CESAJ-RD-NC
SAJ-2007-3791(IP-AWP)

August 26, 2008

MEMORANDUM FOR RECORD

SUBJECT: Department of the Army Environmental Assessment and Statement of Finding for Above-Numbered Permit Application

1. Applicant: Florida Department of Transportation-District 5
Attn: Patrick Muench
719 South Woodland Blvd.
DeLand, Florida 34720

2. Location, Existing Site Conditions, Project Description, Changes to Project:

a. Location: The project is located along Interstate 95 (I-95) between State Road (SR) 528 and SR 50, in Sections 5-9,16 21, 22, 27, 28, 33, and 34, Township 23 South, Range 35 East and Sections 19, 30, and 31, Township 22 South, Range 35 East, Brevard County, Florida. The project as proposed will impact unnamed wetlands hydrologically connected to the St. Johns River.

b. Existing Site Conditions: The Florida Department of Transportation has adopted the use of the Quality/Level of Service Handbook. The handbook is intended to be used by engineers, planners, and decision-makers in the development and review of roadway users' quality/level of service (Q/LOS) at planning and preliminary engineering levels. The Handbook provides tools to quantify multimodal transportation service inside the roadway environment. LOS reflects the quality of service as measured by a scale of user satisfaction. Beginning in 1965, the Highway Capacity Manual (HCM) divided highway quality of service into six letter grades, "A" through "F," with "A" being the best and "F" being the worst.

This portion of I-95 in has a very low level of service and is anticipated to reach a level of service "F" in the next 5 years.

As the widening efforts will be confined to the existing median the following descriptions describe the proposed stormwater pond sites.

Pond 2B - Located within the Port St. John Interchange, this pond site utilizes the upland community within this area and minimizes the wetland area impacts. The upland community is described as pine flatwood. This flatwood community was burned several years ago and then again during the course of this evaluation. Many of the canopy pines were lost to scorch. The canopy of slash pines is thin, but many grass stage pines were observed. Ground cover species included saw palmetto, wire grass, wax myrtle, blackberry, prickly pear cactus, and forbs.

The wetland community located within this area is classified as a freshwater marsh. The vegetative species present in this marsh included, buttonbush, soft rush, cordgrass, sawgrass, smartweed, ragweed, red root, bushy bluestem, goldenrod and red maple. Wax myrtle, Carolina willow, and saltbush were observed along the edges of the marsh. Water levels fluctuate considerably within this system, though the hydrology seems adequate to maintain the marsh.

Ponds 5A and 5B - These two pond sites are located within the old rest areas just north of the Port St. John Interchange. These sites contain upland communities and until the rest areas had been abandoned were maintained by regular mowing. Grasses and low growing forbs were the dominant ground cover. The western rest area supported several scrub grasses and one gopher tortoise burrow was observed in this area.

Pond 6A - The upland community associated with this pond site is classified as pine flatwood. Dominant species included slash pine, dahoon holly, saw palmetto, wire grass, blackberry, rusty lyonia, gallberry, scrub oaks and mixed grasses. Two small wetland areas encroach into the pond site. On the south side, the wetland is dominated by pond pines, with little to no ground cover, but distinct soils and water stain lines. This small pine depression is connected to the offsite marsh and forested system located within the powerline easement. The second impact

area on the north side of the pond site is classified as a mixed wetland hardwood. The vegetative species observed included hackberry, red maple, pond pine, cabbage palm, cinnamon fern, wax myrtle, red bay, cordgrass, smart weed, loblolly bay, grape vine and soft rush. The system maintains more of a marsh feature within the powerline easement due to the regular mowing activities. There was evidence of soil subsidence and reduced hydrology as well as some nuisance species encroachment. The wetland segment along the ROW was dominated by blackberry and primrose willow.

Pond 7A - This pond is situated between the northbound off ramp at SR 407 and the mainline of I-95. This community is described as a hardwood conifer mix. The vegetation observed here included longleaf pine, slash pine, Brazilian pepper, hackberry, southern red cedar, cabbage palm and laurel oak. The ground cover was sparse due to the closed canopy and leaf layer from the pepper trees.

Pond 8A - This pond is situated within the State Road (SR) 407 interchange. The pond is located between the southbound lanes of I-95 and the southbound exit ramp to SR 407. The community present here is described as a hardwood conifer mix. The vegetative species observed here included slash pine, southern red cedar, Brazilian pepper, cabbage palm, laurel oak, and dahoon holly. Ground cover species were sparse in many areas due to the closed canopy of the Brazilian pepper. Ground cover observed included blackberry, beauty berry, poison ivy, greenbrier, wire grass, rumex. Virginia creeper and Caesar weed.

Pond 10A - This pond is located on the west side of I-95 immediately north of the Addison Canal. The vegetative community here is described as a cabbage palm hammock. Cabbage palms dominate the canopy with some pines as well. The ground cover was reduced due to the closed canopy as well as cattle grazing in the area. Vines including greenbriar, Virginia creeper and blackberry were present. Shoestring fern was also

prevalent among the cabbage palm trunks. Beauty berry and a few ferns were also present.

Pond 11 - This pond site is located along the western side of I-95 and south of the SR 50 interchange. It is located adjacent to a large east-west running canal through the St. Johns marsh. This freshwater marsh was dominated by cordgrass, swamp fern, royal fern, marsh fleabane, and blackberry. Islands of wax myrtle and cabbage palms were scattered throughout. This system is part of the larger St Johns River marsh and floodplain system. A small upland island was identified in the northeast corner of the pond. Hydrology within the marsh fluctuates significantly as evidenced by the size of the hummocks within the system.

Pond 12 - This pond site is located along the east side of I-95 and north of the SR 50 Interchange. The entire pond site falls within a wetland community. This freshwater marsh is dominated by cordgrass, giant leather fern, swamp fern and royal fern. There were scattered wax myrtle, Brazilian pepper, red maple and saltbush. Water levels fluctuate within the marsh. One large canal connected this system to the larger St. Johns marsh on the west side of I-95. A few smaller drainage pipes maintain a hydrologic connection to the western portion as well. Muck was observed at the soil surface, but the soil matrix was predominantly sandy. Seasonal high water pins were set approximately 6-8 inches above grade.

c. Project Description: The applicant proposes to widen approximately 10.2 miles of I-95 from four lanes to six lanes. All roadway widening will occur inside the existing travel lanes. No wetland impacts are expected to occur within the existing travel lanes. However, impacts will occur to 12.62 acres of waters of the United States (wetlands) due to the expansion of the existing stormwater management system.

d. Changes to Project: The initial application submitted

proposed to impact 8.41 acres of wetlands. Due to design changes which required reconfiguration of stormwater management systems the applicant now proposes to impact 12.62 acres.

3. Project Purpose:

Basic: Widening of an existing interstate system.

Overall: Widening of the existing interstate system including the associated stormwater management system in Brevard County, Florida.

4. Scope of Analysis: The scope of analysis includes the entire right-of-way and stormwater pond locations.

5. Statutory Authority: Section 404 of the Clean Water Act of 1972, as amended.

6. Other Federal, State, and Local Authorizations Obtained or Required and Pending:

a. State water quality certification (WQC): The St. Johns River Water Management District (SJRWMD) permit/certification number 4-009-112019-1 was issued on 10 June 2008.

b. Coastal Zone Management (CZM) consistency/permit: There is no evidence or indication from the State of Florida that the project is inconsistent with the Florida CZM. Issuance of a SJRWMD permit certifies that the project is consistent with the CZM plan.

c. Other authorizations: N/A

7. Date of Public Notice and Summary of Comments:

a. Important dates: The Corps received the application on 28 June 2007. The Corps considered the application complete on

10 August 2007. The Corps issued a public notice on 14 August 2007 and sent this notice to all interested parties including appropriate State and Federal agencies.

b. Public notice comments: The Corps has reviewed all of the comments submitted in response to the circulation of the public notice. The Corps has summarized these comments below:

(1) U.S. Environmental Protection Agency (EPA): No response received.

(2) U.S. Fish and Wildlife Service (USFWS): No response received. Consultation was completed via separate letter.

(3) National Marine Fisheries Service (NMFS): Responded via letter dated 10 September 2007, stating that the on-site wetlands contribute plant material and other useable nutrients into aquatic food webs that include recreationally, commercially, and ecologically important species within downstream estuaries. NMFS determined the mitigation proposed by the applicant is suitable to offset the lost functions and values to downstream federally managed fisheries species.

(4) State Historic Preservation Officer (SHPO): SHPO determined that this undertaking is not likely to affect significant historic properties, either listed or eligible for listing in the National Register of Historic Places.

(5) State and local agencies: No responses received.

(6) Organizations: No responses received.

(7) Individuals: Mr. Marcellus Murphy requested a hard copy of the public notice via letter dated 23 August 2007.

Mr. Richard Dugan expressed concerns that the proposed widening

will affect his property.

c. Response to the comments: The Corps provided Mr. Murphy with a hard copy of the public notice. Mr. Dugan's concerns where forward to the FDOT for a response. FDOT determined the project will not have any impacts to vegetation surrounding the Mr. Dugan's property and will not have adverse impacts to his parcel.

8. Alternatives

a. Avoidance: The Florida Department of Transportation (FDOT) developed quality enhancement strategies for avoiding and minimizing impacts to wetlands. Alternatives were evaluated during the Project Development and Environmental study (PD&E). It was determined that widening to the inside of existing lanes was the best alternative based on the fact that no wetlands are located within the median. The no action alternative was evaluated, however; it was determined that it would not allow for roadway expansion which would lead to traffic delays, safety concerns, increased fuel usage, and ultimately a decrease in LOS. Impacts to wetlands from the selected alternative are due to entrance and exit ramp modifications for safety of operations and for stormwater management and treatment facilities.

b. Minimization: The applicant has minimized impacts to the greatest extent possible while still meeting the project purpose. As stated above, impacts to wetlands occur due to ramp modifications and stormwater management facilities. The applicant has completed a pond siting analysis to determine the best location for stormwater ponds while minimizing impacts to wetlands. It was determined that stormwater ponds were the preferred treatment method over roadside swales due to safety concerns and long term function. Widening to the inside of the existing roadway has also minimized impacts to wetlands. The applicant has completed an Environmental Assessment as part of the Project Development and Environmental (PD&E) and determined

the plans submitted are the least damaging alternative and include the most minimization of wetland impacts. The Corps generally concurs with these findings.

c. Project As Proposed: The project as proposed would result in direct impacts to 12.62 acres of jurisdictional wetlands and secondary impacts to 1.75 acres of jurisdictional wetlands.

d. Conclusions of Alternatives Analysis: The applicant has completed a PD&E study and determined the proposed project will not have a significant impact on the human environment. The road system is considerably under sized for the existing traffic loads. The proposed impacts are within the existing right-of-way and the mitigation is sufficient to compensate for the impacts proposed.

9. Evaluation of the 404(b)(1) Guidelines:

a. Restrictions on discharges:

(1) Alternatives (See paragraph 8):

(a) The activity is located in a special aquatic site (wetlands, sanctuaries and refuges, mudflats, vegetated shallows, coral reefs, riffle and pool complexes, etc.)
yes(X) no( )

(b) The activity needs to be located in a special aquatic site to fulfill its basic purpose. yes( ) no(X)

(c) It has been demonstrated in paragraph 8 above that there are no practicable nor less damaging alternatives which would satisfy the project's overall purpose.
yes(X) no( )

(d) The least damaging alternative has no other

significant environmental effects.
yes(X) no( )

(2) Other program requirements:

(a) The proposed activity violates applicable State water quality standards or Section 307 prohibitions or effluent standards.
yes( ) no(X)

(b) The proposed activity jeopardizes the continued existence of federally listed threatened or endangered species or affects their critical habitat.
yes( ) no(X)

(c) The proposed activity violates the requirements of a federally designated marine sanctuary. yes( ) no(X)

(3) The activity will cause or contribute to significant degradation of waters of the United States, including adverse effects on human health; life stages of aquatic organisms; ecosystem diversity, productivity and stability; and recreational, esthetic, and economic values.
yes( ) no(X)

(4) Minimization of adverse effects:

(a) Appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem.
yes(X) no( )

(b) Compensatory mitigation: Mitigation will be completed in accordance with Section 373.4137 of the Florida Statue (a.k.a. Senate Bill 1986). The Corps has evaluated the Wetland Rapid Assessment Procedures (WRAP) provided by the applicant and determined the project will have an approximate

functional loss of 9.67 units due to direct impacts. The WRAP was performed for wetlands located within the existing right-of-way and pond sites. WRAP's were not performed for wetlands outside of the right-of-way. The state and Corps are evaluating secondary impacts to remaining wetlands impacted by the stormwater pond sites. The secondary impacts total approximately 1.75 acres for a functional loss of 0.35 units. A total of 10.0 credits are required to full off-set Corps jurisdictional wetland impacts.

The mitigation for these projects was updated as part of the SJRWMD 2005 FDOT Mitigation Plan (pgs. 28-30). Basin 18 impacts will be offset by purchase of credits from one of the three permitted mitigation banks located within basin 18, either Colbert Cameron, East Central Florida South, or Farmton North. A total of approximately 28.7 state credits will be purchased (two credits for each acre of impact) from the bank which offers the lowest price per credit.

The compensatory mitigation provided by the applicant exceeds the amount of compensatory mitigation required by the Corps to off-set impacts to waters of the United States (wetlands). The applicant will not be required to provide any mitigation other than what is required to off-set impacts. Each of the federally approved mitigation banks referenced above has a service area that encompasses the project site and has federal credits for sale.

b. Findings: The project complies with the Guidelines because the proposed site for the discharge of dredged or fill material complies with the Section 404(b)(1) guidelines with the inclusion of the special conditions for mitigation.

10. Public interest review:

a. Public interest factors: The Corps reviewed all of the public interest factors. The Corps considers the public

interest factors identified below as relevant to this proposal. The Corps considered both cumulative and secondary impacts on these public interest factors.

(1) Conservation: Impacts are proposed to the inside of the existing roadway no conservation lands are proposed for impact.

(2) Economics: The takings of business are not anticipated for the project completion. No adverse impacts to economics are anticipated.

(3) Aesthetics: The roadway will be designed to current federal, state, and county design standards. No adverse impacts are anticipated.

(4) General environmental concerns: The applicant has completed endangered species surveys throughout the project corridor and did not observe any listed species. The roadway will be widened to the inside of the existing travel lanes and wetland impacts will be mitigated. The applicant will upgrade the existing stormwater management system to treat roadway runoff which is not currently being treated. No adverse environmental impacts are anticipated.

(5) Wetlands: The applicant has significantly reduced impacts to wetlands by widening to the inside of the existing travel lanes. Impacts associated with pond sites are not avoidable due to availability of land and surrounding development. Wetland impacts will be fully mitigated. No adverse wetland impacts are anticipated.

(6) Historic and cultural resources: The project has been reviewed by the State Historic Preservation Officer and determined that no historical or cultural resources will be impacted. No adverse impacts are anticipated.

(7) Fish and wildlife values: The project has been reviewed by the USFWS and it has been determined that no federally listed species will be impacted. The State of Florida has also reviewed the project and determined no adverse impacts to fish and wildlife are anticipated. The improvement of the existing stormwater management system will have a net benefit to fish and wildlife values. No adverse impacts are anticipated.

(8) Flood hazards: N/A.

(9) Floodplain values: The project does traverse the 100-year floodplain. However, the applicant has proposed stormwater treatment and compensating storage. No adverse impacts to floodplain values are anticipated.

(10) Land use: The widening will occur within the existing right-of-way. Pond sites will be acquired from the property owner. No adverse impacts are anticipated.

(11) Navigation: The proposed project does not cross navigable waters. No impacts are anticipated.

(12) Shore erosion and accretion: The proposed project will not have an adverse impact on shore erosion or accretion as it is not located in navigable waters. Stormwater treatment systems will reduce any potential impacts associated with sedimentation in drainage ditches.

(13) Recreation: The proposed project is located along the existing interstate; no adverse impacts to recreation are anticipated.

(14) Water supply: N/A

(15) Water quality: The applicant will provide water quality treatment and stormwater collection systems in accordance with State of Florida standards. No adverse impacts

to water quality are anticipated.

(16) Energy needs: N/A

(17) Safety: The proposed project is needed to address the increase in travel along I-95. This portion of I-95 in Florida has a very low level of service and is anticipated to reach a level of service "F" in the next 5 years. The proposed widening will provide for safer travel and improve the level of service along the roadway. No adverse impacts to safety are anticipated. The applicant will conduct improvements in accordance with federal and state safety guidelines.

(18) Food and fiber production: The widening of I-95 will allow for faster and safer movement of food and fiber products within the State of Florida.

(19) Mineral needs: N/A

(20) Considerations of property ownership: The project occurs within the existing right-of-way. Adjacent property owners were notified of the proposed project and no adverse comments were received.

b. Describe the relative extent of the public and private need for the proposed structure or work: Public needs include employment opportunities and a potential increase in the local tax base. Public benefits include improved travel safety and employment opportunities.

c. Describe the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed work where there are unresolved conflicts as to resource use: There are no unresolved conflicts regarding resource use.

d. Describe the extent and permanence of the beneficial and/or detrimental effects, which the proposed work is likely to have on the public, and private uses to which the area is suited: Detrimental impacts are expected to be minimal although they would be permanent in the construction area. The beneficial effects associated with utilization of the property would be permanent.

e. Threatened or endangered species: The applicant has conducted extensive endangered species surveys and has not observed the presence of any federally threatened or endangered species within the project corridor. Due to the surrounding habitats, the low occurrence of development within areas of the project corridor, and the potential presence of federally listed species the Corps has determined the proposed project may affect, but is not likely to adversely affect: wood stork, eastern indigo snake, southern bald eagle, and Audubon's crested caracara. The Corps requested USFWS concurrence with these determinations pursuant to Section 7 of the Endangered Species Act via letter dated 17 September 2007.

The USFWS concurred with the Corps determinations via letter dated 17 September 2007.

f. Corps wetland policy: The proposed wetland alteration is necessary to realize the project purpose. The proposed work should result in minimal adverse environmental impacts. The benefits of the project would outweigh the minimal detrimental impacts. Therefore, the project is in accordance with the Corps wetland policy.

g. Cumulative and secondary Impacts: The proposed project is associated with an existing roadway which is undersized for future roadway capacity. Mitigation provided by the applicant would provide long-term functional replacement; therefore, there should not be a cumulative impact to wetland functions within the basin. The use of silt screens and Best Management

Practices will also reduce the potential of secondary impacts. The use of compensatory mitigation within the same drainage basin will reduce overall cumulative wetland losses within the basin.

h. Corps analysis of comments and responses: All comments received in response to the public notice were considered in this evaluation. Wetland impacts have been avoided to the greatest extent practicable.

11. Essential Fisheries Habitat (EFH): The public notice included an initial determination that the project would not have an adverse impact on EFH or Federally managed fisheries. The NMFS did not provide any EFH conservation recommendations in response to the public notice. Therefore, the Corps is satisfied that the consultation procedures outlined in 50 CFR Section 600.920 of the regulation to implement the EFH provisions of the Magnuson-Stevens Act have been met.

12. Public Hearing Evaluation: N/A

13. Determinations:

a. Finding of No Significant Impact (FONSI): Having reviewed the information provided by the applicant and all interested parties and an assessment of the environmental impacts, I find that this permit action will not have a significant impact on the quality of the human environment. Therefore, an Environmental Impact Statement will not be required.

b. Compliance with 404(b)(1) Guidelines: Having completed the evaluation in paragraph 8 above, I have determined that the proposed discharge complies with the 404(b)(1) guidelines.

c. Section 176(c) of the Clean Air Act General Conformity Rule Review: The proposed permit action has been analyzed for

conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities proposed under this permit will not exceed de minimis levels of direct or indirect emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the Corps' continuing program responsibility and generally cannot be practicably controlled by the Corps. For these reasons a conformity determination is not required for this permit action.

d. Public Hearing Request: No requests were received.

e. Public Interest Determination: I find that issuance of a Department of the Army permit is not contrary to the public interest.

PREPARED BY:

ANDREW W. PHILLIPS
Project Manager
North Permits Branch

REVIEWED BY:

IRENE F. SADOWSKI
Chief, Cocoa Permits Section

APPROVED BY:

for PAUL L. GROSSKRUGER
Colonel, Corps of Engineers
Commanding

cc: RD-PE