

## 8. SUPPORTING DOCUMENTATION

This document was completed in accordance with the FDOT *PD&E Manual*.

### A.1 SOCIAL

The Sociocultural Evaluation process is an important part of the PD&E Study to comply with Council on Environmental Quality (CEQ) regulations 40 Code of Federal Regulations (CFR) §§ 1500-1508, which requires federal agencies to use all practicable means, consistent with the requirements of NEPA, to avoid or minimize any possible adverse effects of their actions upon the quality of the human environment. Information regarding the social environment was collected through available GIS data and field reviews.

#### *Community Cohesion*

Since the County's Future Land Use Element of their Comprehensive Plan designates this area as within the Rural Boundary Area, and the policies and objectives of this designation call for the preservation of the rural character, the potential for future non compatible land uses is low.

#### *Community Services*

There are five elementary, three middle and two high schools located in Seminole County which are offered as public education options to residents along the project corridor via districting or the "cluster schools" School Choice option. Seminole County Public Transportation Services operates bus routes throughout the project corridor to service these schools. Comments from local residents concerned about motorists ignoring school buses along SR 46 were received during the public involvement efforts for this project. The comments stated that some motorists passed the school bus when stopped, crossing the centerline, and others passed speeding in the opposite direction. Residents expressed concern for safety of students using the bus, especially since some school pick up times are before sunrise. Widening SR 46 to a divided four lane facility is likely to improve safety of students who depend on the bus for transportation to school by introducing a median to separate eastbound and westbound traffic.

One fire station, Seminole County Fire Station #42, is located within the project limits on the north side of SR 46 at the intersection with North Hart Road. An emergency signal (flashing yellow) is provided on SR 46 at this location. A full median opening is proposed at this location. Adverse impacts to the fire station or emergency response time are not anticipated as a result of the proposed improvements. In fact, widening the existing roadway to increase capacity will improve the level of service in this section of SR 46 which could improve emergency response time.

#### *Nondiscrimination Considerations*

The census block group that includes the area of the project north of SR 46 between east of SR 415 and the St Johns River/Lake Jesup has a minority population of greater than 40% and a per capita income of less than \$26,000; however, in the area of the project this census block group is largely unpopulated and no impacts to communities within this block group are anticipated. The remaining census block groups have minority populations of less than 40% and per capita incomes greater than \$26,000.

This project has been developed in accordance with Title VI and Title VIII of the Civil Rights Act of 1964, as amended by the Civil Rights Act of 1968. Title VI provides that no person shall, on the grounds of race, color, religion, sex, national origin, marital status, handicap, or family composition, be excluded from participation in, or be denied the benefits of, or be otherwise subject to discrimination under any program of the federal, state, or local government. Title VIII guarantees each person equal

opportunity in housing. This project is not expected to impact any distinct minority, ethnic, elderly or handicapped groups.

Along with the Civil Rights Act, Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations, signed by the President on February 11, 1994 directs federal agencies to take appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. No minority or low-income populations have been identified that would be adversely impacted by the proposed project, as determined above. Therefore, in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a, no further Environmental Justice analysis is required. Title VI information was made available at the Public Information Meeting and Public Hearing.

In order to ensure that all households within the project area were notified of the Public Information Meeting and Public Hearing, announcements were sent to property owners within 300 feet of each build alternative (in accordance with Part 1, Chapter 11 of the *PD&E Manual*).

Potential impacts to the social environment resulting from construction of the Recommended Alternative are not expected to be significant.

## **A.2 ECONOMIC**

Geneva is a rural residential community with few commercial land uses. In general, residents desire to maintain the rural character of the community. SR 46 provides access to the Sanford Orlando International Airport, which is a Strategic Intermodal System (SIS) facility and provides a connection to SR 417 via the East Lake Mary Boulevard. Due to the increased level of service and accessibility that a four lane divided roadway would provide there is the potential for economic enhancement to the SIS facility and surrounding communities.

## **A.3 LAND USE CHANGES**

Since the County's Future Land Use Element of their Comprehensive Plan designates this area as within the Rural Boundary Area, and the policies and objectives of this designation call for the preservation of the rural character, it is anticipated that the potential for future non compatible land uses will be low.

Potential land use changes resulting from construction of the Recommended Alternative are not expected to be significant.

## **A.4 MOBILITY**

A four-lane divided roadway connecting SIS facilities and serving as an evacuation route will provide for Enhanced mobility.

## **A.5 AESTHETIC EFFECTS**

It is anticipated that the proposed improvements will have minimal impacts to the aesthetics of the area. The surrounding area is primarily rural and there are no residences located in the vicinity of the Lake Jesup Bridge. In addition, the County's Comprehensive Plan includes policies which aim to preserve the rural character of the project corridor.

Potential impacts to aesthetics resulting from construction of the Recommended Alternative are not expected to be significant.

## A.6 RELOCATION POTENTIAL

The Recommended Alternative includes a suburban typical section that requires a minimum of 148 feet of right-way. Existing right of way along SR 46 within the project limits is generally 100 feet with an extra 27 feet on the north side of SR 46 west of the Lake Jesup bridge from approximately Sta. 58+91.69 to approximately Sta. 83+44.20. Additional right-of-way will need to be acquired from the beginning of the project east of SR 415 to Hart Road. At Hart Road, the Recommended Alternative tapers down to a reduced urban typical section that can be built within the existing right-of-way. Additional right-of-way will be acquired at the skewed intersection of SR 46 with CR 426 to provide for additional turn lanes and adequate pavement to accommodate turns by the design vehicle.

Right-of-way will also be required to construct the stormwater management and floodplain compensation areas. Table 1 lists the right-of-way acquisition area required for the roadway and ponds for the Recommended Alternative.

**Table 1 – Recommended Alternative Right-of-Way Requirements**

<b>Roadway Feature</b>	<b>Right-of-Way Required (ac.)</b>
Roadway	30.09
Stormwater Management	33.32
Floodplain Compensation	35.11
<b>TOTAL</b>	<b>98.52</b>

Although 68 parcels, including ten business, 20 residential and 38 unimproved parcels, will be impacted, only one residential and one business relocation is expected to result from the construction of the Recommended Alternative. The two relocations are located on the south side of SR 46 east of Richmond Street, at 4545 and 4565 E. SR 46.

In order to minimize the unavoidable effects of right of way acquisition and displacement of people, FDOT will carry out a Right of Way and Relocation Program in accordance with Florida Statute 339.09 and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646 as amended by Public Law 100-17).

The FDOT provides advance notification of impending right of way acquisition. Before acquiring Right of Way, all properties are appraised on the basis of comparable sales and land use values in the area. Owners of property to be acquired will be offered and paid fair market value for their property rights.

No person lawfully occupying real property will be required to move without at least 90 days written notice of the intended vacation date, and no occupant of a residential property will be required to move until decent, safe and sanitary replacement housing is made available. "Made available" means that the affected person has either by himself obtained and has the right of possession of replacement housing, or that FDOT has offered the relocatee decent, safe and sanitary housing which is within his financial means and available for immediate occupancy.

At least one relocation specialist is assigned to each highway project to carry out the Relocation Assistance and Payments program. A relocation specialist will contact each person to be relocated to determine individual needs and desires, and to provide information, answer questions, and give help in finding replacement property. Relocation services and payments are provided without regard to race, color, religion, sex, or national origin.

All tenants and owner-occupant displacees will receive an explanation regarding all options available to them, such as (1) varying methods of claiming reimbursement for moving expenses; (2) rental

replacement housing, either private or publicly subsidized; (3) purchase of replacement housing; and (4) moving owner-occupied housing to another location.

Financial assistance is available to the eligible relocatee to:

- Reimburse the relocatee for the actual reasonable costs of moving from homes, businesses and farm operations acquired for a highway project.
- Make up the difference, if any, between the amount paid for the acquired dwelling and the cost of a comparable decent, safe and sanitary dwelling available on the private market, as determined by the FDOT.
- Provide reimbursement of expenses, incidental to the purchase of a replacement dwelling.
- Make payment for eligible increased interest cost resulting from having to get another mortgage at a higher interest rate. Replacement housing payments, increased interest payments and closing costs are limited to \$31,000 total.

A displaced tenant may be eligible to receive a payment, not to exceed \$7,200, to rent a replacement dwelling or room, or to use as down payment, including closing costs, on the purchase of a replacement dwelling.

The brochures that describe in detail the FDOT's Relocation Assistance Program and Right of Way acquisition program are "Residential Relocation Under the Florida Relocation Assistance Program", "Relocation Assistance Business, Farms and Non-profit Organizations", "Sign Relocation Under the Florida Relocation Assistance Program", "Mobile Home Relocation Assistance", and "Relocation Assistance Program Personal Property Moves". All of these brochures are distributed at all public hearings and made available upon request to any interested persons.

Comparable replacement housing for sale and rent is available in Seminole County. However, there may be some last resort rent supplements and last resort replacement housing payments necessary. Last resort housing payments would be used in order to place the relocatees in decent, safe, and sanitary housing, if necessary. Should last resort housing be constructed, the housing would be available before the displacees are required to vacate their dwellings. There are numerous residential lots available for new construction within the Seminole County area. Information regarding lot sizes and prices will be made available through the Conceptual Stage Relocation Plan developed during the design phase.

Relocation potential resulting from construction of the Recommended Alternative is not expected to be significant.

## **A.7 FARMLANDS**

The following evaluation was conducted pursuant to the Farmland Protection Policy Act of 1981 (7 CFR Part 658).

The Natural Resources Conservation Service (NRCS) stated in the ETDM Programming Screen that although the GIS analysis indicates that there are no Prime Farmland Soils located in the project vicinity, there are areas of Unique Farmland Soils within the project area. In response to this, a Farmlands Evaluation was prepared in accordance with Part 2, Chapter 6 of the FDOT *PD&E Manual* in coordination with the NRCS.

The Recommended Alternative will require acquisition of approximately 94.4 acres of additional land for roadway and stormwater pond construction. The Farmlands Evaluation indicates that approximately 17.7 acres (based on 2004 SJRWMD land classification data) of the area to be acquired is currently used for agriculture. Based on USDA-NRCS soils data, approximately 1.29 acres of the 98.8 acres to be acquired is considered "Unique Farmlands".

Part I and III of Form AD-1006 (Farmland Conversion Impact Rating) was filled out and sent to NRCS, who assigned a Land Evaluation Criterion Relative Value of Farmland to be Converted of 58.3 (on a scale of 0 to 100). Part VI of Form AD-1006 (Site Assessment Criteria), completed as part of the PD&E Study, resulted in total site assessment points of 49. The total site assessment score as noted in Part VII is 107.3, below the threshold of 160 where farmlands would be given stronger consideration for protection. No additional sites are required to be evaluated. Therefore, potential impacts to farmlands resulting from construction of the Recommended Alternative are not expected to be significant.

## **B.1 SECTION 4(f)**

The following evaluation was conducted pursuant to 23 CFR 774, Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites.

FHWA requested that a Section 4(f) Determination of Applicability (DOA) be provided for three potential Section 4(f) properties, Cameron Wight Park, Lake Jesup Conservation Area (LJCA) and Lake Jesup Bridge if it is anticipated that there would be any impacts to these resources. The Lake Jesup bridge has since been replaced.

Cameron Wight Park, owned and operated by Seminole County, is a three-acre park used as a boat launching facility into the St. Johns River basin. It is located approximately five miles east of US 17-92 on State Road 46 at the west end of the Lake Jesup Bridge. The park is open 24 hours a day. Old Geneva Road provides access to the park from SR 46. Access to the park will be maintained during construction. The proposed roadway improvements in this area will not result in direct use or indirect impacts to the use of the park.

The LJCA is 6,220 acres in size and is owned and managed by the SJRWMD. This conservation area is composed of three tracts, the Marl Bed Flats Tract, the North Cameron Tract and the East Lake Jesup Tract. According to the SJRWMD website, the North Cameron Tract was initially purchased to meet legislative requirements established for mitigation of the Seminole County portion of the Eastern Beltway. Now these lands contribute to the enhancement and protection of water resource and increase flood protection and the protection of ecological functions and habitats in the Lake Jesup area. The proposed roadway improvements will not result in direct use or indirect impacts to the Marl Bed Flats Tract or the East Lake Jesup Tract.

The North Cameron Tract (of the Lake Jesup Conservation Area) is located south of SR 46 west of Lake Jesup, adjacent to the existing two-lane roadway, and includes a property known as the Futch Property, as referred to in an email from FHWA dated August 27, 2015 (Appendix A). Approximately 4.25 acres of right-of-way will be acquired from this tract for the proposed roadway widening. Functional losses from direct and secondary impacts will be offset through the appropriate mitigation. Cumulative wetland impacts are not anticipated when appropriate mitigation is provided within the same mitigation basin as defined by the SJRWMD. The proposed project is not anticipated to cause water quality impacts based on the storm water design guidelines to be implemented. A Section 4(f) DOA was prepared and submitted to FHWA in July 2015. On August 27, 2015 FHWA concurred that Section 4(f) does not apply to the Futch Property of the North Cameron Tract of the LJCA (Appendix A). The North Cameron Tract is therefore not protected under Section 4(f) of the Department of Transportation Act of 1966.

Potential impacts to Section 4(f) Lands resulting from construction of the Recommended Alternative are not expected to be significant.

## **B.2 HISTORIC SITES/DISTRICTS**

The following evaluation was conducted pursuant to 36 CFR Part 800, Section 106 of the National Historic Preservation Act, 1966 as amended.

A Cultural Resource Assessment Survey, conducted in accordance with the procedures contained in 36 CFR Part 800 and including background research and a field survey coordinated with the SHPO, was performed for the project. As a result of the assessment, 13 historic resources (8SE2190, 8SE2759-8SE2769, 8SE1953) were identified. FHWA, after application of the NRHP Criteria for Evaluation, found that the historic resources identified within the project APE did not meet the eligibility criteria for inclusion in the National Register. SHPO concurred with this evaluation. No additional historic resources are expected to be encountered during subsequent project development. Therefore, FHWA, after consultation with SHPO, has determined that no historic properties will be affected by the proposed project. The FHWA determination and SHPO coordination letter are attached in Appendix A.

Potential impacts to historic sites or districts resulting from construction of the Recommended Alternative are not expected to be significant.

## **B.3 ARCHAEOLOGICAL SITES**

During the ETDM Programming Screen, the Miccosukee Tribe of Indians of Florida stated that if the CRAS Cultural Resources Survey shows that no archaeological sites will be impacted by this project, then further consultation with the Miccosukee Tribe is not needed.

A Cultural Resource Assessment Survey, conducted in accordance with the procedures contained in 36 CFR Part 800 and including background research and a field survey coordinated with the State Historic Preservation Officer (SHPO), was performed for the project. As a result of the assessment, three archaeological sites (8SE1145, 8SE1788, 8SE2757) were identified. FHWA, after application of the NRHP Criteria for Evaluation, found that the archaeological sites identified within the project APE did not meet the eligibility criteria for inclusion in the National Register. SHPO concurred with this evaluation. No additional archaeological sites are expected to be encountered during subsequent project development. Therefore, FHWA, after consultation with SHPO, has determined that no archaeological resources will be affected by the proposed project. The FHWA determination and SHPO coordination letter are attached in Appendix A.

Potential impacts to the archaeological sites resulting from construction of the Recommended Alternative are not expected to be significant.

## **B.4 RECREATIONAL AREAS**

The Lake Jesup Conservation Area is 6,220 acres in size and is owned and managed by the SJRWMD. This conservation area is composed of three tracts, the Marl Bed Flats Tract, the North Cameron Tract and the East Lake Jesup Tract. According to the SJRWMD website, the North Lake Jesup Tract was initially purchased to meet legislative requirements established for mitigation of the Seminole County portion of the Eastern Beltway. Now these lands contribute to the enhancement and protection of water resource and increase flood protection and the protection of ecological functions and habitats in the Lake Jesup area.

The North Cameron Tract (of the Lake Jesup Conservation Area) is located south of SR 46 west of Lake Jesup, adjacent to the existing two-lane roadway. Approximately 4.25 acres of right-of-way will be acquired from this tract for the proposed roadway widening. Functional losses from direct and secondary impacts will be offset through the appropriate mitigation. Cumulative wetland impacts are not anticipated when appropriate mitigation is provided within the same mitigation basin as defined by

the SJRWMD. The proposed project is not anticipated to cause water quality impacts based on the storm water design guidelines to be implemented.

Coordination with FDEP and SJRWMD concerning anticipated impacts to the Lake Jesup Conservation Area has been ongoing throughout the study. FDEP indicated that any impacts to the Lake Jesup Conservation Area would require mitigation both for the land being acquired as well as for the conservation easement over the land.

No recreation areas within the Lake Jesup Conservation Area will be impacted by the proposed improvements.

Commenting on the ETDM Programming Screen, FHWA stated that impacts to Cameron Wight Park, City of Sanford Park and Seminole County Park should be avoided. The City of Sanford Park and Seminole County Park mentioned in the ETDM Programming Screen are not located within the project area. Cameron Wight Park, owned and operated by Seminole County, is a three-acre park used as a boat launching facility into the St. Johns River basin. It is located approximately five miles east of US 17-92 on SR 46 at the west end of the Lake Jesup Bridge. The park is open 24 hours per day. Old Geneva Road provides access to the park from SR 46. Access to the park will be maintained during construction. The proposed roadway improvements in this area will not result in direct or indirect adverse impacts to the use of the park.

Potential impacts to recreational areas resulting from construction of the Recommended Alternative are not expected to be significant.

### **C.1 WETLANDS AND OTHER SURFACE WATERS**

An assessment of potential impacts to wetlands was conducted in accordance with Executive Order 11990, Protection of Wetlands, dated May 23, 1977, procedures outlined in the *PD&E Manual*, Part 2, Chapter 9 Wetlands and Other Surface Waters (FDOT, revised June 14, 2017), and as established in the FHWA Technical Advisory T6640.8A (FHWA, October 30, 1987).

The project study area currently supports 37 land use types/vegetative communities, which includes uplands, wetlands, and other surface waters. These land use types/vegetative communities were identified using the *Florida Land Use, Cover and Forms Classification System*, Level III [FLUCFCS FDOT, January 1999 and SJRWMD, November 2011, 2009 Land Cover and Land Use (GIS data file)]. Table 2 lists the land cover types, classifications, and acreages of wetlands located within the project study area. The total study area comprised approximately 2,173 acres. Approximately 1,009 acres of the area were classified as wetlands.

**Table 2 – Wetland Communities within the Project Study Area**

FLUCFCS Code	Description	Acres
510	Streams, Waterways, and Ditches	33.5
520	Lakes	34.6
530	Reservoirs	34.8
611	Bay Swamps	2.8
617	Mixed Wetland Hardwoods	204.5
621	Cypress	2.8
625	Hydric Pine Flatwoods	2.4
630	Wetland Forested Mixed	40.5
632	Cabbage Palm Hammock	209.0
641	Freshwater Marshes	198.6
643	Wet Prairies	120.8
644	Emergent Aquatic Vegetation	2.9
646	Mixed Scrub-Shrub Wetland	122.0
<b>TOTAL</b>		1,009.2

***Recommended Alternative – Anticipated Wetland Impacts***

A preliminary estimate of wetland acreage that will be directly impacted by the Recommended Alternative is approximately 26.43 acres. A majority of the wetland impacts occur within forested wetlands (approximately 26.17 acres) and approximately 0.26 acres occur within herbaceous wetlands. More detailed information can be found in the *Natural Resources Evaluation* (June 2017), published separately for this study.

Secondary impacts are anticipated to occur within wetland areas that remain within 25 feet of the roadway improvements, new pond areas, and pond expansion areas. The width of the anticipated secondary impacts is estimated and based on the fact that the project is a road widening project within an area that has experienced various anthropogenic impacts. The 25-foot distance was determined using the assessors’ best scientific judgment in analyzing what type of secondary impacts will be expected during and following construction and how far into a wetland those effects will be experienced per SJRWMD and USACE criteria. Secondary impacts typically include noise, light infiltration, and adverse alterations to the wetland plant species composition such as increases in upland, nuisance, and/or exotic plant species occurrences. A preliminary estimate of wetland acreage that may be adversely affected by secondary impacts associated with the Recommended Alternative is 9.89 acres.

Man-made drainage ditches (roadside drainage ditches) that cut through existing wetlands are considered wetland-cut ditches. These surface waters are considered jurisdictional by the state and federal agencies. Approximately 1.33 acres of wetland-cut ditches may be impacted by the Recommended Alternative.

For this study, an evaluation of impacts to emergent wetland vegetation, not open water, was conducted for the new parallel bridge over the St. Johns River. It was determined that the new parallel bridge span may result in adverse effects to emergent wetland vegetation due to shading by the bridge and possibly by pile construction. If the emergent wetland vegetation would not be directly impacted due to the height of the proposed bridge then the impact may be considered to be a secondary wetland impact due to shading. The determination was based on the information contained within the Type 2 Categorical Exclusion Environmental Document conducted for the Lake Jesup Bridge Replacement in 2003 and the UMAM scores for the bridge replacement project (SJRWMD Permit No. 4-117-95925-1). An estimation of direct wetland impacts resulting from pile construction



was not practical since information on the number of piles needed to support the structure was not available. Therefore, the analysis resulted in only the estimation of secondary impacts resulting from the additional bridge span, which totaled approximately 4.26 acres.

### ***Avoidance and Minimization***

Specific measures have been taken in an effort to minimize wetland impacts. The Recommended Alternative has incorporated avoidance of impacts in keeping a large portion of the proposed project within the existing right-of-way and footprint of SR 46, with the exception of the wetland impacts for the pond sites. The Recommended Alternative also eliminated potential impacts by proposing a short wall at the toe of slope along the north side of the roadway just west of the existing Lake Jesup Bridge. The proposed wall will avoid both wetland and utility impacts and the need to acquire additional right-of-way for the project. The project includes a parallel bridge over the St. Johns River. The new bridge will completely span the wetlands and there is existing fill land to support the proposed bridge abutment foundations (west and east bridge abutments).

Thus, the proposed project will have no significant short term or long term adverse impacts to wetlands; there is no practicable alternative to construction in wetlands; and measures have been taken to minimize harm to wetlands. During final design and permitting, additional measures will occur to avoid, minimize and mitigate impacts to wetlands.

### ***Conceptual Mitigation***

Wetland impacts which will result from the construction of this project will be mitigated pursuant to Section 373.4137, F.S., to satisfy all mitigation requirements of Part IV, Chapter 373, F.S. and 33 U.S.C. s.1344.

Wetland mitigation for the proposed impacts will be coordinated and approved by the USACE and the SJRWMD during the permitting process. All mitigation will occur within the same drainage basin as the project impacts to avoid any cumulative wetland impacts. The wetlands within the study area occur within two (2) different regulatory mitigation basins, which include Mitigation Basin 23 (Lake Jesup) and Mitigation Basin 18 (St. Johns River – Canaveral Marshes to Wekiva). The preliminary assessment of potential impacts associated with the Recommended Alternative shows that the functional loss of wetland functions may total approximately 15.53 functional units. The estimated functional loss within Basin 23 (Lake Jesup) totals 1.39 functional units and the estimated functional loss within Basin 18 (St. Johns River – Canaveral Marshes to Wekiva) totals 14.14 functional units.

The mitigation alternative for Basin 18 (St. Johns River – Canaveral Marshes to Wekiva) may consist primarily of off-site mitigation through the purchase of mitigation bank credits at an approved mitigation bank. This portion of the project is located within approved mitigation bank service areas and compensatory mitigation credits are available for the proposed impacts. There are currently no approved mitigation banks offering both state and federal mitigation bank credits within Basin 23 (Lake Jesup). Mitigation alternatives for Basin 23 (Lake Jesup) may include restoration activities and other BMAP projects within the Lake Jesup Basin such as shoreline revegetation projects, restoration of hydrology and water flow within state and/or county owned lands, or purchase of natural lands for preservation.

### ***Agency Coordination***

Meetings were held with the SJRWMD and the FDEP during the study to discuss the proposed roadway improvements and the proposed impacts within wetlands, conservation easements, and permitted mitigation areas. The meeting with SJRWMD staff was held on August 22, 2012; the meeting with FDEP staff was held on August 28, 2012. These meetings included discussions about mitigation for the proposed impacts. Coordination with the regulatory agencies will continue throughout the permitting phase of the project to insure that all potential wetland mitigation concepts are evaluated and to identify and analyze viable options that could be implemented.

Potential impacts to wetlands and other surface waters resulting from construction of the Recommended Alternative are not expected to be significant.

### **C.3 WATER QUALITY AND WATER QUANTITY**

The current roadway (SR 46) crosses Lake Jesup, which is a Class III waterbody. Lake Jesup has a surface area totaling approximately 10,660 acres and drains a watershed of approximately 87,331 acres to the St. Johns River, which is located on the northeast side of the Middle St. Johns Basin. A majority of the watershed occurs within Seminole County, but a small portion extends into Orange County. The lake was verified by FDEP as impaired for nutrients and unionized ammonia due to elevated annual average Trophic State Index (TSI) values and exceedances of the unionized ammonia criterion and was included on the Verified List of impaired waters for the Middle St. Johns Basin that was adopted by Secretarial Order on May 27, 2004. The Total Maximum Daily Load (TMDL) report for nutrients and unionized ammonia for Lake Jesup (including Lake Jesup outlet) was completed in 2006.

Heath Spring is located within the eastern portion of the study corridor and approximately 1 mile northwest of Geneva, Florida. Heath Spring is composed of several seeps in a steep sand slope on the southeast edge of a large sinkhole. The spring is located approximately 200 feet north of the existing right-of-way within private property. The Recommended Alternative avoids impacts to Heath Spring.

In general, stormwater discharged from SR 46 is not treated within the project limits. The existing typical section of SR 46 is crowned and the travel lanes and outside shoulders slope to the outside into existing roadside ditches. The roadside ditches then convey the stormwater runoff to several existing cross drains. The cross drains then convey the runoff into various wetland areas found within the project limits, which ultimately discharge to the St. Johns River.

The only area currently treated is within the limits of the bridge replacement project over Lake Jesup, which was constructed in 2009. The new bridge and approaches are being treated by wet detention pond(s) 1 and 2. The ponds are located west and east of the bridge, respectively. Stormwater runoff from the high point of the bridge to the west end of the project is collected and conveyed to existing Pond 1 by a series of shoulder gutter inlets and ditch bottom inlets. Stormwater runoff from the high point of the bridge to the east end of the project is collected and conveyed to existing Pond 2 by a series of bridge scuppers, shoulder gutter inlets, and ditch bottom inlets.

An Individual Environmental Resource Permit (ERP) will be required from SJRWMD for the proposed improvements. Runoff from all new impervious surfaces resulting from construction of the Recommended Alternative will require water quality treatment. The proposed design for stormwater retention and treatment will comply with all state and Federal regulatory requirements for maintaining water quality within the project area. Functional losses from direct and secondary impacts to wetlands will be offset through the appropriate mitigation. Cumulative wetland impacts are not anticipated when appropriate mitigation is provided within the same mitigation basin as defined by the SJRWMD. The proposed project is not anticipated to cause water quality impacts based on the storm water design guidelines to be implemented.

A Water Quality Impact Evaluation (WQIE) has been completed for this project. The proposed stormwater facility design will include, at a minimum, the water quantity requirements for water quality impacts as required by the SJRWMD in Chapter 62-330.301 F.A.C. All stormwater designs will be in compliance with the goals of the *Clean Water Act*, as amended and ground water evaluations will be carried out consistent with the *Safe Drinking Water Act*, as amended.

This project is not within the streamflow or recharge zones of an officially designated sole source aquifer. The Volusia-Floridan Sole Source Aquifer boundary lies northeast of the SR 46 project study

area. SJRWMD maps showing District recharge and discharge areas list the project limits of the SR 46 PD&E Study in Volusia County as traversing a discharge area of the upper Floridan aquifer. Therefore, the project would not have an impact to the Volusia-Floridan sole source aquifer. The Environmental Protection Agency (EPA) concurred with this finding in a letter dated May 21, 2018 (see Appendix A).

Potential impacts to water quality and water quantity resulting from construction of the Recommended Alternative are not expected to be significant.

## C.5 FLOODPLAINS

In accordance with the requirements set forth in Executive Order 11988: Floodplain Management and 23 CFR 650A, the project corridor was evaluated to determine the effects, if any, of the proposed alternatives on the hydrology and hydraulics of the area. SR 46 crosses several floodplain areas longitudinally. Floodplain locations were determined using the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for Seminole County, Florida and incorporated areas. The following Community-Panel Numbers were used in reference:

- 12117C0090F
- 12117C0095F
- 12177C0185F
- 12117C0205F

FEMA FIRM identified three floodplain zones present within the limits of this project. These zones are defined as follows:

- Zone AE – Base flood elevation determined (Elev. 9.0 feet, NAVD)
- Zone AE – Base flood elevation determined (Elev. 29.0 feet , NAVD)
- Zone A – No base flood elevation determined

Effective dates of these panels are September 28, 2007.

SR 46 within the limits of this project was constructed on fill, and according to available information it appears that the highway is currently above the 100-year floodplain. An evaluation of 100-year floodplain conditions for this project has been performed to determine the impacts from the embankment required for the proposed widening and proposed ponds. By superimposing the FEMA FIRM maps onto the preferred roadway build alternative, the 100- year floodplain encroachment locations have been determined.

The 100-year floodplain impacts and compensation analysis was based on the Recommended Alternative and Recommended stormwater treatment ponds. The analysis identified five floodplain boundary encroachments within the project limits. A total of 33.13 acre-feet of floodplains will be impacted by the proposed improvements (see Table 3 below). Three of the five floodplains which occur within the project corridor will be impacted. For additional information and the locations of the floodplains, please refer to the *Locations Hydraulics Report* (April 2014), published separately for this project.

Compensation for impacts will be provided in two Floodplain Compensation ponds and by construction of roadside ditches (see Table 3).

**Table 3 – Floodplain Impacts**

<b>Proposed Condition</b>	<b>Floodplain Impact Volume (ac-ft)</b>	<b>Floodplain Compensation Volume (ac-ft)</b>
<b>SR 46 Widening</b>		
Floodplain No. 1	32.25	35.36
Floodplain No. 2	0.69	0.69
Floodplain No. 3	0.19	0.22
<b>Project Total</b>	<b>33.13</b>	<b>36.27</b>

The proposed increase in the number of travel lanes will result in both longitudinal and transverse impacts to the floodplain. Longitudinal impacts will be minimized by utilizing the maximum allowable roadway embankment slope. The existing roadway bisects the floodplain. There are no economically feasible avoidance alternatives.

The transverse floodplain impacts from the project occur due to the extension and/or replacement of the existing cross drains and construction of the new bridge. Cross Drain Analysis shows that there will be no net increase in the existing backwater elevations at each proposed cross drain. The proposed cross drains and floodplain compensation areas will mitigate for all floodplain impacts associated with the proposed roadway improvements.

The modifications to drainage structures included in this project will result in no change in their capacity to carry floodwater. The proposed structures will perform hydraulically in a manner equal to or greater than the existing structure and backwater surface elevations are not expected to increase. Floodplain compensation areas will mitigate for all floodplain impacts associated with the proposed roadway improvements. As a result, there will be no significant adverse impacts on natural and beneficial floodplain values. There will be no change in flood risk, and there will not be a significant change in the potential for interruption or termination of emergency service or emergency evacuation routes. Therefore, it has been determined that this encroachment is not significant.

It has been determined, through consultation with local, state, and federal water resources and floodplain management agencies that there is no regulatory floodway involvement on the proposed project and that the project will not support base floodplain development that is incompatible with existing floodplain management programs.

Potential impacts to floodplains resulting from construction of the Recommended Alternative are not expected to be significant.

**C.6 COASTAL ZONE CONSISTENCY**

During the ETDM Programming Screen for this project, the State of Florida determined that this project is consistent with the Florida Coastal Zone Management Plan (FCMP). The State’s final concurrence of the project’s consistency with the FCMP will be determined during the environmental permitting process in accordance with Section 373.428, Florida Statutes.

**C.8 PROTECTED SPECIES AND HABITAT**

The following evaluation was conducted pursuant to Section 7 of the Endangered Species Act of 1973 as amended as well as other applicable federal and state laws protecting wildlife and habitat.

A *Natural Resources Evaluation* (NRE) (June 2017) was conducted in accordance with the Project Development and Environment Manual, Part 2, Chapter 16: Protected Species and Habitat (FDOT, revised June 14, 2017). The following tasks were completed:

- Project land uses, and vegetated communities, including wetlands and surface waters were delineated on aerial photographs.
- Species distribution, habitat needs, and other biological requirements were evaluated.
- Potential project impacts to wildlife, wildlife habitat, and listed species were evaluated.
- Alternatives analysis, minimization measures, and mitigation measures were addressed.
- Consultation/coordination with FWS, NMFS and other agencies was initiated.

Meetings were held with the SJRWMD and the FDEP during the PD&E process to discuss the proposed roadway improvements and the proposed impacts within wetlands, conservation easements, and permitted mitigation areas. Another focus of the agency meetings was to discuss mitigation for the proposed impacts, which included the discussion of various mitigation alternatives. Coordination with FFWCC was conducted regarding “element occurrence ranking” of wildlife and protected species as well as wildlife habitat. Coordination with FFWCC and USFWS regarding potential impacts to eagle nest was also initiated.

Project biologists performed reviews of available databases and literature and conducted pedestrian wildlife surveys in February and March, 2012. A species specific survey for the crested caracara was conducted between January and April 2015. The field surveys conducted for the PD&E Study revealed occurrences of wading birds, eagles, osprey and other raptors, small passerine birds, and amphibians in the area. Evidence of deer and wild hogs was also clearly marked as was evidence of mesomammals (e.g. raccoons, opossums). While portions of the study area have clearly been impacted by human activity, substantial portions of natural areas as well as agricultural and ruderal lands remain providing habitat to numerous wild and human habituated species.

The FWC bald eagle nest database provides a source of information statewide regarding nest identification numbers, nest locations, and status of nest activities within the past five years. Reported nest locations are accurate to within one-tenth of a mile. Four nests have been reported within one-half mile of the project. These nests are SE 034, SE 036, SE 051, and SE 082.

*Nest SE 034* - Nest SE 034 is located about 2,100 feet southwest of SR 46 within the City of Sanford Water Reclamation Facility and will not be impacted by this project.

*Nest SE 036* - The nearest active eagle nest, SE 036, is located approximately 100 feet northeast of the maintained SR 46 right-of-way, opposite the entrance to the City of Sanford Water Reclamation Facility. The last FWC eagle nest survey (2015) documented that this nest was active. In 2016, project biologists verified this nest as still active.

*Nest SE 051* - According to the FFWCC eagle nest database, the location of SE 051 is approximately 350 feet west of a proposed compensating storage pond (FPC 1). The FWC database documents that the nest has been inactive since 2008. Aerial photographs indicate that the location of this eagle nest is within a residential subdivision that was constructed in 2009. Project biologists verified that this nest was no longer present in 2016. Residents of the Sterling Meadows subdivision reported (in 2012) that a pair of eagles had successfully nested in a nearby cell tower located approximately 2,300 feet southwest of SE 051. It has not been confirmed whether eagles or osprey are using this new nest. However, the project does not propose any construction activity within 660 feet of this nest.

*Nest SE 082* - Nest SE 082 is located approximately 2,500 feet northeast of the SR 46 right-of-way. The last FFWCC eagle nest survey within this County (2015) documented that this nest was active. This project does not propose any construction activity within 660 feet of this nest.

Table 4 summarizes the anticipated effect of the project upon protected animal species identified within the project area. There are no "may affect" determinations for the 29 protected animal species identified as occurring or potentially occurring within the project area.

**Table 4 – Protected Species Identified within Project Area - Determination of Effect**

<b>FDOT Determination of Effect</b>	<b>Federally/State Protected Species</b>
"may affect, not likely to adversely affect"	Florida manatee
	crested caracara
	bald eagle
	wood stork
	Eastern indigo snake
"no effect"	Florida panther
	Florida scrub jay
	red-cockaded woodpecker
	snail kite
	sand skink
	Atlantic sturgeon
<b>Species Only Protected by the State</b>	
"may affect, not likely to adversely affect"	Sherman's fox squirrel
	Florida black bear
	little blue heron
	tricolored heron
	Florida sandhill crane
	osprey
	gopher tortoise
	short-tailed snake
	Florida pine snake
"no effect"	Florida burrowing owl
	southeastern American kestrel
	roseate spoonbill
	bluenose shiner

Although no longer listed as a threatened species by either state or federal agencies, the bald eagle is protected under the Migratory Bird Treaty Act of 1917 and the Bald and Golden Eagle Protection Act of 1940.

The proposed project may cause a disturbance to eagle nest SE 036 due to the proximity of the proposed roadway improvements and the realignment of Osceola Road. However, because the design phase of this project is not scheduled until 2021 and this corridor has a large regional population of eagles, it is likely that conditions could change in the next five years. FDOT will perform additional surveys for eagle nests and agency coordination during the design phase of the project to ascertain whether a federal disturbance permit will be necessary. This information was provided via letter to both USFWS and FFWCC on December 1, 2016; subsequent email concurrences were received on April 11, 2017 (see Appendix A).

Manatee protection measures required by USFWS and FFWCC include Standard Manatee Conditions for In-Water Work, restrictions on blasting, monitoring of turbidity barriers, exclusionary grating on culverts, presence of manatee observers during in-water work, a defined or limited construction window, and no nighttime work.

A 100% gopher tortoise survey of all proposed construction and mobilization areas will be required prior to construction. A gopher tortoise relocation permit from FFWCC will be required prior to the disturbance and/or excavation of any gopher tortoise burrows.

On May 29, 2014 USFWS provided a letter of response regarding the submittal of the *Endangered Species Biological Assessment* (March 2014) (see Appendix A). USFWS concurred with the finding of "no effect" for scrub jays and sand skinks. USFWS concurred with the finding of "may affect, not likely to adversely affect" for the Florida manatee. At the time, USFWS did not have enough information to

provide concurrence or non-concurrence with the remaining determinations. The FDOT submitted a *Natural Resources Evaluation* (June 2017) to USFWS on July 12, 2017. On August 10, 2017, USFWS provided a letter of concurrence (see Appendix A) agreeing with FDOT's finding of "may affect, not likely to adversely affect" for Audubon's crested caracara, wood stork and eastern indigo snake.

Based on the results of the *Natural Resources Evaluation* (June 2017) and agency coordination, potential impacts to protected species and habitat resulting from construction of the Recommended Alternative are not expected to be significant.

### **C.9 ESSENTIAL FISH HABITAT**

As confirmed by NMFS, this project is not located within and will not adversely affect areas identified as EFH; therefore, an EFH consultation is not required.

Accordingly, based on the conclusions of the *Natural Resources Evaluation* (June 2017) and agency comments, potential impacts to essential fish habitat resulting from construction of the Recommended Alternative are not expected to be significant.

### **D.1 HIGHWAY TRAFFIC NOISE**

A noise study analysis was performed for this project following FDOT procedures that comply with Title 23 Code of Federal Regulations (CFR), Part 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise*. The Noise Study Report for this project is available from the District Office, located at 719 South Woodland Boulevard, DeLand, Florida 32720. The evaluation used methodologies established by the FDOT and documented in the *PD&E Manual*, Part 2, Chapter 18 (June 14, 2017). The prediction of traffic noise levels, with and without the proposed improvements (replacement of the Beckett Bridge), was performed using the FHWA's Traffic Noise Model (TNM-Version 2.5).

Sixty-seven receptor areas were chosen to represent 74 potential noise sensitive sites along the SR 46 within the project limits. Predicted noise levels for these receptor sites for the Existing Year (2013) and the Design Year (2035) No Build and Build alternatives were determined using the Federal Highway Administration (FHWA) Traffic Noise Model (TNM) Version 2.5. Noise levels at 20 noise sensitive receptor sites are predicted to approach or exceed the FHWA Noise Abatement Criteria (NAC) of 67 dB(A) for each Build Alternative. Compared to the existing conditions, no noise sensitive receptor sites are expected to experience a substantial increase (>15 dB(A)) in traffic noise as a result of this project. Based on impacts to the noise sensitive sites that approached or exceeded the NAC, noise abatement measures were evaluated within the project corridor. For this evaluation of noise abatement measures, impacted sites were grouped into three noise sensitive areas (NSAs) based on their proximity, similar characteristics and geography.

Although feasible, traffic management, alternative alignments, and property acquisitions were determined to be unreasonable methods of reducing predicted traffic noise impacts to the affected receptors. Based on predicted noise levels exceeding the NAC, noise barrier evaluations were performed as potential abatement for noise sensitive sites contained in NSA 1, NSA 2, and NSA 3. The results of these barrier evaluations indicate that the construction of noise barriers does not appear to be a feasible or cost reasonable method of reducing traffic noise impacts for any of the proposed improvements to SR 46 due to right of way availability and exceedance of cost reasonableness criteria as stated in the *Noise Study Report* (January 2014). Therefore, based on the noise analyses performed to date, there appears to be no apparent solutions available to mitigate the noise impacts at the 20 noise sensitive receptor sites predicted to approach or exceed the NAC for each Build Alternative.

Specific information regarding the noise analysis and barrier evaluations can be found in the *Noise Study Report* (January 2014).

Construction of the proposed project would result in temporary construction-related noise and vibration. It is anticipated that the application of the *FDOT Standard Specifications for Road and Bridge Construction* will minimize or eliminate this noise and/or vibration. Should unanticipated noise or vibration issues arise during the construction process, the Project Engineer, in coordination with the Contractor, will investigate additional methods of controlling these impacts.

Potential impacts from highway traffic noise resulting from construction of the Recommended Alternative are not expected to be significant.

## **D.2 AIR QUALITY**

The following evaluation was conducted in accordance with the Clean Air Act of 1967.

Seminole County has not been designated non-attainment or maintenance for ozone, carbon monoxide (CO) or particulate matter (PM) in accordance with the Clean Air Act. According to EPA, there are no violations of National Ambient Air Quality Standards (NAAQS). EPA recommended that the environmental review phase of this project include air impact analyses which documents the current pollutant concentrations recorded at the nearest air quality monitors, an evaluation of anticipated emissions, and air quality trend analyses. It is also recommended that environmental reviews of the project include hot spot analyses at the points in time and places where congestion are expected to be greatest or in areas of sensitive receptors. The project is located in an area which is designated attainment for all of the National Ambient Air Quality Standards under the criteria provided in the Clean Air Act. Therefore, the Clean Air Act conformity requirements do not apply to the project.

The project is expected to improve traffic flow by adding one additional travel lane in each direction, which should reduce operational greenhouse gas emissions.

The project alternatives were subjected to a carbon monoxide (CO) screening model that makes various conservative worst-case assumptions related to site conditions, meteorology, traffic, and receptor locations. The Florida Department of Transportation's screening model, COFlorida 2012 (version 1.01 January 9, 2012), uses the latest versions of the U.S. Environmental Protection Agency-approved software for detailed mobile source air quality modeling (**MOVES2010a**) for emissions and **CAL3QHC2** for dispersion to produce estimates of one-hour and eight-hour CO concentrations at default air quality receptor locations. The one-hour and eight-hour estimates can be directly compared to the one- and eight-hour **NAAQS** for CO which are 35 parts per million (ppm) and 9 parts per million (ppm), respectively.

Based on the results from the screening model, the highest project-related CO one- and eight-hour levels are not predicted to exceed the one- or eight-hour NAAQS for this pollutant with either the No Build or Build alternative. As such, the project "passes" the screening model. Additional information can be found in the *Air Quality Technical Memorandum* (November 2013), prepared for this project.

Construction activities will cause short-term air quality impacts in the form of dust from earthwork and unpaved roads. The impacts will be minimized by adherence to all applicable State and local regulations and to the *FDOT Standard Specifications for Road and Bridge Construction*.

Potential impacts to air quality resulting from construction of the Recommended Alternative are not expected to be significant.



### D.3 CONTAMINATION

A *Contamination Screening Evaluation Report* (CSER) was prepared as part of the SR 46 PD&E Study as required by FDOT's *PD&E Manual*, Part 2, Chapter 20 (revised June 14, 2017) and in accordance with the FHWA Technical Advisory T 6640.8a (dated October 30<sup>th</sup>, 1987). Consistent with this guidance and based on environmental records searches, land use surveys, field surveys and other screening methodologies cited within the *PD&E Manual*, forty-one properties within the project area were assessed for potential contamination and assigned risk ratings. Of these 41 properties, 12 were assigned potential contamination risk ratings of low, medium or high. Two sites were rated "medium", two sites were rated "high", and eight sites were rated "low". Detailed information regarding potential contamination sites can be found in the *Contamination Screening Evaluation Report* (February 2014).

It is recommended the two sites assigned a contamination risk rating of "high" (The Pantry at 4140 E SR 46 & SR 415 and the former Trombley's Auto Body at 2740 SR 46 W), and the two sites assigned a contamination risk rating of "medium" (Lake Jesup Groves maintenance area at 2017 SR 46 W and Geneva Food Store/MJM Food Store at 140 SR 46 W) should undergo Level 2 Contamination Assessments consisting of soil and groundwater sampling during the design phase of the project. A copy of the CSER for this project is available from the District Office, located at 719 South Woodland Boulevard, DeLand, Florida 32720.

This proposed project contains no known significant contamination.

### D.4 UTILITIES AND RAILROADS

A large number of utilities were identified to be located within the project corridor, based on contacting Sunshine One Call and subsequent coordination with utility owners. Based on information received during the PD&E Study, the only conclusive determination of potential utility impacts is that the Recommended Alternative will require the relocation of power poles along various segments of the project. Table 5 lists the limits of this relocation and estimated costs provided by the utility agency/owner.

It is possible that other utilities could be impacted during construction of the proposed improvements. Detailed utility location and impacts will be finalized during final design and permitting when additional survey can be performed and impacts can be quantified in detail. There are no railroads within the project corridor.

**Table 5 – Estimated Utility Relocation Costs**

Station Limits	Utility	Number of Poles	Estimated Costs
75+00 to 90+00	FPL Transmission/Distribution	5	\$600,000
144+00 to 174+00	FPL Distribution	10	\$100,000
191+00 to 238+00	FPL Distribution	16	\$160,000
261+00 to 302+00	FPL Distribution	14	\$140,000
323+00 to 339+00	FPL Distribution	6	\$60,000
		<b>TOTAL</b>	<b>\$1,060,000</b>

Accordingly, potential impacts to utilities and railroads resulting from construction of the Recommended Alternative are not expected to be significant.

### D.5 CONSTRUCTION

Construction activities for the proposed improvements will have air, noise, water quality and traffic flow impacts for those residents and travelers within the immediate vicinity of the project. The air quality impact will be temporary and will primarily be in the form of emissions from diesel powered

construction equipment and dust from embankment and haul road areas. Air pollution associated with the creation of airborne particles will be effectively controlled through the use of watering or the application of calcium chloride in accordance with FDOT's *Standard Specifications for Road and Bridge Construction* as directed by the County Project Manager.

Noise and vibration impacts will be from the heavy equipment movement and construction activities, such as demolition, pile driving and vibratory compaction of embankments. Noise control measures will include those contained in FDOT's *Standard Specifications for Road and Bridge Construction*.

Water quality impacts resulting from erosion and sedimentation will be controlled in accordance with FDOT's *Standard Specifications for Road and Bridge Construction* and through the use of Best Management Practices. Stormwater pollution prevention measures will be developed per FDOT standards and in accordance with National Pollutant Discharge Elimination System (NPDES) permit requirements.

Maintenance of traffic and sequence of construction will be planned and scheduled to minimize traffic delays throughout the project. Signs will be used as appropriate to provide notice of detours, lane closures and other pertinent information to the traveling public. The local news media will be notified in advance of detour lane closings and other construction-related activities, which could excessively inconvenience the community.

A sign providing the name, address, and a contact telephone number will be displayed on-site to assist the public in obtaining immediate answers to questions and logging complaints about project activity. In general, the objective of the maintenance of traffic plan for the project will be to detour traffic away from the construction zone. No temporary roads or temporary bridges will be required.

Construction of the roadway may require minor excavation of unsuitable material (muck). Construction of the roadway will require placement of embankments, and use of materials such as lime rock, asphaltic concrete, and Portland cement concrete. Although not anticipated, if demucking is required, it will be performed in accordance with Section 120 of the FDOT *Standard Specifications for Road and Bridge Construction*. The removal of structures and debris will be in accordance with local and State regulatory agencies permitting this operation. The contractor is responsible for methods of controlling pollution on haul roads (if used); in borrow pits, other materials pits, and areas used for disposal of waste materials from the project. Temporary erosion control features, as specified in the FDOT's *Standard Specifications for Road and Bridge Construction*, Section 104, will likely consist of temporary grassing, sodding, mulching, sandbagging, hay bales, slope drains, sediment basins, sediment checks, artificial coverings, and berms.

Potential construction impacts of the Recommended Alternative are not expected to be significant.

## **D.6 BICYCLES AND PEDESTRIANS**

As of February 2018, there are no accommodations for pedestrians along SR 46 between SR 415 and CR 46. Four-foot paved shoulders are provided adjacent to the travel lanes; however, these are not sufficiently wide enough to function as undesignated bicycle lanes per current FDOT design criteria.

The Recommended Alternative provides both pedestrian and bicycle facilities for SR 46 throughout the project limits. Bicyclists are accommodated on the roadway within a 6.5-foot shoulder between SR 415 and Hart Road. From Hart Road to CR 426, there is a designated four-foot bicycle lane adjacent to the travel lanes. In addition to the bicycle lanes, bicyclists can use the 10-foot asphalt shared-use path provided on the north side of SR 46 that transitions to an eight-foot sidewalk at Hart Road within the urban typical section.

In addition to the shared use path on the north side of SR 46, pedestrians may also use a five-foot sidewalk that will be provided on the south side of SR 46 from SR 415 to Hart Road. East of Hart Road, pedestrians may use of the eight-foot sidewalk on the north side of SR 46 or a five-foot sidewalk on the south side of SR 46 to CR 426.

The proposed bridge over Lake Jesup, which will accommodate two lanes of westbound traffic, will also include a barrier-separated shared-use path adjacent to the outside westbound shoulder for use by both bicyclists and pedestrians. The 10-foot outside shoulder in each direction may also be used by bicyclists. Accommodations shall be provided to safely direct pedestrians on the south side of SR 46 to the shared-use path on either end of the proposed bridge.

The proposed improvements, which include bicycle lanes and a shared use path on the north side of the road, will provide for Enhanced multimodal opportunities for bicyclists and pedestrians.

# **APPENDIX A**

Agency Concurrence

**From:** [Owen, Catherine](#)  
**To:** [Sullivan, Joseph](#)  
**Cc:** [McGehee, Mary](#); [Walsh, William](#); [Rizzolo, Chris](#)  
**Subject:** RE: SR 46, SR 415 to CR 426, Section 4(f) Determination of Applicability  
**Date:** Monday, August 31, 2015 7:43:08 AM

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Thank you Mr. Sullivan !

Catherine B. Owen, M.S.  
Environmental Specialist IV  
District Cultural Resources Coordinator  
FDOT District Five  
719 S. Woodland Blvd.  
DeLand FL 32720  
phone (386) 943-5383



---

**From:** Joseph.Sullivan@dot.gov [mailto:Joseph.Sullivan@dot.gov]  
**Sent:** Thursday, August 27, 2015 6:21 PM  
**To:** Owen, Catherine  
**Subject:** SR 46, SR 415 to CR 426, Section 4(f) Determination of Applicability

Ms. Owen,

FHWA has reviewed the provided information on the above project. Based on the information provided the Lake Jessup Conservation Area (LJCA) is broken into distinct parcels which are managed independently for discrete uses and activities. The SR 46 project proposes to use a portion of the Futch parcel. The Futch parcel is primarily managed for conservation uses, stormwater treatment, and agriculture (low density cattle grazing). This parcel is not open to the general public and does not provide recreation as its primary function.

The Futch parcel of the LJCA is not a Section 4(f) protected property.

If you have any questions or need further clarification please feel free to give me a call at the number provided below.

Take care,  
Joe

**Joseph P. Sullivan**  
Environmental Specialist  
Federal Highway Administration  
3500 Financial Plaza, Suite 400  
Tallahassee, FL 32312  
P: 850-553-2248

**F: 850-942-8308**

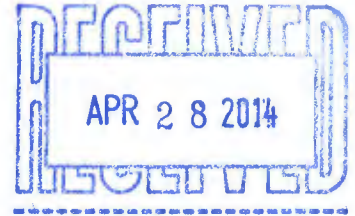


**Florida Department of Transportation**

**RICK SCOTT  
GOVERNOR**

719 S. Woodland Blvd.  
DeLand, FL 32720

**ANANTH PRASAD, P.E.  
SECRETARY**



April 9, 2014

Mr. James Christian, Division Administrator  
U.S. Department of Transportation  
Federal Highway Administration  
Florida Division Office  
545 John Knox Road, Suite 200  
Tallahassee, Florida 32303

Attention: Mr. Joseph Sullivan



**Re:** Cultural Resource Assessment Survey for State Road (SR) 46 from SR 415 to County Road (CR) 426 PD&E Study (Financial ID # 240216-4-28-01), Seminole County, Florida

Dear Mr. Christian:

The above-referenced report was transmitted to FHWA in a letter dated March 3, 2014, and was approved by FHWA on March 25, 2014. This letter was revised on April 9, 2014 to also request concurrence on the effects finding.

This cultural resource assessment survey (CRAS) for SR 46 from SR 415 to CR 426 PD&E Study (Financial ID # 240216-4-28-01), Seminole County, Florida was conducted in cooperation with URS at the request of Seminole County Engineering by Janus Research in May-August 2012. The objective of this CRAS was to identify and assess any cultural resources occurring within the Area of Potential Effect (APE) in terms of their eligibility for listing in the *National Register of Historic Places* (National Register) according to the criteria set forth in 36 CRP Section 60.4.

One newly recorded archaeological site (8SE2757), two previously recorded archaeological sites (8SE1145 and 8SE1788), and two archaeological occurrences were identified within the current archaeological APE. Site 8SE1788, a small lithic scatter, had previously been evaluated by the State Historic Preservation Officer (SHPO) to be ineligible for listing in the National Register and no change in status is recommended. Site SE1145 is an artifact scatter located to the south of the project APE. One positive test extends the boundary of the site into the project APE. However, the artifacts recovered were sparse and non-diagnostic. Site SE2757 consists of several sherds of St. Johns Plain pottery but no other artifacts. The portions of 8SE1145 and 8SE2757 within the project APE are not considered significant and are not eligible for listing in the National Register.

Mr. James Christian  
April 9, 2014  
Page 2

This survey identified a total of 13 historic resources located within the project APE. The identified historic resources include 12 buildings (8SE2190, 8SE2759-8SE2769) and one road (8SE1953). The 11 newly recorded historic buildings (8SE2759-8SE2769) are considered ineligible for inclusion in the National Register individually or as part of a historic district. The structures have common architectural styles, many exhibit non-historic exterior alterations, and they lack of historical associations with significant events or persons. The previously recorded historic building (8SE2190) was previously determined ineligible for listing in the National Register in 2006; no change of status is recommended. SR 46 (8SE1953) within the current project APE is considered ineligible for listing in the National Register individually or as part of a historic district. It has undergone several non-historic improvements to meet modern transportation needs and does not retain any trace of historic materials, configuration, or character.

Please find within this package the following items:

- one bound copy of the CRAS report for your files;
- one unbound copy of the CRAS report with an unbound set of Florida Master Site File (FMSF) forms and survey log for submittal to the State Historic Preservation Office (SHPO);
- CD with photographs of the resources, a PDF of the final report, FMSF forms, and Survey Log for submittal to the SHPO

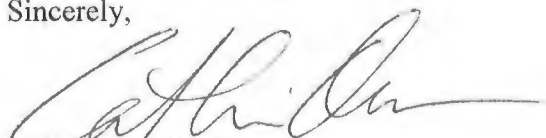
This information is being provided in accordance with the provisions of the *National Historic Preservation Act of 1966*, as amended, which are implemented by the procedures contained in 36 C.F.R., Part 800, as amended, as well as the provisions contained in the revised F.S. Chapter 267.

Based on the results of this investigation, it is the opinion of the District that the proposed undertaking will have no effect on NRHP-listed or eligible historic resources, and no further work is necessary.

We respectfully request your concurrence with these findings. At the bottom of this cover letter, a signature box has been included for convenience following review and concurrence with the findings of this document.

If you have any questions or need further assistance, please contact Catherine Owen at (386) 943-5383 or me at (386) 943-5411.

Sincerely,



*For* William G. Walsh  
FDOT District 5 Environmental Administrator




Mr. James Christian  
April 9, 2014  
Page 3

The FHWA finds the attached Cultural Resource Assessment Survey complete and sufficient and  approves /  does not approve the above recommendations and findings.

The FHWA requests the SHPO's opinion on the sufficiency of the attached report and the SHPO's opinion on the recommendations and findings contained in this cover letter and in the comment block below.

**FHWA Comments:**

Based on the information provided in the February 2014 CRAS FHWA agrees there should be no significant effects on cultural resources.

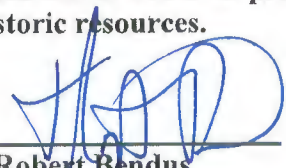
/s/   
For: James Christian  
Division Administrator  
Florida Division  
Federal Highway Administration

4-15-14  
Date

**The Florida State Historic Preservation Officer:**

finds the attached report complete and sufficient and  concurs/  does not concur with the findings and recommendations contained in this cover letter.

does not find the attached report complete and sufficient and requires additional information in order to provide an opinion on the potential effects of the proposed project on historic resources.

/s/   
For: Robert Bendus  
Florida State Historic Preservation Officer

4/22/14  
Date

2014-1162  
DHR Project No.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

MAY 21 2018

Catherine B. Owen, M.S.  
District Cultural Resources Coordinator  
Florida Department of Transportation, District 5  
719 South Woodland Boulevard  
DeLand, FL 32720

Subject: State Road 46 Widening Project.

Dear Ms. Owen:

The U.S. Environmental Protection Agency (EPA), Region 4, received your February 14, 2018 request to assess the above referenced project and we reviewed it pursuant to Section 1424(e) of the Safe Drinking Water Act. The assessment is to determine if the project lies within the boundaries (recharge and streamflow source zones) of an EPA designated Sole Source Aquifer (SSA); and to determine if the project poses potential, adverse health or environmental impacts. A sole source aquifer is the sole or principal water source for a designated area. If the aquifer is contaminated, there would be a significant hazard to public health and an economic burden for those using the aquifer to tap into and deliver drinking water from another water source.

The project has been determined to lie partially **inside** the designated boundaries of the Volusia Sole Source Aquifer and based on the information provided, is not expected to cause a significant impact to the aquifer system. However, it is requested that all debris from any demolition of the existing structures are properly contained and removed from the site prior to construction of the new structure. If applicable, all county flood plain management plans and public notification processes should be followed. During construction, it is EPA's understanding and expectation that those responsible for the project will strictly adhere to all Federal, State and local government permits, ordinances, planning designs, construction codes, operation & maintenance requirements, and engineering as well as any contaminant mitigation recommendations outlined by federal and state agency reviews. All best management practices for erosion and sedimentation control should be followed. State and County environmental offices should be contacted to address proper drainage and storm water designs. Additionally, the project manager should contact State and local environmental officials to obtain a copy of any local Wellhead Protection Plans. <http://www.dep.state.fl.us/swapp/Default.htm>

Please note that this "no significant impact" finding has been determined based on the information provided and under Section 1424(e) of the Safe Drinking Water Act only. If there are any significant changes to the project, it is requested that the EPA Region 4 office be notified for further review. Other regulatory groups within the EPA responsible for administering other programs may, at their own discretion and under separate cover, provide additional comments.

Thank you for your concern with the environmental impacts of this project. If you have any questions, please contact Mr. Khurram Rafi at 404-562-9283 or Rafi.Khurram@epa.gov or Mr. Larry Cole at 404-562-9474 or Cole.Larry@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'B. Smith', written in a cursive style.

Brian J. Smith  
Chief  
Ground Water and UIC Section  
Grants and Drinking Water Protection Branch

**From:** Kirkpatrick, Ulgonda [mailto:ulgonda\_kirkpatrick@fws.gov]  
**Sent:** Tuesday, April 11, 2017 11:01 AM  
**To:** Dinardo, Mike <mike.dinardo@stantec.com>  
**Subject:** Fwd: FW: SR 46 improvements

Ulgonda Kirkpatrick  
USFWS Migratory Bird Division

Mailing Address:

MIGRATORY BIRD PERMIT OFFICE  
1875 CENTURY BOULEVARD, NE  
ATLANTA, GEORGIA 30345  
321-972-9089 office (MAIN)  
352-406-6780 cell

For more information on eagles in the Southeast Region, please visit: <http://www.fws.gov/southeast/birds/eagle.html>

----- Forwarded message -----

**From:** Kirkpatrick, Ulgonda <[ulgonda\\_kirkpatrick@fws.gov](mailto:ulgonda_kirkpatrick@fws.gov)>  
**Date:** Tue, Apr 11, 2017 at 10:58 AM  
**Subject:** Re: FW: SR 46 improvements  
**To:** "Vandeventer, Michelle" <[Michelle.Vandeventer@myfwc.com](mailto:Michelle.Vandeventer@myfwc.com)>  
**Cc:** "Dinardo, Mike" <[IMCEAMAILTO-mike+2Edinardo+40stantec+2Ecom@namprd09.prod.outlook.com](mailto:IMCEAMAILTO-mike+2Edinardo+40stantec+2Ecom@namprd09.prod.outlook.com)>

I concur with Michelle. If the project will not occur for several years, a nest survey of the area within 660ft of project activities is advised to best determine how to proceed.

Please let me know if you need anything further.

Ulgonda Kirkpatrick  
USFWS Migratory Bird Division

Mailing Address:

MIGRATORY BIRD PERMIT OFFICE  
1875 CENTURY BOULEVARD, NE  
ATLANTA, GEORGIA 30345  
321-972-9089 office (MAIN)  
352-406-6780 cell

For more information on eagles in the Southeast Region, please visit: <http://www.fws.gov/southeast/birds/eagle.html>

On Tue, Feb 28, 2017 at 2:37 PM, Vandeventer, Michelle  
<[Michelle.Vandeventer@myfwc.com](mailto:Michelle.Vandeventer@myfwc.com)> wrote:

Good morning Mike

Thank you again for coordinating on this project and potential impacts to nesting bald eagles along the roadway project plan. As we discussed, while there are several eagle nest territories within the area of the planned project, the only active or alternate nest currently identified as located within 660 feet of the project is nest SE036. New activities associated with the project within 330 feet of the nest include bike lanes and sidewalks within the existing right-of-way, located 100 – 330 feet from the nest tree.

The FWC recommends that new activities being conducted within 660 feet of an eagle nest follow the [FWC Eagle Management Guidelines](#) unless a permit is issued. Relevant guidelines for SE036 and this project include:

- All new proposed construction should not be closer to the eagle nest than existing right-of-way and similar scope activities.
- Exterior construction and site work within 330 feet of the nest should be scheduled for outside the nesting season (nesting season = October 1 – May 15, unless young fledge prior to May 15).
- Exterior construction and site work between 330 – 660 feet from the nest should be scheduled for outside the nesting season unless nest monitoring in accordance with [USFWS guidance](#) is implemented.
- Shield new exterior lighting so that lights do not shine directly onto the nest.
- Create, enhance, or expand the visual vegetative buffer between new activities and the nest by planting appropriate native plantings.
  - o Note: this measure is important if new sidewalks will cross through the 330 foot buffer. Increasing the vegetative screening between sidewalk or bike lane and nest can prevent people from congregating in close proximity to the nest and potentially disturbing nesting eagles. It can also assist with directing the public to safe viewing areas through strategic use of planting and vegetative buffer.

If it is determined that the guidelines cannot be followed and a permit is needed, please contact Ulgonda Kirkpatrick at USFWS (copied here) to confirm the recommendations under the federal eagle permitting process rule revisions effective January 17, 2017 ([http://eagleruleprocess.org/files/Federal\\_Register\\_Published\\_FR.pdf](http://eagleruleprocess.org/files/Federal_Register_Published_FR.pdf)). Project plans may also be submitted to [FWC Conservation Planning Services](#) for assistance and recommendations on any fish and wildlife resources, in addition to bald eagles, that may be affected by the project.

Given the timeframes of the project, and the possibility that eagle nest locations may shift over time, follow up on the project may be appropriate closer to the design phase in the planning process to confirm relevant guidelines and permitting recommendations at that time.

If you have any additional questions or need further assistance, please don't hesitate to contact me.

Best regards,

Michelle van Deventer

Office: 941.894.6675

Cell: 941.356.6551



**Florida Fish and Wildlife  
Conservation Commission**

MyFWC.com



# United States Department of the Interior

## U. S. FISH AND WILDLIFE SERVICE

7915 BAYMEADOWS WAY, SUITE 200  
JACKSONVILLE, FLORIDA 32256-7517

IN REPLY REFER TO:

FWS Log No. 41910-2014-I-0176

May 29, 2014

Mr. William G. Walsh  
Environmental Administrator  
FDOT District 5  
719 South Woodland Blvd  
DeLand FL 32720-6800

RE: Widen SR 46 from east of SR 415 to CR 426.  
Financial ID No. 240216-4-28-01  
Federal Aid No. TCSP-045-U  
ETDM #4972

Dear Mr. Walsh:

The United States Fish and Wildlife Service (Service) has completed its review of a proposal to widen SR 46 from SR 415 to CR 426 and construct an additional two-lane bridge over Lake Jesup in Seminole County.

### **Project description**

SR 46 is currently a two-lane rural roadway connecting SR 415 to CR 326 in eastern Seminole County. The project length is approximately 7.4 miles. The western terminus connects to SR 415, which is under construction to a four-lane divided facility. The eastern terminus of the project occurs at CR 426 in Geneva, which provides a direct connection to the City of Oviedo. Additional stormwater ponds and access roads are also included in this proposal.

The PD&E study divided the project into 4 segments:

1. Widen SR 46 from SR 415 to west end of Lake Jesup Bridge
2. Construct additional two-lane bridge over Lake Jesup
3. Widen SR 46 from east of bridge to Hart road
4. Widen SR 46 from Hart road to CR426

Based on the information provided by FDOT in the draft WEBAR and draft ESBA (dated March 2014) regarding the presence or absence of species within the action area the Service provides the following comments and recommendations.

## **Endangered Species Act Coordination**

Our comments are for the purpose of providing informal consultation in accordance with section 7 of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 *et seq.*), the Fish and Wildlife Coordination Act (FWCA) (16 U.S.C. 661 *et seq.*), and the Migratory Bird Treaty Act of 1918 (MBTA), as amended (16 U.S.C. 703-712 *et seq.*).

### **Florida Manatee (*Trichechus manatus latirostris*)**

The new two-lane bridge across the St. John's River and Lake Jesup will impact manatee habitat and may affect manatees. The WEBAR concluded a 'may affect, not likely to adversely affect' (MANLAA) determination for the Florida manatee and FDOT listed several action items in the WEBAR to protect manatees for the duration of the project. Critical habitat for this species has been designated within the St. John's River. The level of manatee use in the area is considered low. The Service concurs with a determination of MANLAA if the conditions listed below are incorporated into the project.

- 2011 In-Water Construction Conditions (or current version) will be followed. In the future, current guidelines and contact numbers could be found on our office website or the Army Corps website.
- Any culverts larger than eight inches in diameter should be grated to prevent manatee entrapment. The spacing between the bridge pilings will be at least 60 inches apart to allow for manatee movement in between the pilings.
- Barges will be equipped with fender systems that provide a minimum standoff distance of four feet between wharves, bulkheads and vessels moored together to prevent crushing manatees between the barges or between the barge and work site. All existing slow speed or no wake zones will apply to all work boats and barges associated with the construction.
- No dredging is proposed at this time. If dredging is needed, consultation should be reinitiated.
- No blasting is proposed at this time. FDOT understands that blasting will result in a 'may affect' determination and FDOT would initiate formal ESA consultation.

### **Wood Stork (*Mycteria Americana*)**

The project corridor is approximately 7.4 miles long and is right on the edge (15-16 miles) of the Core Foraging Area (CFA) of at least two active nesting colonies (#612320 and Mud Lake) of the endangered wood stork. Extensive canals, ditches and forested wetlands are within and adjacent to the ROW. Wood storks have been documented foraging in these wetlands. The Service has determined that the loss of wetlands within a CFA due to an action could result in the



loss of foraging habitat for the wood stork. To minimize adverse effects to the wood stork and other wetland dependent species, we recommend that impacts to suitable foraging habitat be avoided. The amount of direct wetland impacts for Alternative 2 is approximately 27 acres, according to the WEBAR. FDOT should utilize the Wood Stork Effect Determination Key developed with the Army COE to reach an effect determination. The amount of wetland mitigation needed and where it will be purchased should also be disclosed in order to reach a MANLAA determination. The Service recommends investigating options within the vicinity of Lake Jesup and the St. John's River to improve connectivity and water quality for this severely impaired water body or provide additional nesting habitat for wading birds and wood storks with dredge spoil if any dredging is needed. Recommendations provided by resource agencies during the ETDM screening exercise stressed spanning the floodplains and wetlands with the new bridge to reduce the footprint of this structure.

#### **Audubon's Crested Caracara (*Polyborus plancus*)**

The caracara is a resident, diurnal, non-migratory species that occurs in Florida as well as the Southwestern U.S. and Central America. Only the Florida population, which is isolated from the remainder of the species, is listed as threatened under the ESA. Suitable habitat for this species includes wet and dry prairies, improved pastures and lightly wooded areas. Cabbage palms, cypress, scrub oaks and saw palmetto may be habitat indicators as to the presence or absence of this species. According to the ESBA, two adult caracaras were observed flying south near the western terminus. The exact location and date of the observation was not included. Suitable habitat can be found within the project corridor and may be impacted by this proposal directly and indirectly. The presence of road kill, which will increase after the road is widened, can negatively affect this species and bald eagles, especially young birds, as they learn to forage near roadways. FDOT has committed in the ESBA to conducting field surveys for caracaras prior to construction. The Service recommended surveys for this species 2010 and we have a history of sightings near SR 415. Once surveys are complete, consultation can be reinitiated.

#### **Eastern Indigo Snake (*Drymarchon corais couperi*)**

Suitable habitat for this species can be found within the project corridor and this species has been documented on the Lake Jesup Conservation Tract. Wider, divided, highways are likely to increase the number of amphibian and reptile deaths as the animals attempt to cross a wider barrier with increased levels of traffic. Direct effects for this species include mortality from additional vehicle traffic and the need to cross wider roadways. Indirect effects from increased commercial and residential development in this portion of Seminole and Brevard County, as a result of the new roadway, will result in further habitat fragmentation and mortality. FDOT has agreed to utilize the new eastern indigo snake guidelines (dated August 2013) found on our office website, <http://www.fws.gov/northflorida/>. Generally, a complete gopher tortoise survey is needed within the ROW in order to utilize the effect determination key. The Service also recommends that plastic netting, frequently used on roadsides under grass or seed, be eliminated from the construction design. Studies have shown that plastic netting entraps many species of snakes and does not deteriorate over time. Biodegradable matting or a similar material should be used to reduce direct, indirect and cumulative effects to this federally listed species and many other common species of snakes found in this area. The Service recommends integrating wildlife-friendly components within culverts and providing additional dry culverts with natural

bottoms to allow for wildlife crossing under the roadway. All of these recommendations were included in the ETDM screening process.

**Gopher Tortoise (*Gopherus polyphemus*)**

Gopher tortoises are long-lived reptiles that occupy upland habitat throughout Florida including forests, pastures, and yards. They dig deep burrows for shelter and forage on low-growing plants. Gopher tortoises share these burrows with more than 350 other species, and are therefore referred to as a keystone species. In July 2011, the Service determined that listing the eastern population of the tortoise as Threatened under the Endangered Species Act is warranted. However, it is precluded from doing so at this time due to higher priority actions and a lack of sufficient funds. Therefore, the tortoise was placed on the candidate conservation list and should be listed as a candidate species in FDOT documents. Gopher tortoises are a State threatened wildlife species and are protected by state law. State permitting guidelines for avoidance, minimization and mitigation should be followed. The ESBA notes that abundant suitable habitat exists in the area for this species. Therefore, FDOT has committed to a complete survey for this species prior to construction. A complete survey will facilitate the use of the eastern indigo snake effect determination key.

**Florida Scrub-Jay (*Aphelocoma coerulescens*)**

At one time this species could be found throughout Seminole County in suitable habitats (scrub and scrubby pine flatwoods). Recent declines are attributable to habitat conversion and lack of management. FNAI data indicated that patches of scrub habitat can be found in the action area but they are fragmented by residential areas and some have been disturbed from sand mining. Florida scrub-jays can be found to the west at Yankee Lake wastewater treatment plant. No records of this species exist for the eastern portion of Seminole county. Therefore, the Service can concur with FDOT that this project will have 'No Effect' on the Florida scrub-jay.

**Sand Skink (*Neoseps reynoldsi*)**

The proposed expansion corridor does not support suitable habitat for this species. Recent aerial photos on GOOGLE Earth reveal that the elevations along this proposed expansion range from approximately 5-75 feet above sea level. The Service concurs with the 'No Effect' determination made by FDOT.

The FDOT has determined the project 'May Affect but is Not Likely to Adversely Affect' (MANLAA) the following species: Florida manatee, Audubon's crested caracara, bald eagle, wood stork, eastern indigo snake and Atlantic sturgeon. In a letter, dated April 14, 2014, FDOT requested a concurrence with a MANLAA determination for all of these species at this time. As stated earlier, the Service concurs with this determination of effect for the Florida manatee. The consultation for the Atlantic sturgeon should be coordinated with NMFS.

The Service does not have enough information to provide concurrence or non-concurrence with FDOT's determination [pursuant to Section 7 of the ESA, as described in 50 § CFR402.14]. In order to comply with Section 7 of the ESA, FDOT has committed to reinitiate consultation with the Service prior to advancing the project to construction. At the time of re-initiation, FDOT will provide additional information, as needed, which will allow the Service to complete our analysis of the project's effects on the species noted above and complete consultation on the project. The

FDOT must document this commitment in the final environmental document for the project and in documents for any subsequent re-evaluations of the project.

Bald eagles are no longer listed under the ESA. Early coordination with the FFWCC and the Office of Migratory Birds is needed for this project. Information about the new eagle guidelines can be found at (<http://www.fws.gov/migratorybirds/BaldEagle.htm>). Seminole County is considered a core nesting area for the State of Florida. The ESBA indicates that nest tree SE36 (active in 2012) is within 100 feet of existing ROW and will be disturbed. Also, nest tree SE51 may be within the boundary of compensation pond #1 and may be disturbed or taken. A new nest tree that has not yet been numbered or mapped by FFWCC could also be taken with the construction of compensation pond #2.

No federally listed plants are known to occur in Seminole County, Florida.

### **Fish and Wildlife Coordination Act**

The FDOT is statutorily obligated to mitigate all wetland impacts according to the Clean Water Act and the Section 404 permitting process through the Army Corps of Engineers. In addition, the State of Florida also requires the demonstration of avoidance, minimization and mitigation of wetland impacts. During the design and permitting phase the FDOT committed to avoiding and minimizing the direct and indirect effects of this project on wetland ecosystems. The January 2013 WEBAR states that the Preferred Alternative will impact approximately 27 acres of forested wetlands, 10 acres of secondary impacts, 1.33 acres of wetland-cut ditches, 6 acres of upland-cut ditches, 4.26 acres of shading impacts from the new bridge and 17.59 acres of impacts to the Lake Jesup Conservation Area.

FHWA and USFWS requested Section 4(f) analysis for this project due to the proposed impacts to the Lake Jesup Conservation Area. Avoidance and minimization measures were demonstrated by selecting Alternative 2 with the least amount of impacts to numerous ecologically significant conservation easements adjacent to SR 46, such as the Rolf Bergman Tract. The easements and conservation areas were set aside to mitigate for past wetland impacts as a result of new road construction or improvement. The Service has determined that the Lake Jesup conservation area meets the definition of a Section 4(f) property under the Transportation Act of 1966, as amended. Spanning the floodplains of the St. John's River and the conservation area with a longer bridge may be one solution to avoiding ~18 acres of impact to public land. The Service also requests consideration of recommendations to reduce the footprint of the highway by choosing a design that minimizes the width of the roadway, including eliminating the median.

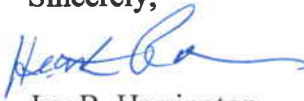
The need to reinitiate consultation will allow the Service to review the final design for the interchange as well as all of the pond locations, wildlife crossings and wetland impacts.

This letter does not represent a biological opinion as described in Section 7 of the ESA nor a final concurrence with project effects on listed species as determined by the FDOT. New information regarding species presence, changes to and refinement of the proposed project design, and potential adverse effects not initially considered may increase the risk of adverse

effects to a level at which take is reasonably certain to occur. All additional information available will be evaluated when ESA consultation is reinitiated.

If you have any questions, please contact Jane Monaghan at (904)731-3119.

Sincerely,

*for*   
Jay B. Herrington  
Field Supervisor

cc: Scott Sanders-FFWCC  
Andrew Phillips-ACOE  
Ulgonda Kirkpatrick-USFWS



# United States Department of the Interior

## U. S. FISH AND WILDLIFE SERVICE

7915 BAYMEADOWS WAY, SUITE 200  
JACKSONVILLE, FLORIDA 32256-7517

IN REPLY REFER TO:  
FWS Log No. 04EF1000-2014-I-0176-R001

August 10, 2017

William Walsh  
Environmental Manager  
Florida Department of Transportation, District 5  
719 S. Woodland Blvd.  
Deland, FL 32720

RE: Reinitiation of Section 7 Informal Consultation  
State Road 46 (SR 46) Project Development and Environment (PD&E) Study  
From east State Road 415 (SR 415) to County Road (CR 426)  
FPID Number: 240216-4-28-1  
Seminole County, Florida

Dear Mr. Walsh:

On May 29, 2014, the U.S. Fish and Wildlife Service (Service) provided an informal consultation letter for the SR 46 PD&E study from east of SR 415 to CR 426 following the review of the draft Wetland Evaluation and Biological Report (WEBAR) and draft Endangered Species Biological Assessment (ESBA) prepared for this PD&E study. The Service then concurred with FDOT's species determinations of "may affect, but not likely to adversely affect" for the West Indian manatee with conditions, and a "no effect" determination for the Florida scrub-jay and Florida sand skink. The letter also provided comments and recommendations for FDOT's completion of informal consultation related to the Audubon's crested caracara, wood stork, and the eastern indigo snake.

The Service received a request from the Florida Department of Transportation (FDOT) for reinitiation of informal consultation on July 12, 2017. The FDOT is requesting concurrence and review of the updated Natural Resources Evaluation (NRE) report. The Service has completed its review of the NRE report which addressed the Service's comments and recommendations outlined in the previous consultation in regards to the Audubon's crested caracara, wood stork, and the eastern indigo snake. The Service provides the following comments in accordance with Section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*).

### **Audubon's crested caracara**

The Service has reviewed FDOT's effects determination and commitments, as well as the information provided in the NRE. A formal crested caracara survey of the SR 46 project was conducted between January 1 and April 30, 2015. No caracaras were observed nesting or foraging within the SR 46 PD&E study area during the time of the survey. The survey also

documented that the closet caracara nest was located over 4,000 feet west of the project. After review of the survey information and the commitments outlined in the revised NRE the Service concurs with a “may affect, not likely to adversely affect” determination. FDOT has committed to conduct subsequent caracara surveys and reinitiate consultation with the Service during the design phase of the project (estimated 2021).

### **Wood stork**

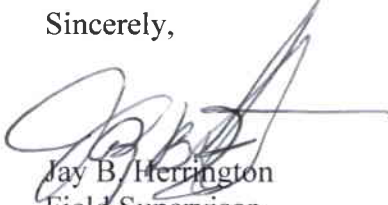
The proposed project lies within the 15-mile Core Foraging Area (CFA) of one wood stork nesting colony (#612320). There is no nesting habitat within or immediately adjacent to the project, but there is foraging habitat. The project will impact 26.43 acres (wetlands) and 1.33 acres (wetland-cut ditches) of potential suitable foraging habitat (SFH). To offset impacts to wetlands used as wood stork core foraging areas (CFA) FDOT proposes to purchase credits from a Service approved mitigation bank. The FDOT has also committed to reinitiate consultation prior to advancing the project into construction. After analyzing our data and the information provided by FDOT the Service concurs with FDOT’s determination of “may affect not likely to adversely affect”.

### **Eastern indigo snake**

The proposed project contains a mixture of different habitat types. Since the species is known to inhabit a variety of different vegetative communities and range over large areas, it is likely that this species may forage within the project corridor. There are no xeric habitats mapped for the project area, however within the project area there are a few xeric vegetative patches. A 100% gopher tortoise survey was conducted on June 2 and 4, 2015 and concluded that there was a total of 18 potentially occupied gopher tortoise burrows. The FDOT has committed to using the Standard Protection Measures for the eastern indigo snake during construction and the excavation of all gopher tortoise burrows within the project area prior to disturbance in the project area. The Service concurs with the FDOT’s determination of “may affect, not likely to adversely affect”.

Thank you for considering the effects of your proposed project on fish and wildlife, and the ecosystems upon which they depend. Although this does not represent a biological opinion as described in Section 7 of the Act, it does fulfill the requirements of the Act. Should changes to the proposed project occur or new information regarding fish and wildlife resources become available, further consultation with the Service should be initiated to assess any or further potential impacts. If you have any questions, please contact Zakia Williams at (904)731-3119.

Sincerely,



Jay B. Herrington  
Field Supervisor



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

MAY 21 2018

Catherine B. Owen, M.S.  
District Cultural Resources Coordinator  
Florida Department of Transportation, District 5  
719 South Woodland Boulevard  
DeLand, FL 32720

Subject: State Road 46 Widening Project.

Dear Ms. Owen:

The U.S. Environmental Protection Agency (EPA), Region 4, received your February 14, 2018 request to assess the above referenced project and we reviewed it pursuant to Section 1424(e) of the Safe Drinking Water Act. The assessment is to determine if the project lies within the boundaries (recharge and streamflow source zones) of an EPA designated Sole Source Aquifer (SSA); and to determine if the project poses potential, adverse health or environmental impacts. A sole source aquifer is the sole or principal water source for a designated area. If the aquifer is contaminated, there would be a significant hazard to public health and an economic burden for those using the aquifer to tap into and deliver drinking water from another water source.

The project has been determined to lie partially **inside** the designated boundaries of the Volusia Sole Source Aquifer and based on the information provided, is not expected to cause a significant impact to the aquifer system. However, it is requested that all debris from any demolition of the existing structures are properly contained and removed from the site prior to construction of the new structure. If applicable, all county flood plain management plans and public notification processes should be followed. During construction, it is EPA's understanding and expectation that those responsible for the project will strictly adhere to all Federal, State and local government permits, ordinances, planning designs, construction codes, operation & maintenance requirements, and engineering as well as any contaminant mitigation recommendations outlined by federal and state agency reviews. All best management practices for erosion and sedimentation control should be followed. State and County environmental offices should be contacted to address proper drainage and storm water designs. Additionally, the project manager should contact State and local environmental officials to obtain a copy of any local Wellhead Protection Plans. <http://www.dep.state.fl.us/swapp/Default.htm>

Please note that this "no significant impact" finding has been determined based on the information provided and under Section 1424(e) of the Safe Drinking Water Act only. If there are any significant changes to the project, it is requested that the EPA Region 4 office be notified for further review. Other regulatory groups within the EPA responsible for administering other programs may, at their own discretion and under separate cover, provide additional comments.

Thank you for your concern with the environmental impacts of this project. If you have any questions, please contact Mr. Khurram Rafi at 404-562-9283 or Rafi.Khurram@epa.gov or Mr. Larry Cole at 404-562-9474 or Cole.Larry@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'BJS', written in a cursive style.

Brian J. Smith  
Chief  
Ground Water and UIC Section  
Grants and Drinking Water Protection Branch