : ON-SITE RETENTION
   Control elev : 12 feet NAVD 88.

   Basin: 3RD TRACK MP331.88, Structure: DB 17538+00

   1 - 6' WIDE OTHER weir with crest at elev. 17.43' NAVD 88.

   Receiving body : ON-SITE RETENTION
   Control elev : 12 feet NAVD 88.

   Basin: 3RD TRACK MP360.89

   1 - 8' WIDE OTHER weir with crest at elev. 10.65' NAVD 88.

   Receiving body : ON-SITE RETENTION
   Control elev : 7.5 feet NAVD 88.

4. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.

5. The permittee shall comply with the following conditions intended to protect manatees and marine turtles from direct project effects:

   a. All personnel associated with the project shall be instructed about the presence of marine turtles, manatees and manatee speed zones, and the need to avoid collisions with and injuries to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.

   b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

   c. Siltation or turbidity barriers shall be made of material in which manatees and marine turtles cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee and marine turtle entanglement or entrapment. Barriers must not impede manatee movement.

   d. All on-site project personnel are responsible for observing water-related activities for the presence of marine turtles and manatee(s). All in-water operations, including vessels, must be shutdown if a marine turtle or manatee(s) comes within 50 feet of the operation. Activities will not resume until the animal(s)

SPECIAL CONDITIONS

have moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the animal(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.

e. Any collision with or injury to a marine turtle or manatee shall be reported immediately to the FWC Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida, and to FWC at ImperiledSpecies@myFWC.com.

f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Awareness signs that have already been approved for this use by the Florida Fish and Wildlife Conservation Commission (FWC) must be used. One sign measuring at least 3 ft. by 4 ft. which reads Caution: Manatee Area must be posted. A second sign measuring at least 81/2" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at MyFWC.com/manatee. Questions concerning these signs can be sent to FWC at ImperiledSpecies@myFWC.com.

6. Air bubble curtains shall be installed inside turbidity curtains during construction in the Hillsboro Canal (MP 326.58), North Fork of the Middle River (MP 337.91), South Fork of the Middle River (MP 338.52) and Oleta River (MP 353.74), to reduce noise and pressure waves generated during pile driving activities which may affect fish and aquatic wildlife.

7. Prior to commencement of construction and in accordance with the work schedule in Exhibit 4, no later than May 5, 2014 the permittee shall submit documentation from the Florida Department of Environmental Protection that 0.06 saltwater credits have been deducted from the ledger for the FPL Everglades Mitigation Bank.

8. Turbidity control measures shall be implemented around the limits of all in-water work areas as shown on Exhibit 2.1, pages 2, 6, 10, 14, 17, 21 and 25. Prior to the commencement of construction in surface waters, floating turbidity curtains with weighted skirts that extend to the bottom of the water bodies shall be properly installed to isolate adjacent waters from the work area. The floating turbidity curtains shall be maintained and shall remain in place until all construction is complete and turbidity levels in the project area are within 29 NTUs of background levels. The permittee shall be responsible for ensuring that turbidity control devices are inspected daily and maintained in good working order so that there are no violations of state water quality standards outside of the turbidity screens.

9. Silt fencing shall be installed at the limits of upland construction areas to protect adjacent upland areas and surface waters from silt and sediment deposition during the construction of the project as shown on Exhibit 2.1, pages 2, 6, 10, 14, 17, 21 and 25. The silt fencing shall be installed prior to the commencement of any clearing or construction and shall remain in place and be maintained in good functional condition until all adjacent construction activities have been completed and all fill slopes have been stabilized.

10. The permittee shall comply with applicable state water quality standards including:
a) 62-302.500 - Minimum criteria for all surface waters at all places and all times;
b) 62-302.510 - Surface waters: general criteria
c) 62-302.560 - Class III waters; recreation, propagation and maintenance of a healthy, well balanced population of fish and wildlife;
d) 62-302.600 - Classified waters.

Initiation of an Administrative Hearing
Pursuant to Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 and 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, District file number or any other SFWMD identification number, if known.
2. The name, address and telephone number of the petitioner and petitioner's representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the SFWMD's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's proposed action.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose the extension. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

If the District takes action with substantially different impacts on water resources from the notice of intended agency decision, the persons who may be substantially affected shall have an additional point of entry pursuant to Rule 28-106.111, Fla. Admin. Code, unless otherwise provided by law.

Mediation
The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401-.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW
Pursuant to Sections 120.60(3) and 120.68, Fla. Stat., a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal pursuant to Florida Rule of Appellate Procedure 9.110 in the Fourth District Court of Appeal or in the appellate district where a party resides and filing a second copy of the notice with the SFWMD Clerk within 30 days of rendering of the final SFWMD action.

NOTICE OF RIGHTS

As required by Sections 120.569(1), and 120.60(3), Fla. Stat., following is notice of the opportunities which may be available for administrative hearing or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a District decision which does or may determine their substantial interests shall file a petition for hearing with the District Clerk within 21 days of receipt of written notice of the decision, unless one of the following shorter time periods apply: 1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Fla. Stat.; or 2) within 14 days of service of an Administrative Order pursuant to Subsection 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of either written notice through mail, or electronic mail, or posting that the District has or intends to take final agency action, or publication of notice that the District has or intends to take final agency action. Any person who receives written notice of a SFWMD decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

Filing Instructions

The Petition must be filed with the Office of the District Clerk of the SFWMD. Filings with the District Clerk may be made by mail, hand-delivery or facsimile. **Filings by e-mail will not be accepted.** Any person wishing to receive a clerked copy with the date and time stamped must provide an additional copy. A petition for administrative hearing is deemed filed upon receipt during normal business hours by the District Clerk at SFWMD headquarters in West Palm Beach, Florida. Any document received by the office of the SFWMD Clerk after 5:00 p.m. shall be filed as of 8:00 a.m. on the next regular business day. Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the SFWMD Clerk, P.O. Box 24680, West Palm Beach, Florida 33416.
- Filings by hand-delivery must be delivered to the Office of the SFWMD Clerk. **Delivery of a petition to the SFWMD's security desk does <u>not</u> constitute filing. To ensure proper filing, it will be necessary to request the SFWMD's security officer to contact the Clerk's office.** An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by facsimile must be transmitted to the SFWMD Clerk's Office at (561) 682-6010. Pursuant to Subsections 28-106.104(7), (8) and (9), Fla. Admin. Code, a party who files a document by facsimile represents that the original physically signed document will be retained by that party for the duration of that proceeding and of any subsequent appeal or subsequent proceeding in that cause. Any party who elects to file any document by facsimile shall be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed with the clerk as a result. The filing date for a document filed by facsimile shall be the date the SFWMD Clerk receives the complete document.

Last Date For Agency Action: April 4, 2014

INDIVIDUAL ENVIRONMENTAL RESOURCE PERMIT STAFF REPORT

Project Name: All Aboard Florida - Miami To West Palm Beach

Permit No.: 13-05321-P

Application No.: 130409-2

Application Type: Environmental Resource (New Construction/Operation)

Location: Miami-Dade County, S9,21/T52S/R42E
S7,18,19,25,30,36/T53S/R42E
S1/T54S/R42E
S11,26/T49S/R42E
S26,35/T48S/R42E
S31/T47S/R43E
S3,22/T45S/R43E
S16,34/T44S/R43E

Location: Broward County, S11,26/T49S/R42E
S26,35/T48S/R42E
S31/T47S/R42E

Location: Palm Beach County, S3,22/T45S/R43E
S16,34/T44S/R43E

Permittee : All Aboard Florida Operations L L C
Florida East Coast Rail Way L L C

Operating Entity : Permittee

Project Area: 81.45 acres

Permit Area: 81.45 acres

Project Land Use: Roadway

Drainage Basin: HILLSBORO CANAL
Drainage Basin: INTRACOASTAL WATERWAY
Drainage Basin: C-13 EAST
Drainage Basin: C-16
Drainage Basin: C-51 EAST

Receiving Body: C-51 CANAL, C-16 CANAL, HILLSBORO CANAL, C-13 CANAL, OLETA RIVER, ARCH CREEK **Class:** CLASS III

Special Drainage District: NA

Total Acres Wetland Onsite:	.01	
Total Acres Impacted Onsite :	.01	
Total Acres Presv/Mit Compensation Onsite:	1.10	
Offsite Mitigation Credits-Mit.Bank:	.06	F.P.L. Everglades Mitigation Bank

Conservation Easement To District : No
Sovereign Submerged Lands: No

PROJECT PURPOSE:

This application is a request for an Environmental Resource Permit (ERP) to authorize construction and operation of 11 railway facilities totaling 81.45 acres collectively known as All Aboard Florida - Miami to West Palm Beach.

PROJECT EVALUATION:

PROJECT SITE DESCRIPTION:

The project consists of 11 separate sites totaling 81.45 acres within the existing Florida East Coast (FEC) Rail Corridor in Palm Beach, Broward, and Miami-Dade Counties. Seven bridge modifications (5.15 acres), two track curve reductions (17 acres), and two third track additions (59.3 acres) are proposed. The bridge modifications occur at the C-51 Canal (rail mile post [MP] 304.05) in Section 16, Township 44 South, Range 43 East in Palm Beach County, the C-16/Boynton Beach Canal (MP 311.45) in Section 22, Township 45 South, Range 43 East in Palm Beach County, the Hillsboro Canal (MP 326.58) in Section 31, Township 47 South, Range 43 East in Broward County, the North Fork of the Middle River (MP 337.91) and the South Fork of the Middle River (MP 338.52), both in Section 26, Township 49 South, Range 42 East in Broward County, the Oleta River (MP 353.74) in Section 9, Township 52 South, Range 42 East in Miami-Dade County, and Arch Creek (MP 356.53) in Section 21, Township 52 South, Range 42 East in Miami-Dade County. The two track curve reduction sites are located from MP 307.66 to MP 308.89 in Section 34, Township 44 South, Range 43 East and Section 3, Township 45 South, Range 43 East in Palm Beach County and from MP 334.67 to MP 334.94 in Section 11, Township 49 South, Range 42 East in Broward County. The third track additions are to occur from MP 331.88 to MP 332.30 in Sections 26 & 35, Township 49 South, Range 42 East in Broward County and from MP 360.89 to MP 365.36 in Sections 7, 18, 19 & 30, Township 53 South, Range 42 East and in Broward County and Sections 25 & 36, Township 53 South, Range 41 East in Miami-Dade County.

Each of the proposed facilities are located within the existing FEC railway corridor, which contains existing tracks, ballast, sub-ballast, and bridges. A deminimus exemption (Exemption No. 06-06608-P, Application No. 121210-11) was issued in December of 2012 for the replacement of a total of approximately 50 miles of rail, the upgrading of 134 of the 183 total highway and pedestrian crossings encountered from West Palm Beach to Miami in the FEC corridor, rehabilitation of 8.3 miles of siding track, rehabilitation of three existing bridge decks, re-establishing of second tracks, and installation of crossovers at seven single-track bridges.

The seven bridge modifications will be constructed in/over wetlands and/or other surface waters as described in the 'Wetlands' section below.

PROPOSED PROJECT:

All Aboard Florida - Operations, LLC will offer passenger rail service between Miami and Orlando with limited stops, allowing trains to travel at higher speeds. To accommodate this service, several modifications to existing rail facilities must be undertaken. This permit authorizes the construction and operation of 11 facilities for the Miami to West Palm Beach segment of the rail facilities, totaling 81.45 acres within the existing FEC Rail Corridor. Seven bridge modifications, two track curve reductions, and two third track additions are proposed. The seven bridge modifications occur at the C-51 Canal (MP 304.05), the C-16/Boynton Beach Canal (MP 311.45), the Hillsboro Canal (MP 326.58), the North Fork of the Middle River (MP 337.91), the South Fork of the Middle River (MP 338.52), the Oleta River (MP 353.74), and Arch Creek (MP 356.53). Generally, the proposed work includes adding or re-establishing a second track and replacing bridge pilings and abutments. The two track curve reduction sites are located from MP307.66 to MP308.89 and from MP 334.67 to MP 334.94 and propose shifting existing tracks horizontally in order to create a larger curve radius to allow trains to maintain sufficient speed. The third track additions are to occur from MP 331.88 to MP 332.30 and from MP 360.89 to MP 365.36 and include adding a third track and dry retention areas to provide water quality (WQ) treatment and flood attenuation.

Please refer to Exhibit 2.1 for the bridge construction plans, Exhibit 2.2 for the curve reduction construction plans, and Exhibit 2.3 for the third track addition construction plans.

The bridge work occurs in/over a total of 1.1 acres of wetlands and other surface waters and includes adverse wetlands impacts that will be mitigated off-site, as described in the `Wetland Impacts' and `Mitigation Proposal' sections below.

According to a determination provided by the U.S. Coast Guard for the seven (7) bridge modifications (included as Exhibit 3.1):
- The North Fork of the Middle River (MP 337.91), South Fork of the Middle River (MP 338.52), Oleta River (MP 353.74) and Arch Creek (MP 356.53) are exempt from the need to obtain a Coast Guard Bridge Permit; and
- The permittee must obtain a Coast Guard Bridge Permit for the bridge modification work only at the Hillsboro Canal (MP 326.58), which addresses navigational clearances requirements.

It should be noted that the bridge modification areas over the C-51 Canal (MP 304.05) and Boynton Beach/C-16 Canal (MP 311.45) are located upstream of the canal water control structures. Therefore, the project is not anticipated to adversely affect navigation.

LAND USE:

The tables that follow provide the land use breakdown for each respective site within the overall project. Other refers to the area of railway, including ballast and sub-ballast. Total refers to the total area of bridge work.

Construction Project:

Total Project

Dry Retention Areas	4.82	acres
Other	71.48	acres
Total	5.15	acres
Total:	**81.45**	

Basin : 3RD TRACK MP331.88

Total Basin

Dry Retention Areas	.96	acres
Other	4.14	acres
Total:	**5.10**	

Basin : 3RD TRACK MP360.89

Total Basin

Dry Retention Areas	3.86	acres
Other	50.34	acres
Total:	**54.20**	

Basin : ARCH CREEK BRIDGE

Basin : ARCH CREEK BRIDGE

	Total Basin	
Total	.56	acres
Total:	**.56**	

Basin : C-16 BRIDGE

	Total Basin	
Total	.79	acres
Total:	**.79**	

Basin : C-51 BRIDGE

	Total Basin	
Total	.47	acres
Total:	**.47**	

Basin : CURVE MP 307.66

	Total Basin	
Other	15.00	acres
Total:	**15.00**	

Basin : CURVE MP 334.67

	Total Basin	
Other	2.00	acres
Total:	**2.00**	

Basin : HILLSBORO BRIDGE

	Total Basin	
Total	.93	acres
Total:	**.93**	

Basin : NFMR BRIDGE

	Total Basin	
Total	.90	acres
Total:	**.90**	

Basin : OLETA BRIDGE

Basin : OLETA BRIDGE

	Total Basin	
Total	.64	acres
Total:	**.64**	

Basin : SFMR BRIDGE

	Total Basin	
Total	.86	acres
Total:	**.86**	

WATER QUANTITY :

Discharge Rate :

The seven bridge sites and the two curve reduction locations propose no changes in land use within their respective limits, no significant increases in impervious area, nor any reduction in existing surface or soil storage. Therefore, post-development discharge will not be significantly different than pre-development discharge, and these sites have not been designed to limit discharge for the design event to a specified rate. Further, the permittee has demonstrated that the modifications to the seven bridge sites will have no negative impact on the hydraulic conveyance of the canals over which they span. Both of the third track additions are providing dry retention areas and the permittee has demonstrated that the difference in pre- versus post-development runoff volume is attenuated within those facilities.

Control Elevation :

Basin	Area (Acres)	Ctrl Elev (ft, NAVD 88)	WSWT Ctrl Elev (ft, NAVD 88)	Method Of Determination
3RD TRACK MP331.88	5.10	12	12.00	Wet Season Soil Borings
3RD TRACK MP360.89	54.20	7.5	7.50	Wet Season Soil Borings

Receiving Body :

Basin	Str.#	Receiving Body
3rd Track Mp331.88	DB 17521+0	ON-SITE RETENTION
3rd Track Mp331.88	DB 17538+0	ON-SITE RETENTION
3rd Track Mp360.89	DB 19275+0	ON-SITE RETENTION

Water Quality Structures: Note: The units for all the elevation values of structures are (ft, NAVD 88)

Weirs:

Basin	Str#	Count	Type	Width Height Length	Dia.	Elev.
3RD TRACK MP331.88	DB 17521+00	1	Other	6'		17.9 (crest)
3RD TRACK MP331.88	DB 17538+00	1	Other	6'		17.43 (crest)
3RD TRACK	DB	1	Other	8'		10.65 (crest)

Water Quality Structures:

Weirs:
MP360.89 19275+00

WATER QUALITY :

The seven bridge sites and the two curve reduction locations do not require WQ treatment, as they propose no changes in land use within their respective limits nor significant increases in impervious area. The required WQ treatment volume for both of the third track additions is based on one-inch over the total project area, with a 50% reduction to account for dry retention as the treatment method, and yields WQ treatment volume requirements of 0.05 acre-feet for the site from MP 331.85 to MP 332.35 and 0.58 acre-feet for the site from MP 360.89 to MP 365.36.

Both of the third track additions lie within basins identified by the Florida Department of Environmental Protection (FDEP) as impaired. The site from MP 331.85 to MP 332.35 lies within Waterbody Identification (WBID) 3271 (Pompano Canal), which is impaired for total nitrogen and total phosphorus. The site from MP 360.89 to MP 365.36 lies within FDEP WBID 3226H (Intracoastal Waterway - Miami-Dade County), impaired for fecal coliform and mercury, FDEP WBID 3288 (C-6/Miami River), impaired for fecal coliform, copper, and mercury, and FDEP WBID 3288A (Wagner Creek), impaired for dioxin, copper, and mercury. The permittee has demonstrated that neither the land use nor the storm water runoff include potential increases from pre-development to post-development conditions, and that the addition of dry retention areas will intercept and treat runoff prior to discharge to groundwater via infiltration.

The applicant has also proposed erosion, sedimentation and turbidity controls during construction to prevent adverse impacts to WQ. Therefore, no adverse water quality impacts are anticipated as a result of the proposed project.

To ensure that proposed construction activities do not degrade adjacent wetlands, surface waters and off-site areas, temporary silt fences and turbidity barriers will be installed and maintained around the limits of construction in accordance with Exhibit 2.1, pages 2, 6, 10, 14, 17, 21 and 25, and as stipulated in the special conditions of this permit. The turbidity barriers will extend to the bottom of the waterbodies. The temporary silt fences and turbidity barriers will be installed prior to and will be removed upon completion of construction activities.

No adverse water quality impacts are anticipated as a result of the proposed project.

Basin	Treatment Method			Vol Req.d (ac-ft)	Vol Prov'd
3RD TRACK MP331.88	Treatment	Dry Retention	.23 acres	.05	.05
3RD TRACK MP360.89	Treatment	Dry Retention	1.01 acres	.58	.58

WETLANDS:

All seven (7) of the bridge modifications areas are located in/over surface waters of the C-51 Canal (MP 304.05), C-16/Boynton Beach Canal (MP 311.45), Hillsboro Canal (MP 326.58), North Fork of the Middle River (MP 337.91), South Fork of the Middle River (MP 338.52), Oleta River (MP 353.74), and Arch Creek (MP 356.53).

Three (3) of the bridge modifications areas are also located in/over mangrove wetlands which are located along the shorelines of the North Fork of the Middle River (MP 337.91), South Fork of the Middle River (MP 338.52) and Oleta River (MP 353.74). These mangrove wetlands are in a degraded condition due to past hydrologic alterations and soils disturbances from the original construction of, and historical use and maintenance of, the railway corridor, and by infestation by exotic plant species. In addition, these mangrove wetlands are currently surrounded by the disturbed uplands within the railway corridor with significantly reduced habitat value.

There are no areas of protected benthic habitats (e.g. seagrasses or hard bottom community) located within the bridge modifications areas.

Wetland Impacts:

The bridge modifications include the following, which are all located within the existing FEC railway corridor:

- Filling a total of approximately 0.008 acre of mangrove wetlands;
- Filling a total of approximately 0.044 acre of surface waters;
- Shading a total of approximately 0.513 acre of surface waters; and
- Trimming a total of approximately 0.051 acre of mangrove canopy.

A table that includes a breakdown of the environmental impacts at each of the seven (7) bridge locations is included as Exhibit 3.2. In addition, please refer to Exhibit 2.1, pages 2, 6, 10, 14, 17, 21 and 25, for the bridge plan sheets which identify the environmental impacts associated with each bridge modification.

Mitigation Proposal:

Mitigation is not required for the filling or shading of surface waters which do not support any protected benthic habitats, or for the identified lateral trimming of mangrove branches within the railway corridor.

Mitigation is required to offset only the direct impacts associated with the filling of 0.008 acre of mangrove wetlands associated with the bridge modifications at the North Fork of the Middle River (MP 337.91), the South Fork of the Middle River (MP 338.52) and Oleta River (MP 353.74). Based upon the very small quantity of the mangrove wetlands impacts, and the low quality of the impact areas and the very minimal functional value that they provide to wetland-dependent fish and wildlife, the permittee was not required to implement project design modifications to eliminate or reduce adverse wetland impacts.

The permittee will mitigate for adverse impacts to 0.008 acre of mangrove wetlands by purchasing 0.06 saltwater credits at the Florida Power and Light (FPL) Everglades Mitigation Bank.

Pursuant to the FPL Everglades Mitigation Bank permit, a functional analysis using the Wetland Assessment Technique for Environmental Review (WATER) was conducted to determine the amount of mitigation needed to offset the functional loss of the impacted mangrove wetlands. According to that analysis, the permittee is required to purchase 0.005 saltwater credits from the FPL Everglades Mitigation Bank. A copy of District-approved WATER mitigation calculations are included as Exhibit 3.3. However, in order to satisfy the permitting criteria of other permitting agencies reviewing the project, the permittee will purchase a total of 0.06 saltwater credits.

A letter of reservation from the FPL Everglades Mitigation Bank confirming that the 0.06 saltwater credits have been reserved for this project is included as Exhibit 3.4. Pursuant to Exhibit 4 and as stipulated in the special conditions of this permit, no later than May 5, 2014 and prior to the commencement of any

authorized wetland impacts, the permittee will submit to the District verification that the specified number of credits have been debited from the FPL Everglades Mitigation Bank ledger for this project by the Florida Department of Environmental Protection.

Cumulative Impact Assessment:

Although the project includes wetland impacts in the East Everglades cumulative impact basin (located in Miami-Dade County) and the New River cumulative impact basin (located in Broward County), and the off-site mitigation is located only in the East Everglades cumulative impact basin, no unacceptable cumulative impacts are anticipated pursuant to the FPL Mitigation Bank permit and Rule 62-342.600(4)(b) and (c), Florida Administrative Code.

Specifically, linear projects such as this project may use the FPL Mitigation Bank to provide compensatory mitigation for wetland impacts located within the jurisdictional boundary of the South Florida Water Management District. Authorization is granted on a case-by-case basis upon sufficient demonstration of ecological compatibility and/or "like kind replacement." Linear projects include, but are not limited to, electric transmission lines or distribution lines, and substations as defined in Section 403.503(12), Florida Statutes: roadways, natural gas, liquid energy sources, petroleum, water, sewer and other pipelines; fiber optic, cable and other communication facilities; and railways.

Wetland Inventory :

CONSTRUCTION NEW -Construction Over Wetlands & Other Surface Waters

Site Id	Site Type	Pre-Development				Post-Development						
		Pre Fluc cs	AA Type	Acreage (Acres)	Current Wo Pres	With Project	Time Lag (Yrs)	Risk Factor	Pres. Adj. Factor	Post Fluccs	Adj Delta	Functional Gain / Loss
1	ON	510	Preservation	1.10						510		
			Total:	1.10								

Wetland Inventory :

CONSTRUCTION NEW -Mangrove Wetlands Filling

Site Id	Site Type	Pre-Development				Post-Development						
		Pre Fluc cs	AA Type	Acreage (Acres)	Current Wo Pres	With Project	Time Lag (Yrs)	Risk Factor	Pres. Adj. Factor	Post Fluccs	Adj Delta	Functional Gain / Loss
1	ON	612	Direct	.01							.000	.000
			Total:	.01								.00

Wetland Inventory :

CONSTRUCTION NEW -Surface Waters Filling

Site Id	Site Type	Pre-Development				Post-Development						
		Pre Fluc cs	AA Type	Acreage (Acres)	Current Wo Pres	With Project	Time Lag (Yrs)	Risk Factor	Pres. Adj. Factor	Post Fluccs	Adj Delta	Functional Gain / Loss
1	ON	510	Direct	.04							.000	.000
			Total:	.04								.00

Fluccs Code	Description
510	Streams And Waterways
612	Mangrove Swamps

MITBANK F.P.L. EVERGLADES MITIGATION BANK

Type Of Credits	Number Of Credits
	Mitigation Bank Cr Used
Salt Water Forested	.06
Total:	**.06**

Wildlife Issues:

Three (3) of the bridge modification areas which are located in the North Fork of the Middle River (MP 337.91), South Fork of the Middle River (MP 338.52), and Oleta River (MP 353.74) will adversely impact mangrove wetlands along the shorelines. However, based upon the degraded condition of these wetlands resulting from the original construction and historical use of the railway corridor, these wetlands are not considered a preferred habitat for wetland-dependent endangered or threatened wildlife species or species of special concern. In addition, no wetland-dependent endangered or threatened wildlife species or species of special concern were observed within or directly adjacent to these wetlands areas. Therefore, it is not anticipated that any adverse impacts will occur to wetland-dependent endangered or threatened wildlife species or species of special concern, associated with the construction or operation of the proposed project.

In addition, four (4) of the bridge modification areas which are located in the Hillsboro Canal (MP 326.58), North Fork of the Middle River (MP 337.91), South Fork of the Middle River (MP 338.52) and Oleta River (MP 353.74), are accessible to and utilized by the West Indian manatee (Trichechus manatus latirostris), a listed endangered species by the U.S. Fish and Wildlife Service, which has been adopted by the Florida Fish and Wildlife Conservation Commission (FWC). Based upon FWC comments on the project included as Exhibit 3.5 and as stipulated in the special conditions of this permit, standard manatee protection provisions must be implemented during all bridge construction activities in these areas. In addition, air bubble curtains must be installed inside turbidity curtains during construction in these waterways, to reduce noise and pressure waves generated during pile driving activities which may affect fish and aquatic wildlife. District staff does not anticipate any impacts to the manatee or its preferred habitat, associated with the construction or operation of the proposed project.

This permit does not relieve the permittee from complying with all applicable rules and any other agencies' requirements if, in the future, endangered/threatened species or species of special concern are discovered on the site.

Species	Potential Occurence	Use Types
Manatee	Known Range	Known Use

CERTIFICATION, OPERATION, AND MAINTENANCE:

Pursuant to Chapter 62-330.310 Florida Administrative Code (F.A.C.), Individual Permits will not be converted from the construction phase to the operation phase until construction completion certification of the project is submitted to and accepted by the District. This includes compliance with all permit conditions, except for any long term maintenance and monitoring requirements. It is suggested that the permittee retain the services of an appropriate professional registered in the State of Florida for periodic observation of construction of the project.

For projects permitted with an operating entity that is different from the permittee, it should be noted that until the construction completion certification is accepted by the District and the permit is transferred to an acceptable operating entity pursuant to Sections 12.1-12.3 of the Applicant's Handbook Volume I and Section 62-330.310, F.A.C., the permittee is liable for operation and maintenance in compliance with the terms and conditions of this permit.

In accordance with Section 373.416(2), F.S., unless revoked or abandoned, all stormwater management systems and works permitted under Part IV of Chapter 373, F.S., must be operated and maintained in perpetuity.

The efficiency of stormwater management systems, dams, impoundments, and most other project components will decrease over time without periodic maintenance. The operation and maintenance entity

must perform periodic inspections to identify if there are any deficiencies in structural integrity, degradation due to insufficient maintenance, or improper operation of projects that may endanger public health, safety, or welfare, or the water resources. If deficiencies are found, the operation and maintenance entity will be responsible for correcting the deficiencies in a timely manner to prevent compromises to flood protection and water quality. See Section 12.4 of Applicant's Handbook Volume I for Minimum Operation and Maintenance Standards.

SOVEREIGN/SUBMERGED LANDS:

According to the title determination provided by the Department of Environmental Protection, Division of State Lands (DSL) the submerged lands within the areas of the bridge modifications in the C-51 Canal (MP 304.05) and C-16/Boynton Beach Canal are not state-owned sovereign submerged lands, and submerged lands within the areas of the bridge modifications within the Hillsboro Canal (MP 326.58), North Fork of the Middle River (MP 337.91), South Fork of the Middle River (MP 338.52), Oleta River (MP 353.74) and Arch Creek (MP 356.53), are state-owned sovereign submerged lands.

The DSL also determined that because the portions of the project over the sovereign submerged lands are located within the existing Florida East Coast Railroad right-of-way, consent to use the sovereign submerged lands is provided pursuant to Section 10, Chapter 1987, Laws of Florida (1874) and no additional proprietary authorization is required from the Board of Trustees of the Internal Improvement Trust Fund. A copy of the DSL determination is provided as Exhibit 3.6.

RELATED CONCERNS:

Water Use Permit Status:

Irrigation water is not required for the project, and the applicant has indicated that dewatering is not required for construction of this project. Therefore, a Water Use Permit is not required.

This permit does not release the permittee from obtaining all necessary Water Use authorization(s) prior to the commencement of activities which will require such authorization, including construction dewatering and irrigation.

CERP:

The proposed project is not located within or adjacent to a Comprehensive Everglades Restoration Project component.

Potable Water Supplier:

N/A. The project does not require potable water service.

Waste Water System/Supplier:

N/A. The project does not require waste water service.

Right-Of-Way Permit Status:

District Right-of-Way (ROW) Permits are required for the bridge sites located at the C-51 Canal, the C-16/Boynton Beach Canal, the Hillsboro Canal, the North Fork of the Middle River, and Arch Creek. ROW permit application numbers 13-0520-2M, 13-0520-3, 13-0520-4M, 130520-5M, and 130520-6 are being processed concurrently with this permit.

DRI Status:

This project is not a DRI.

Historical/Archeological Resources:

The Florida Department of State, Division of Historical Resources has determined that this project will have no adverse effect on National Register of Historic Places (NRJP)-listed historic properties or properties eligible for listing on the NRHP. This determination is based on continuing consultation with the Federal Railroad Administration and the applicant, under the review authority granted to this office by The National Historic Preservation Act and implementing regulations. The requirements for consultation with this office under Florida State Statute Chapters 267 and 373 have been met by the applicant.

DEO/CZM Consistency Review:

The issuance of this permit constitutes a finding of consistency with the Florida Coastal Management Program.

Third Party Interest:

No third party has contacted the District with concerns about this application.

Enforcement:

There has been no enforcement activity associated with this application.

STAFF REVIEW:

DIVISION APPROVAL:

NATURAL RESOURCE MANAGEMENT:

Barbara J. Conmy

DATE: 3/6/14

SURFACE WATER MANAGEMENT:

Carlos A. de Rojas, P.E.

DATE: 3/6/14

Table of Contents for Staff Report Exhibits

Application No. 130409-2

All Aboard Florida – Miami to West Palm Beach

1.1 General Location Map

1.2 Detail Location Map

2.1 Bridge Construction Plans

2.2 Curve Reduction Construction Plans

2.3 Third Track Construction Plans

3.1 U.S. Coast Guard Determination

3.2 Environmental Impact Table

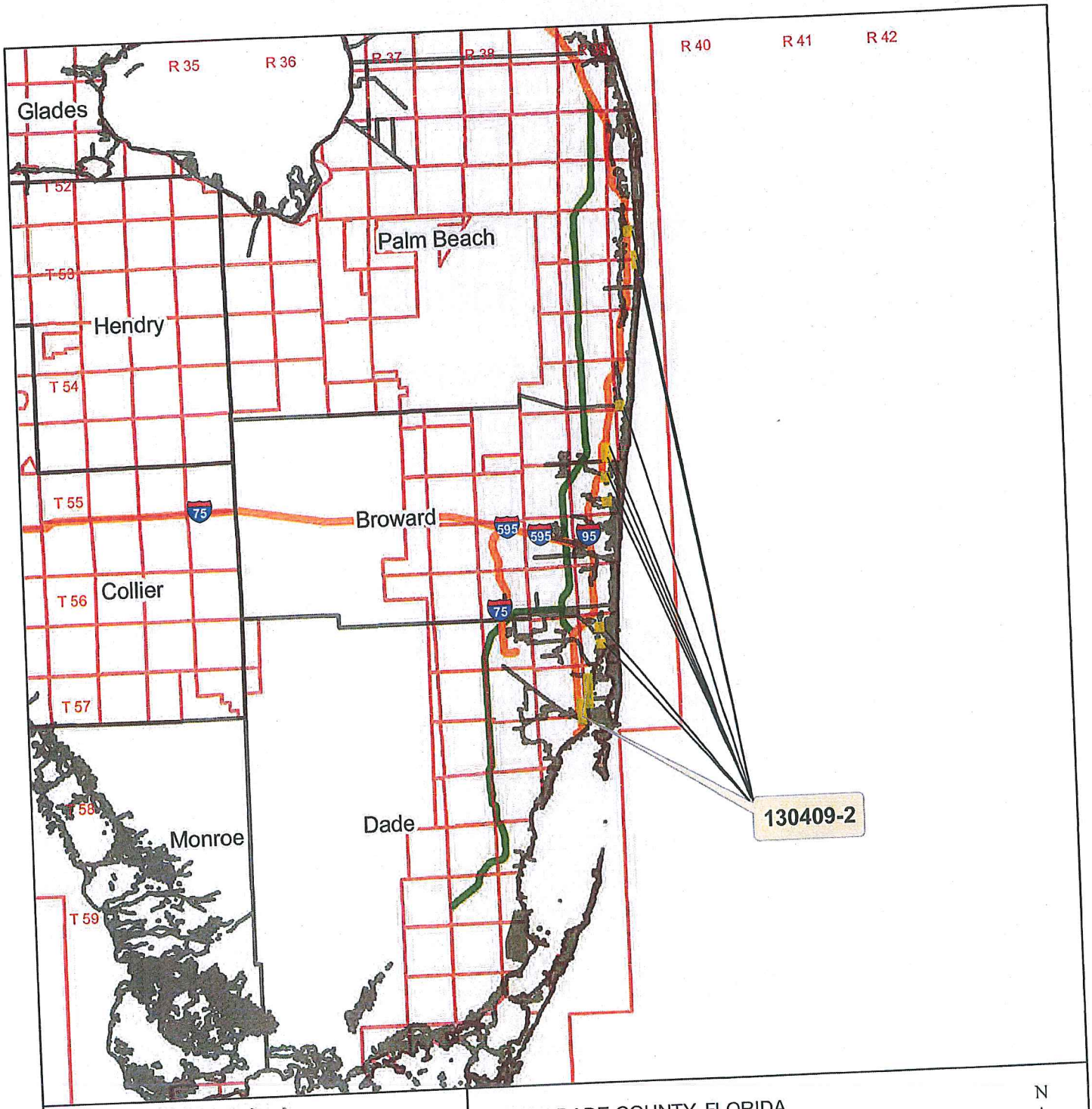
3.3 WATER Mitigation Calculations

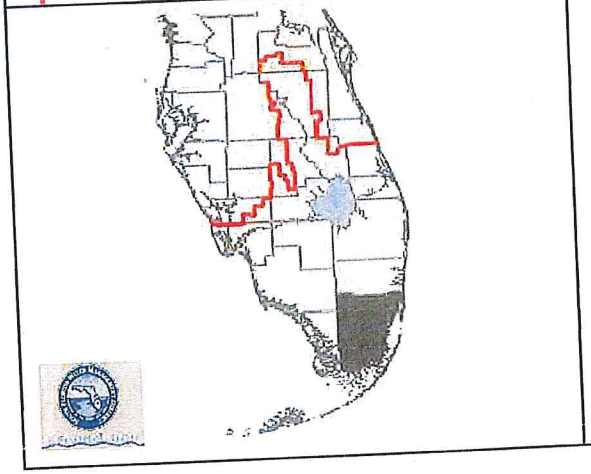
3.4 Letter of Mitigation Credit Reservation

3.5 FWC Manatee Protection Comments

3.6 DSL Title Determination

4.0 Environmental Work Schedule





MIAMI-DADE COUNTY, FLORIDA

N

Application Number: 130409-2

Map Date: 2013-04-22

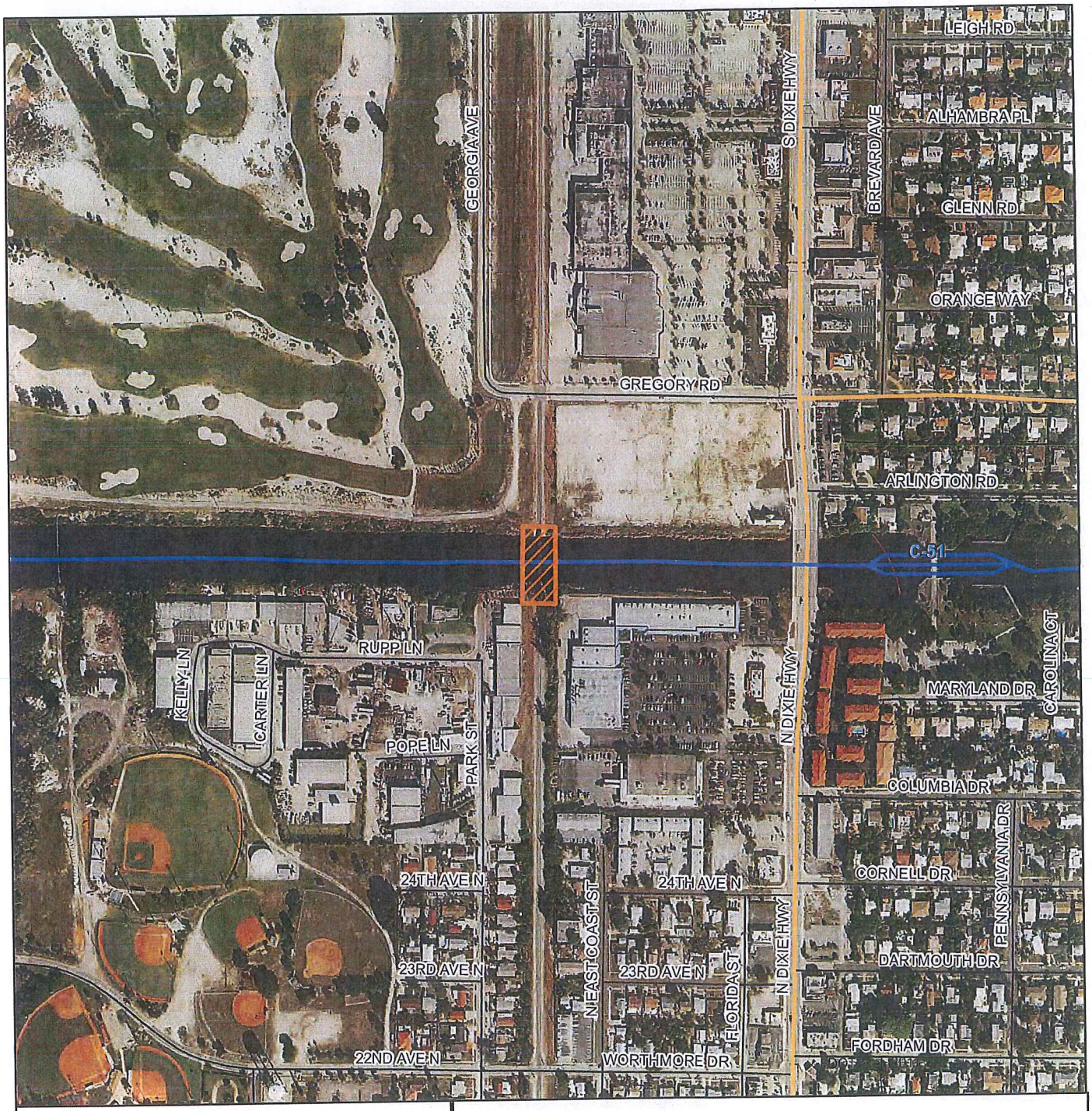
Permit Number: 13-05321-P

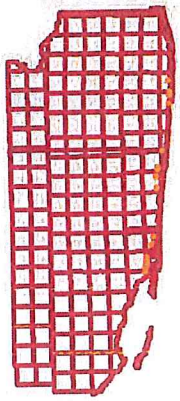
Sec 9,21 / Twp 52 / Rge 42

Project Name: ALL ABOARD FLORIDA - MIAMI TO WEST PALM BEACH

0 5 10 Miles

Exhibit Number: 1.1





PALM BEACH COUNTY, FLORIDA

N

Legend

Application

Map Date: 2013-04-22

Application Number: 130409-2

Permit Number: 13-05321-P

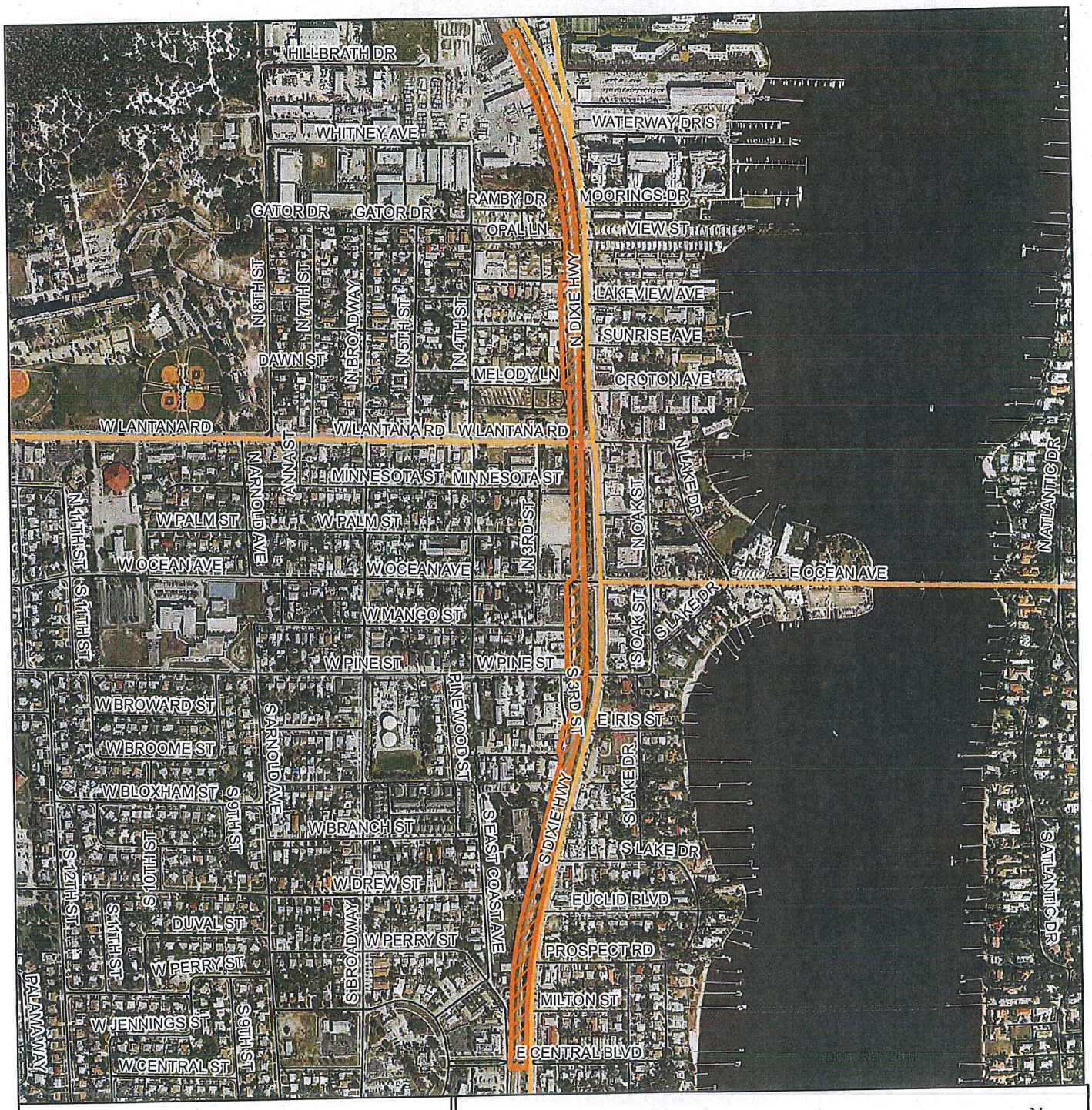
Sec 16 / Twp 44 / Rge 43

Project Name: ALL ABOARD FLORIDA - MIAMI TO WEST PALM BEACH

C-51 BRIDGE

0 0.05 0.1 Miles

Exhibit Number: 1.2A



PALM BEACH COUNTY, FLORIDA

Legend

Application

Application Number: 130409-2

Sec 34/ Twp 44 / Rge 43
Sec 03/ Twp 45 / Rge 43

Project Name: ALL ABOARD FLORIDA - MIAMI TO WEST PALM BEACH
THIRD TRACK ADDITION MP 307.66 TO MP 308.89

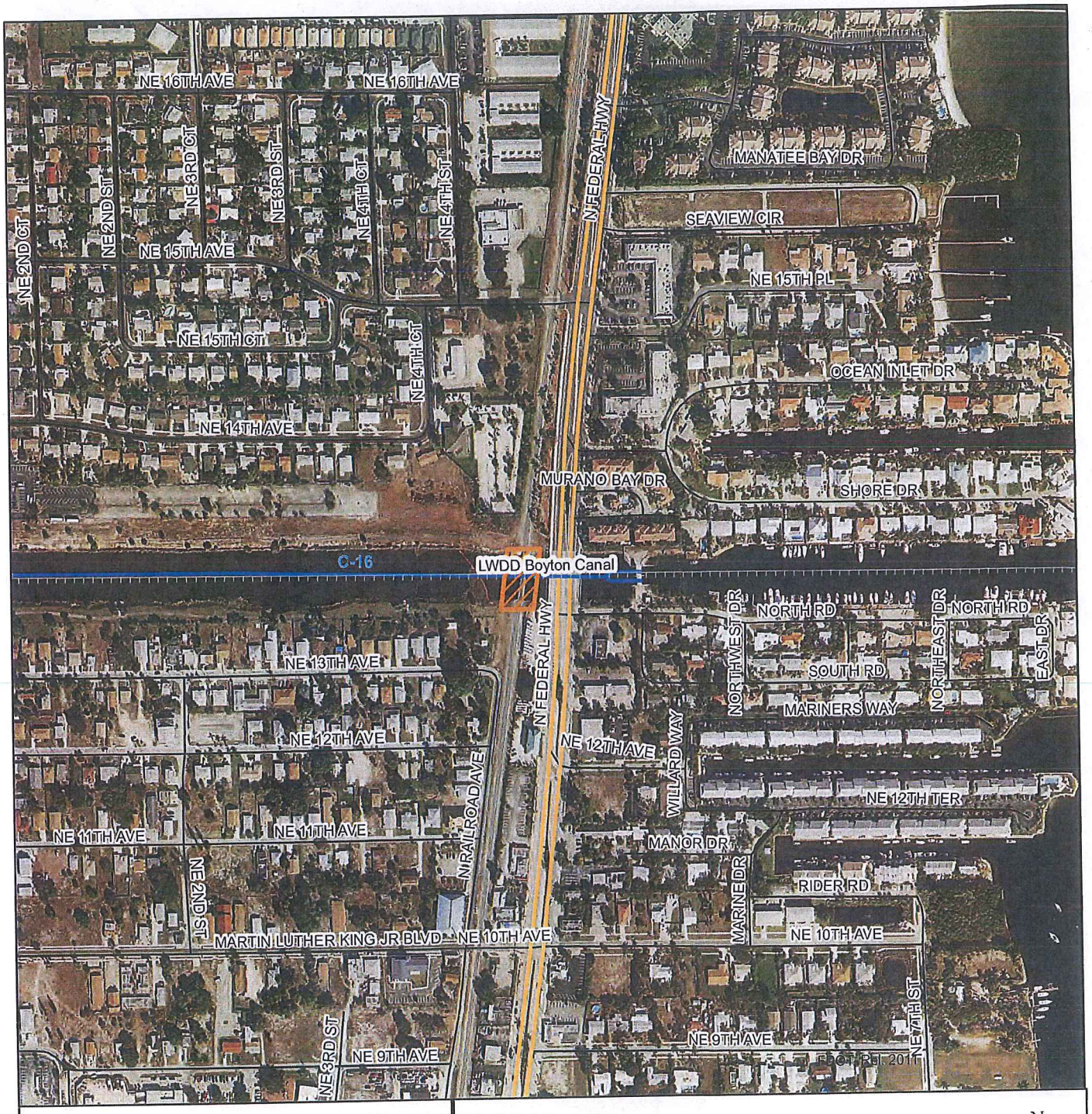
0 0.1 0.2 Miles

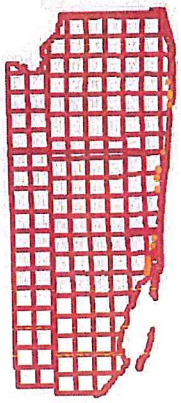
N

Map Date: 2013-04-22

Permit Number: 13-05321-P

Exhibit Number: 1.2B





PALM BEACH COUNTY, FLORIDA

N

Legend

Application

Map Date: 2013-04-22

Application Number: 130409-2

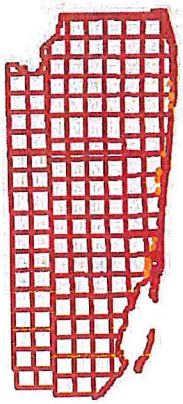
Permit Number: 13-05321-P

Sec 22/ Twp 45 / Rge 43

Project Name: ALL ABOARD FLORIDA - MIAMI TO WEST PALM BEACH
C-16/BOYNTON CANAL BRIDGE

0 0.045 0.09 Miles

Exhibit Number: 1.2C



BROWARD COUNTY, FLORIDA

N

Legend

Application

Map Date: 2013-04-22

Application Number: 130409-2

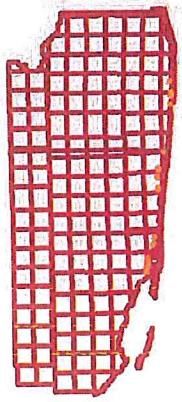
Permit Number: 13-05321-P

Sec 31/ Twp 47 / Rge 43

Project Name: ALL ABOARD FLORIDA - MIAMI TO WEST PALM BEACH
HILLSBORO CANAL BRIDGE

0 0.04 0.08 Miles

Exhibit Number: 1.2D



BROWARD COUNTY, FLORIDA

Legend

Application

Application Number: 130409-2

Sec 26/ Twp 48 / Rge 42

Project Name: ALL ABOARD FLORIDA - MIAMI TO WEST PALM BEACH
THIRD TRACK ADDITION MP 331.88 TO MP 332.30

N

Map Date: 2013-04-22

Permit Number: 13-05321-P

0 0.045 0.09 Miles

Exhibit Number: 1.2E

BROWARD COUNTY, FLORIDA

N

Legend

Application

Map Date: 2013-04-22

Application Number: 130409-2

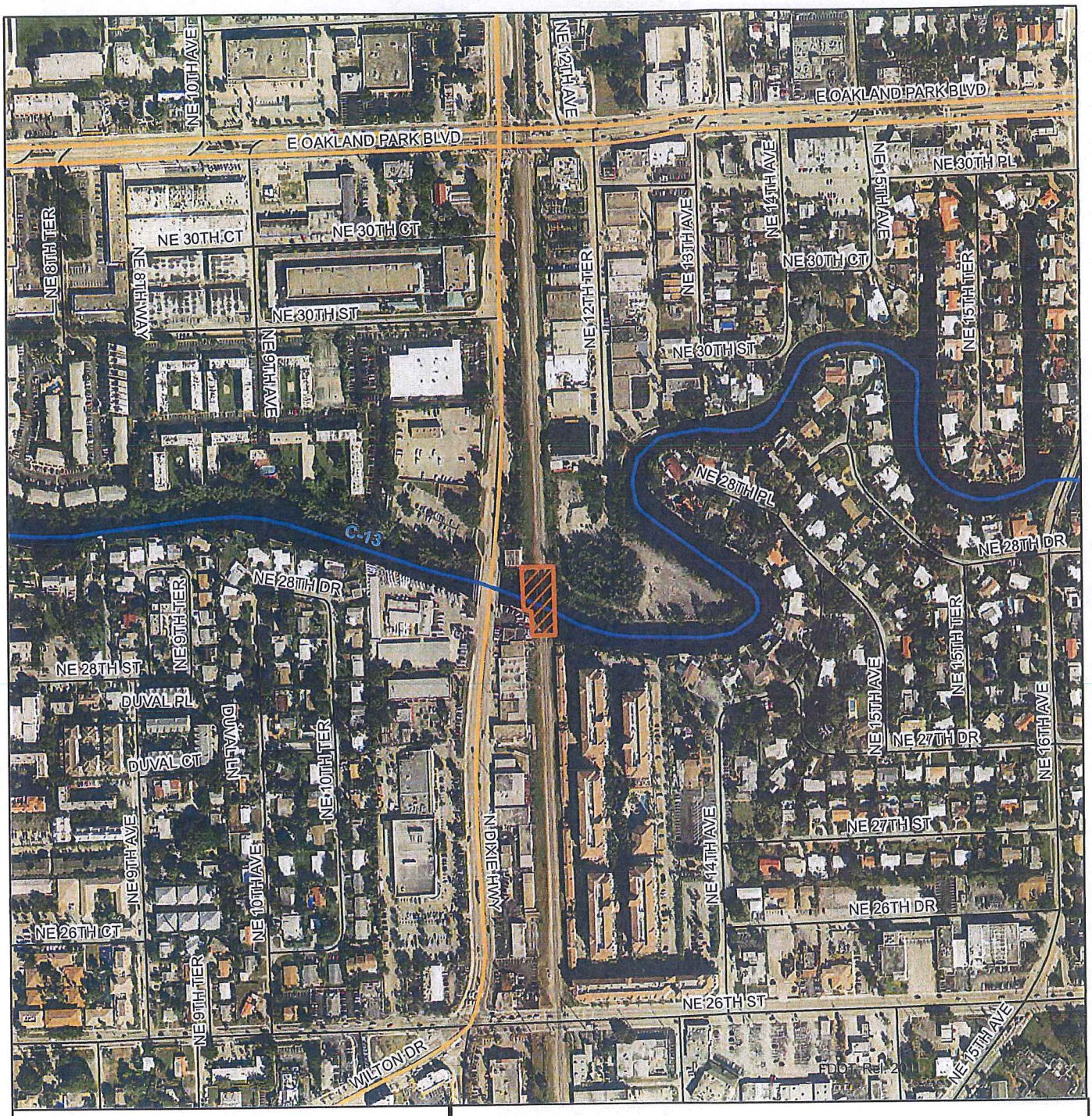
Permit Number: 13-05321-P

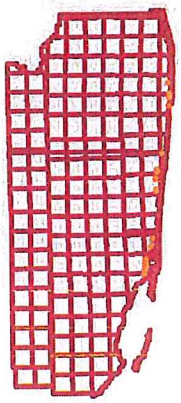
Sec 11/ Twp 49 / Rge 42

Project Name: ALL ABOARD FLORIDA - MIAMI TO WEST PALM BEACH
CURVE REDUCTION MP 334.67 TO MP 334.94

0 0.05 0.1 Miles

Exhibit Number: 1.2F





BROWARD COUNTY, FLORIDA

N

Legend

Application

Map Date: 2013-04-22

Application Number: 130409-2

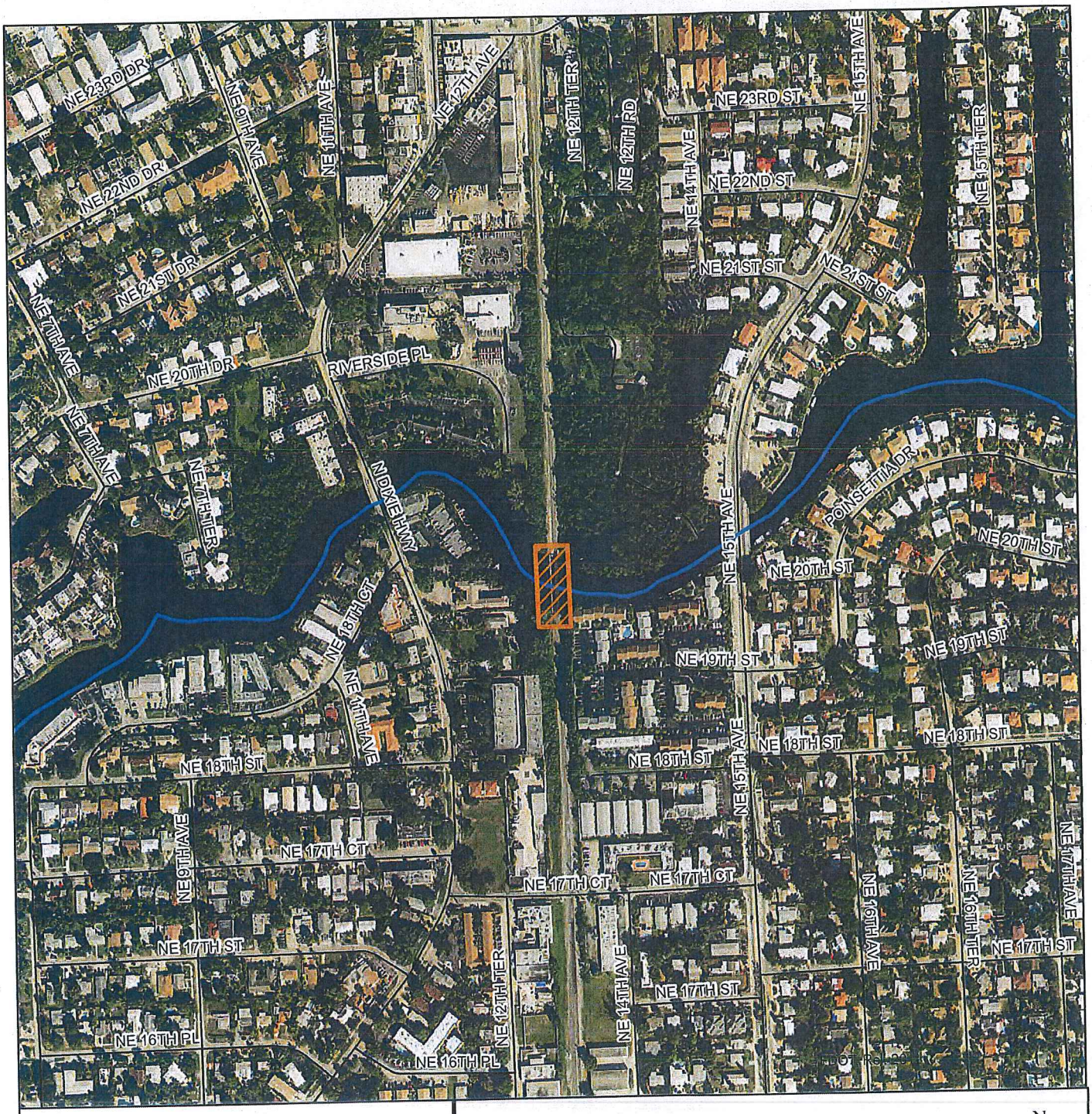
Permit Number: 13-05321-P

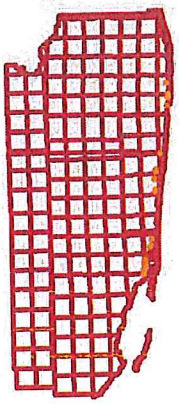
Sec 26/ Twp 49 / Rge 42

Project Name: ALL ABOARD FLORIDA - MIAMI TO WEST PALM BEACH
NORTH FORK OF THE MIDDLE RIVER BRIDGE

0 0.0375 0.075 Miles

Exhibit Number: 1.2G





BROWARD COUNTY, FLORIDA

N

Legend

Application

Map Date: 2013-04-22

Application Number: 130409-2

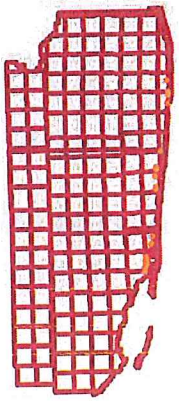
Permit Number: 13-05321-P

Sec 26/ Twp 49 / Rge 42

Project Name: ALL ABOARD FLORIDA - MIAMI TO WEST PALM BEACH
SOUTH FORK OF THE MIDDLE RIVER BRIDGE

0 0.05 0.1 Miles

Exhibit Number: 1.2H



MIAMI-DADE COUNTY, FLORIDA

Legend

Application

Application Number: 130409-2

Sec 09/ Twp 52 / Rge 42

Project Name: ALL ABOARD FLORIDA - MIAMI TO WEST PALM BEACH
OLETA RIVER BRIDGE

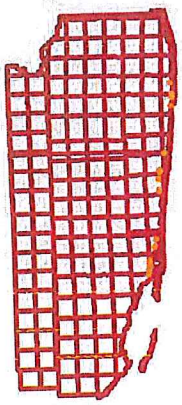
N

Map Date: 2013-04-22

Permit Number: 13-05321-P

0 0.05 0.1 Miles

Exhibit Number: 1.2i



MIAMI-DADE COUNTY, FLORIDA

N

Legend

Application

Map Date: 2013-04-22

Application Number: 130409-2

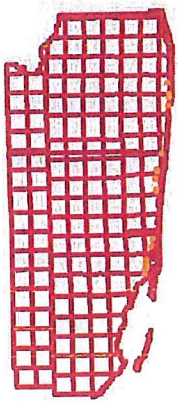
Permit Number: 13-05321-P

Sec 09/ Twp 52 / Rge 42

Project Name: ALL ABOARD FLORIDA - MIAMI TO WEST PALM BEACH
ARCH CREEK BRIDGE

0 0.05 0.1 Miles

Exhibit Number: 1.2J



MIAMI-DADE COUNTY, FLORIDA

Legend

Application

Application Number: 130409-2

Sec 25,36/ Twp 53 / Rge 41
Sec 07,18,19,30/ Twp 53 / Rge 42
Sec 01/ Twp 54 / Rge 41

Project Name: ALL ABOARD FLORIDA - MIAMI TO WEST PALM BEACH
THIRD TRACK ADDITION MP 360.89 TO MP 365.36

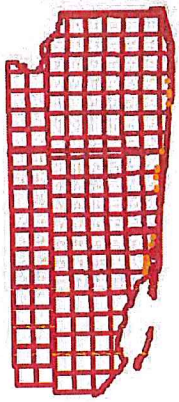
0 0.1 0.2 Miles

N

Map Date: 2013-04-22

Permit Number: 13-05321-P

Exhibit Number: 1.2K



MIAMI-DADE COUNTY, FLORIDA

Legend

Application

Application Number: 130409-2

Sec 25,36/ Twp 53 / Rge 41
Sec 07,18,19,30/ Twp 53 / Rge 42
Sec 01/ Twp 54 / Rge 41

Project Name: ALL ABOARD FLORIDA - MIAMI TO WEST PALM BEACH
THIRD TRACK ADDITION MP 360.89 TO MP 365.36

0 0.1 0.2 Miles

N

Map Date: 2013-04-22

Permit Number: 13-05321-P

Exhibit Number: 1.2K

MIAMI-DADE COUNTY, FLORIDA

Legend

Application

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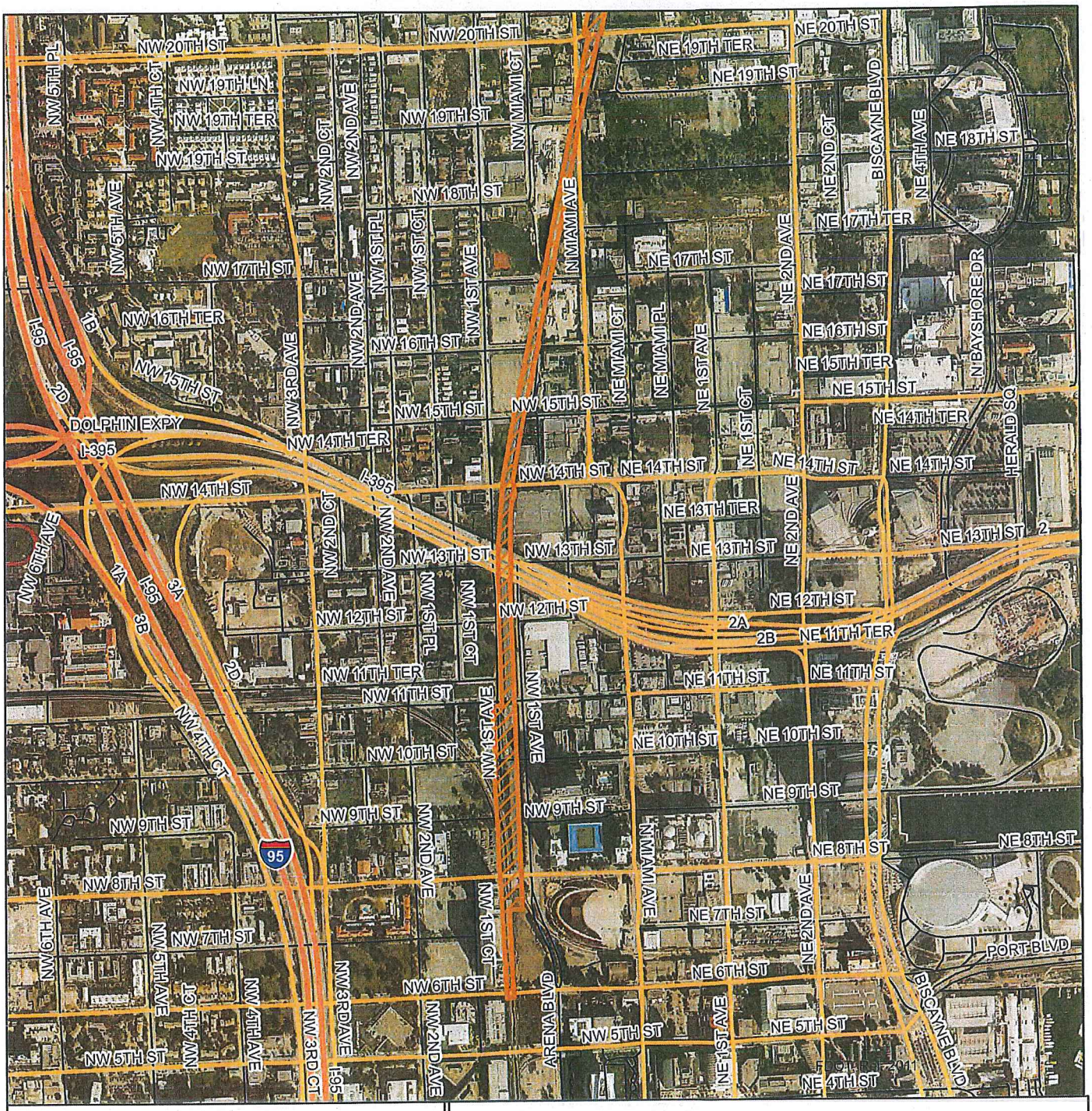

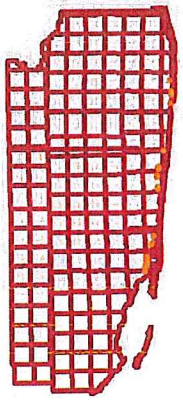

MIAMI-DADE COUNTY, FLORIDA

Legend

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Map Date: 2013-04-22

Permit Number: 13-05321-P

Exhibit Number: 1.2K

EXHIBIT 2.1

App. No. 130409-2

Bridge Construction Plan Set: 27 Sheets

PLEASE SEE PERMIT FILE

EXHIBIT 2.2

App. No. 130409-2

Curve Reduction Construction Plan Set: 48 Sheets

PLEASE SEE PERMIT FILE

EXHIBIT 2.3

App. No. 130409-2

Third Track Construction Plan Set: 162 Sheets

PLEASE SEE PERMIT FILE

U.S. Department
of Homeland Security

**United States
Coast Guard**

Commander
Seventh Coast Guard District

909 SE 1st Ave Rm 432
Miami, FL 33131-3050
Staff Symbol: (dpb)
Phone: (305) 415-6989
Fax: (305) 415-6763
Email: Evelyn.Smart@uscg.mil

16211/FL
Serial #: 2292
1 May 2013

Mr. Alex Gonzalez
Corporate Development Manager
Florida East Coast Industries
2855 LeJeune Road – 4th Floor
Coral Gables, FL 33134

Dear Mr. Gonzalez:

We have completed our navigability determinations and jurisdictional findings across various waterways crossings where you are proposing to double track the existing FEC Railroad corridor between Orlando and Miami, Florida to accommodate the All Aboard Florida Passenger Rail Service.

Coast Guard Bridge Permits will be required for the proposed project across the following waterways. You should plan on navigational clearances not less than those provided by the existing downstream bridges. In order to determine the exact clearance requirements for existing and prospective navigation, you are encouraged to consult with waterway users early in your design process. This needs analysis should help avoid unnecessary delays in the bridge permitting process:

1. Proposed FEC RR Bridge across the St. Johns River parallel to the Martin Anderson Beach Line Expressway (toll road – State Road. 528).
2. Proposed double tracking across the Hillsboro Canal, FEC Milepost 326.58 near Deerfield Beach, Broward County, FL

The Coast Guard's decision on navigational adequacy is necessarily part of the permit approval process. We will consider any information you provide, the comments responding to the public notice we issue after receiving your application, and all other available information in making this decision.

The Federal Railroad Administration (FRA) is the federal lead agency for the National Environmental Policy Act (NEPA) process and the Coast Guard will act as a cooperating agency. The Coast Guard will be reviewing the Draft Environmental Impact Statement for the proposed project and will forward comments to FRA regarding our area of jurisdiction (navigable waters of the United States and navigation).

Enclosed for your use in applying for a Coast Guard bridge permit is a Bridge Permit Application Guide. If you have any further questions, please contact me at (305) 415-6989.

Sincerely,

Evelyn Smart

(MISS) EVELYN SMART
Environmental Protection Specialist
By direction of the Commander
Seventh Coast Guard District

Encl: Permit Application Guide

Copy: Catherine Dobbs, Transportation Industry Analyst, USDOT, Federal Railroad Administration
Commanding Officer, USCG Sector Jacksonville
Commanding Officer, USCG Sector Miami
Charlene Stroehlen, P.E., AMEC Environment and Infrastructure

U.S. Department
of Homeland Security

**United States
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Commander
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16211/FL
Serial #: 2291
1 May 2013

Mr. Alex Gonzalez
Corporate Development Manager
Florida East Coast Industries
2855 LeJeune Road – 4th Floor
Coral Gables, FL 33134

Dear Mr. Gonzalez:

We have completed our navigability determinations and jurisdictional findings across various waterways where you are proposing to double track the existing FEC Railroad corridor between Orlando and Miami, Florida to accommodate the All Aboard Florida Passenger Rail Service. The following waterways have been exempt from obtaining Coast Guard Bridge Permits:

1. Horse Creek, FEC Milepost 187.37 near Palm Shores, Brevard County, FL
2. Goat Creek, FEC Milepost 202.59 near Malabar, Brevard County, FL
3. Moore Creek (a.k.a. Moores Creek), FEC Milepost 241.27 near Fort Pierce, St. Lucie County, FL
4. Haney Creek (Unnamed Creek), FEC Milepost 259.95 near North River Shores, Martin County, FL
5. Salerno Creek (Unnamed Tributary), FEC Milepost 266.58 near Port Salerno, Martin County, FL
6. Unnamed Tributary to Manatee Pocket, FEC Milepost 266.86 near Port Salerno, Martin County, FL
7. North Fork of Middle River, FEC Milepost 337.91 near Oakland Park, Broward County, FL
8. South Fork of Middle River, FEC Milepost 338.52 near Oakland Park, Broward County, FL
9. Oleta River, FEC Milepost 353.74 near North Miami Beach, Miami-Dade County, FL

Our decision is based on the fact that these waterways, at and upstream of the bridge sites are not actually navigated other than by logs, log rafts, rowboats, canoes, and small motorboats. In such cases, the clearances provided for high water stages are considered adequate to meet the reasonable needs of navigation (Title 33 Code of Federal Regulations Part 115.70). Future bridge projects along the same waterway will have to be independently evaluated before they may be considered for Advance Approval.

The fact that Coast Guard bridge permits are not required for the above mentioned waterways does not relieve you of the responsibility for compliance with the requirements of any other federal state, or local agency who may have jurisdiction over any aspect of the project.

Although the proposed project will not require bridge permits, other areas of Coast Guard jurisdiction apply. The following must be met:

a. At no time during the bridgework will the waterways be closed to navigation without the prior notification and approval of the Coast Guard.

b. This office shall be notified 60 days prior to the actual commencement of construction. The 60 day notification shall be provided to Mr. Michael Lieberum at (305) 415-6744 email Michael.b.lieberum@uscg.mil so that appropriate announcements may be prepared for lour Local Notice to Mariners publication.

c. Upon completion of design and finalization of the locations, the Seventh Coast Guard District Bridge Branch shall be contacted regarding approval of lights and other signals that may be required under 33 CFR 118. Approval of said lighting or waiver of it shall be obtained prior to construction.

d. The lowest portion of the superstructures of the bridge across these waterways should clear the 100-year flood height elevation, if feasible. Coordinate with the Federal Emergency Management Administration if this is not possible.

e. Upon completion of construction, the bridge owner shall submit "as built" drawings (8 1/2 X 11") showing clearances through all of the bridges listed above and sufficient data to allow this office to prepare completion reports. Also submit 8 ½ X 11" photos of the completed bridges for our bridge files and database.

The National Ocean Service (NOS) of the National Oceanic and Atmosphere Administration (NOAA) is responsible for maintaining the navigation charts of U.S. waters; therefore they must be notified of this proposed work. You must notify our office upon completion of the activity approved in this letter. Your notification of completion must include as-built drawings, which certifies the locations and clearances of the bridges that were constructed. This information will be sent to NOS upon receipt of the completion reports enclosed.

If you have any further questions, please contact me at (305) 415-6989.

Sincerely,

Evelyn Smart

(MISS) EVELYN SMART
Environmental Protection Specialist
By direction of the Commander
Seventh Coast Guard District

Encl: Completion Report Forms

Copy: Catherine Dobbs, Transportation Industry Analyst, USDOT, Federal Railroad Administration
Commanding Officer, USCG Sector Jacksonville
Commanding Officer, USCG Sector Miami
Charlene Stroehlen, P.E., AMEC Environment and Infrastructure

U.S. Department
of Homeland Security

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16211/FL
Serial #: 2293
1 May 2013

Mr. Alex Gonzalez
Corporate Development Manager
Florida East Coast Industries
2855 LeJeune Road – 4th Floor
Coral Gables, FL 33134

Dear Mr. Gonzalez:

We have completed our navigability determinations and jurisdictional findings across various waterways where you are proposing to double track the existing FEC Railroad corridor between Orlando and Miami, Florida to accommodate the All Aboard Florida Passenger Rail Service. The following waterway has been exempt from obtaining a Coast Guard Bridge Permit:

1. Arch Creek, FEC Milepost 356.53 near North Miami, Miami-Dade County, FL

Our examination indicates that there is sufficient factual support for concluding that the Arch Creek is navigable waters of the United States for purposes of general Coast Guard jurisdiction. However, we have found that the waterway at the proposed project location falls under the Coast Guard Authorization Act of 1982. A formal Coast Guard bridge permit will not be required for the proposed bridge project across Arch Creek.

The fact that a Coast Guard bridge permit is not required for the proposed project across Arch Creek does not relieve you of the responsibility for compliance with the requirements of any other federal state, or local agency who may have jurisdiction over any aspect of the project.

Although the proposed project will not require a bridge permit, other areas of Coast Guard jurisdiction apply. The following must be met:

a. At no time during the bridgework will the waterway be closed to navigation without the prior notification and approval of the Coast Guard.

b. This office shall be notified 60 days prior to the actual commencement of construction. The 60 day notification shall be provided to Mr. Michael Lieberum at (305) 415-6744 email Michael.B.Lieberum@uscg.mil so that appropriate announcements may be prepared for lour Local Notice to Mariners publication.

c. Upon completion of design and finalization of the location, the Seventh Coast Guard District Bridge Branch shall be contacted regarding approval of lights and other signals that may be required under 33 CFR 118. Approval of said lighting or waiver of it shall be obtained prior to construction.

d. Upon completion of construction, the bridge owner shall submit "as built" drawings (8 1/2 X 11") showing clearances through all of the bridges listed above and sufficient data to allow this office to prepare completion reports. Also submit an 8 ½ X 11" photo of the completed bridge for our bridge files and database.

The National Ocean Service (NOS) of the National Oceanic and Atmosphere Administration (NOAA) is responsible for maintaining the navigation charts of U.S. waters; therefore they must be notified of this proposed work. You must notify our office upon completion of the activity approved in this letter. Your notification of completion must include as-built drawings, which certifies the location and clearance of the bridge that is constructed. This information will be sent to NOS upon receipt of the completion report enclosed.

We have completed our review of the various waterway crossings for the proposed project and found that the waterways listed below at the proposed sites are not considered navigable waters of the United States for purposes of Coast Guard Bridge permitting jurisdiction. Therefore, Coast Guard bridge permits will not be required for:

1. Manatee Creek, FEC Milepost 267.3 near Port Salerno, Martin County, FL
2. Tributary to Manatee Creek, FEC Milepost 267.7 near Port Salerno, Martin County, FL

We have made these determinations because of our understanding that Manatee Creek and the Tributary to Manatee Creek at the proposed locations are:

a. Not subject to tidal influence;

b. Not used, either by itself or in connection with other waterways, for substantial interstate or foreign commerce; and

c. Not susceptible to such use, either in their natural condition or by reasonable improvement.

If you have any further questions, please contact me at (305) 415-6989.

Sincerely,

Evelyn Smart

(MISS) EVELYN SMART
Environmental Protection Specialist
By direction of the Commander
Seventh Coast Guard District

Copy: Catherine Dobbs, Transportation Industry Analyst, USDOT, Federal Railroad Administration
Commanding Officer, USCG Sector Miami
Charlene Stroehlen, P.E., AMEC Environment and Infrastructure

	MANGROVE WETLANDS FILLING (AC)	OSWs FILLING (AC)	OSWs SHADING (AC)	MANGROVE TRIMMING (AC)	REQUIRED FPL EVERGLADES MITIGATION BANK CREDITS
Arch Creek - MP 356.53	0	0	0.011	0.015	0
Oleta River - MP 353.74	0.002	0.006	0.053	0.028	0.0011
South Fork of Middle River - MP 338.52	0.001	0.019	0.134	0.005	0.0006
North Fork of Middle River - MP 337.91	0.005	0.004	0.123	0	0.0029
Hillsboro River - MP 326.58	0	0.003	0.069	0.003	0
Boynton Beach Canal C-16 - MP 311.45	0	0.006	0.053	0	0
Canal C-51 - MP 304.05	0	0.006	0.070	0	0
TOTALS	0.008	0.044	0.513	0.051	0.005

WATER Score Sheets

NORTH FORK OF THE MIDDLE RIVER

(MP 337.91)

FPL Everglades Mitigation Bank

Mitigation Bank Site Suitability Evaluation (MBSE) Matrix

Parameters

Parameter	Scoring Criteria	Ratings	Score
1. Adjacent to lands or waters of regional Importance and results in identifiable ecological benefits to adjacent lands or waters.	State Park, OFW, AP, and including but not limited to Special Waters on at least 1 boundary	1	
	Adjacent lands contain no special designation or undesignated special value	0	1
2. Property is within boundary of an acknowledged state, local or regional acquisition program	Property is within boundary of an acquisition program	1	
	Property is not within boundary of an acquisition program	0	0
3. Property contains ecological or geological features consistently considered by regional Scientist, or federal and state agencies to be unusual, unique or rare in the region and is of sufficient size	Property qualifies	1	
	Property does not qualify	0	0
4. Property designated as being of critical state or federal concern and/or contains special designations,	Property contains at least 1 special designation.	1	
	Property contains no special designations.	0	1
5. Property important to acknowledged restoration efforts	Property is important.	1	
	Property is not important.	0	0
6. Ownership and control of the property.	Property is privately owned.	1	
	Property is publicly owned.	0	1
7. Threatened , Endangered & Species of Special Concern Presence of animal species (faunal) found on site	Documented Presence of Species on site	1	
	No documented Presence of species on site.	0	1
8. Threatened , Endangered & Listed Species Presence of plant species (floral) found on site	Documented Presence of Species on site	1	
	No documented Presence of species on site.	0	0
9. Threat of loss or destruction from development activities. *(Development Pressure)*	High probability of development.	1	
	Low probability of development.	0	0
10. Extent to which lands are subject to Local, State, and Federal dredge and fill/ ERP Regulations	Property is not regulated.	1	
	Property is regulated.	0	0
	Value Cumulative Score (CS)		4

The Mitigation Bank Site Suitability Evaluation Matrix is designed to provide a quantifiable means of determining the number of mitigation credits that should be assigned to a bank for **"value"** related parameters. Value related parameters are human values determined to be important to society; and therefore are not measurable in a purely functional analysis. Functional analysis will only measure the degree of functional ecological improvement (degree of ecological improvement) resulting from mitigation activities. The SS Evaluation measures and provides credit for societal values that separate one mitigation bank from another as required by Ch. 62-342 .470 (a) (b) (e) (f) (g) (h) (i) F.A.C.. The SS evaluation is not to be utilized in conjunction with a functional analysis methodology which also utilizes value related parameters in its analysis.

Evaluation Scale

Site	Suitability
1.0	1.10
.9	1.09
.8	1.08
.7	1.07
.6	1.06
.5	1.05
.4	1.04
.3	1.03
.2	1.02
.1	1.01
0	0

Site Suitability Matrix

Maximum Possible Score (MPS)		10
Cumulative Score (CS)		4
Site Suitability		0.4

EPA, USACOE, USF & W, FDEP, NMFS, SFWMD, Dade DERM, FPL, CH

3-Apr-96

After Calculating the Site Suitability Score determine the Site Suitability Multiplier by utilizing the Evaluation Scale to the left. The Site Suitability Multiplier is to be multiplied times the number of the Functional Mitigation Credits, resulting from the **(W.A.T.E.R.)** Functional Assessment of the Mitigation Bank, to determine the number of Site Suitability Credits to be assigned to the Mitigation Bank.

Prepared By:
Cotleur Hearing
2/12/2013

Mitigation Bank Wetland Function Evaluation Matrix

Project: North Fork
Reviewer: J. Baker
Date: 2/11/2013

W.A.T.E.R. - Wetland Assessment Technique for Environmental Reviews
Based on WBI, WQI, WRAP, HGM and 4th Priority Project List (PPL) with technical advise from EPA, FDEP, ACOE, NMFS, USF & W, SFWMD & Dade County

Parameter/ Function	Scoring Criteria	Ratings	Polygon	Polygon
1. Fish & Wildlife Functions *Apply to freshwater, saltwater, brackish and mitigation systems*				
a. Waterfowl, wading birds, wetland dependent, or aquatic birds of prey. (Mit. Bank - High specie count w/ low pop. #'s score 1	7 or more species commonly observed	3	1	
	3-6 species commonly observed	2		
	1-2 species commonly observed	1		
	0 species commonly observed	0		
b. Fish (Mit. Bank - High specie count w/ low pop. #'s score 1 Restoration that causes 12% pop. Increases-higher score)	7 or more species commonly observed	3	3 (based on observed species count)	
	3-6 species commonly observed	2		
	1-2 species commonly observed	1		
	0 species commonly observed	0		
c. Mammals (Mit. Bank - High specie count w/ low pop. #'s score 1 Restoration that causes 12% pop. Increases-higher score)	Top predator (carnivore) &/or large mammals	3	3 (based on manatee zone)	
	Medium sized mammals , (adult weight > 6 lbs.)	2		
	Small animals (rodents, etc.) , (adult weight < 6 lbs.)	1		
	0 species present	0		
d. Aquatic macroinvertebrates, amphibians (Mit. Bank - High specie count w/ low pop. #'s score 1 Restoration that causes 12% pop. Increases-higher score)	7 or more species commonly observed	3	2	
	3-6 species commonly observed	2		
	1-2 species commonly observed	1		
	0 species commonly observed	0		
e. Aquatic reptiles (Mit. Bank - High specie count w/ low pop. #'s score 1 Restoration that causes 12% pop. Increases-higher score)	Large species observed	3	1	
	Aquatic turtles	2		
	Snakes & lizards	1		
	No evidence of species present	0		
2. Vegetative Functions *Apply to freshwater, saltwater, brackish and mitigation systems*				
a. Overstory/shrub canopy	Desirable trees/shrub healthy & providing appropriate habitat (seedlings present) & no inappropriate species	3	2	
	Desirable trees/shrubs exhibit signs of stress (no seedlings) few inappropriate species present	2		
	Inappropriate trees/shrubs shading or overcoming desirable trees/shrubs	1		
	Very little or no desirable tree/shrubs present (evidence suggests there should be)	0		
b. Vegetative ground cover	Assessment area exhibits <2% inappropriate herbaceous ground cover for specific wetland systems and groundcover is present	3	2 (exotic species and rip rap present)	
	Assessment area contains >2% but <30% inappropriate herbaceous groundcover, or lack of groundcover >2% but < 30%	2		
	Assessment area contains >30% to <70% inappropriate herbaceous groundcover, or lack of ground cover >30% to <70%	1		
	Assessment area >70% inappropriate herbaceous groundcover or lack of groundcover >70%	0		
c. Periphyton mat coverage	Periphyton (Blue-green algae) present with average mat thickness >1 1/4 in. (measure active & dead layer)	3	0	
	Periphyton (Blue-green algae) present with average mat thickness between 3/4 in. to 1 1/4 in. (active & dead layer)	2		
	Periphyton (Blue-green algae) present with average mat thickness between 1/4 in. to 3/4 in. (active & dead layer)	1		
	Periphyton (Blue-green algae) not present or if pressent with average thickness of 0.0 to 1/4 in. (active & dead layer)	0		
d. Category 1 and Category 2 exotic plants or (non-native) species	< (or = to) 1 % exotic plant cover	3	2	
	>1 % to 10 % exotic plant cover	2		
	>10 % to 65 % exotic plant cover	1		
	> 65 % exotic plant cover	0		
e. Habitat diversity (vegetative) *(within assessment area)*	>3 native species communities on site within assessment area	3	1	
	2 or 3 native specie communities on site within assessment area	2		
	1 native species community with 75 % to 90 % coverage within assessment area	1		
	1 native species community has > 90 % coverage within assessment area	0		
f. Biological diversity within 3000 feet *(approximately 1/2 mile from edge of assessment area)*	> 3 alternative habitats available (including upland)	3	3 (Area includes Biscayne bay and Oleta River State Park)	
	2 to 3 alternative habitats	2		
	1 alternative habitat	1		
	Same habitat type, or inapopropriate / impacted	0		

3. Hydrologic Functions				
a. Surface water hydrology / sheet flow *Apply to freshwater, saltwater, brackish and mitigation systems*	Major connection *(Flowing water/ river or floodplain/ uniform flow through natural systems)*	3	3 (Serves as major tidal connection)	
	Moderate connection *(Natural restriction of flow or Flowing water due to hydrologic engineering)*	2		
	Minor connection *(Runoff collection point, or uneven flow due to berms, ditches, roadways etc.)*	1		
	Hydrologically isolated, no net lateral movement	0		
b. Hydroperiod (normal year) fresh systems	> 8 months inundated with no reversals & every year drydown	3		
	>5 months < 8 months or >5 years continuous inundation (look for strong water stains on persistent vegetation)	2		
	>1 month < 5 months, with possible reversals (look for soft or less distinct water stains on persistent vegetation)	1		
	< 4 weeks cumulative annual inundation or < 2 weeks continuous inundation	0		
b-1 Alternate to b. for Short Hydroperiod (normal year) fresh systems:	>10 weeks of continuous inundation including soil saturation	3		
	> 6 weeks but <10 weeks of continuous inundation including soil saturation	2		
	>2 weeks but <6 weeks of inudation, including soil saturation	1		
	<2 weeks of continues inundation	0		
b-2 Alternate to b. for Saltwater, brackish (tidal) systems	Inundated by >90% high tides			
	Inundated by "spring" high tides (bi-monthly)	2		
	Inundated by "extreme high" tides only (biannually)	1		
	Inundated by storm surges only	0		
b-3 Alternate to b. for High Marsh (Juncus-Distichlis)	Inundated by high "spring" tides (monthly) and flushed by fresh water sheetflow every 10 days average	3		
	Inundated by high "spring" tides (monthly) and flushed by fresh water sheetflow every 30 days on the average	2		
	Inundated by high "spring" tides (monthly) and exposed to rain only	1		
	Inundated by >50% high tides and exposed to rain only	0		
b-4 Alternate to b. for Riverine systems	Inundated by high tides (daily) and/or recieves and maintains fresh water at least into first half of dry season	3	1	
	Inundated by high tides (daily) and/or recieves and maintains fresh water during rainy season only	2		
	Inundated by high tides (daily) and/or recieves fresh water but does not maintain (reversal) during rainy season	1		
	Inundated by spring tides (bi-monthly) and/or experiences frequent reversals of fresh water (flashy)	0		
3. Hydrologic Functions continued				
c. Hydropattern (fresh system)	>1 ft. water depth for at least 2.5 months and <6 in. for >1 month (measure water mark/ lichen line), or water depth ideal for specific wetland system.	3		
	>6 in to 1 ft. for at least 2.5 months (measure water mark/ lichen line) or water depth borderline over or under for specific wetland system	2		
	<6 in. for at least 2.5 months (measure water mark/ lichen line) or water depth incorrect for specific wetland system	1		
	<6 in. in association with either canals, ditches, swales, culverts, pumps, and/or wellfields, or these factors cause water depth to be too deep for specific system.	0		
c-1 Alternate to c. for Saltwater, brackish (tidal) systems	>1 ft. water depth <2 ft. on 90% high tides	3		
	> 6 in. water depth <1 ft. on >50% high tides	2		
	< 6 in. water depth , but > than saturated	1		
	Saturated by saline water table only	0		
c-2 Alternate to c. for High Marsh (Juncus-Distichlis)	>10 in. water depth <2 ft. on regular basis during growing season	3		
	>5 in. to 10in. water depth on regular basis during growing season	2		
	>1 in. to 5 in. water depth on regular basis during growing season	1		
	>0.0 in. to 1 in. water depth sporadically during growing season	0		
c-3 Alternate to c. for Riverine systems	>2 ft. water depth (main channel) <6 ft. for 8 months	3	3	
	>2 ft. water depth (main channel) <4 ft. for 6 months	2		
	>1 ft. water depth (main channel) <2.5 ft. for 4 months	1		
	<1 ft. water depth, but dry for >4 weeks (dry season)	0		

3. Hydrologic Functions continued				
d. Water Quality	No indication of poor water quality (lab testing required, all values within acceptable range)	3	2 (based on visual observation)	
	No visual indicators of poor water quality observed (1 value just over or under acceptable range)	2		
	Visual indicators of poor water quality questionable (2 values over or under acceptable range)	1		
	Visual indicators of poor water quality observed or lab verified (values are out of acceptable range)	0		
e. Intactness of historic topography (soil disturbance)	Unaltered	3	0	
	Slightly altered soil disturbance, < 10% of assessment area	2		
	Moderately altered soil disturbance, < 25% of assessment area	1		
	Extremely altered soil disturbance, may exceed 50% of assessment area	0		
f. Soils, organic (fresh systems)	Organic soil classified hydric soil >12 in. or any thickness over bedrock/caprock with perched water table and either condition covering >90% of surface area	3		
	Organic soil classified hydric soil >6 in. but <12 in. and covering >50% of surface area	2		
	Organic soil classified hydric soil >1 in. but <6 in. and covering >50% but <90% of surface area	1		
	Organic soil classified non-hydric soil <1 in. for >50% of surface area	0		
f-1 Alternate to f. for *Freshwater, saltwater systems*	Sandy soil classified hydric soil with distinct mottling and concretions present in greater than 40% of horizon.	3		
	Sandy soil classified hydric soil with mottling and concretions present in > 20% but < 40% of horizon.	2		
	Sandy soil classified hydric soil with light or sparse mottling and concretions < 2 mm diameter or < 20% of horizon.	1		
	Sandy soil exhibits strong evidence of disturbance or mechanical manipulations or is fill material.	0		
f-2 Alternate to f. for *Freshwater, saltwater, brackish (tidal) systems*	Calcareous loam >12 in. and >90 % of surface area	3	0	
	Calcareous loam >6 in. to <12 in. and >90% of surface area	2		
	Calcareous loam >1 in. to <6 in. and covering >50% but <90% of surface area	1		
	Calcareous loam <1 in. for >50% of surface area	0		
4. Salinity Parameters *Apply to freshwater, saltwater, brackish, hypersaline and mitigation systems* - ***Choose 1***				
a. Optimum salinity for fresh systems during growing season based on mean high salinity for a normal year. *Apply to freshwater systems within 5 miles of the coast*	<2 parts per thousand (ppt)	3		
	2 to 3 parts per thousand (ppt)	2		
	4 to 5 parts per thousand (ppt)	1		
	>5 parts per thousand (ppt)	0		
a-1. Alternate to a. Optimum salinity for brackish systems during growing season based on mean high salinity for a normal year. *Apply to brackish (tidal) systems only*	6 to 8 parts per thousand (ppt)	3		
	9 to 13 parts per thousand (ppt)	2		
	14 to 16 parts per thousand (ppt)	1		
	>16 parts per thousand (ppt)	0		
a-2. Alternate to a. Optimum salinity for saline systems during growing season based on mean high salinity for a normal year. *Apply to saline marsh (tidal) systems only*	17 to 19 parts per thousand (ppt)	3		
	20 to 22 parts per thousand (ppt)	2		
	23 to 25 parts per thousand (ppt)	1		
	>25 parts per thousand (ppt)	0		
a-3. Alternate to a. Optimum salinity for hypersaline systems during growing season based on mean high salinity for a normal year. *Apply to hypersaline (tidal) systems only*	26 to 41 parts per thousand (ppt)	3		
	42 to 46 parts per thousand (ppt)	2		
	47 to 51 parts per thousand (ppt)	1		
	>51 parts per thousand (ppt)	0		
a-4 Alternate to a. Optimum salinity for riverine/tidal creek system during growing season based on mean high slainity for a normal year. *Apply to riverine systems only*	bottom (lower) third between 12 to 25 ppt middle third between 5 to 11 ppt. upper (top) third between 0 to 4 ppt.	3	2 (estimated)	
	bottom (lower) third between 25 to 32 ppt middle third between 6 to 24 ppt. upper (top) third between 0 to 5 ppt.	2		
	bottom (lower) third between 30 to 40 ppt middle third between 8 to 29 ppt. upper (top) third between 0 to 7 ppt.	1		
	bottom (lower) third between 35 to 50 ppt middle third between 10 to 34 ppt. upper (top) third between 0 to 9 ppt.	0		

Cumulative Score (SC)	31.00
Maximum Possible Score (MPS)	54.00
W.A.T.E.R. = Cumulative Score/Maximum Possible Score	0.57

Coteur Hearing, Inc.
W.A.T.E.R. created by: Bill L. Maus
11/1/1998

W.A.T.E.R SCORE	MITIGATION ACREAGE	FUNCTIONAL MITIGATION CREDITS	SITE SUITABILITY MULTIPLIER	SITE SUITABILITY CREDITS
0.57	0.005	0.00285	1	0.0029

vegetation removal, pile installation, shading, and placement of rip rap

WATER Score Sheets

SOUTH FORK OF THE MIDDLE RIVER

(MP 338.52)

FPL Everglades Mitigation Bank

Mitigation Bank Site Suitability Evaluation (MBSE) Matrix

Parameters

Parameter	Scoring Criteria	Ratings	Score
1. Adjacent to lands or waters of regional Importance and results in identifiable ecological benefits to adjacent lands or waters.	State Park, OFW, AP, and including but not limited to Special Waters on at least 1 boundary	1	
	Adjacent lands contain no special designation or undesignated special value	0	1
2. Property is within boundary of an acknowledged state, local or regional acquisition program	Property is within boundary of an acquisition program	1	
	Property is not within boundary of an acquisition program	0	0
3. Property contains ecological or geological features consistently considered by regional Scientist, or federal and state agencies to be unusual, unique or rare in the region and is of sufficient size	Property qualifies	1	
	Property does not qualify	0	0
4. Property designated as being of critical state or federal concern and/or contains special designations,	Property contains at least 1 special designation.	1	
	Property contains no special designations.	0	1
5. Property important to acknowledged restoration efforts	Property is important.	1	
	Property is not important.	0	0
6. Ownership and control of the property.	Property is privately owned.	1	
	Property is publicly owned.	0	1
7. Threatened , Endangered & Species of Special Concern Presence of animal species (faunal) found on site	Documented Presence of Species on site	1	
	No documented Presence of species on site.	0	1
8. Threatened , Endangered & Listed Species Presence of plant species (floral) found on site	Documented Presence of Species on site	1	
	No documented Presence of species on site.	0	0
9. Threat of loss or destruction from development activities. *(Development Pressure)*	High probability of development.	1	
	Low probability of development.	0	0
10. Extent to which lands are subject to Local, State, and Federal dredge and fill/ ERP Regulations	Property is not regulated.	1	
	Property is regulated.	0	0
	Value Cumulative Score (CS)		4

The Mitigation Bank Site Suitability Evaluation Matrix is designed to provide a quantifiable means of determining the number of mitigation credits that should be assigned to a bank for **"value"** related parameters. Value related parameters are human values determined to be important to society; and therefore are not measurable in a purely functional analysis. Functional analysis will only measure the degree of functional ecological improvement (degree of ecological improvement) resulting from mitigation activities. The SS Evaluation measures and provides credit for societal values that separate one mitigation bank from another as required by Ch. 62-342 .470 (a) (b) (e) (f) (g) (h) (i) F.A.C.. The SS evaluation is not to be utilized in conjunction with a functional analysis methodology which also utilizes value related parameters in its analysis.

Evaluation Scale

Site	Suitability
1.0	1.10
.9	1.09
.8	1.08
.7	1.07
.6	1.06
.5	1.05
.4	1.04
.3	1.03
.2	1.02
.1	1.01
0	0

Site Suitability Matrix		
Maximum Possible Score (MPS)		10
Cumulative Score (CS)		4
Site Suitability		0.4

EPA, USACOE, USF & W, FDEP, NMFS, SFWMD, Dade DERM, FPL, CH

3-Apr-96

After Calculating the Site Suitability Score determine the Site Suitability Multiplier by utilizing the Evaluation Scale to the left. The Site Suitability Multiplier is to be multiplied times the number of the Functional Mitigation Credits, resulting from the **(W.A.T.E.R.)** Functional Assessment of the Mitigation Bank, to determine the number of Site Suitability Credits to be assigned to the Mitigation Bank.

Prepared By:
Cotleur Hearing
2/12/2013

Mitigation Bank Wetland Function Evaluation Matrix

Project: South Fork

W.A.T.E.R. - Wetland Assessment Technique for Environmental Reviews

Based on WBI, WQI, WRAP, HGM and 4th Priority Project List (PPL) with technical advise from EPA, FDEP, ACOE, NMFS, USF & W, SFWMD & Dade County

Reviewer: J. Baker
Date: 2/11/2013

Parameter/ Function	Scoring Criteria	Ratings	Polygon	Polygon
1. Fish & Wildlife Functions *Apply to freshwater, saltwater, brackish and mitigation systems*				
a. Waterfowl, wading birds, wetland dependent, or aquatic birds of prey. (Mit. Bank - High specie count w/ low pop. #'s score 1	7 or more species commonly observed	3	1	
	3-6 species commonly observed	2		
	1-2 species commonly observed	1		
	0 species commonly observed	0		
b. Fish (Mit. Bank - High specie count w/ low pop. #'s score 1 Restoration that causes 12% pop. Increases-higher score)	7 or more species commonly observed	3	3 (based on observed species count)	
	3-6 species commonly observed	2		
	1-2 species commonly observed	1		
	0 species commonly observed	0		
c. Mammals (Mit. Bank - High specie count w/ low pop. #'s score 1 Restoration that causes 12% pop. Increases-higher score)	Top predator (carnivore) &/or large mammals	3	3 (based on manatee zone)	
	Medium sized mammals , (adult weight > 6 lbs.)	2		
	Small animals (rodents, etc.) , (adult weight < 6 lbs.)	1		
	0 species present	0		
d. Aquatic macroinvertebrates, amphibians (Mit. Bank - High specie count w/ low pop. #'s score 1 Restoration that causes 12% pop. Increases-higher score)	7 or more species commonly observed	3	2	
	3-6 species commonly observed	2		
	1-2 species commonly observed	1		
	0 species commonly observed	0		
e. Aquatic reptiles (Mit. Bank - High specie count w/ low pop. #'s score 1 Restoration that causes 12% pop. Increases-higher score)	Large species observed	3	1	
	Aquatic turtles	2		
	Snakes & lizards	1		
	No evidence of species present	0		
2. Vegetative Functions *Apply to freshwater, saltwater, brackish and mitigation systems*				
a. Overstory/shrub canopy	Desirable trees/shrub healthy & providing appropriate habitat (seedlings present) & no inappropriate species	3	2	
	Desirable trees/shrubs exhibit signs of stress (no seedlings) few inappropriate species present	2		
	Inappropriate trees/shrubs shading or overcoming desirable tree/shrubs	1		
	Very little or no desirable tree/shrubs present (evidence suggests there should be)	0		
b. Vegetative ground cover	Assessment area exhibits <2% inappropriate herbaceous ground cover for specific wetland systems and groundcover is present	3	2 (exotic species and rip rap present)	
	Assessment area contains >2% but <30% inappropriate herbaceous groundcover, or lack of groundcover >2% but < 30%	2		
	Assessment area contains >30% to <70% inappropriate herbaceous groundcover, or lack of ground cover >30% to <70%	1		
	Assessment area >70% inappropriate herbaceous groundcover or lack of groundcover >70%	0		
c. Periphyton mat coverage	Periphyton (Blue-green algae) present with average mat thickness >1 1/4 in. (measure active & dead layer)	3	0	
	Periphyton (Blue-green algae) present with average mat thickness between 3/4 in. to 1 1/4 in. (active & dead layer)	2		
	Periphyton (Blue-green algae) present with average mat thickness between 1/4 in. to 3/4 in. (active & dead layer)	1		
	Periphyton (Blue-green algae) not present or if pressent with average thickness of 0.0 to 1/4 in. (active & dead layer)	0		
d. Category 1 and Category 2 exotic plants or (non-native) species	< (or = to) 1 % exotic plant cover	3	2	
	>1 % to 10 % exotic plant cover	2		
	>10 % to 65 % exotic plant cover	1		
	> 65 % exotic plant cover	0		
e. Habitat diversity (vegetative) *(within assessment area)*	>3 native species communities on site within assesssment area	3	1	
	2 or 3 native specie communities on site within assessment area	2		
	1 native species community with 75 % to 90 % coverage within assessment area	1		
	1 native species community has > 90 % coverage within assessment area	0		
f. Biological diversity within 3000 feet *(approximately 1/2 mile from edge of assessment area)*	> 3 alternative habitats available (including upland)	3	3 (Area includes Biscayne bay and Oleta River State Park)	
	2 to 3 alternative habitats	2		
	1 alternative habitat	1		
	Same habitat type, or inappropriate / impacted	0		

3. Hydrologic Functions				
a. Surface water hydrology / sheet flow *Apply to freshwater, saltwater, brackish and mitigation systems*	Major connection *(Flowing water river or floodplain/ uniform flow through natural systems)*	3	3 (Serves as major tidal connection)	
	Moderate connection *(Natural restriction of flow or Flowing water due to hydrologic engineering)*	2		
	Minor connection *(Runoff collection point, or uneven flow due to berms, ditches, roadways etc.)*	1		
	Hydrologically isolated, no net lateral movement	0		
b. Hydroperiod (normal year) fresh systems	> 8 months inundated with no reversals & every year drydown	3		
	>5 months < 8 months or >5 years continuous inundation (look for strong water stains on persistent vegetation)	2		
	>1 month < 5 months, with possible reversals (look for soft or less distinct water stains on persistent vegetation)	1		
	< 4 weeks cumulative annual inundation or < 2 weeks continuous inundation	0		
b-1 Alternate to b. for Short Hydroperiod (normal year) fresh systems:	>10 weeks of continuous inundation including soil saturation	3		
	> 6 weeks but <10 weeks of continuous inundation including soil saturation	2		
	>2 weeks but <6 weeks of inudation, including soil saturation	1		
	<2 weeks of continuos inundation	0		
b-2 Alternate to b. for Saltwater, brackish (tidal) systems	Inundated by >90% high tides			
	Inundated by "spring" high tides (bi-monthly)	2		
	Inundated by "extreme high" tides only (biannually)	1		
	Inundated by storm surges only	0		
b-3 Alternate to b. for High Marsh (Juncus-Distichlis)	Inundated by high "spring" tides (monthly) and flushed by fresh water sheetflow every 10 days average	3		
	Inundated by high "spring" tides (monthly) and flushed by fresh water sheetflow every 30 days on the average	2		
	Inundated by high "spring" tides (monthly) and exposed to rain only	1		
	Inundated by >50% high tides and exposed to rain only	0		
b-4 Alternate to b. for Riverine systems	Inundated by high tides (daily) and/or recieves and maintains fresh water at least into first half of dry season	3	1	
	Inundated by high tides (daily) and/or recieves and maintains fresh water during rainy season only	2		
	Inundated by high tides (daily) and/or recieves fresh water but does not maintain (reversal) during rainy season	1		
	Inundated by spring tides (bi-monthly) and/or experiences frequent reversals of fresh water (flashy)	0		
3. Hydrologic Functions continued				
c. Hydropattern (fresh system)	>1 ft. water depth for at least 2.5 months and <6 in. for >1 month (measure water mark/ lichen line), or water depth ideal for specific wetland system.	3		
	>6 in to 1 ft. for at least 2.5 months (measure water mark/ lichen line) or water depth borderline over or under for specific wetland system	2		
	<6 in. for at least 2.5 months (measure water mark/ lichen line) or water depth incorrect for specific wetland system	1		
	<6 in. in association with either canals, ditches, swales, culverts, pumps, and/or wellfields, or these factors cause water depth to be too deep for specific system.	0		
c-1 Alternate to c. for Saltwater, brackish (tidal) systems	>1 ft. water depth <2 ft. on 90% high tides	3		
	> 6 in. water depth <1 ft. on >50% high tides	2		
	< 6 in. water depth , but > than saturated	1		
	Saturated by saline water table only	0		
c-2 Alternate to c. for High Marsh (Juncus-Distichlis)	>10 in. water depth <2 ft. on regular basis during growing season	3		
	>5 in. to 10in. water depth on regular basis during growing season	2		
	>1 in. to 5 in. water depth on regular basis during growing season	1		
	>0.0 in. to 1 in. water depth sporadically during growing season	0		
c-3 Alternate to c. for Riverine systems	>2 ft. water depth (main channel) <6 ft. for 8 months	3	3	
	>2 ft. water depth (main channel) <4 ft. for 6 months	2		
	>1 ft. water depth (main channel) <2.5 ft. for 4 months	1		
	<1 ft. water depth, but dry for >4 weeks (dry season)	0		

3. Hydrologic Functions continued				
d. Water Quality	No indication of poor water quality (lab testing required, all values within acceptable range)	3	2 (based on visual observation)	
	No visual indicators of poor water quality observed (1 value just over or under acceptable range)	2		
	Visual indicators of poor water quality questionable (2 values over or under acceptable range)	1		
	Visual indicators of poor water quality observed or lab verified (values are out of acceptable range)	0		
e. Intactness of historic topography (soil disturbance)	Unaltered	3	0	
	Slightly altered soil disturbance, < 10% of assessment area	2		
	Moderately altered soil disturbance, < 25% of assessment area	1		
	Extremely altered soil disturbance, may exceed 50% of assessment area	0		
f. Soils, organic (fresh systems)	Organic soil classified hydric soil >12 in. or any thickness over bedrock/caprock with perched water table and either condition covering >90% of surface area	3		
	Organic soil classified hydric soil >6 in. but <12 in. and covering >90% of surface area	2		
	Organic soil classified hydric soil >1 in. but <6 in. and covering >50% but <90% of surface area	1		
	Organic soil classified non-hydric soil <1 in. for >50% of surface area	0		
f-1 Alternate to f. for Freshwater, saltwater systems	Sandy soil classified hydric soil with distinct mottling and concretions present in greater than 40% of horizon.	3		
	Sandy soil classified hydric soil with mottling and concretions present in > 20% but < 40% of horizon.	2		
	Sandy soil classified hydric soil with light or sparse mottling and concretions < 2 mm diameter or < 20% of horizon.	1		
	Sandy soil exhibits strong evidence of disturbance or mechanical manipulations or is fill material.	0		
f-2 Alternate to f. for Freshwater, saltwater, brackish (tidal) systems	Calcareous loam >12 in. and >90 % of surface area	3	0	
	Calcareous loam >6 in. to <12 in. and >90% of surface area	2		
	Calcareous loam >1 in. to <6 in. and covering >50% but <90% of surface area	1		
	Calcareous loam <1 in. for >50% of surface area	0		
4. Salinity Parameters Apply to freshwater, saltwater, brackish, hypersaline and mitigation systems - Choose 1				
a. Optimum salinity for fresh systems during growing season based on mean high salinity for a normal year. Apply to freshwater systems within 5 miles of the coast	<2 parts per thousand (ppt)	3		
	2 to 3 parts per thousand (ppt)	2		
	4 to 5 parts per thousand (ppt)	1		
	>5 parts per thousand (ppt)	0		
a-1. Alternate to a. Optimum salinity for brackish systems during growing season based on mean high salinity for a normal year. Apply to brackish (tidal) systems only	6 to 8 parts per thousand (ppt)	3		
	9 to 13 parts per thousand (ppt)	2		
	14 to 16 parts per thousand (ppt)	1		
	>16 parts per thousand (ppt)	0		
a-2. Alternate to a. Optimum salinity for saline systems during growing season based on mean high salinity for a normal year. Apply to saline marsh (tidal) systems only	17 to 19 parts per thousand (ppt)	3		
	20 to 22 parts per thousand (ppt)	2		
	23 to 25 parts per thousand (ppt)	1		
	>25 parts per thousand (ppt)	0		
a-3. Alternate to a. Optimum salinity for hypersaline systems during growing season based on mean high salinity for a normal year. Apply to hypersaline (tidal) systems only	26 to 41 parts per thousand (ppt)	3		
	42 to 46 parts per thousand (ppt)	2		
	47 to 51 parts per thousand (ppt)	1		
	>51 parts per thousand (ppt)	0		
a-4 Alternate to a. Optimum salinity for riverine/tidal creek system during growing season based on mean high slainity for a normal year. Apply to riverine systems only	bottom (lower) third between 12 to 25 ppt middle third between 5 to 11 ppt. upper (top) third between 0 to 4 ppt.	3	2 (estimated)	
	bottom (lower) third between 25 to 32 ppt middle third between 6 to 24 ppt. upper (top) third between 0 to 5 ppt.	2		
	bottom (lower) third between 30 to 40 ppt middle third between 8 to 29 ppt. upper (top) third between 0 to 7 ppt.	1		
	bottom (lower) third between 35 to 50 ppt middle third between 10 to 34 ppt. upper (top) third between 0 to 9 ppt.	0		

Cumulative Score (SC)	31.00
Maximum Possible Score (MPS)	54.00
W.A.T.E.R. = Cumulative Score/Maximum Possible Score	0.57

Coeur Hearing, Inc.
W.A.T.E.R. created by: Bill L. Maus
11/3/1998

W.A.T.E.R SCORE	MITIGATION ACREAGE	FUNCTIONAL MITIGATION CREDITS	SITE SUITABILITY MULTIPLIER	SITE SUITABILITY CREDITS
0.57	0.001	0.00057	1	0.0006

vegetation removal, pile installation, shading, and placement of rip rap

WATER Score Sheets

OLETA RIVER
(MP 353.74)

FPL Everglades Mitigation Bank

Mitigation Bank Site Suitability Evaluation (MBSE) Matrix

Parameters

Parameter	Scoring Criteria	Ratings	Score
1. Adjacent to lands or waters of regional Importance and results in identifiable ecological benefits to adjacent lands or waters.	State Park, OFW, AP, and including but not limited to Special Waters on at least 1 boundary	1	
	Adjacent lands contain no special designation or undesignated special value	0	1
2. Property is within boundary of an acknowledged state, local or regional acquisition program	Property is within boundary of an acquisition program	1	
	Property is not within boundary of an acquisition program	0	0
3. Property contains ecological or geological features consistently considered by regional Scientist, or federal and state agencies to be unusual, unique or rare in the region and is of sufficient size	Property qualifies	1	
	Property does not qualify	0	0
4. Property designated as being of critical state or federal concern and/or contains special designations,	Property contains at least 1 special designation.	1	
	Property contains no special designations.	0	1
5. Property important to acknowledged restoration efforts	Property is important.	1	
	Property is not important.	0	0
6. Ownership and control of the property.	Property is privately owned.	1	
	Property is publicly owned.	0	1
7. Threatened , Endangered & Species of Special Concern Presence of animal species (faunal) found on site	Documented Presence of Species on site	1	
	No documented Presence of species on site.	0	1
8. Threatened , Endangered & Listed Species Presence of plant species (floral) found on site	Documented Presence of Species on site	1	
	No documented Presence of species on site.	0	0
9. Threat of loss or destruction from development activities. *(Development Pressure)*	High probability of development.	1	
	Low probability of development.	0	0
10. Extent to which lands are subject to Local, State, and Federal dredge and fill/ ERP Regulations	Property is not regulated.	1	
	Property is regulated.	0	0
	Value Cumulative Score (CS)		4

The Mitigation Bank Site Suitability Evaluation Matrix is designed to provide a quantifiable means of determining the number of mitigation credits that should be assigned to a bank for **"value"** related parameters. Value related parameters are human values determined to be important to society; and therefore are not measurable in a purely functional analysis. Functional analysis will only measure the degree of functional ecological improvement (degree of ecological improvement) resulting from mitigation activities. The SS Evaluation measures and provides credit for societal values that separate one mitigation bank from another as required by Ch. 62-342 .470 (a) (b) (e) (f) (g) (h) (i) F.A.C.. The SS evaluation is not to be utilized in conjunction with a functional analysis methodology which also utilizes value related parameters in its analysis.

Evaluation Scale

Site	Suitability
1.0	1.10
.9	1.09
.8	1.08
.7	1.07
.6	1.06
.5	1.05
.4	1.04
.3	1.03
.2	1.02
.1	1.01
0	0

Site Suitability Matrix

Maximum Possible Score (MPS)		10
Cumulative Score (CS)		4
Site Suitability		0.4

EPA, USACOE, USF & W, FDEP, NMFS, SFWMD, Dade DERM, FPL, CH

3-Apr-96

After Calculating the Site Suitability Score determine the Site Suitability Multiplier by utilizing the Evaluation Scale to the left. The Site Suitability Multiplier is to be multiplied times the number of the Functional Mitigation Credits, resulting from the **(W.A.T.E.R.)** Functional Assessment of the Mitigation Bank, to determine the number of Site Suitability Credits to be assigned to the Mitigation Bank.

Prepared By:
Cotleur Hearing
2/12/2013

Mitigation Bank Wetland Function Evaluation Matrix

Project: Oleta River

W.A.T.E.R. - Wetland Assessment Technique for Environmental Reviews

Reviewer:

Based on WBI, WQI, WRAP, HGM and 4th Priority Project List (PPL) with technical advise from EPA, FDEP, ACOE, NMFS, USF & W, SFWMD & Dade County

Date:

Parameter/ Function	Scoring Criteria	Ratings	Polygon	Polygon
1. Fish & Wildlife Functions *Apply to freshwater, saltwater, brackish and mitigation systems*				
a. Waterfowl, wading birds, wetland dependent, or aquatic birds of prey. (Mit. Bank - High specie count w/ low pop. #'s score 1	7 or more species commonly observed	3	1	
	3-6 species commonly observed	2		
	1-2 species commonly observed	1		
	0 species commonly observed	0		
b. Fish (Mit. Bank - High specie count w/ low pop. #'s score 1 Restoration that causes 12% pop. Increases-higher score)	7 or more species commonly observed	3	3 (based on observed species count)	
	3-6 species commonly observed	2		
	1-2 species commonly observed	1		
	0 species commonly observed	0		
c. Mammals (Mit. Bank - High specie count w/ low pop. #'s score 1 Restoration that causes 12% pop. Increases-higher score)	Top predator (carnivore) &/or large mammals	3	3 (based on manatee zone)	
	Medium sized mammals , (adult weight > 6 lbs.)	2		
	Small animals (rodents, etc.) , (adult weight < 6 lbs.)	1		
	0 species present	0		
d. Aquatic macroinvertebrates, amphibians (Mit. Bank - High specie count w/ low pop. #'s score 1 Restoration that causes 12% pop. Increases-higher score)	7 or more species commonly observed	3	2	
	3-6 species commonly observed	2		
	1-2 species commonly observed	1		
	0 species commonly observed	0		
e. Aquatic reptiles (Mit. Bank - High specie count w/ low pop. #'s score 1 Restoration that causes 12% pop. Increases-higher score)	Large species observed	3	1	
	Aquatic turtles	2		
	Snakes & lizards	1		
	No evidence of species present	0		
2. Vegetative Functions *Apply to freshwater, saltwater, brackish and mitigation systems*				
a. Overstory/shrub canopy	Desirable trees/shrub healthy & providing appropriate habitat (seedlings present) & no inappropriate species	3	2	
	Desirable trees/shrubs exhibit signs of stress (no seedlings) few inappropriate species present	2		
	Inappropriate trees/shrubs shading or overcoming desirable tree/shrubs	1		
	Very little or no desirable tree/shrubs present (evidence suggests there should be)	0		
b. Vegetative ground cover	Assessment area exhibits <2% inappropriate herbaceous ground cover for specific wetland systems and groundcover is present	3	2 (exotic species and rip rap present)	
	Assessment area contains >2% but <30% inappropriate herbaceous groundcover, or lack of groundcover >2% but < 30%	2		
	Assessment area contains >30% to <70% inappropriate herbaceous groundcover, or lack of ground cover >30% to <70%	1		
	Assessment area >70% inappropriate herbaceous groundcover or lack of groundcover >70%	0		
c. Periphyton mat coverage	Periphyton (Blue-green algae) present with average mat thickness >1 1/4 in. (measure active & dead layer)	3	0	
	Periphyton (Blue-green algae) present with average mat thickness between 3/4 in. to 1 1/4 in. (active & dead layer)	2		
	Periphyton (Blue-green algae) present with average mat thickness between 1/4 in. to 3/4 in. (active & dead layer)	1		
	Periphyton (Blue-green algae) not present or if present with average thickness of 0.0 to 1/4 in. (active & dead layer)	0		
d. Category 1 and Category 2 exotic plants or (non-native) species	< (or = to) 1 % exotic plant cover	3	2	
	>1 % to 10 % exotic plant cover	2		
	>10 % to 65 % exotic plant cover	1		
	> 65 % exotic plant cover	0		
e. Habitat diversity (vegetative) *(within assessment area)*	>3 native species communities on site within assessment area	3	1	
	2 or 3 native specie communities on site within assessment area	2		
	1 native species community with 75 % to 90 % coverage within assessment area	1		
	1 native species community has > 90 % coverage within assessment area	0		
f. Biological diversity within 3000 feet *(approximately 1/2 mile from edge of assessment area)*	> 3 alternative habitats available (including upland)	3	3 (Area includes Biscayne bay and Oleta River State Park)	
	2 to 3 alternative habitats	2		
	1 alternative habitat	1		
	Same habitat type, or inappropriate / impacted	0		

Mitigation Bank Wetland Function Evaluation Matrix

Project: Oleta River

W.A.T.E.R. - Wetland Assessment Technique for Environmental Reviews
Based on WBI, WQI, WRAP, HGM and 4th Priority Project List (PPL) with technical advise from
EPA, FDEP, ACOE, NMFS, USF & W, SFWMD & Dade County

Reviewer:
Date:

Parameter/ Function	Scoring Criteria	Ratings	Polygon	Polygon
3. Hydrologic Functions				
a. Surface water hydrology / sheet flow *Apply to freshwater, saltwater, brackish and mitigation systems*	Major connection *(Flowing water river or floodplain/ uniform flow through natural systems)*	3	3 (Serves as major tidal connection)	
	Moderate connection *(Natural restriction of flow or Flowing water due to hydrologic engineering)*	2		
	Minor connection *(Runoff collection point, or uneven flow due to berms, ditches, roadways etc.)*	1		
	Hydrologically isolated, no net lateral movement	0		
b. Hydroperiod (normal year) fresh systems	> 8 months inundated with no reversals & every year drydown	3		
	>5 months < 8 months or >5 years continuous inundation (look for strong water stains on persistent vegetation)	2		
	>1 month < 5 months, with possible reversals (look for soft or less distinct water stains on persistent vegetation)	1		
	< 4 weeks cumulative annual inundation or < 2 weeks continuous inundation	0		
b-1 Alternate to b. for Short Hydroperiod (normal year) fresh systems:	>10 weeks of continuous inundation including soil saturation	3		
	> 6 weeks but <10 weeks of continuous inundation including soil saturation	2		
	>2 weeks but <6 weeks of inudation, including soil saturation	1		
	<2 weeks of continuos inundation	0		
b-2 Alternate to b. for Saltwater, brackish (tidal) systems	Inundated by >90% high tides			
	Inundated by "spring" high tides (bi-monthly)	2		
	Inundated by "extreme high" tides only (biannually)	1		
	Inundated by storm surges only	0		
b-3 Alternate to b. for High Marsh (Juncus-Distichlis)	Inundated by high "spring" tides (monthly) and flushed by fresh water sheetflow every 10 days average	3		
	Inundated by high "spring" tides (monthly) and flushed by fresh water sheetflow every 30 days on the average	2		
	Inundated by high "spring" tides (monthly) and exposed to rain only	1		
	Inundated by >50% high tides and exposed to rain only	0		
b-4 Alternate to b. for Riverine systems	Inundated by high tides (daily) and/or recieves and maintains fresh water at least into first half of dry season	3	1	
	Inundated by high tides (daily) and/or recieves and maintains fresh water during rainy season only	2		
	Inundated by high tides (daily) and/or recieves fresh water but does not maintain (reversal) during rainy season	1		
	Inundated by spring tides (bi-monthly) and/or experiences frequent reversals of fresh water (flashy)	0		
3. Hydrologic Functions continued				
c. Hydropattern (fresh system)	>1 ft. water depth for at least 2.5 months and <6 in. for >1 month (measure water mark/ lichen line), or water depth ideal for specific wetland system.	3		
	>6 in to 1 ft. for at least 2.5 months (measure water mark/ lichen line) or water depth borderline over or under for specific wetland system	2		
	<6 in. for at least 2.5 months (measure water mark/ lichen line) or water depth incorrect for specific wetland system	1		
	<6 in. in association with either canals, ditches, swales, culverts, pumps, and/or wellfields, or these factors cause water depth to be too deep for specific system.	0		
c-1 Alternate to c. for Saltwater, brackish (tidal) systems	>1 ft. water depth <2 ft. on 90% high tides	3		
	> 6 in. water depth <1 ft. on >50% high tides	2		
	< 6 in. water depth , but > than saturated	1		
	Saturated by saline water table only	0		
c-2 Alternate to c. for High Marsh (Juncus-Distichlis)	>10 in. water depth <2 ft. on regular basis during growing season	3		
	>5 in. to 10in. water depth on regular basis during growing season	2		
	>1 in. to 5 in. water depth on regular basis during growing season	1		
	>0.0 in. to 1 in. water depth sporadically during growing season	0		
c-3 Alternate to c. for Riverine systems	>2 ft. water depth (main channel) <6 ft. for 8 months	3	3	
	>2 ft. water depth (main channel) <4 ft. for 6 months	2		
	>1 ft. water depth (main channel) <2.5 ft. for 4 months	1		
	<1 ft. water depth, but dry for >4 weeks (dry season)	0		

Mitigation Bank Wetland Function Evaluation Matrix

Project: Oleta River

W.A.T.E.R. - Wetland Assessment Technique for Environmental Reviews

Based on WBI, WQI, WRAP, HGM and 4th Priority Project List (PPL) with technical advise from EPA, FDEP, ACOE, NMFS, USF & W, SFWMD & Dade County

Reviewer:

Date:

Parameter/ Function	Scoring Criteria	Ratings	Polygon	Polygon
3. Hydrologic Functions continued				
d. Water Quality	No indication of poor water quality (lab testing required, all values within acceptable range)	3	2 (based on visual observation)	
	No visual indicators of poor water quality observed (1 value just over or under acceptable range)	2		
	Visual indicators of poor water quality questionable (2 values over or under acceptable range)	1		
	Visual indicators of poor water quality observed or lab verified (values are out of acceptable range)	0		
e. Intactness of historic topography (soil disturbance)	Unaltered	3	0	
	Slightly altered soil disturbance, < 10% of assessment area	2		
	Moderately altered soil disturbance, < 25% of assessment area	1		
	Extremely altered soil disturbance, may exceed 50% of assessment area	0		
f. Soils, organic (fresh systems)	Organic soil classified hydric soil >12 in. or any thickness over bedrock/caprock with perched water table and either condition covering >90% of surface area	3		
	Organic soil classified hydric soil >6 in. but <12 in. and covering >90% of surface area	2		
	Organic soil classified hydric soil >1 in. but <6 in. and covering >50% but <90% of surface area	1		
	Organic soil classified non-hydric soil <1 in. for >50% of surface area	0		
f-1 Alternate to f. for *Freshwater, saltwater systems*	Sandy soil classified hydric soil with distinct mottling and concretions present in greater than 40% of horizon.	3		
	Sandy soil classified hydric soil with mottling and concretions present in > 20% but < 40% of horizon.	2		
	Sandy soil classified hydric soil with light or sparse mottling and concretions < 2 mm diameter or < 20% of horizon.	1		
	Sandy soil exhibits strong evidence of disturbance or mechanical manipulations or is fill material.	0		
f-2 Alternate to f. for *Freshwater, saltwater, brackish (tidal) systems*	Calcareous loam >12 in. and >90 % of surface area	3	0	
	Calcareous loam >6 in. to <12 in. and >90% of surface area	2		
	Calcareous loam >1 in. to <6 in. and covering >50% but <90% of surface area	1		
	Calcareous loam <1 in. for >50% of surface area	0		
4. Salinity Parameters *Apply to freshwater, saltwater, brackish, hypersaline and mitigation systems* - ***Choose 1***				
a. Optimum salinity for fresh systems during growing season based on mean high salinity for a normal year. *Apply to freshwater systems within 5 miles of the coast*	<2 parts per thousand (ppt)	3		
	2 to 3 parts per thousand (ppt)	2		
	4 to 5 parts per thousand (ppt)	1		
	>5 parts per thousand (ppt)	0		
a-1. Alternate to a. Optimum salinity for brackish systems during growing season based on mean high salinity for a normal year. *Apply to brackish (tidal) systems only*	6 to 8 parts per thousand (ppt)	3		
	9 to 13 parts per thousand (ppt)	2		
	14 to 16 parts per thousand (ppt)	1		
	>16 parts per thousand (ppt)	0		
a-2. Alternate to a. Optimum salinity for saline systems during growing season based on mean high salinity for a normal year. *Apply to saline marsh (tidal) systems only*	17 to 19 parts per thousand (ppt)	3		
	20 to 22 parts per thousand (ppt)	2		
	23 to 25 parts per thousand (ppt)	1		
	>25 parts per thousand (ppt)	0		
a-3. Alternate to a. Optimum salinity for hypersaline systems during growing season based on mean high salinity for a normal year. *Apply to hypersaline (tidal) systems only*	26 to 41 parts per thousand (ppt)	3		
	42 to 46 parts per thousand (ppt)	2		
	47 to 51 parts per thousand (ppt)	1		
	>51 parts per thousand (ppt)	0		
a-4 Alternate to a. Optimum salinity for riverine/tidal creek system during growing season based on mean high slainity for a normal year. *Apply to riverine systems only*	bottom (lower) third between 12 to 25 ppt middle third between 5 to 11 ppt. upper (top) third between 0 to 4 ppt.	3	2 (estimated)	
	bottom (lower) third between 25 to 32 ppt middle third between 6 to 24 ppt. upper (top) third between 0 to 5 ppt.	2		
	bottom (lower) third between 30 to 40 ppt middle third between 8 to 29 ppt. upper (top) third between 0 to 7 ppt.	1		
	bottom (lower) third between 35 to 50 ppt middle third between 10 to 34 ppt. upper (top) third between 0 to 9 ppt.	0		

Cumulative Score (SC)	31.00
Maximum Possible Score (MPS)	54.00
W.A.T.E.R. = Cumulative Score/Maximum Possible Score	0.57

Cetleur Hearing, Inc.
W.A.T.E.R. created by: Bill L. Maus
11/1/1998

W.A.T.E.R SCORE	MITIGATION ACREAGE	FUNCTIONAL MITIGATION CREDITS	SITE SUITABILITY MULTIPLIER	SITE SUITABILITY CREDITS
0.57	0.002	0.00114	1	0.0011

vegetation removal, pile installation, shading, and placement of rip rap

EVERGLADES
MITIGATION BANK

October 11, 2013

All Aboard Florida – Operations LLC
2855 Le Jeune Road, 4th Floor
Coral Gables, FL 33134
Attn: Kolleen Cobb, Vice President

Re: Everglades Mitigation Bank Credit Reservation: South Florida Water Management District Permit Number 130409-2, Broward County Environmental Protection and Growth Management Department Permit Number DF13-1006, Miami-Dade County Regulatory and Economic Resources Permit Number CLI-2012-0375

Please be advised that the Everglades Mitigation Bank (the "EMB") has reserved 0.06 Saltwater mitigation credits necessary to offset the unavoidable wetland impact for the above referenced project. This represents an increase of 0.02 Saltwater mitigation credits specifically for Broward County. Phase II 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 partial payment 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

Florida Fish and Wildlife Conservation Commission

Commissioners
Kenneth W. Wright
Chairman
Winter Park

Bo Rivard
Panama City

Ronald M. Bergeron
Fort Lauderdale

Richard A. Corbett
Tampa

Allese P. "Liesa" Priddy
Immokalee

Charles W. Roberts III
Tallahassee

Brian S. Yablonski
Tallahassee

Executive Staff
Nick Wiley
Executive Director

Greg Holder
Assistant Executive Director

Karen Ventimiglia
Chief of Staff

Office of the
Executive Director
Nick Wiley
Executive Director

(850) 487-3796
(850) 921-5786
FAX

Managing fish and wildlife resources for their long-term well-being and the benefit of people.

620 South Meridian Street
Tallahassee, Florida
32399-1600
Voice: (850) 488-4676

Hearing/speech-impaired:
(800) 955-8771 (T)
(800) 955-8770 (V)

MyFWC.com

June 7, 2013

Ms. Trisha Stone
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33416-4680
tstone@sfwmd.gov

Subject: All Aboard Florida, Florida East Coast Rail Way, LLC, Application No. 130409-2, Miami-Dade to Palm Beach County

Dear Ms. Stone:

The Florida Fish and Wildlife Conservation Commission (FWC) has reviewed this application and provides the following comments and recommendations for your consideration in accordance with the Fish and Wildlife Coordination Act (16 U.S.C. 661-667e) and Chapter 373, Florida Statutes (F.S.).

Project Description:

The applicant is proposing to rehabilitate the existing railroad infrastructure from Miami-Dade to Palm Beach County for use as a high speed passenger rail corridor. The proposed project includes replacement of seven bridges, new construction of approximately 1.63 miles rail track, and approximately 1.4 miles of curve reductions. Bridge construction is proposed at the Oleta River, the North Fork of the Middle River, the South Fork of the Middle River and the Hillsboro River. In-water work includes excavation and piling removal (and pile driving) and fill placement. Air bubble curtains as well as turbidity barriers within waterways are also proposed during construction to help dampen noise and pressure wave affecting fish and aquatic wildlife during pile driving activities, and to minimize water quality impacts. Air bubble curtains are proposed inside turbidity curtains and may be deployed across the width of the waterway, or around specific piling locations depending on site conditions.

Comments and Recommendations:

Manatees are known to frequent all four of the waterways mentioned above and these waterways are relatively narrow. The confined work area within these narrow waterways presents particular risks to manatees frequenting these areas. If the construction activity occupies most (or even all) of the waterway, undetected manatees that linger near the activity would increase the chances of harm from interactions with work vessels and excavators. It is not uncommon for manatees to be curious and attracted to pile driving noise and the presence of the air bubbles. Pile driving can produce similar impacts as blasting events. In addition, manatees are able to traverse turbidity barriers depending on the methods of deployment.

All in water- work and bridge construction activities including, but not limited to equipment staging, work barges, excavators, bubble curtains, and turbidity barriers at the Oleta River, the North Fork of the Middle River, the South Fork of the Middle River, and the Hillsboro River will be required to comply with the enclosed Standard Manatee Conditions for In-Water Work (revision 2011) in order to satisfy the requirements of

373.414(1)(a)2 F.S. Other recommended actions related to manatee protection, and specifically tailored for the proposed construction methodologies detailed in the application, include the following:

a) If the construction methodology changes in the future to include blasting, a permit modification should be done to include specific conditions to address anticipated impacts to protected marine species and be developed in coordination with the FWC.

b) The Contractor should not block the entire width of the waterways, which could impede manatee movement within these waterways.

c) At least one observer should be onsite and dedicated to the task of watching for manatees if the construction activity, equipment and/or turbidity barriers occupy more than half of the waterway when in-water work is being performed.

d) At least two observers should be onsite and dedicated to the task of watching for manatees when pile driving activities are being performed and/or if air bubble curtains are installed and operational. Observers should be positioned to observe the entire bubble curtain and work activity area, both upstream and downstream of the construction site.

e) Prior to pile driving activities, observers should scan the area to assure that no manatees are located between the air bubble curtain and the pile driving activities. Pile driving shall cease if a manatee is observed within any of the area between the bubble curtain and the pile driving. Work can commence only after the manatee has left the area on its own volition. Manatees shall not be herded or harassed into leaving.

f) Experienced manatee observer(s) should advise personnel to cease operation upon sighting a manatee within 50 feet of any in-water construction activity, or if a manatee is seen between the bubble curtain and the pile driving activity. No movement of a work barge, other associated vessels, or any in-water work should be performed after sunset, when the possibility of spotting manatees is greatly reduced or inhibited.

g) If the construction noise and/or bubble curtains attract manatees to the site and the number of manatees increases or there is difficulty precluding manatees from the area, the permittee should consult with the Florida Fish and Wildlife Conservation Commission at ImperiledSpecies@myfwc.com or (850) 922-4330 to discuss alternative conservation measures.

h) Each of the observers shall maintain a daily log detailing sightings; including positions where animals were and information on collisions or injuries to manatees should they occur during the contract period. The logs and a report summarizing incidents and sightings shall be submitted to the Florida Fish and Wildlife Conservation Commission at: ImperiledSpecies@myfwc.com within 30 days following the completion of each of the bridge construction activities.

FWC reiterates our commitment to facilitate this project through our agency's leadership, and we appreciate the opportunity to review this permit application.

If you need any further assistance, please do not hesitate to contact Jane Chabre either by phone at (850) 410-5367 or email at FWCConservationPlanningServices@myFWC.com.

Sincerely,

Bonita Gorham
Land Use Planning Program Administrator
Office of Conservation Planning Services

bg/ck/ky
Env 1-3-2
All Aboard Florida ERP Miami to West Palm Beach_17475_060713

Enclosure
cc: Mr. Stuart Santos, U.S. Army Corps of Engineers, Stuart.L.Santos@usace.army.mil
Ms. Charlene Stroehlen, AMEC, charlene.stroehlen@amec.com
Ms. Shannon McMorrow, AMEC, Shannon.McMorrow@amec.com
Mr. John Wrublik, USFWS, John_Wrublik@fws.gov
Mr. Brandon Howard, NMFS, Brandon.Howard@noaa.gov

STANDARD MANATEE CONDITIONS FOR IN-WATER WORK
2011

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.

b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.

d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.

e. Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida, and to FWC at ImperiledSpecies@myFWC.com

f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8 ½" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at MyFWC.com/manatee. Questions concerning these signs can be sent to the email address listed above.

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.

South Florida Water Management District

Work Schedule Requirements

Application No : 130409-2

Mitigation Plan ID: FPL EVERGL MIT BANK

Activity	Due Date
SUBMIT VERIFICATION OF CREDIT DEBIT FROM FPL EVERGLADES MITIGATION BANK LEDGER	05-MAY-14

Exhibit No : 4

STAFF REPORT DISTRIBUTION LIST

ALL ABOARD FLORIDA - MIAMI TO WEST PALM BEACH

Application No: 130409-2

Permit No: 13-05321-P

INTERNAL DISTRIBUTION

X Jesse Markle, P.E.
X Trisha Stone
X Anthony M. Waterhouse, P.E.
X Barbara J. Conmy
X A. Bain
X A. Waterhouse
X ERC Engineering
X ERC Environmental
X R. Karafel

EXTERNAL DISTRIBUTION

X Permittee - All Aboard Florida Operations L L C
X Permittee - Florida East Coast Rail Way L L C
X Agent - A M E C Environment And Infrastructure Inc

GOVERNMENT AGENCIES

X Broward County - Director, Water Mgmt Div
X Broward County Engineer
X Department of Regulatory and Economic Resources Lisa Spadafina
X Department of Regulatory and Economic Resources Matt Davis-
X Department of Regulatory and Economic Resources Mike Spinelli
X Div of Recreation and Park - District 5 - FDEP
X Div of Recreation and Park - District 5 - FDEP
X Miami-Dade County - RER (Maria D. Molina, PE)
X Miami-Dade County Engineer Public Works Department
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

OTHER INTERESTED PARTIES

X Alexandria Larson
X Alexandria Larson
X Audubon of Florida - Charles Lee
X Rosa Durando

STAFF REPORT DISTRIBUTION LIST

ADDRESSES

A M E C Environment And Infrastructure Inc
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Newberry FL 32669
charlene.stroehlen@amec.com

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C/O Jose Gonzalez
2855 Le Jeune Road 4th Floor
Coral Gables FL 33134
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Florida East Coast Rail Way L L C
C/O Robert B Ledoux
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Jacksonville FL 32256

Broward County - Director, Water Mgmt Div
2555 W Copans Rd
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Broward County Engineer
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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.