DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
P. O. BOX 4970
JACKSONVILLE, FLORIDA 32232-0019

March 7, 2016

REPLY TO ATTENTION OF

Regulatory Division
North Permits Branch
Jacksonville Permits Section
SAJ-2015-01094 (SP-RLT)

Environmental Protection Agency
Attn: Ms. Heather McTeer Toney, Regional Administrator
EPA Region 4 – Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-8960

Dear Ms. Toney:

This letter is in reference to the Department of the Army permit application submitted by the Florida Department of Transportation (FDOT), District 4 and Palm Beach County. The project would affect waters of the United States associated with the M-Canal, the Pond Cypress Natural Area (PCNA) and Grassy Waters Preserve. The project site is located along State Road (SR 7) and along a new proposed extension of SR 7, in an alignment north of the existing SR 7 in Sections 1, 12, 13, and 24, Township 43 South, Range 41 East; Sections 19, 30, and 31, Township 42 South, Range 42 East; and Section 6, Township 43 South, Range 42 East; Palm Beach County, Florida. The file number for this project is SAJ-2015-01094 (SP-RLT).

The applicants requested Department of the Army authorization to impact waters of the United States in association with the discharge of fill material over 57.2 acres of non-tidal wetlands along the existing 4.4-mile and proposed 4.1-mile 7 SR 7 roadway corridor. The project seeks to widen the existing two lanes to a four-lane divided roadway from Okeechobee Boulevard to 60th Street North (Segment 1). In addition, the project involves constructing a new section of roadway from 60th Street North to Northlake Boulevard, north of the current roadway alignment (Segment 2). The proposed project design includes the creation of stormwater management facilities within the existing right-of-way for water quality treatment and flow attenuation.

By letter dated October 16, 2015, the Environmental Protection Agency (EPA) formally objected to the project pursuant to Part IV 3 (a) and (b) of the MOA between our agencies. Some of the issues presented in your letter include the applicants failing to comply with the Clean Water Act (CWA) Section 404(b)(1) Guidelines, and the proposed discharge of fill material having substantial and unacceptable impact on aquatic resources of national importance (ARNI).

By letter dated December 16, 2015, the Corps requested additional information from the applicants that included a request to address the EPA concerns. On January 25, 2016, the applicants responded by providing a detailed and thorough response. The applicants' responses are summarized below. The Compensatory Mitigation Plan (including UMAM scoring Tables) is provided for review. As the applicants' response is voluminous, additional specific documentation will be provided upon request.

1. *EPA Comment: The proposed project would impact freshwater wetlands within the Pond Cypress Natural Area and Grassy Waters Preserve, which is part of the drinking water supply system for the City of West Palm Beach and the towns of South Palm Beach and Palm Beach Island (Page 2 of EPA letter).*

SR 7 Extension right-of-way (ROW) is outside of the Grassy Waters Preserve, approximately 170 feet west of the property boundary. The project will impact PCNA only in the area where the M Canal will be crossed. The Ibis Development Lake System was permitted by the South Florida Water Management District (SFWMD) to provide water quality treatment and quantity attenuation for 46.8 acres of the SR 7 Extension (new construction) storm water runoff. No direct discharge is proposed or allowed into Grassy Waters Preserve (Preserve) for SR 7 storm water runoff. All flow is west into the Ibis Lake system.

In an effort to address concerns raised regarding adverse impact to the drinking water supply, FDOT incorporated a dry swale along the east side of the roadway in the design as an additional effort to provide better runoff quality and spillage containment in the event of a spill. The swale volumes in each basin are much larger than the capacity of a tanker truck, therefore, any runoff from a spill would be contained within the swale. The dry swale will discharge to the Ibis Lake system through outfall structures raised approximately one foot above the bottom of the dry swale to allow retention time in the swale for contamination clean up.

The design of the drainage system will prevent any possibility of direct discharge through the use of berms, pumps and the elevations of the control structures and pipe systems. This is over and above the treatment that Ibis runoff currently receives prior to discharging into the Preserve.

In the event of an accident involving a spillage of hazardous materials, or other pollutants, emergency responders will follow standard protocols to notify the appropriate agencies and initiate a clean-up. All spillage will be totally contained, isolated, and removed before any potential contamination could spread.

2. EPA Comment: The Proposed wetland impacts will occur within 25.2 acres of hydric pine flatwoods. The EPA considers hydric pine flatwood systems to be aquatic resources of national importance (ARNI), because they are threatened habitats that provide nesting, resting, and feeding sites for a wide variety of wildlife species. Despite the importance of this habitat type, south Florida hydric pine flatwoods are among the least protected lands in Florida, with only 9 percent in public ownership (Page 2 of EPA letter).

To fully address this question, details regarding the history of Grassy Waters Preserve must first be provided. Grassy Waters was purchased by Henry Flagler in the early 1890's. Between then and 1955, when the land was purchased by the City of West Palm Beach, minimal change in the land use is visible through a review of historical aerials. A few roads/paths and canals that traversed Grassy Waters east-west were created in the early 1950s and 1960s. Also, two separate areas along the eastern edge, north and south of Northlake Boulevard appear to have been clear cut in the early 1950s. The perimeter of the Preserve was "diked" through the construction of berms in the mid-1950s. It is likely that the berm and ditch located in the on-site mitigation area (the area proposed for wetland restoration) are the remnant dike berms. For the most part, the Preserve has remained undisturbed (other than the spread of exotic/invasive vegetation) which is concentrated adjacent to the roadways and canals.

From the 1950's to the 1980's most of the land usage surrounding Grassy Waters was primarily devoted to open range cattle ranching on marginally suitable range lands produced from the years of drainage practices in the area. The exception to this usage was a large dairy farm operation established in the early 1950's on the western edge of the Preserve, on land which today has become the site of the Ibis Community. The dairy farm operation and its later (circa 1970's) conversion to an alligator production farm operation had profound implications and severe altering effects on the immediate wetland system in Grassy Waters along this boundary interface zone due to un-managed agricultural non-point source pollution run-off from these operations. Over a period of nearly thirty years the cumulative effects of these separate operations and their contributions of agricultural non-point source pollution as a result of seepage and intermittent overflow from stockpiled manure piles, feed lot compounds, and later alligator rearing lagoons, would alter the natural biological context of the immediate area, as well as, more distant areas of Grassy Waters, as a result of over-nutrification of an otherwise oligotrophic marsh system.

The FDOT ROW is along the perimeter of the Preserve and adjacent to the Ibis Community. The original typical roadway section for the project was 320 feet that would have impacted 34.66 acres of hydric pine – native dominated wetlands and 14.26 of hydric pine – exotic dominated (Australian pine, melaleuca, and old word climbing fern) wetlands for a total of 48.92 acres of impact to hydric pine flatwoods.

The current roadway design was reduced to 142 feet during the Project Development and Environmental (PD&E) study that reduced the overall disturbance to 25.48 acres of hydric pine wetlands. Of the 25.48 acres, 12.31 acres are high quality and not infested with exotic/nuisance vegetation.

An estimated 859 acres of hydric pine flatwood habitat currently occur in the Eastern Palm Beach County Basin, which includes most of the developed portion of the County east of the SFWMD Water Conservation Area 1. An estimated 95% of the hydric pine flatwood habitat in the Eastern Palm Beach County Basin is currently in public ownership and protected in perpetuity under conservation easement.

Therefore, even without considering mitigation that will occur for the impact to hydric pine habitat, the proposed project is impacting less than 3% of the total hydric pine flatwood in the Basin and only about 1% of the native-dominated hydric pine flatwood habitat.

3. *EPA Comment: In addition, the project proposes to impact 17.6 acres of freshwater marsh, which consists of sawgrass soft rush and maidencane (Page 2 of EPA letter).*

Impacts to 11.49 acres of freshwater marsh habitat are proposed for the SR 7 Extension project. The 17.6 acres listed above includes the wetland acreage occurring in the vegetated ditch that is located within the transportation ROW between the M-Canal and Northlake Blvd. The wetland vegetation occurring in this ditch consists of a mix of native and invasive species that occur in deeper water habitats (such as spadderdock, giant leather fern, water lettuce and cattail). This habitat should not be considered freshwater marsh. This ditch will be back-filled to match existing wetland grade as part of the on-site mitigation area restoration strategy. Impacts to native-dominated and exotic-dominated freshwater marsh habitats, which are both naturally occurring in the area, have decreased 59% from the original roadway design through the PD&E process.

Over 15,700 acres of freshwater marsh habitat currently occurs in the Eastern Palm Beach County Basin. An estimated 97% of the freshwater marsh habitat in the Eastern Palm Beach County Basin is currently in public ownership and protected in perpetuity under conservation easement. Therefore, even without considering mitigation that will occur for freshwater marsh impacts, the proposed project is impacting approximately 0.07% of the total freshwater marsh habitat in the Basin.

It should be noted that south of the M Canal, the City of West Palm Beach owns an 80-ft wide canal maintenance easement directly adjacent to the south bank of the M-Canal and in order to avoid encroachment into this easement, the roadway had to be designed further to the south, thus causing more freshwater marsh disturbance.

The Compensatory Mitigation Plan provides compensatory mitigation for impacts to freshwater marsh. Direct impacts to 9.39 acres of freshwater marsh and nearly 40 acres of secondary impacts (resulting in 14.50 units of freshwater marsh functional loss) within Palm Beach County ROW will be mitigated by allocating 14.50 acres of similar habitat-type freshwater marsh functional units from the Pines Glades PROMA. Direct impacts to 2.36 acres of freshwater marsh and nearly 21 acres of secondary impacts (resulting in 5.60 units of freshwater marsh functional loss) within FDOT ROW will be mitigated by deducting 14.62 functional units of similar habitat-type freshwater marsh acre-credits at DuPois PROMA. An additional 2.43 acres of secondary impacts to freshwater marsh will be mitigated on-site through 0.30 acres of marsh creation/restoration and 11.7 acres of exotic-dominated marsh habitat enhancement adjacent to Grassy Waters Preserve. Above and beyond what is statutorily required for freshwater marsh mitigation, FDOT is placing a conservation easement on 216 acres that contains additional freshwater marsh habitat and deeding the land to PBERM. FDOT is transferring the property to PBERM in order to meet the USFWS Snail Kite Biological Opinion commitment. Further details are in the Compensatory Mitigation Plan (enclosed). The Cumulative Impact Analysis, the Impact UMAM Data Sheets, and the “Lift” UMAM Data Sheets, are available upon request.

4. *EPA Comment: In order to fully review the proposed project, the EPA requests that the applicants provide alternatives for review which would have less adverse impacts on the aquatic environment (Page 2 of EPA letter).*

Many alternatives have been evaluated to meet the overall project purpose of providing a connection from Okeechobee Boulevard to Northlake Boulevard to improve regional system linkage. Some of these alternatives would have less impact to the aquatic environment, but would impose a significant impact to local communities, including numerous residential relocations. Below is a historical summary of the studies that have been completed.

Several studies have been conducted in the past to examine the feasibility of extending SR 7 beyond Okeechobee Boulevard. The proposed extension was first identified in 1969 within the Year 1985 West Palm Beach Urban Transportation Study.

From 1993 to 1996, FDOT prepared a series of planning reports during the SR 7 Corridor Planning and Design Study to document the need for the project and identify alternative corridors. The series of reports prepared during the study examined the feasibility of extending SR 7 from Okeechobee Boulevard in North Palm Beach County to parts of Martin County. In September, 1996, the FDOT began a PD&E study of the three recommended corridors from the previous planning study (additional corridors

were later identified). However, each corridor was only evaluated up to the SR 710/Beeline Highway.

In June, 1998, the FDOT and Palm Beach County began a feasibility study for the extension of SR 7 up to SR 710. During this study, several agency workshops were held to discuss the proposed corridors and narrow down the selection. At the start of the study, 23 alternatives were proposed. During the first agency workshop on August 24, 1998, two additional alternatives were suggested by the participants for a total of 25 alternatives. During the third interagency meeting on February 24, 1999, the alternatives were ranked and 8 were selected to advance forward in the evaluation.

In January, 2000, the FDOT initiated a formal PD&E study of the remaining 8 alternatives and began to prepare an Environmental Impact Statement (EIS) for the extension of SR 7 to SR 710. However, the project was suspended in October, 2000, after the Metropolitan Planning Organization (MPO) approved a motion to stop the on-going PD&E Study.

As more and more public lands were purchased for conservation north of Northlake Boulevard, the study area was reduced, contributing significantly to the avoidance of direct impacts to wetlands and further reducing the potential secondary/cumulative impacts of future development in the area.

Subsequently in 2005, FDOT commenced a PD&E study with the support of the county and the MPO. Using the previous feasibility studies, four corridors were selected to be evaluated. The four corridors were screened through the Efficient Transportation Decision Making (ETDM) process in 2006. Corridors 2 and 4 were disputed by several agencies and considered fatally flawed due to the level of impact to conservation lands, wetlands, and wildlife habitat. Corridors 1 and 3 were acceptable to the agencies. Although Corridors 1 and 2 had less wetland and floodplain impacts compared to Corridor 3, they both resulted in significant residential relocations. The public overwhelmingly expressed strong opposition to Corridors 1 and 2, due to the number of potential residential relocations. Through the PD&E process Corridor 3 was selected for further development and analysis because it best balanced the interests of the public and the environmental agencies. Following the selection of Corridor 3, three alignment alternatives within that corridor were analyzed; west, center and east. The west alignment alternative had the least wetland impacts and was therefore selected. The west alignment alternative was again modified to minimize impacts by reducing the median width from 42 feet to 22 feet and by re-sizing drainage treatment swales to meet the SFWMD standards plus capacity for 50 percent additional treatment. The combination of this minimization effort reduced the overall typical section from 320 feet wide to 120 feet wide. Total wetland impacts were reduced by 50 percent.

On January 25, 2012 the Federal Highway Administration (FHWA), the lead Federal Agency, approved the Environmental Assessment (EA) and recommended that FDOT conclude the study with a Finding of No Significant Impact (FONSI). After the EA was signed, USACE and the City of West Palm Beach requested that FDOT consider additional corridors further to the west. As a result, FDOT conducted a Corridor Report Addendum, which evaluated the extension of SR 7 west along existing 60th Street with one corridor proceeding north along either 130th Avenue North or 130th Trail and a second corridor that proceeds northward along 140th Avenue North. Each of the western corridors would result in less impact to the aquatic environment; however, these corridors were considered not practicable for the following reasons:

- The corridors to the west would not provide a direct connection from Okeechobee Boulevard to Northlake Boulevard by extending SR 7. A traffic evaluation was conducted and determined that the corridors to the west would serve more local trips in contrast to the proposed extension of SR 7 that would serve more regional trips. This is important as SR 7 is a critical regional facility connecting Miami-Dade, Broward, and Palm Beach Counties. The extension of SR 7, as proposed in the EA/FONSI, would provide the capacity and mobility needs of the region. By shifting the corridors to the west, the number of anticipated vehicle trips served would drop from 21,600 vehicles per day in 2040 to 15,500.

- The social impacts are significant. Depending on which of the new western corridors was considered the number of residential relocations would range from 24 to as high as 75 along with the direct impact of 107 to 156 parcels. This would add significant cost and social impacts to the project. Furthermore, the corridors to the west would substantially disrupt the rural character of the community. Many of the roads that connect to the 140th Avenue and 130th Avenue North or 130th Trail would be modified as dead end streets and require the rerouting of traffic.

- The corridors to the west would be required to cross numerous Indian Trails Improvement District (ITID) canals which provide flood control for the Acreage Community. Analysis showed that constructing the roadway in these locations had the potential to act as a dam for floodwaters, resulting in the potential for increased flooding to homes. Installation of the numerous culverts that would be required to cross the ITID canals would require disturbance and fill within the canals, which could cause downstream flooding.

As described above numerous corridors have been evaluated throughout the years and through the PD&E and ETDM processes a corridor has been selected in

compliance with the National Environmental Policy Act (NEPA), which balances potential impacts to both the natural and human environment. FHWA concurred with this by signing the EA FONSI on February 19, 2015. A Corridor Report, which is from the EA FONSI and a Corridor Report Addendum are available upon request for the EPA for review.

5. *EPA Comment: The EPA requests that the applicants consider other alternatives for the road alignment west of the Ibis Residential Development (IRD) (Page 2 of EPA letter).*

The above response details the alternatives evaluated west of the IRD. The study concluded that these corridors would result in significant impacts involving numerous property and residential impacts and that none of the alternatives west of the IRD would be acceptable replacements. As illustrated in the above response, the decision to locate the roadway east of the IRD is a result of many years of study and coordination with the environmental agencies and public. When the current PD&E study began in 2005, the limits were confined to Northlake Boulevard. The corridor selection process involved considerable discussion from all stakeholders involved. The corridor located to the west of Ibis (Corridor 1) would have resulted in significant impacts to the community, including the potential for 107 residential property impacts and relocations to Rustic Lakes and Ibis Golf & Country Club since the right of way west of the IRD would need to be acquired. The benefit of the selected corridor is that it minimizes community impacts by avoiding right of way acquisition and relocations, and provides the best alternative for avoiding adverse effects to wetlands and the natural environment by wrapping around existing urban development. It also meets the project's purpose and need by enhancing the regional network given the proximity between the Florida's Turnpike and Seminole Pratt Whitney Road. A full Corridor Report Addendum is available upon request.

6. *EPA Comment: It would appear that alternatives west of Ibis Residential Development (IRD) would lessen the possibility for an adverse impact to the drinking water supply for the City of West Palm Beach and the towns of South Palm Beach and Palm Beach Island should a toxic spill occur along the proposed State Road 7 extension (Page 2 of EPA letter).*

As stated in 4 & 5 above, alternatives west of IRD would result in numerous residential relocations, flooding concerns and would not meet the overall project purpose and need. The concern of a toxic spill occurring and having an adverse impact to the drinking water supply was raised early in the PD&E process by various stake holders and has thus been taken into account in the design of the roadway and drainage system.

The Ibis Development Lake System was permitted under **SFWMD permit #50-02120-S** to provide water quality treatment and quantity attenuation for 46.8 acres of the SR 7 Extension (new construction) storm water runoff. In an effort to address concerns raised regarding adverse impact to the drinking water supply, FDOT incorporated a dry swale along the east side of the roadway in the design as an additional effort to provide better runoff quality and spillage containment in the event of a spill. The dry swale will discharge to the Ibis Lake system through outfall structures raised approximately one foot above the bottom of the dry swale to allow retention time in the swale for contamination clean up. No direct discharge is proposed or allowed into Grassy Waters Preserve for SR 7 storm water runoff. The design of the drainage system will prevent any possibility of direct discharge through the use of berms, pumps and the elevations of the control structures and pipe system. This is over and above the treatment that Ibis Community runoff currently receives prior to discharging into Grassy Waters Preserve.

Given the fact that the swale volumes in each basin are much larger than the capacity of a tanker truck, any runoff from a spill would be contained within the swale. Additionally, each of the outfall structures within the swale will be designed with skimmers which will prevent pollutants from discharging to the outfall in the Ibis lake system. Additional roadway design features including a curb and gutter system and a guardrail along the eastern edge of the roadway will help contain vehicles within the roadway in the event of an accident.

In the event of an accident involving a spillage of hazardous materials, or other pollutants, emergency responders will follow standard protocols to notify the appropriate agencies and initiate a clean-up. All spillage will be totally contained, isolated, and removed before any potential contamination could spread.

Please see the following Figures 1 and 2, which illustrates the swale and the flow path of a potential spill.

Figure 1

Figure 2