



Southwest Florida
Water Management District

SAJ-2011-00551 (SP-TSH)
ATTACHMENT 2
Water Quality Certification: 20 pages

An Equal
Opportunity
Employer

Bartow Service Office
170 Century Boulevard
Bartow, Florida 33830-7700
(863) 534-1448 or
1-800-492-7862 (FL only)

Sarasota Service Office
6750 Fruitville Road
Sarasota, Florida 34240-9711
(941) 377-3722 or
1-800-320-3503 (FL only)

Tampa Service Office
7601 Highway 301 North
Tampa, Florida 33637-6759
(813) 985-7481 or
1-800-836-0797 (FL only)

July 24, 2019

Pasco County BOCC
Attn: Margaret Smith
8731 Citizens Drive Suite 320
New Port Richey, FL 34552

FDOT Florida's Turnpike Enterprise
Attn: Martin Horwitz
Florida's Turnpike Milepost 263, Building 5315
Ocoee, FL 34761

**Subject: Notice of Intended Agency Action - Approval
ERP Individual Construction Major Modification**
Project Name: Ridge Road Phase 1 & II & Suncoast Parkway Int Phase 2
App ID/Permit No: 767757 / 43018792.006
County: Pasco
Sec/Twp/Rge: S27/T25S/R18E, S27/T25S/R17E, S33/T25S/R17E,
S25/T25S/R17E, S29/T25S/R18E, S30/T25S/R18E,
S28/T25S/R18E, S22/T25S/R18E, S32/T25S/R17E,
S26/T25S/R17E, S28/T25S/R17E, S21/T25S/R18E

Dear Permittee(s):

The Southwest Florida Water Management District (District) has completed its review of the application for Environmental Resource Permit modification. Based upon a review of the information you have submitted, the District hereby gives notice of its intended approval of the application.

The File of Record associated with this application can be viewed at <http://www18.swfwmd.state.fl.us/erp/erp/search/ERPSearch.aspx> and is also available for inspection Monday through Friday, except for District holidays, from 8:00 a.m. through 5:00 p.m. at the District's Tampa Service Office, 7601 U.S. Highway 301 North, Tampa, Florida 33637.

If you have any questions or concerns regarding the application or any other information, please contact the Environmental Resource Permit Bureau in the Tampa Service Office.

Sincerely,

Michelle K. Hopkins, P.E.
Bureau Chief
Environmental Resource Permit Bureau
Regulation Division

cc: Micheal Dixon
Thomas Montgomery, NV5, Inc.



Southwest Florida Water Management District

2379 Broad Street, Brooksville, Florida 34604-6899
(352) 796-7211 or 1-800-423-1476 (FL only)
SUNCOM 628-4150 TDD only 1-800-231-6103 (FL only)
On the Internet at: WaterMatters.org

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S28/T25S/R18E, S22/T25S/R18E, S32/T25S/R17E,
S26/T25S/R17E, S28/T25S/R17E, S21/T25S/R18E

Dear Permittee(s):

The Southwest Florida Water Management District (District) is in receipt of your application for the Environmental Resource Permit modification. Based upon a review of the information you submitted, the application is approved.

Please refer to the attached Notice of Rights to determine any legal rights you may have concerning the District's agency action on the permit application described in this letter.

If approved construction plans are part of the permit, construction must be in accordance with these plans. These drawings are available for viewing or downloading through the District's Application and Permit Search Tools located at www.WaterMatters.org/permits.

The District's action in this matter only becomes closed to future legal challenges from members of the public if such persons have been properly notified of the District's action and no person objects to the District's action within the prescribed period of time following the notification. The District does not publish notices of agency action. If you wish to limit the time within which a person who does not receive actual written notice from the District may request an administrative hearing regarding this action, you are strongly encouraged to publish, at your own expense, a notice of agency action in the legal advertisement section of a newspaper of general circulation in the county or counties where the activity will occur. Publishing notice of agency action will close the window for filing a petition for hearing. Legal requirements and instructions for publishing notices of agency action, as well as a noticing form that can be used, are available from the District's website at www.WaterMatters.org/permits/noticing. If you publish notice of agency action, a copy of the affidavit of publication provided by the newspaper should be sent to the District's Tampa Service Office for retention in this permit's File of Record.

If you have any questions or concerns regarding your permit or any other information, please contact the Environmental Resource Permit Bureau in the Tampa Service Office.

Sincerely,

Michelle K. Hopkins, P.E.
Bureau Chief
Environmental Resource Permit Bureau
Regulation Division

Enclosures: Approved Permit w/Conditions Attached
 [As-Built Certification and Request for Conversion to Operation Phase](#)
 Notice of Authorization to Commence Construction
 Notice of Rights

cc: Micheal Dixon
 Thomas Montgomery, NV5, Inc.

**SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE
INDIVIDUAL CONSTRUCTION MAJOR MODIFICATION
PERMIT NO. 43018792.006**

EXPIRATION DATE: July 24, 2024

PERMIT ISSUE DATE: July 24, 2019

This permit is issued under the provisions of Chapter 373, Florida Statutes, (F.S.), and the Rules contained in Chapter 62-330, Florida Administrative Code, (F.A.C.). The permit authorizes the Permittee to proceed with the construction of a surface water management system in accordance with the information outlined herein and shown by the application, approved drawings, plans, specifications, and other documents, attached hereto and kept on file at the Southwest Florida Water Management District (District). Unless otherwise stated by permit specific condition, permit issuance constitutes certification of compliance with state water quality standards under Section 401 of the Clean Water Act, 33 U.S.C. 1341. All construction, operation and maintenance of the surface water management system authorized by this permit shall occur in compliance with Florida Statutes and Administrative Code and the conditions of this permit.

PROJECT NAME: Ridge Road Phase 1 & II & Suncoast Parkway Int Phase 2

GRANTED TO: Pasco County BOCC
Attn: Margaret Smith
8731 Citizens Drive Suite 320
New Port Richey, FL 34552

OTHER PERMITTEES: FDOT Florida's Turnpike Enterprise
Attn: Martin Horwitz
Florida's Turnpike Milepost 263, Building 5315
Ocoee, FL 34761

ABSTRACT: This Individual permit is for the modification of the stormwater management system permitted under Environmental Resource Permit (ERP) No. 43018792.005, entitled Ridge Road Phase I & II & Suncoast Parkway Interchange Phase 2. This project is for a new alignment that will commence at the current terminus of Ridge Road at the intersection with Decubellis Road/Moon Lake Road. It will extend for approximately 8.6 miles to US 41. Ramps will be constructed to create a full diamond interchange where the Ridge Road Extension will cross under the existing overpass at the Suncoast Parkway approximately 4.7 miles east of Decubellis Road. The Permittee has incorporated design features that significantly reduce the wetland and floodplain impacts. These features include bridging over numerous wetlands within Phase I that were to be permanently filled and segments of vertical wall in lieu of fill slopes for both Phase I and Phase II. The design changes associated with this modification include the addition of 12 bridges and the lengthening of three others in Phase I. Revised calculations were provided for Ponds 7 and 8, which were slightly impacted by the new design features. Under the existing permit, stormwater management design for Phase I was based on an ultimate 6-lane divided typical section. Initial construction for Phase I is planned for a 4 lane divided typical section with widening into the median in the future. Phase II calls for the complete construction of the 4 lane roadway over its entire 3.4 mile length. The project design for Suncoast Interchange is unchanged with two ponds to serve the interchange. This permit supersedes ERP No. 43018792.005 and all conditions are replaced herein. Information regarding the wetlands and/or surface waters is stated below and on the permitted construction drawings for the proposed project.

OP. & MAIN. ENTITY: Pasco County BOCC

OTHER OP. & MAIN. ENTITY: FDOT Florida's Turnpike Enterprise

COUNTY: Pasco

SEC/TWP/RGE: S27/T25S/R18E, S27/T25S/R17E, S33/T25S/R17E, S25/T25S/R17E,
S29/T25S/R18E, S30/T25S/R18E, S28/T25S/R18E, S22/T25S/R18E,
S32/T25S/R17E, S26/T25S/R17E, S28/T25S/R17E, S21/T25S/R18E

**TOTAL ACRES OWNED
OR UNDER CONTROL:** 384.00

PROJECT SIZE: 384.00 Acres

LAND USE: Road Projects

DATE APPLICATION FILED: July 20, 2018

AMENDED DATE: N/A

I. Water Quantity/Quality

POND No.	Area Acres @ Top of Bank	Treatment Type
1	0.98	MAN-MADE WET DETENTION
2	1.20	MAN-MADE WET DETENTION
3A	1.43	MAN-MADE WET DETENTION
3B	0.96	MAN-MADE WET DETENTION
4	1.71	MAN-MADE WET DETENTION
5	3.50	MAN-MADE WET DETENTION
6	2.67	MAN-MADE WET DETENTION
7	3.67	MAN-MADE WET DETENTION
8	2.27	MAN-MADE WET DETENTION
9	3.43	MAN-MADE WET DETENTION
10	2.67	MAN-MADE WET DETENTION
11	6.47	MAN-MADE WET DETENTION
Pond 1	2.26	MAN-MADE WET DETENTION
Pond 2	1.96	MAN-MADE WET DETENTION
Pond 3	3.83	MAN-MADE WET DETENTION
Pond 4	1.44	MAN-MADE WET DETENTION
Pond 5	2.07	MAN-MADE WET DETENTION
2	3.22	MAN-MADE WET DETENTION
3	5.74	MAN-MADE WET DETENTION
	Total: 51.48	

Water Quantity/Quality Comments:

A total of 19 wet detention ponds will provide water quality treatment and attenuation for the project. Numbers 1 through 11 are associated with Phase I, Ponds 1 through Pond 5 are associated with Phase II and Suncoast Parkway interchange will include ponds identified as 2 and 3. All of the current basin divides were able to be maintained except for that between Pond 7 and Pond 8. There was a greater contributing area flowing to Pond 7 and a reduced area flowing to Pond 8. The revised modeling results had a minor change in peak stages and Pond 8 required an adjustment to the weir size. All elevations reference NGVD 29. To convert to NAVD 88, subtract 0.85'.

A mixing zone is not required.

A variance is not required.

II. 100-Year Floodplain

Encroachment (Acre-Feet of fill)	Compensation (Acre-Feet of excavation)	Compensation Type	Encroachment Result* (feet)
82.90	116.00	Equivalent Excavation	N/A

Floodplain Comments:

A total of twelve (12) floodplain compensation areas providing 73.9 ac-ft of volume were previously approved to offset 66.6 ac-ft of encroachment associated with the construction of Phases I and II. The proposed design features will reduce the floodplain impacts associated with Phases I and II from 66.6 ac-ft to 40.8 ac-ft. The new Suncoast Parkway interchange will be unchanged by this modification and requires 42.1 ac-ft of fill within the 100 year floodplain. The Engineer-of-Record cited an excess of 186 ac-ft of floodplain compensation associated with ERP No. 43015753.000 which will provide compensation for this encroachment (leaving a balance of 143.9 ac-ft of excess compensation). ERP No. 43015753.000 will be modified to reflect this reduction in available floodplain compensation. The total encroachment volume is 82.9 ac-ft while the total compensation volume is 116.0 ac-ft.

*Depth of change in flood stage (level) over existing receiving water stage resulting from floodplain encroachment caused by a project that claims Minimal Impact type of compensation.

III. Environmental Considerations

Wetland/Other Surface Water Information

Wetland/Other Surface Water Name	Total Acres	Not Impacted Acres	Permanent Impacts		Temporary Impacts	
			Acres	Functional Loss*	Acres	Functional Loss*
W01	0.05	0.00	0.05	0.01	0.00	0.00
W02	0.22	0.00	0.21	0.00	0.01	0.00
W03	0.01	0.00	0.01	0.00	0.00	0.00
W04	0.23	0.00	0.21	0.05	0.02	0.00
W05	0.61	0.00	0.58	0.30	0.03	0.01
W05A	0.14	0.00	0.14	0.01	0.00	0.00
W06	5.37	0.00	5.03	2.57	0.34	0.08
W07 F	0.54	0.00	0.51	0.11	0.03	0.01
W07 NF	0.23	0.00	0.22	0.11	0.01	0.00
W08	0.02	0.00	0.02	0.00	0.00	0.00
W10	3.47	0.00	2.66	0.58	0.81	0.19
W11	1.51	0.00	1.16	0.28	0.35	0.08
W12	3.26	0.00	2.52	0.62	0.74	0.20
W13	4.15	0.00	3.52	1.18	0.63	0.15
W14 F	0.10	0.00	0.10	0.02	0.00	0.00
W14 NF	0.36	0.00	0.36	0.29	0.00	0.00
W15	1.17	0.00	0.87	0.18	0.30	0.08
W16	1.55	0.00	1.11	0.22	0.44	0.11
W17 F	0.21	0.00	0.21	0.06	0.00	0.00
W17 NF	0.43	0.00	0.43	0.33	0.00	0.00
W18	0.04	0.00	0.04	0.00	0.00	0.00
W18A	0.13	0.00	0.13	0.00	0.00	0.00
W28	2.40	0.00	2.34	1.52	0.06	0.01
W29	0.10	0.00	0.10	0.01	0.00	0.00
W30	0.84	0.00	0.80	0.39	0.04	0.01
W31	0.64	0.00	0.62	0.36	0.02	0.00
W32	0.00	0.00	0.00	0.00	0.00	0.00
W32A	0.07	0.00	0.07	0.00	0.00	0.00
W33	2.41	0.00	2.29	1.33	0.12	0.03
W35 F	3.36	0.00	3.06	1.88	0.30	0.07
W35 NF	0.27	0.00	0.27	0.02	0.00	0.00
W37	0.49	0.00	0.49	0.23	0.00	0.00
W38	3.28	0.00	3.17	1.73	0.11	0.03
W39	1.51	0.00	1.35	0.73	0.16	0.04
W40 F	1.33	0.00	1.33	0.69	0.00	0.00
W40 NF	0.79	0.00	0.79	0.42	0.00	0.00
W42	1.68	0.00	1.61	0.70	0.07	0.01
W44 F	0.73	0.00	0.73	0.41	0.00	0.00
W44 NF	3.83	0.00	3.57	1.38	0.26	0.01
W45A	0.52	0.00	0.52	0.21	0.00	0.00
W45B	0.39	0.00	0.39	0.00	0.00	0.00
W46A	0.60	0.00	0.60	0.20	0.00	0.00
W47	0.04	0.00	0.04	0.00	0.00	0.00

W48	0.52	0.00	0.52	0.17	0.00	0.00
W50	0.69	0.00	0.69	0.32	0.00	0.00
W51	0.03	0.00	0.03	0.00	0.00	0.00
SW-05	0.06	0.00	0.06	0.00	0.00	0.00
TPK.W17	0.26	0.00	0.26	0.00	0.00	0.00
TPK.W19	0.60	0.00	0.60	0.00	0.00	0.00
TPK.W21	0.27	0.00	0.27	0.00	0.00	0.00
TPK.W23	1.32	0.00	1.32	0.00	0.00	0.00
TPK.W24	4.02	0.00	4.02	0.00	0.00	0.00
TPK.W25	0.14	0.00	0.14	0.00	0.00	0.00
TPK.W26	3.88	0.00	3.88	0.00	0.00	0.00
TPK.SW	0.77	0.00	0.77	0.00	0.00	0.00
TPK.SE	0.95	0.00	0.95	0.00	0.00	0.00
TPK.NW	1.94	0.00	1.94	0.00	0.00	0.00
TPK.WNW	0.02	0.00	0.02	0.00	0.00	0.00
Total:	64.55	0.00	59.70	19.62	4.85	1.12

* For impacts that do not require mitigation, their functional loss is not included.

Wetland/Other Surface Water Comments:

There are 64.49 acres of wetlands located within the project area for this ERP modification. Permanent filling and dredging impacts to 32.20 acres of wetlands (FLUCCS 615, 621, 641, and 630) will occur for construction of Ridge Road proper and its associated stormwater system. Permanent filling and dredging impacts to 31.85 acres of qualifying wetlands were evaluated using the Uniform Mitigation Assessment Method (UMAM) as required pursuant to Chapter 62-345, F.A.C. The results of the UMAM analysis indicate a functional loss of 18.48 units due to the permanent impacts proposed.

Secondary wetland impacts to 13.27 acres will occur for construction of Ridge Road proper. Secondary wetland impacts to 13.21 acres of qualifying wetlands were evaluated using the UMAM as required pursuant to Chapter 62-345, F.A.C. The result of the secondary UMAM analysis indicate a functional loss of 1.14 units due to the secondary impacts associated with the project.

Temporary filling and dredging impacts to 4.85 acres of wetlands will occur for construction of the Ridge Road proper and its associated stormwater system. The result of the temporary UMAM analysis indicate a functional loss of 1.12 units due to the temporary impacts associated with the project. The cumulative results of the UMAM analyses identify a total functional loss of 20.74 units due to the project's proposed permanent, secondary, and temporary wetland impacts.

There is 0.06 acre of other surface waters features (FLUCCS 510), consisting of 0.06 acre of an upland-cut ditch, located within the project area. Permanent filling impacts to 0.06 acre of the project surface waters will occur for construction of the roadway.

As previously defined in ERP No. 43018792.005, the wetlands and wetland impacts pertaining to the Suncoast Parkway Interchange are addressed and mitigated for separately from the Ridge Road proper impacts. There are 14.17 acres of wetlands contained within the Suncoast Parkway Interchange portion of this project. The construction of the Interchange will result in 11.68 acres of permanent dredging and filling impacts and 2.49 acres of secondary wetland impacts.

Mitigation Information

Name	Creation		Enhancement		Preservation		Restoration		Enhancement + Preservation		Other	
	Acres	Functional Gain	Acres	Functional Gain	Acres	Functional Gain	Acres	Functional Gain	Acres	Functional Gain	Acres	Functional Gain
Old Florida Mitigation Bank	0.00	21.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total:	0.00	21.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigation Comments:

Wetland mitigation for permanent, secondary, and temporary filling and dredging impacts resulting from the Ridge Road proper construction will be provided by the purchase of 18.60 forested and 2.73 non-forested credits from the Old Florida Mitigation Bank, ERP No. 43041425.001. The results of the UMAM analysis indicate a relative functional gain of 21.33 units. The UMAM analysis determined that the mitigation provided by the permit adequately offsets the project's proposed impacts to functional wetland habitat.

Wetland mitigation is not required for permanent filling and dredging impacts to Wetlands W02, W18A, and W32A (totaling 0.35 acre), secondary impacts (totaling 0.06 acre), or temporary impacts (totaling 0.01 acre) pursuant to Subsection 10.2.2.1 of the ERP Applicant's Handbook Vol. I (AHVI). Under this Subsection, wetland mitigation is not required for impacts to isolated wetlands less than one half acre in size that do not provide significant habitat for threatened or endangered species.

Wetland mitigation is not required for permanent filling impacts to the upland cut ditch (0.06 acre) pursuant to Subsection 10.2.2.2, AHVI. Under this Subsection, wetland mitigation is not required for impacts to drainage ditches that were constructed in uplands and do not provide significant habitat for threatened or endangered species and were not constructed to divert natural stream flow.

Wetland mitigation for the Suncoast Parkway Interchange wetland impacts is provided by using the excess mitigation credit documented within ERP No. 43015724.001. This mitigation consisted of 241.20 acres of wetland and upland preservation, previously reported.

Specific Conditions

1. If the ownership of the project area covered by the subject permit is divided, with someone other than the Permittee becoming the owner of part of the project area, this permit may be terminated, unless the terms of the permit are modified by the District or the permit is transferred pursuant to Rule 40D-1.6105, F.A.C. In such situations, each land owner shall obtain a permit (which may be a modification of this permit) for the land owned by that person. This condition shall not apply to the division and sale of lots or units in residential subdivisions or condominiums.
2. The Permittee shall retain the design professional registered or licensed in Florida, to conduct on-site observations of construction and assist with the as-built certification requirements of this project. The Permittee shall inform the District in writing of the name, address and phone number of the design professional so employed. This information shall be submitted prior to construction.
3. Wetland buffers shall remain in an undisturbed condition except for approved drainage facility construction/maintenance. No owner of property may perform any work, construction, maintenance, clearing, filling or any other type of activities within the wetland(s), wetland buffer(s), and drainage easement(s) described in the approved permit and recorded plat of the subdivision, unless prior approval is received from the Southwest Florida Water Management District.
4. The following boundaries, as shown on the approved construction drawings, shall be clearly delineated on the site prior to initial clearing or grading activities:
 - a. wetland and surface water areas
 - b. wetland buffers
 - c. limits of approved wetland impacts

The delineation shall endure throughout the construction period and be readily discernible to construction and District personnel.
5. This Permit Modification No. 43018792.006, amends the previously issued Permit No. 43018792.005, and all conditions are replaced by the conditions herein.
6. If limestone bedrock is encountered during construction of the stormwater management system, the District must be notified and construction in the affected area shall cease.
7. The Permittee shall notify the District of any sinkhole development in the stormwater management system within 48 hours of discovery and must submit a detailed sinkhole evaluation and repair plan for approval by the District within 30 days of discovery.
8. The Permitted Plan Set for this project includes: Wetland Plan Sheets 24 and 25 from the submittal received by the District on June 26, 2019; Phase I and Phase II received by the District on April 24, 2019; and Suncoast Parkway Interchange Phase II file of record plans.
9. If prehistoric or historic artifacts such as pottery or ceramics, stone or shell tools or metal implements, or any other physical remains that could be associated with Native American cultures or early colonial or American settlement are encountered at any time within the project area, the permittee shall cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The permittee shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section at (850) 245-6333, as well as the District. Project activities in the immediate vicinity shall not resume without authorization from the District after coordination with the Division of Historical Resources. In the event that unmarked human remains are encountered during permitted activities, all work that may disturb the unmarked human remains shall stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statutes.
10. The operation and maintenance entity shall provide for the inspection of the permitted project after conversion of the permit to the operation and maintenance phase. For systems utilizing retention or wet detention, the inspections shall be performed five (5) years after operation is authorized and every five (5) years thereafter.

The operation and maintenance entity must maintain a record of each inspection, including the date of inspection, the name and contact information of the inspector, whether the system was functioning as designed and permitted, and make such record available upon request of the District.

Within 30 days of any failure of a stormwater management system or deviation from the permit, an inspection report shall be submitted using Form 62-330.311(1), "Operation and Maintenance Inspection Certification" describing the remedial actions taken to resolve the failure or deviation.

11. District staff must be notified in advance of any proposed construction dewatering. If the dewatering activity is likely to result in offsite discharge or sediment transport into wetlands or surface waters, a written dewatering plan must either have been submitted and approved with the permit application or submitted to the District as a permit prior to the dewatering event as a permit modification. A water use permit may be required prior to any use exceeding the thresholds in Chapter 40D-2, F.A.C.
12. Off-site discharges during construction and development shall be made only through the facilities authorized by this permit. Water discharged from the project shall be through structures having a mechanism suitable for regulating upstream stages. Stages may be subject to operating schedules satisfactory to the District.
13. The permittee shall complete construction of all aspects of the stormwater management system, including wetland compensation (grading, mulching, planting), water quality treatment features, and discharge control facilities prior to beneficial occupancy or use of the development being served by this system.
14. The following shall be properly abandoned and/or removed in accordance with the applicable regulations:
 - a. Any existing wells in the path of construction shall be properly plugged and abandoned by a licensed well contractor.
 - b. Any existing septic tanks on site shall be abandoned at the beginning of construction.
 - c. Any existing fuel storage tanks and fuel pumps shall be removed at the beginning of construction.
15. All stormwater management systems shall be operated to conserve water in order to maintain environmental quality and resource protection; to increase the efficiency of transport, application and use; to decrease waste; to minimize unnatural runoff from the property and to minimize dewatering of offsite property.
16. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the occupation of the site or operation of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of that phase or portion of the system to a local government or other responsible entity.
17. This permit is valid only for the specific processes, operations and designs indicated on the approved drawings or exhibits submitted in support of the permit application. Any substantial deviation from the approved drawings, exhibits, specifications or permit conditions, including construction within the total land area but outside the approved project area(s), may constitute grounds for revocation or enforcement action by the District, unless a modification has been applied for and approved. Examples of substantial deviations include excavation of ponds, ditches or sump areas deeper than shown on the approved plans.
18. Issuance of this authorization also constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act.
19. This permit does not authorize the Permittee to cause any adverse impact to or "take" of state listed species and other regulated species of fish and wildlife. Compliance with state laws regulating the take of fish and wildlife is the responsibility of the owner or applicant associated with this project. Please refer to Chapter 68A-27 of the Florida Administrative Code for definitions of "take" and a list of fish and wildlife species. If listed species are observed onsite, FWC staff are available to provide decision support information or assist in obtaining the appropriate FWC permits. Most marine endangered and threatened species are statutorily protected and a "take" permit cannot be issued. Requests for further information or review can be sent

to FWCConservationPlanningServices@MyFWC.com.

20. The Permittee shall not begin construction within the project area until the Old Florida Mitigation Bank has received a permit modification authorizing the withdrawal of 18.60 forested and 2.73 non-forested credits from mitigation bank permit number 43041425.001, and a copy of this modification is provided to the District, or this permit has been modified to provide an equivalent level of mitigation to be completed by the Permittee. Initiation of construction prior to issuance of the required permit modification shall be a violation of this permit.

GENERAL CONDITIONS

1. The general conditions attached hereto as Exhibit "A" are hereby incorporated into this permit by reference and the Permittee shall comply with them.

Michelle K. Hopkins, P.E.

Authorized Signature

EXHIBIT A

GENERAL CONDITIONS:

- 1 The following general conditions are binding on all individual permits issued under this chapter, except where the conditions are not applicable to the authorized activity, or where the conditions must be modified to accommodate, project-specific conditions.
 - a. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with Rule 62-330.315, F.A.C., or the permit may be revoked and the permittee may be subject to enforcement action.
 - b. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the Agency staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.
 - c. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the *State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation June 2007)*, and the *Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008)*, which are both incorporated by reference in subparagraph 62-330.050(8)(b)5, F.A.C., unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.
 - d. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the Agency a fully executed Form 62-330.350(1), "Construction Commencement Notice,"[effective date], incorporated by reference herein (<http://www.flrules.org/Gateway/reference.asp?No=Ref-02505>), indicating the expected start and completion dates. A copy of this form may be obtained from the Agency, as described in subsection 62-330.010(5),F.A.C. However, for activities involving more than one acre of construction that also require a NPDES stormwater construction general permit, submittal of the Notice of Intent to Use Generic Permit for Stormwater Discharge from Large and Small Construction Activities, DEP Form 62-621.300(4)(b), shall also serve as notice of commencement of construction under this chapter and, in such a case, submittal of Form 62-330.350(1) is not required.
 - e. Unless the permit is transferred under Rule 62-330.340, F.A.C., or transferred to an operating entity under Rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms and conditions of the permit for the life of the project or activity.
 - f. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:
 1. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex - "Construction Completion and Inspection Certification for Activities Associated with a Private Single-Family Dwelling Unit" [Form 62-330.310(3)]; or
 2. For all other activities - "As-Built Certification and Request for Conversion to Operation Phase" [Form 62-330.310(1)].
 3. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.
 - g. If the final operation and maintenance entity is a third party:

1. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as- built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.4 of Volume I) as filed with the Department of State, Division of Corporations and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.
 2. Within 30 days of submittal of the as- built certification, the permittee shall submit "Request for Transfer of Environmental Resource Permit to the Perpetual Operation and Maintenance Entity" [Form 62-330.310 (2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.
- h. The permittee shall notify the Agency in writing of changes required by any other regulatory agency that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.
- i. This permit does not:
1. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;
 2. Convey to the permittee or create in the permittee any interest in real property;
 3. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or
 4. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.
- j. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.
- k. The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.
- l. The permittee shall notify the Agency in writing:
1. Immediately if any previously submitted information is discovered to be inaccurate; and
 2. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.
- m. Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.
- n. If any prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, work involving

subsurface disturbance in the immediate vicinity of such discoveries shall cease. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section, at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Such subsurface work shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and notification shall be provided in accordance with Section 872.05, F.S. (2012).

- o. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.
 - p. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.
 - q. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the Agency will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.
 - r. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with Rule 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.
2. In addition to those general conditions in subsection (1) above, the Agency shall impose any additional project-specific special conditions necessary to assure the permitted activities will not be harmful to the water resources, as set forth in Rules 62-330.301 and 62-330.302, F.A.C., Volumes I and II, as applicable, and the rules incorporated by reference in this chapter.

SOUTHWEST FLORIDA
WATER MANAGEMENT DISTRICT

**NOTICE OF
AUTHORIZATION
TO COMMENCE CONSTRUCTION**

Ridge Road Phase 1 & II & Suncoast Parkway Int Phase 2

PROJECT NAME

Road Projects

PROJECT TYPE

Pasco

COUNTY

S27/T25S/R18E...

See Permit for additional STR listings

SEC(S)/TWP(S)/RGE(S)

Pasco County BOCC

PERMITTEE

See permit for additional permittees

APPLICATION ID/PERMIT NO: 767757 / 43018792.006

DATE ISSUED: July 24, 2019



Michelle K. Hopkins, P.E.

Issuing Authority

**THIS NOTICE SHOULD BE CONSPICUOUSLY
DISPLAYED AT THE SITE OF THE WORK**

Notice of Rights

ADMINISTRATIVE HEARING

1. You or any person whose substantial interests are or may be affected by the District's intended or proposed action may request an administrative hearing on that action by filing a written petition in accordance with Sections 120.569 and 120.57, Florida Statutes (F.S.), Uniform Rules of Procedure Chapter 28-106, Florida Administrative Code (F.A.C.) and District Rule 40D-1.1010, F.A.C. Unless otherwise provided by law, a petition for administrative hearing must be filed with (received by) the District within 21 days of receipt of written notice of agency action. "Written notice" means either actual written notice, or newspaper publication of notice, that the District has taken or intends to take agency action. "Receipt of written notice" is deemed to be the fifth day after the date on which actual notice is deposited in the United States mail, if notice is mailed to you, or the date that actual notice is issued, if sent to you by electronic mail or delivered to you, or the date that notice is published in a newspaper, for those persons to whom the District does not provide actual notice.
2. Pursuant to Subsection 373.427(2)(c), F.S., for notices of intended or proposed agency action on a consolidated application for an environmental resource permit and use of state-owned submerged lands concurrently reviewed by the District, a petition for administrative hearing must be filed with (received by) the District within 14 days of receipt of written notice.
3. Pursuant to Rule 62-532.430, F.A.C., for notices of intent to deny a well construction permit, a petition for administrative hearing must be filed with (received by) the District within 30 days of receipt of written notice of intent to deny.
4. Any person who receives written notice of an agency decision and who fails to file a written request for a hearing within 21 days of receipt or other period as required by law waives the right to request a hearing on such matters.
5. Mediation pursuant to Section 120.573, F.S., to settle an administrative dispute regarding District intended or proposed action is not available prior to the filing of a petition for hearing.
6. A request or petition for administrative hearing must comply with the requirements set forth in Chapter 28-106, F.A.C. A request or petition for a hearing must: (1) explain how the substantial interests of each person requesting the hearing will be affected by the District's intended action or proposed action, (2) state all material facts disputed by the person requesting the hearing or state that there are no material facts in dispute, and (3) otherwise comply with Rules 28-106.201 and 28-106.301, F.A.C. Chapter 28-106, F.A.C. can be viewed at www.flrules.org or at the District's website at www.WaterMatters.org/permits/rules.
7. A petition for administrative hearing is deemed filed upon receipt of the complete petition by the District Agency Clerk at the District's Tampa Service Office during normal business hours, which are 8:00 a.m. to 5:00 p.m., Monday through Friday, excluding District holidays. Filings with the District Agency Clerk may be made by mail, hand-delivery or facsimile transfer (fax). The District does not accept petitions for administrative hearing by electronic mail. Mailed filings must be addressed to, and hand-delivered filings must be delivered to, the Agency Clerk, Southwest Florida Water Management District, 7601 Highway 301 North, Tampa, FL 33637-6759. Faxed filings must be transmitted to the District Agency Clerk at (813) 367-9776. Any petition not received during normal business hours shall be filed as of 8:00 a.m. on the next business day. The District's acceptance of faxed petitions for filing is subject to certain conditions set forth in the District's Statement of Agency Organization and Operation, available for viewing at www.WaterMatters.org/about.

JUDICIAL REVIEW

1. Pursuant to Sections 120.60(3) and 120.68, F.S., a party who is adversely affected by District action may seek judicial review of the District's action. Judicial review shall be sought in the Fifth District Court of Appeal or in the appellate district where a party resides or as otherwise provided by law.
2. All proceedings shall be instituted by filing an original notice of appeal with the District Agency Clerk within 30 days after the rendition of the order being appealed, and a copy of the notice of appeal, accompanied by any filing fees prescribed by law, with the clerk of the court, in accordance with Rules 9.110 and 9.190 of the Florida Rules of Appellate Procedure (Fla. R. App. P.). Pursuant to Fla. R. App. P. 9.020(h), an order is rendered when a signed written order is filed with the clerk of the lower tribunal.

COMMENCEMENT NOTIFICATION

SAJ-2011-00551 (SP-TSH)
ATTACHMENT 3
Commencement Notification: 1 page

*Within ten (10) days of initiating the authorized work, submit this form via electronic mail to saj-rd-enforcement@usace.army.mil (preferred, not to exceed 15 MB) **or** by standard mail to U.S. Army Corps of Engineers, Enforcement Section, P.O. Box 4970, Jacksonville, FL 32232-0019.*

1. **Department of the Army Permit Number:** SAJ-2011-00551(SP-TSH)

2. **Permittee Information:**

Name: _____

Email: _____

Address: _____

Phone: _____

3. **Construction Start Date:** _____

4. **Contact to Schedule Inspection:**

Name: _____

Email: _____

Phone: _____

Signature of Permittee

Printed Name of Permittee

Date

AS-BUILT CERTIFICATION
BY PROFESSIONAL ENGINEER

SAJ-2011-00551 (SP-TSH)
ATTACHMENT 4
As-Built Certification Form: 2 pages

*Within sixty (60) days of completion of the authorized work, submit this form and one set of as-built engineering drawings via electronic mail to saj-rd-enforcement@usace.army.mil (preferred, but not to exceed 15 MB) **or** by standard mail to U.S. Army Corps of Engineers, Enforcement Section, P.O. Box 4970, Jacksonville, FL 32232-0019. If you have questions regarding this requirement, please contact the Enforcement Branch at 904-232-3131.*

1. Department of the Army Permit Number: SAJ-2011-00551(SP-TSH)

2. Permittee Information:

Name: _____

Address: _____

3. Project Site Identification (physical location/address):

4. As-Built Certification: I hereby certify that the authorized work, including any mitigation required by Special Conditions to the permit, has been accomplished in accordance with the Department of the Army permit with any deviations noted below. This determination is based upon on-site observation, scheduled and conducted by me or by a project representative under my direct supervision. I have enclosed one set of as-built engineering drawings.

Signature of Engineer

Name (Please type)

(FL, PR, or VI) Reg. Number

Company Name

City

State

ZIP

(Affix Seal)

Date

Telephone Number



SAJ-2011-00551 (SP-TSH)

ATTACHMENT 5

USFWS Biological Opinion: 34 pages

Biological Opinion

Ridge Road Extension

FWS Log #: 04E1000-2019-F-0637



Prepared by:

U.S. Fish and Wildlife Service
North Florida Ecological Services Office
7915 Baymeadows Way, Suite 200
Jacksonville, FL 32256-7517

Jay B. Herrington, Field Supervisor

Date

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CONSULTATION HISTORY

This section lists key events and correspondence during the course of this consultation. A complete administrative record of this consultation is on file in the United States Fish and Wildlife Service (Service) North Florida Ecological Service Office.

The Corps file number for the following actions is SAJ-1998-02682

4 Apr 2000 Comments from the Service

1 Aug 2000 3a letter from the Service, designate wetlands as Aquatic Resources of National Importance (ARNI)

23 Aug 2000 3b letter from the Service

27 Dec 2004 Letter from the Service indicating need for updated wildlife surveys

7 Jul 2005 Department of Army (Corps) initiated consultation with the Service

22 May 2006 the Service Biological Opinion 41910-2006-F-0330

18 Dec 2007 another 3a letter from the Service

6 Mar 2008 Corps requested re-initiation of consultation with the Service

28 Apr 2009 Service's letter to the Corps regarding outstanding information needed (SAJ-1998-02682)

18 Feb 2010 Applicant's consultant, Entrix, sent letter to the Service

The Corps file number for the following actions is SAJ-2011-00551

31 May 2011 Revised permit application submitted to Jacksonville District USACE (SAJ)

13 Jun 2011 SAJ letter (RAI) to applicant requesting copy of valid jurisdictional determination (based on reference in application to the JD)

22 Jul 2011 Corps field review of site (Corps, USEPA, Pasco County (County), and agents)

2 Nov 2011 Corps email to the County, inquiring about the status of the compensatory mitigation proposal

4 Nov 2011 Email from the County providing compensatory mitigation alternatives to be included in the public notice

28 Nov 2011 Corps published public notice

12 Dec 2011 Congressman Richard B. Nugent, 5th District of Florida, sent letter to Major General Merdith W.B. Temple, Acting Chief of Engineers, expressing support for the Ridge Road Extension project.

15 Dec 2011 USEPA requested extension of the comment period (other parties had also requested extension of the comment period)

24 Jan 2012 Comment letter from the Service

27 Jan 2012 USEPA Comment letter, MOA 3(a) letter. USEPA determined that the proposed project "...does not comply with the Guidelines and may have a substantial and unacceptable adverse impact on an ARNI." USEPA recommended denial of the project.

21 Feb 2012 USEPA Comment letter, MOA 3(b) letter.

22 Mar 2012 Seminole Tribe THPO comment letter, cultural resource assessment survey (CRAS) requested

6 Apr 2012 Applicant submits Wildlife Survey Plan to Corps; Corps forwarded to the Service and FFWCC for review on same day

25 Apr 2012 Meeting Corps/Service/FFWCC re: wildlife survey plan

April-May 2012 Several emails between Corps and applicants regarding wildlife surveys

1 Jun 2012 Applicants submitted revised wildlife survey plan

18 Jul 2012 Corps teleconference with applicants to discuss alternatives analysis

23 Jul 2012 Corps letter requesting information (RAI), re: alternatives analysis

21 Aug 2012 Corps meeting with applicants; 21 Aug 2012 Corps sent e-mail to applicants advising that response to 23 Jul 2012 RAI was due by 19 Nov 2012 (time appears to have been extended) and that the revised Wildlife Survey Plan was due by 4 Sep 2012, based on previous requests.

4 Sep 2012 Applicant submitted revised Wildlife Survey Plan; Corps forwarded to the Service on 7 Sep 2012

6 Sep 2012 Corps meeting with applicant

12 Oct 2012 Corps letter to applicants regarding Wildlife Surveys

15 Oct 2012 Corps meeting with applicants and the Service

15 Nov 2012 Corps meeting with applicants - alternatives analysis

16 Nov 2012 Corps letter to applicants regarding alternatives analysis (AA). Letter indicates that applicants “opted for additional Corps review of your outline of project alternatives.” Letter requested additional information, related to the AA, by 17 Dec 2012.

28 Jan 2013 Congressman Gus Bilirakis sent letter to SAJ District Commander requesting assistance with permitting of the project. Corps responded on 13 Feb 2012.

7 Jun 2013 The Service provided comments on RCW and Scrub jay survey plans

18 Dec 2013 Applicants submitted RAI response and several attachments

6 Feb 2014 Corps letter to applicants advising that, the applicants’ recent submittal does not address the full suite of alternatives previously recommended by the Corps. Letter recommends that based on the information provided to date, it is unlikely that Corps staff will be recommending a favorable permit decision. Letter requested any additional information that applicants want to provide within 30 days.

4 Mar 2014 Applicants requested time extension

22 Mar 2014 Applicants requested time extension, Corps granted extension

9 Jun 2014 Corps withdrew application due to lack of response

15 Apr 2015 Applicant submitted revised Alternatives Analysis

11 Aug 2015 Applicant submitted additional information in response to 13 Jul 2015 meeting with Corps

Evaluation of application transferred to Pensacola Regulatory Office in June 2016

01 Jan 2016 The Service participated in conference call with NV5, Cardno and the Corps to discuss the Biological Opinion and wildlife crossings.

16 Nov 2016 Corps field meeting with the Service, USEPA, FFWCC, the County, agents

10 Oct 2016 SHPO letter - no properties affected

14 Dec 2016 The Service received shapefiles depicting the wildlife crossing locations from NV5

27 Oct 2016 Seminole Tribe THPO letter – no objections

10 Feb 2017 The Service participated in conference call to address wildlife crossing locations on the RRE.

27 Apr 2017 Corps letter – preliminary LEDPA

11 May 2017 Corps letter – request for information

14 Jun 2017 Corps letter – preliminary JD for mod 7 alternative (preliminary LEDPA)

28 Jul 2017 Applicants provide minimization summary for Phase 1 and 2

13 Mar 2018 Florida Turnpike Enterprise (co-applicant) submitted draft mitigation plan to Corps for review. Plan includes use of compensatory mitigation previously completed for construction of the Suncoast Parkway and determined to be excess mitigation.

17 Jul 2018 SAJ-RD received functional assessments for both Phase 1 and Phase 2 (UMAM). SAJ-RD had previously received two iterations of functional assessments for Phase 1 and had provided detailed comments to the initial submittal.

14 Aug 2018 SAJ received 13 Aug 18 letter from the County advising that Phase 2 will be changed from limited access (only 1 connection to a commercial parcel immediately adjacent to the Suncoast Parkway) to an arterial roadway with as many as 7 signalized intersections.

25 Sep 2018 SAJ-RD published a new public notice for the proposed project

29 Nov 2018 SAJ-RD met with the County and Florida's Turnpike Enterprise (FTE) in Tampa, FL, to discuss status of evaluation and action items.

27 Feb 2019 Corps re-initiated consultation with the Service; may affect for EIS. Included revised Biological Assessment from applicants.

29 Mar 2019 SAJ-RD met with County and FTE in Tampa, FL, to discuss status of evaluation and action items.

3 Apr 2019 Applicant provided consolidated response to Corps' 11 May 2017 request for information

12 Apr 2019 The Service requested changes to the Biological Assessment to update the jeopardy opinion and MANLAA determination.

12 Apr 2019 Formal consultation initiated by the Service.

24 Apr 2019 The Service formal consultation letter sent to the Corps.

14 Aug 2019 Draft BO completed

20 Sept 2019 BO Finalized

BIOLOGICAL OPINION

A biological opinion (BO) is the document that states the opinion of the U.S. Fish and Wildlife Service (Service) under the Endangered Species Act of 1973, as amended (ESA), as to whether a Federal action is likely to:

- jeopardize the continued existence of species listed as endangered or threatened; or
- result in the destruction or adverse modification of designated critical habitat.

The Federal Action addressed in this BO is the Ridge Road Extension (Extension) in Pasco County, Florida. The Applicants Pasco County (County) and Florida's Turnpike Enterprise (FTE) is proposing to construct a 4-lane divided roadway and interchange system. This BO considers the effects of the Action on the eastern indigo snake (*Drymarchon couperi*). The Action does not affect designated critical habitat; therefore, this BO does not further address critical habitat.

A BO evaluates the effects of a Federal action along with those resulting from interrelated and interdependent actions, and from non-Federal actions unrelated to the proposed Action (cumulative effects), relative to the status of listed species and the status of designated critical habitat. A Service opinion that concludes a proposed Federal action is *not* likely to jeopardize species and is *not* likely to destroy or adversely modify critical habitat fulfills the Federal agency's responsibilities under §7(a)(2) of the ESA. In this BO, only the jeopardy definition is relevant, because the Action does not affect designated critical habitat. "*Jeopardize the continued existence*" means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 CFR §402.02).

This BO uses hierarchical numeric section headings. Primary (level-1) sections are labeled sequentially with a single digit (e.g., 1. PROPOSED ACTION). Secondary (level-2) sections within each primary section are labeled with two digits (e.g., 1.1. Action Area), and so on for level-3 sections.

1. PROPOSED ACTION

The Applicants, Pasco County (County) and Florida's Turnpike Enterprise (FTE) have applied for a Department of the Army (Corps) permit to discharge fill over 40.16 acres of wetlands for the construction of 8.65 miles of roadway that would extend Ridge Road eastward to Land O'Lakes Boulevard. The Applicants propose to construct the Extension to improve hurricane evacuation and mobility between U.S. 19 and U.S. 41 in both western and central Pasco County. The project will serve an existing population center and its projected growth by constructing a centrally located arterial roadway that will serve as a hurricane evacuation route.

The project site would commence at the intersection of Ridge Road and Decubellis/Moon Lake Road (County Road 587) and end at the intersection of Land O'Lakes Boulevard (US Highway 41) and Connerton Boulevard in Pasco County, Florida, Sections 25-29, 32, and 33 of Township 25 South, Range 17 East and Sections 21, 22, and 27-30, Township 25 South, Range 18 East. The project will be constructed in three segments; Pasco County's Ridge Road Extension Phase 1, from the current terminus of Ridge Road to ½ mile west of the Suncoast Parkway, Florida's Turnpike

Enterprise's Ridge Road Interchange from ½ mile west to ½ mile east of the Suncoast Parkway, and Pasco County's Ridge Road Extension Phase 2 from ½ mile east of the Suncoast Parkway to US 41.

The Extension is a 4-lane divided extension of existing Ridge Road from its current terminus at Moon Lake Road and DeCubellis Road east to US 41. West of the Suncoast Parkway, the extension is a limited access roadway approximately 4.2 miles in length. It passes through an existing overpass at the Suncoast Parkway, a full diamond interchange and approximately 1 mile of 4-lane divided roadway will be constructed by building ramps to provide access between the Extension and the Suncoast Parkway. East of the Suncoast Parkway interchange, the 4-lane divided roadway that is 3.44 miles in length is proposed as an arterial, which would have several yet to be determined intersections to provide access to local roadways.

The Corps described the Action in its Biological Assessment (BA) dated April 2016 (Revised, January 2019 and April 2019), which accompanied its request for consultation. Except where otherwise cited, this BO relies on information provided in the BA. We summarize key points of the BA that are necessary to support the conclusions of this BO, but we do not otherwise repeat the analyses of the BA.

Conservation Measures

Conservation measures are actions to benefit or promote the recovery of a listed species that are included by the Federal agency as an integral part of the proposed action. As part of the proposed action, these measures along with the effects of the action are incorporated into our analysis. Conservation measures are binding commitments enforceable by the action agency and shall be implemented as described below:

Conservation Measure 1

The Applicant has agreed to incorporate wildlife crossings and additional bridges to help offset species impacts throughout the project limits.

Conservation Measure 2

The Applicant will follow the Service's Standard Protection Measures for the Eastern Indigo Snake to ensure that no eastern indigo snakes are harmed during clearing and construction.

Conservation Measure 3

The Applicant will provide the appropriate type and amount of mitigation for Phases 1 and 2 through the purchase of wetland mitigation credits needed to compensate for the loss of wetland functions (including wood stork suitable foraging habitat) from the Old Florida Mitigation Bank.

Conservation Measure 4

In addition, in order to minimize incidental take of eastern indigo snakes through injury or mortality during construction, the Applicant proposes that certain agents be authorized to capture, handle, remove any indigo snake from the construction right-of-way and other workspaces, and immediately release them unharmed into adjacent suitable habitat. This conservation measure would most likely be employed during the excavation of gopher tortoise (*Gopherus polyphemus*) burrows (to prevent indigos from entering another burrow or other refugia in the workspace). In

the event that a clutch of eastern indigo snake eggs is discovered while searching the apron of tortoise burrows for tortoise eggs, the snake eggs would be removed without rotation, placed in moist sand, and taken to the Orianne Center for Indigo Conservation (OCIC) for incubation and captive rearing to benefit the OCIC eastern indigo snake reintroduction program. Agents authorized to temporarily handle eastern indigo snakes and their eggs for this purpose would be limited to the following qualified personnel: Biological Monitors, FWC-approved Gopher Tortoise Authorized Agents and their designated Assistants, and Environmental Inspectors.

1.1. Action Area

For purposes of consultation under ESA §7, the action area is defined as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action” (50 CFR §402.02). The applicant defined the “Action Area” for this consultation as all areas within the project boundary that may be directly and indirectly affected by the development of the project. The applicant further defines the “Action Area” as areas within the project footprint which contains suitable habitat for the eastern indigo snake. A 5,262-foot radius (approximately 1.0 mile), equivalent to the diameter of one male indigo snake territory was used as a buffer surrounding the construction areas on all sides of the construction limits, including the ends. The Service describes the action area as all areas within and outside of the project boundary that may be directly or indirectly affected by the development including the existing Ridge Road terminus, Serenova Tract of the Starkey Wilderness Area, Suncoast Parkway, wetlands, streams, and all the other areas affected by the proposed action as shown in Figure 1-1.

Eastern indigos are known to utilize large home ranges, which may be variable depending on the ecoclimate and availability of habitat in the region (Breininger et al. 2011, Dodd and Barichivich 2007, Moler 1992, Hyslop 2007, Kehl and Breininger 1991, Layne and Steiner 1996, Moler 1985, Smith 1987, Speake et al. 1978). Male eastern indigos are known to have larger home range sizes than females, likely due to searching for mates in the area or their larger sexually dimorphic size (Dodd and Barichivich 2007, Moler 1985, Smith 1987). Home range size for the species ranges from 1.6 ha – 1,530.1 ha (Layne and Steiner 1996, Breininger et al. 2011).

Additionally, home range and life history is variable based on the ecoclimate of the region, availability of habitat, and connectivity of areas. Above the frost line in Florida, which is where this project occurs, the species is known to have significantly higher fidelity for gopher tortoise burrows than below the frost line (Enge et al. 2013).

While home ranges for species are not circular in shape and it is not possible to determine where the observed eastern snake was within its range. In order to determine the species home range size, a 5,262-foot radius was based on published average home range of male indigo snakes (i.e. 202 hectares) in a study by Breininger et al. 2011, and that area was then used to determine the diameter of a circle to be used as a buffer. Male home range size is utilized because the sex of the observed eastern indigo is unknown and a male home range size would encompass both a male and female home range.

1.2. Gopher Tortoise Relocation

The Applicant intends to relocate gopher tortoises (*Gopherus polyphemus*) within the Action Area as required by the Florida Fish and Wildlife Conservation Commission (FWC) in order to clear within the Action Area and construct the roadway. Gopher tortoise burrows will be excavated in accordance with FWC regulations and tortoises will be relocated to recipient sites previously approved by FWC. Tortoise relocations involve the excavation of burrows using a backhoe loader or excavator to dig the burrow out until the tortoise is located. Once tortoises are removed from the burrow, they are safely relocated to a recipient site and the burrow is backfilled.

Should temperatures be too low for gopher tortoise relocations, the Applicant will maintain a 25 ft. buffer, as indicated by FWC, from occupied gopher tortoise burrows when clearing.

1.3. Land Clearing/Grubbing/Grading

Clearing of approximately 71.8 acres within the Action Area is required to facilitate construction of the roadway. Prior to clearing, the Applicants intends to relocate gopher tortoises within the Action Area and after completion of relocation, clearing will commence in a manner that will avoid uncleared habitat "islands" in construction areas and in a direction which provides escape routes for eastern indigo snakes and other wildlife. Clearing will be accomplished with various types of construction machinery to remove large timber and other vegetation. Debris will be burn or removed from the Action Area. Mass grading of will be required at the completion of clearing to contour the landscape for the roadway.

1.4. Construction

Construction will commence after completion of clearing and mass grading. Silt fences surrounding the project's footprint will be put into place and all other associated infrastructure systems will be installed prior to beginning construction of roadway. Construction of bridges, concrete barriers and the roadway are anticipated to cause a permanent modification to the landscape, which will prevent the Action Area from returning to a native ecosystem.

1.5. Relocation

As part of the proposed Action, the Applicant has agreed to undertake relocation of any eastern indigo snakes that are detected within the project footprint during gopher tortoise relocation, clearing, grading, and construction. Relocation outside of the project footprint is needed to ensure that eastern indigos are not harmed by heavy machinery moving throughout the project footprint. Moving eastern indigos outside the project area ensures genetic viability of these individuals are not lost from the adjacent population.

1.6. Interrelated and Interdependent Actions

A BO evaluates the effects of a proposed Federal action. For purposes of consultation under ESA §7, the effects of a Federal action on listed species or critical habitat include the direct and indirect effects of the action, plus the effects of interrelated or interdependent actions. "Indirect effects are

those that are caused by the proposed action and are later in time, but still are reasonably certain to occur. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration” (50 CFR §402.02).

In its request for consultation, the County and FTE described that indigo snakes could be impacted as a result of developments of the properties east of the Suncoast Parkway that may request access to the Extension, although access to all other properties that may be developed in the future could be obtained via existing roadways. There are no proposed developments at this time. All federal actions are subject to either Section 7 or Section 10 of the ESA.

2. STATUS OF SPECIES

This section summarizes best available data about the biology and current condition of eastern indigo snake (*Drymarchon couperi*) throughout its range that are relevant to formulating an opinion about the Action. The eastern indigo snake was listed as threatened under the Endangered Species Act in 1978 (43 FR 4026 4029) on March 3, 1978, and is listed as federally designated threatened by the State of Florida. Critical habitat has not been designated for the eastern indigo snake.

In addition to the assessment below, the most recent review of this species is found in the *Eastern Indigo Snake (Drymarchon couperi) Species Status Assessment (SSA) Report* (Service 2018). This review builds on information found in the *Eastern Indigo Snake Recovery Plan* (Service 1982) and uses the *Species Status Assessment (SSA)* framework (Smith *et al.* 2018, entire). These documents are incorporated by reference and can be used to obtain more detailed information about this species.

2.1. Species Description

Eastern indigo snakes are among the largest non-venomous snakes in North America, obtaining lengths of up to 2.6 m - 8.5 ft. (Moler 1992). Its color is uniformly lustrous-black, dorsally and ventrally, except for a red or cream-colored suffusion of the chin, throat, and sometimes the cheeks. The scales are large and smooth with 17 anterior and mid-body scale rows (occasionally 18-19), and 14-15 scale rows above the vent. The anal plate is undivided. In the Florida Keys, adult eastern indigo snakes seem to have less red on their faces or throats compared to most mainland specimens (Lazell 1989). A study by Krysko *et al.* 2016 has suggested dividing populations of eastern indigo snakes between an Atlantic and Gulf population segments based on genetic and morphological differences between these populations.

Presently, there are no studies on the longevity of wild eastern indigo snakes, though the oldest published record in captivity for eastern indigo snakes is 25 years and 11 months (Shaw 1959). Other information from captive breeding populations indicates some individuals may have lived up to 28 years old in captivity, though the date of acquisition of specimens older than 26 are not vouchered (Hoffman pers. comm. 2017). Because wild eastern indigos experience higher environmental and anthropogenic pressures than in captivity, life spans are likely reduced.

2.2. Life History

Most information on the reproductive cycle of eastern indigo snakes is from data collected in north Florida. In this geographical area, breeding occurs between November and April, and females deposit 4 to 12 eggs during May or June (Moler 1992). Speake et al. (1987) reported an average clutch size of 9.4 for 20 captive bred females. Throughout the entire range, eggs are laid from late May through August, and young hatch in approximately 3 months. Peak hatching activity occurs between August and September, and yearling activity peaks in April and May (Groves 1960, Smith 1987). Limited information on the reproductive cycle in south-central Florida suggests that the breeding and egg-laying season may be extended. In this region, breeding extends from June to January, laying occurs from April to July, and hatching occurs during mid-summer to early fall (Layne and Steiner 1996).

Analogous with many other species of snakes, female eastern indigo snakes can store sperm and delay fertilization of eggs. There is a single record of a captive snake laying five eggs (at least one of which was fertile) after being isolated for more than four years (Carson 1945). It has long been assumed that this event resulted from sperm storage. However, there have been several recent reports of parthenogenetic reproduction by virginal snakes. Hence, sperm storage may not have been involved in Carson's (1945) example (P. Moler, GFC, personal communication 1998). There is no information on how long eastern indigo snakes live in the wild. In captivity, the longest an eastern indigo snake has lived was 25 years, 11 months (Shaw 1959).

Eastern indigo snakes spend a great deal of time foraging and searching for mates. The species is diurnal throughout its range (Service 2008). The eastern indigo snake will eat most vertebrates small enough to be overpowered and swallowed. Food items include fish, frogs, toads, snakes (venomous, as well as non-venomous), lizards, turtles, turtle eggs, small alligators, birds, and small mammals (Keegan 1944; Babis 1949; Kochman 1978; Steiner et al. 1983; Stevenson et al. 2010).

Population Dynamics

Few detailed studies of population dynamics of eastern indigo snakes have been conducted, primarily because the species is secretive and difficult to study. Although the sex ratio at birth and in juveniles is not different from 1:1 (Moulis 1976, Steiner et al. 1983), adult sex ratios in the wild are strongly biased in favor of males (Layne and Steiner 1996, Stevenson et al. 2009). Stevenson et al. (2009) attributed this bias to lower rates of survival in females, even though males have larger home range sizes and greater daily movement distances than females (Hyslop 2007).

Adult males are also significantly longer and heavier than females, which is attributed to male-male combat in this species (Shine 1994, Stevenson et al. 2009). Although both sexes mature at about the same total length (150 cm), males continue to grow after sexual maturity, whereas females apparently devote most available energy to vitellogenesis (Service 2008, Stevenson et al. 2009). Maturity is reached in 3-4 years (Service 2008).

Within Florida and southern Georgia, the eastern indigo snake occupies a wide range of habitat types including pine flatwoods, scrubby flatwoods, scrub and sandhill, oak and maritime hammocks, wetlands, coastal dunes, and human-altered habitats (Service 2008). Below-ground refugia include the burrows of gopher tortoises, nine-banded armadillos (*Dasybus novemcinctus*),

rodents, and land crabs (*Cardisoma guanhumii*), as well as hollow logs, stump holes, and other crevices (Hyslop 2007, Hyslop et al. 2009).

Seasonal shifts in habitat use have been widely reported, especially in areas north of the frost line, with eastern indigo snakes typically spending the winter in gopher tortoise burrows in xeric uplands and foraging more frequently in wetlands during the warmer months (Layne and Steiner 1996, Hyslop 2007, Hyslop et al. 2009, Stevenson et al. 2009). In addition, many eastern indigos are known to return to the same hibernacula annually for overwintering (Speake 1978, Hyslop 2007).

Behavior and home range size are variable depending on the climate of the region. In the milder climates of south-central and southern Florida, overwintering sites may not be as important. However, gopher tortoise burrows and other refugia are important for refuge from high temperature conditions (Speake and Mount 1973, Lawler 1977, Landers and Speake 1980, Smith 1987). In the Gulf Hammock Wildlife Management Area, hollow root channels and rodent burrows in the base of live oak trees were the most common den sites, and the edges of wetlands were favored foraging locations (Moler 1985).

Home range and life history is variable based on the ecoclimate of the region, availability of habitat, and connectivity of those areas. Above the frost line in Florida, the species is known to have significantly higher fidelity for gopher tortoise burrows than below the frost line (Enge et al. 2013). These areas are likely still used during short cold snaps and to escape extreme heat and desiccation (Hyslop et al. 2009).

Radiotelemetry and mark-recapture techniques have been used to estimate home range size (minimum convex polygon; MCP), daily and seasonal movement patterns, habitat use, and the extent of habitat required to support population of this species. Because of the wide range of the species, behavior and home ranges size is variable in different portions of their extant range. In central Florida, Layne and Steiner (1996) estimated the mean home range size of 12 males to be 74.3 ha (183.6 ac) and seven females to be 18.6 ha (46.0 ac). Males also moved significantly more often between successive locations and moved greater distances. In the Gulf Hammock region of Florida, Moler (1985) reported mean home ranges of 48.2 ha - 533.0 ha (119.1 ac - 1,317.0 ac) for four males and 50.8 ha (125.5 ac) for one female. A single male occupied a home range of 185 ha (457.1 ac) in north-central Florida (Dodd and Barichivich 2007). In southern Georgia the mean home range of 19 males (520.0 ha; 1,285.0 ac) was significantly larger than 13 females (103.4 ha; 255.5 ac), and males move more frequently and greater distances (Hyslop 2007). A compilation of home range sizes throughout Florida and Georgia may be found in Table 1.

Using a combination of radiotelemetry and population models, Breininger et al. (2004) investigated the effects of habitat fragmentation on the viability of eastern indigo snake populations in east-central Florida. In this study males had an average home range size of 120 ha [296.5 ac] and females = 41 ha [101.3 ac]; Breininger et al. 2004), snakes living along primary roads soon died, and edge/area effects were more important than area alone in determining population survival. Studies by Layne and Steiner (1996), Enge and Wood (2002), and Hyslop (2007) also found roads to be an important source of mortality in eastern indigo snakes. A study by Moler (1992) suggested that at least 1,000 ha (2,470 ac) of contiguous habitat is required to

sustain eastern indigo snakes long term, though indigos often are present on smaller patch sizes when habitat has become isolated and fragmented.

Eastern indigos are known to utilize large home ranges, which is variable throughout their range (Breininger et al. 2011, Dodd and Barichivich 2007, Moler 1992, Bauder and Jenkins 2013, Hyslop 2007, Kehl and Breininger 1991, Layne and Steiner 1996, Moler 1985, Smith 1987, Speak et al. 1978). Male eastern indigos are known to have larger home range sizes than females, likely due to searching for mates in the area or due to their larger sexually dimorphic size (Dodd and Barichivich 2007, Moler 1985, Smith 1987). Home range size for the species ranges from 4 ac – 3,780.9 (Layne and Steiner 1996, Breininger et al. 2011).

Table 1 Home range size of eastern indigo snakes based on Minimum Convex Polygon (MCP) method in Florida and Georgia compiled from several research papers.

Citation	Study Site	Male (mean)	Male (range)
Ceillely et al. 2014	Martin County, FL	106 ac	57-163 ac
Layne and Steiner 1996	Highlands County, FL	183.6 ac	5-492 ac
Bauder and Jenkins 2013	Highlands County, FL	442 ac	69-1,184 ac
Legare and Breininger 2002	Highlands County, FL	153 ac	133-173 ac
Kehl et al 1991 as cited on NASA/Dynamac website	Brevard County, FL	690 ac	Unk
Breininger et al. 2011	Brevard County, FL	499 ac	96-1,441 ac
Dodd and Barichivich 2007	Putnam County, FL	457 ac	Unk
Moler 1985	Levy County, FL	348 ac	57-694 ac
Hyslop 2007	Southeastern GA, various	1,329 ac	86-3,800 ac

2.3. Numbers, Reproduction, and Distribution

The eastern indigo snake was listed as threatened on January 31, 1978 (43 FR 4028), due to population decline caused by habitat loss, over-collecting for the domestic and international pet trade, and mortality caused by rattlesnake collectors who gas gopher tortoise (*Gopherus polyphemus*) burrows to collect snakes. At the time of listing, the eastern indigo snake was considered a subspecies, *Drymarchon corais couperi*. Currently, the eastern indigo snake is accepted by the scientific community as a separate species, *Drymarchon couperi* (Crother 2000). In 1991, Collins elevated this lineage to specific status based on allopatric speciation and diagnosability. Subsequent work has supported this designation (Wuster *et. al.* 2000).

The indigo snake ranges from the southeastern United States to northern Argentina (Conant and Collins 1998). Two species occur in the United States: the eastern indigo and the Texas indigo (*D. corais*). In the United States, the eastern indigo snake historically occurred throughout Florida

and in the coastal plain of Georgia and has been recorded in Alabama and Mississippi (Diemer and Speake 1983; Moler 1985b). It may have occurred in southern South Carolina, but its occurrence there cannot be confirmed. Florida and Georgia currently support the remaining endemic populations of the eastern indigo snake (Lawler 1977). The eastern indigo snake occurs throughout most of Florida and is absent only from the Dry Tortugas and Marquesas Keys, and regions of north Florida where cold temperatures and deeper clay soils exist (Cox and Kautz 2000).

Current population size rangewide is unknown.

2.4. Threats

Throughout the eastern indigo snake's range, expanding urban areas are creating barriers to the dispersal of individuals and gene flow between populations, and habitat loss and degradation are a threat to the species (Lawler 1977, Moler 1985b). In northern areas of its range in Georgia and peninsular Florida, the species is impacted by a decline in longleaf pine forests, gopher tortoises, and gopher tortoise habitat (Van Lear et al. 2005). In central and southern Florida, the eastern indigo snake is less dependent on any one habitat type, but does avoid developed areas (Lawler 1977, Moler 1985a, Hyslop 2007). Throughout Florida, developed areas are expanding rapidly with population growth at the expense of wildlife habitat (Cerulean 2008).

At the time of listing, other threats to the eastern indigo snake included commercial collection for the pet trade and mortality during the gassing of gopher tortoise burrows by individuals attempting to drive rattlesnakes out for collection (43 FR 4026 4029). Since their listing additional potential threats to the species have expanded to include disease, road mortality, kills of indigo snakes by landowners and pets, and ATV use in gopher tortoise habitat (Service 2008).

2.5. Conservation Needs

Major threats to the eastern indigo snake include habitat fragmentation, destruction, and reduced gene flow. At the current time, the range wide status of the species is unknown. Range wide surveys and monitoring are required to help understand the current status of the species. The recovery strategy for the eastern indigo snake consists of maintaining and enhancing existing populations; monitoring the status of existing populations; identifying and securing additional eastern indigo snake populations and habitat; establishing new populations through translocations or reintroductions; and supporting research that guides land management and provides demographic and ecological data. Management plans should be developed and implemented for all recovery populations. Appropriate habitat management includes maintaining road-less corridors allowing dispersal between occupied upland and wetland habitats; minimizing soil disturbance and loss of native herbaceous groundcover vegetation; conducting prescribed burning, particularly during the growing season; maintaining appropriate wetland habitat; and restoring degraded upland habitat.

Monitoring programs to track population trends and the response of this species to habitat management activities are needed for all recovery populations. Gopher tortoise populations should be regularly monitored, and augmented if necessary, at areas where both indigo snakes and tortoises co-occur. Monitoring programs should be critically evaluated and revised as needed.

Since recovery of the eastern indigo snake will necessitate finding or creating new, currently unknown populations, assessment of potentially suitable habitat within the range of the species and additional presence/absence surveys are needed. Suitable habitat for translocations/reintroductions needs to be identified, and programs developed and implemented to establish and monitor these new populations and manage the habitat that supports them.

Tracts of habitat in private ownership that could be managed for eastern indigo snakes need to be identified. Site analyses and habitat management actions that improve the connectivity between upland and wetland habitats utilized by indigo snakes are needed.

Additional research is needed to gain a better understanding of the natural history of the eastern indigo snake and its habitat for use in developing and implementing management plans. Data gathered from these studies will ensure that recovery efforts are supported by the best available scientific information.

3. ENVIRONMENTAL BASELINE

This section is an analysis of the effects of past and ongoing human and natural factors leading to the current status of the eastern indigo snake, its habitat, and ecosystem within the Action Area. The environmental baseline is a “snapshot” of the species’ health in the Action Area at the time of the consultation, and does not include the effects of the Action under review.

3.1. Action Area Numbers, Reproduction, and Distribution

Eastern indigos are often difficult to detect during surveys based on the biology of the species and its cryptic nature. Many species observations in the Service’s records are opportunistic or are from long-term surveys performed by researchers. Current survey methodology recommends a 5-day survey period during the winter season. However, even during appropriate winter temperature windows, eastern indigos may not be detected by surveyors due to the species camouflage, ability to shelter in below ground refugia, short survey duration, variable temperature windows, and the species general cryptic nature. Further, detecting eastern indigos within gopher tortoise burrows may be difficult because burrows are often structurally complex, containing several corkscrew type passages and side passages which are habitable by eastern indigo snakes, but are not accessible to surveyors (Doonan and Stout 1994).

The eastern indigo snake is known to utilize a variety of habitats in Florida, including pine flatwoods, scrubby flatwoods, high pine, dry prairie, xeric oak, xeric oak scrub, turkey-oak barrons, tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, coastal dunes, and human-altered habitats (Service 1999). Additionally, the presence of a mosaic of habitats including uplands and wetlands, and presence of gopher tortoises and other refugia, are important for the eastern indigo snake (Landers and Speake 1980, Auffenberg and Franz 1982).

The Action Area is located within over 19,000 acres of potentially suitable indigo snake habitat in the Starkey Wilderness Preserve west of the Suncoast Parkway and over 13,000 acres of private lands supporting agricultural and silvicultural activities east of the Parkway. Historical imagery in

Google Earth indicates the following development has occurred within the Action Area since the late 1990s:

- The Suncoast Parkway alignment was cleared by late 1998 and the road was operational by 2000;
- Near the proposed eastern terminus of the Extension at U.S. 41, by 2006 the Tierra del Sol subdivision to the north and the Lakeshore Ranch subdivision to the south had been constructed or were under construction; and currently the Connerton development east of U.S. 41 is being constructed; and
- Near the proposed western terminus of the Extension at existing Ridge Road, by 2004 the Moon Lake Acres subdivision to the north and the Rosewood at River Ridge subdivision to the south had been constructed.

The Action Area consist of some agricultural lands, pine flatwoods, wetland coniferous forest, and some xeric habitat. Little is known about the eastern indigo snake in the Action Area or the immediate vicinity. The applicant's consultant's surveyed for eastern indigo snakes within the Action Area using the wildlife detection dog survey protocol outlined in the approved Ridge Road Extension Wildlife Survey Protocol (September 28, 2012) as detailed in the Appendix. Field worked targeted for eastern indigo snake were conducted from December 3, 2012 through March 19, 2013, when this species is most susceptible to direct observation while basking near gopher tortoise burrows (Stevenson *et al.* 2009). In addition to the detection dog, survey the consultants also conducted gopher tortoise surveys. Within the area surveyed, 2,703 depauperate gopher tortoise burrows and a single eastern indigo snake shed skin were observed.

Conservation Significance

Habitat fragmentation and destruction are major threats to the species and snakes are particularly sensitive to fragmentation due to roads (Service 2008). The Starkey Wilderness Preserve consists of approximately 19,000 acres and includes upland and wetland habitats that appear highly suited for eastern indigo snakes. The loss of habitat on the Starkey Wilderness Preserve and loss of 40.16 acres of wetlands throughout the Action Area is not likely to result in a large loss of habitat for the species overall, as adjacent habitat will be maintained and preserved. However, habitat destruction and fragmentation will further contribute to threats to the species and roads are a significant source of mortality for the species (Layne and Steiner 1996, Enge and Wood 2002, and Hyslop 2007).

Road Mortality and Intentional Killing

Road mortality and intentional killing may have contributed to declines in the eastern indigo snake population within the Action Area; the eastern and western limits of the Action Area are near developments and along the Suncoast Parkway, although no definitive records of snake mortality have been documented. Since acquisition by Pasco County and the Southwest Florida Water Management District of the Starkey, Serenova and Anclote River units in late 1998 and the properties' management as conservation and public recreation areas, the threats from road or intentional mortality should be substantially reduced on the Starkey Wilderness Area. However, around the perimeter of the Action Area where there are urban interfaces east of the Suncoast Parkway, these threats may persist.

Modeling

In addition to observational data within the Action Area from GIS database, the Service reviewed the Maxent Model for eastern indigo snakes. The Maxent Model for eastern indigo snakes is a statistical model used to determine the probability that the species inhabits an area based on previous observations, soils, land use/land cover, dominant drainage classes, and percent clay. For the current action, the Service utilized the Maxent Model for eastern indigo snakes developed by the Florida Fish and Wildlife Conservation Commission to assist with determining areas of occupancy (FWC 2017). Information in the model indicates the Action Area has a high probability for eastern indigo snake occurrence.

The model further supports the determination that the site is occupied by eastern indigo snakes. Because of the elusive nature of the species, it is difficult to quantify the density or number of eastern indigos, which may be within the Action Area. However, the link between eastern indigo snakes and gopher tortoises, presence of xeric habitat, and use of the Maxent Model show a strong correlation that acres of habitat lost within the Action Area is a surrogate for the loss of individual eastern indigo snakes.

Section 402.14 of the regulations, which implement section 7(b) (4) of the Act, allow the use of surrogates to express the amount or extent of take in an Incidental Take Statement. The Service will utilize acres of suitable habitat, as a surrogate for take. Within the project footprint, the Maxent Model verified that approximately 286 acres within the project footprint have a higher probability to support the species and is likely being used as a habitat corridor and foraging area for indigo snakes.

Based on the expected home range size of eastern indigo snakes, as described in the *Status of the Species* section, and considering the information about eastern indigo snake life span, the Service is reasonably certain the Action Area is occupied by the species.

3.2. Action Area Conservation Needs

Habitat remaining within the adjacent preserve should be managed for the species to ensure long-term viability for eastern indigo snakes, which are not directly harmed during clearing and construction. Because of the proximity to development, prescribed fire will likely be suppressed and methods such as mechanical removal of under and overstory may be required to maintain native vegetation. However, management of areas within the preserve should ensure that suitable refugia sites are left undisturbed. Refugia sites may include stump holes, root masses, gopher tortoise burrows, rock outcrops, and debris piles.

4. EFFECTS OF THE ACTION

This section analyzes the direct and indirect effects of the Action on the eastern indigo snake, which includes the direct and indirect effects of interrelated and interdependent actions. Direct effects are caused by the Action and occur at the same time and place. Indirect effects are caused by the Action, but are later in time and reasonably certain to occur. Our analyses are organized according to the description of the Action in section I of this BO.

4.1. Gopher Tortoise Relocation

Specific habitat requirements for eastern indigos include gopher tortoise burrows, mammal burrows, and other refugia (Hyslop *et al.* 2009). Gopher tortoises will be bucket trapped and burrows will be excavated to facilitate relocation of the tortoises in accordance with Florida Fish and Wildlife Conservation Commission regulations for gopher tortoises. After relocation, burrows will be collapsed and tortoises relocated. Eastern indigos are non-excavator species and rely on primary excavators such as the gopher tortoise to provide refugia. Therefore, destruction of gopher tortoise burrows will result in a loss of habitat. These refugia are important for overwintering and protection from desiccation in the summer (Hyslop *et al.* 2009, Speake *et al.* 1978, Smith 1987).

In Georgia, eastern indigos have shown site fidelity for specific gopher tortoise burrows, with many returning to one of at least four burrows previously used (Hyslop 2009). Some snakes also use the same travel corridors to move to overwintering sites, despite areas where the corridor has been disturbed by clear cutting. The study by Hyslop (2009) further states that abandoned burrows are important for female eastern indigos oviposition, likely due to the chance of egg damage from tortoises in active burrows.

While eastern indigos are not as closely tied to gopher tortoise burrows below the frost line, eastern indigos are known to use gopher tortoise burrows 62% more than other underground refugia, such as armadillo burrows and other small animal burrows (Layne and Steiner 1996). Considering that gopher tortoise burrows are important for the survival and fecundity of eastern indigo snakes, it is reasonable to determine that the backfill of gopher tortoise burrows within the project site will result in take of eastern indigos which may be utilizing gopher tortoise burrows within the Action Area.

During burrow excavation, eastern indigos may also be unintentionally entombed in side tunnels, which are not easily visible when using gopher tortoise burrows scopes. Additionally, eastern indigos may be harmed by direct strikes from equipment when excavating burrows.

If eastern indigos are not directly impacted through harm or harassment during burrow excavation, snakes may be impacted later. Eastern indigos may return to their overwintering site and are forced to find different refugia in a short time during cold conditions. This may result in indigos being unable to find suitable refugia within sufficient time to prevent desiccation or freezing conditions. Should eastern indigos be forced to find new winter refugia, this would result in a significant change to natural breeding and sheltering behavior.

4.2. Land Clearing/Grubbing/Grading

Land clearing will result in a permanent change of approximately 71.8 acres of ideal eastern indigo habitat. Changes to this landscape will result in eastern indigo snakes being injured or killed through habitat modification. Land clearing will occur with large machinery to remove vegetation and debris. This area will later be mass graded and prepared for construction of the road.

Because of the large home range of eastern indigos, the species is vulnerable to habitat loss, degradation, and habitat fragmentation (Lawler 1977, Moler 1985, Breininger *et al.* 2004, Breininger *et al.* 2011, 2012; Hyslop *et al.* 2012). The study by Moler (1992) estimates larger tracts (~2471 ac) of habitat are needed to provide conservation benefits and support the species (Enge *et al.* 2013). The proposed roadway will fragment the landscape and impact the Starkey Wilderness Area, further reducing the available habitat and causing harm due to long-term fecundity of the adjacent population of eastern indigo snakes being reduced.

During clearing, eastern indigos that may be within the project footprint may also be harmed due to strikes from heavy machinery, entombment in underground refugia, burned or crushed in debris piles when incinerating debris, and/or crushed under vehicles during ingress/egress from the project area. The Service notes that the Standard Protection Measures (SPMs) (Service 2013) will be implemented during construction of the project. The SPMs require: the education of contractors and equipment operators; posting of speed limit signs on all roadways during the project construction and operation; on-site signs explaining the penalties of intentionally running over indigo snakes; and that construction will cease if eastern indigo snakes are observed. Based on the implementation of these measures, we find that the potential for injuries and deaths of indigo snakes due to land clearing and site preparation activities will be reduced, but injuries and mortalities could occur.

To address habitat fragmentation and destruction, the Applicant has proposed to include various wildlife crossing and underpasses throughout the roadway and construct wildlife exclusionary fencing along the roadway. Exclusion from the roadway will be accomplished by using a fine mesh that will be constructed at the bottom of the chain link fence surrounding the entire roadway. The mesh will be installed, beginning 3-feet below the ground surface and extending 4-feet above the ground surface. Extending high enough to prevent access of indigo snakes and their potential prey from crossing over the fence and buried deep enough to prevent them from going under the fence onto the roadway.

4.3. Construction

During construction, eastern indigos may be harmed due to strikes from heavy machinery and/or crushed under vehicles traversing the Action Area. Harm from habitat modification will not occur during this component of the Action, as all available habitat within the project footprint will have been cleared.

Applicants will implement the following measures during construction to minimize or preclude disturbance and mortality of eastern indigo snakes along the entire roadway.

- Implementation of the USFWS *Standard Protection Measures*.
- Pre-construction surveys and relocation of all gopher tortoises within the project footprint in accordance with FWC *Gopher Tortoise Permitting Guidelines*.
- The project will be cleared in a manner that (1) avoids the creation of uncleared habitat islands surrounded by cleared land, and (2) provides escape routes from the construction area for wildlife.
- Construction access will minimize intrusion to areas outside of the project footprint.

- Slow speed limits will be posted and enforced for all construction traffic.
- Silt fences will be maintained around the project perimeter to discourage wildlife access into the project area.
- The USFWS will be notified immediately of any injured or dead eastern indigo snake.

4.4. Relocation

As part of the proposed Action, the Applicant has agreed to undertake relocation of eastern indigo snakes that are detected within the project footprint during gopher tortoise relocation, clearing, grading, and/or construction. During gopher tortoise relocations, eastern indigo snakes may be harassed due to the need to capture and transport the species outside of the project footprint. Relocation of the species may result in a temporary interruption of feeding, sheltering, or breeding behaviors. Harm during relocation is unlikely due to measures undertaken during relocation process.

In addition, in order to minimize incidental take of eastern indigo snakes through injury or mortality during construction, the Applicant proposes that certain agents be authorized to capture, handle, remove any indigo snake from the construction right-of-way and other workspaces, and immediately release them unharmed into adjacent suitable habitat. This conservation measure would most likely be employed during the excavation of gopher tortoise (*Gopherus polyphemus*) burrows (to prevent indigos from entering another burrow or other refugia in the workspace). In the event that a clutch of eastern indigo snake eggs is discovered while searching the apron of tortoise burrows for tortoise eggs, the snake eggs would be removed without rotation, placed in moist sand, and taken to the Orianna Center for Indigo Conservation (OCIC) for incubation and captive rearing to benefit the OCIC eastern indigo snake reintroduction program. Agents authorized to temporarily handle eastern indigo snakes and their eggs for this purpose would be limited to the following qualified personnel: Biological Monitors, FWC-approved Gopher Tortoise Authorized Agents and their designated Assistants, and Environmental Inspectors.

4.5. Effects of Interrelated and Interdependent Actions

Interrelated and Interdependent impacts to indigo snakes could occur as a result of development of the properties east of the Suncoast Parkway that may request access to the Extension. All federal actions are subject to either Section 7 or Section 10 consultation, with the Service to determine effects to listed species. There are no proposed developments at this time and the Service does not have any information to analyze the effects of these future actions on the indigo snake in the Action Area.

4.6. Tables and Figures for Effects of the Action

Please see the Ridge Road Extension Pathways to Effect Determination Matrix (Appendix) for a summary of the effects of the RRE on the eastern indigo snake.

5. CUMULATIVE EFFECTS

For purposes of consultation under ESA §7, cumulative effects are those caused by future state, tribal, local, or private actions that are reasonably certain to occur in the action area. Future Federal actions that are unrelated to the proposed action are not considered, because they require separate consultation under §7 of the ESA.

All future development projects that may affect indigo snake habitat in the action area require federal review pursuant to Section 7 or Section 10 of the ESA. However, we have no jurisdiction over activities that result in the loss of potentially suitable habitat. Additionally, we cannot mandate the continued management of suitable habitat on private lands that have not come under our purview through Section 7 or Section 10. Future development around the Starkey Wilderness Area will result in limiting the amount of habitat that is available for indigo snakes and their movement or dispersal from the Starkey Wilderness Area to other suitable areas. Within the Action Area will be an increase in buildings, roads, and associated infrastructure, all of which have the potential to have indirect adverse effects on indigo snakes (e.g., increasing road mortality, decreasing habitat quality, increased predation and competition from more urban adapted wildlife, etc.). However, these cumulative effects are difficult to quantify because we cannot predict where or when they might occur and we cannot specifically attribute adverse impacts to any one particular project. In the future, these factors will probably work synergistically against indigo snakes and we expect that these negative impacts will significantly reduce the number of indigo snakes in the area.

6. CONCLUSION

“*Jeopardize the continued existence*” means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 CFR §402.02). After reviewing the current status of the species, the environmental baseline for the Action Area, the effects of the Action and the cumulative effects, it is the Service’s biological opinion that the Action is not likely to jeopardize the continued existence of the eastern indigo snake. We based this decision on the following:

1. The proposed project is an 8.65-mile linear roadway that has anticipated impacts to approximately 286 acres of suitable indigo snake habitat. The proposed project impacts are relatively small compared to the total amount of potential habitat for eastern indigo snakes within the Starkey Wilderness Area (approximately 19,000 acres) and across their range. Additionally, eastern indigo snakes are large ranging species and require large tracks of contiguous unfragmented conservation lands to persist long term (Moler 1992).
2. The Applicant has agreed to incorporate wildlife crossings and additional bridges to help offset species impacts throughout the project limits. The project has been designed to minimize indirect effects of road mortality and habitat fragmentation. Exclusion from the roadway will be accomplished by the construction of specialized fencing that prevents

snakes from crossing over and under the fencing. The exclusion fence will surround the entire roadway.

3. The Applicant will follow the Service's Standard Protection Measures for the Eastern Indigo Snake to ensure that no eastern indigo snakes are harmed during clearing and construction. All construction personnel will be trained to identify and protect eastern indigo snakes if discovered (see Conservation Measure 2)

7. INCIDENTAL TAKE STATEMENT

ESA §9(a)(1) and regulations issued under §4(d) prohibit the take of endangered and threatened fish and wildlife species without special exemption. The term "take" in the ESA means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (ESA §3). In regulations at 50 CFR §17.3, the Service further defines:

- "harass" as "an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering;"
- "harm" as "an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering;" and
- "incidental take" as "any taking otherwise prohibited, if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity."

Under the terms of ESA §7(b)(4) and §7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered prohibited, provided that such taking is in compliance with the terms and conditions of an incidental take statement (ITS). The Service determined in the *Effects of the Action* section of this BO that no components of the Action would result in take of the species.

For the exemption in ESA §7(o)(2) to apply to the Action considered in this BO, the Corps must undertake the non-discretionary measures described in this ITS, and these measures must become binding conditions of any permit, contract, or grant issued for implementing the Action. The Corps has a continuing duty to regulate the activity covered by this ITS. The protective coverage of §7(o)(2) may lapse if the Corps fails to:

- assume and implement the terms and conditions; or
- require a permittee, contractor, or grantee to adhere to the terms and conditions of the ITS through enforceable terms that are added to the permit, contract, or grant document.

In order to monitor the impact of incidental take, the Corps must report the progress of the Action and its impact on the species to the Service as specified in this ITS.

7.1. Amount or Extent of Take

This section specifies the amount or extent of take of the eastern indigo snake that the Action is reasonably certain to cause, which we estimated in the “Effects of the Action” section of this BO. We reference, but do not repeat, these analyses here.

The Service anticipates that the Action is reasonably certain to cause incidental take of individual eastern indigo snakes consistent with the definition of harass resulting from relocation of the species (see section 4.4 *Effects of Relocations*). The Service anticipates that the Action is reasonably certain to cause incidental take of individual eastern indigo snakes consistent with the definition of harm resulting from gopher tortoise relocation, clearing, and construction (see sections 4.1 *Effects of Gopher Tortoise Relocation*, 4.2 *Effects of Clearing*, and 4.3 *Effects of Construction*).

Acres of habitat used as a surrogate in this BO maintain a causal link between take of individual eastern indigo snakes and loss of habitat. The loss of gopher tortoise burrows and high quality habitat as indicated by the Maxent Model are likely to result in the loss of individual eastern indigo snakes (Section 3.1 *Action Area Numbers, Reproduction, and Distribution*). Because individual eastern indigo snakes are difficult to detect, finding a dead or injured individual during or following the Action is unlikely, and the number of various life stages within the Action Area are difficult to determine. Further, detecting eastern indigo snakes within gopher tortoise burrows may be difficult because burrows are often structurally complex, containing several corkscrew type passages and side passages which are habitable by eastern indigo snakes, but are not accessible to surveyors (Doonan and Stout 1994).

The Service will utilize acres of suitable habitat as a surrogate for take. Within the project footprint, approximately 286 acres of suitable habitat will be impacted due to the Action, which could result in incidental take of eastern indigo snakes. As, noted above, only one indigo snake shed was observed (sex of the shed is unknown) within the Action Area. For this reason, the best estimate is that one eastern indigo snake, with the possibility of one clutch of eggs may occur within in the Action Area. Utilizing acres of suitable habitat, as indicated by the Maxent Model, as a surrogate for take sets a clear standard for monitoring incidental take due to the direct correlation between reduction and fragmentation of habitat and take of individual eastern indigo snakes. Should the amount of habitat taken be exceeded, this would represent a taking that is not anticipated in this BO. Such take would represent new information requiring review of the reasonable and prudent measures provided. The Federal agency must immediately reinitiate consultation with the Service.

In addition, based on best available science and implementation of the conservation measures the Service is authorizing incidental take in the form of injury or mortality of eastern indigo snakes and eastern indigo snake eggs in the form of capture and harassment as associated with the relocation of the eastern indigo snake from the construction work area during construction of the roadway.

Instructions for monitoring and reporting take are provided in section 7.4. *Monitoring and Reporting Requirements*.

7.2. Reasonable and Prudent Measures

When providing an incidental take statement, the Service is required to give reasonable and prudent measures it considers necessary or appropriate to minimize the take along with terms and conditions that must be compiled with, to implement the reasonable and prudent measures. The Service believes the following reasonable and prudent measures (RPMs) are necessary or appropriate to minimize the impact of incidental take caused by the Action on the eastern indigo snake.

RPM 1. Standard Protection Measures. Protection measures are designed to reduce the chance of harm of eastern indigo snakes found within the Action Area.

RPM 2. Debris Pile Destruction Conditions. Removal or burning of debris piles must be performed with care to reduce the likelihood of incidental take of eastern indigo snakes.

RPM 3. Relocation and Disease Monitoring. Any eastern indigo snakes which are detected within the Action Area that are likely to be harmed or harassed during gopher tortoise relocations, clearing, or construction, will be moved to the adjacent Starkey Wilderness Area outside the impacted area. While relocation will cause temporary harassment of the individual snake, the likelihood of harm is significantly reduced if the species is relocated outside the Action Area.

RPM 4. Construction Measures. Construction measures were designed to reduce the chance of harm or harassment of eastern indigo snakes found within the action area.

7.3. Terms and Conditions

In order for the exemption from the take prohibitions of §9(a)(1) and of regulations issued under §4(d) of the ESA to apply to the Action, the County and FTE must comply with the terms and conditions (T&Cs) of this statement, provided below, which carry out the RPMs described in the previous section. These T&Cs are mandatory. As necessary and appropriate to fulfill this responsibility, the County and FTE must require any permittee, contractor, or grantee to implement these T&Cs through enforceable terms that are added to the permit, contract, or grant document.

T&C #1. Standard Protection Measures (RPM 1). The Applicant shall incorporate the Standard Protection Measures for the Eastern Indigo Snake, found on the Service's website at https://www.fws.gov/northflorida/indigosnakes/20130812_EIS%20Standard%20Protection%20Measures_final.pdf.

T&C #2. Debris Pile Destruction Conditions (RPM 2). The Applicant shall remove, dispose of, or burn any debris or limb piles left during clearing and construction as soon as possible. For debris piles that are burned on site, fire ignition shall be set on one side of the pile and be allowed to burn slowly to allow any eastern indigo snakes within the debris piles to flee.

T&C #3. Relocation and Disease Monitoring (RPM 3). Eastern indigo snakes observed within the impacted area shall be captured by hand and placed in a secure container with ample

ventilation and placed in a temperature-controlled area until disease testing is performed and the snake is released. After medical samples are collected, the snake shall be released in the adjacent preserve. Individual eastern indigo snakes shall be released within 24 hours of capture.

T&C #4. Construction Measures (RPM 4).

1. Pre-construction surveys and relocation of all gopher tortoises within the project footprint in accordance with *FWC Gopher Tortoise Permitting Guidelines*.
2. The project will be cleared in a manner that (1) avoids the creation of uncleared habitat islands surrounded by cleared land, and (2) provides escape routes from the construction area for wildlife.
3. Construction access will minimize intrusion to areas outside of the project footprint.
4. Slow speed limits will be posted and enforced for all construction traffic.
5. Silt fences will be maintained around the project perimeter to discourage wildlife access into the project area.
6. Any eastern indigo snakes that are found injured within the Action Area shall be placed within a secure container with ample ventilation and notification shall be made to the Service and the Corps immediately. If the Service is unable to be reached, the Applicant shall notify the Florida Fish and Wildlife Conservation Commission Wildlife Alert Hotline at 1-888-404-3922, and follow up notification to the Service shall be made the next business day.

7.4. Monitoring and Reporting Requirements

In order to monitor the impacts of incidental take, the County and FTE must report the progress of the Action and its impact on the species to the Service as specified in the incidental take statement (50 CFR §402.14(i)(3)). This section provides the specific instructions for such monitoring and reporting. As necessary and appropriate to fulfill this responsibility, the County and FTE must require any permittee, contractor, or grantee to accomplish the monitoring and reporting through enforceable terms that are added to the permit, contract, or grant document. Such enforceable terms must include a requirement to immediately notify the County and FTE and the Service if the amount or extent of incidental take specified in this ITS is exceeded during Action implementation.

M&R #1. Observations and Incidental Take. The Applicant shall report any eastern indigos, which are observed within the impacted area, or individuals that are incidentally taken as a result of the Action, within 24 hours. If an eastern indigo snake carcass is discovered, the specimen shall be placed on ice and kept in a secure location until contact has been with the Service North Florida Ecological Service Field Office. Reports should include photos of the snake, if possible, GPS location, date/time of observation, and any other relevant information.

8. CONSERVATION RECOMMENDATIONS

§7(a)(1) of the ESA directs Federal agencies to use their authorities to further the purposes of the ESA by conducting conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary activities that an action agency may undertake to avoid or minimize the adverse effects of a proposed action, implement recovery plans, or develop information that is useful for the conservation of listed species. The Service offers the following recommendations that are relevant to the listed species addressed in this BO and that we believe are consistent with the authorities of County and the FTE.

- Applicants should consider donation of properties, which provide contiguous habitat and are adjacent to existing conservation lands for eastern indigo snakes.

9. REINITIATION NOTICE

Formal consultation for the Action considered in this BO is concluded. Reinitiating consultation is required if the County and FTE retains discretionary involvement or control over the Action (or is authorized by law) when:

- a. the amount or extent of incidental take is exceeded;
- b. new information reveals that the Action may affect listed species or designated critical habitat in a manner or to an extent not considered in this BO;
- c. the Action is modified in a manner that causes effects to listed species or designated critical habitat not considered in this BO; or
- d. a new species is listed or critical habitat designated that the Action may affect.

In instances where the amount or extent of incidental take is exceeded, the County and FTE is required to immediately request a reinitiation of formal consultation.

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APPENDIX

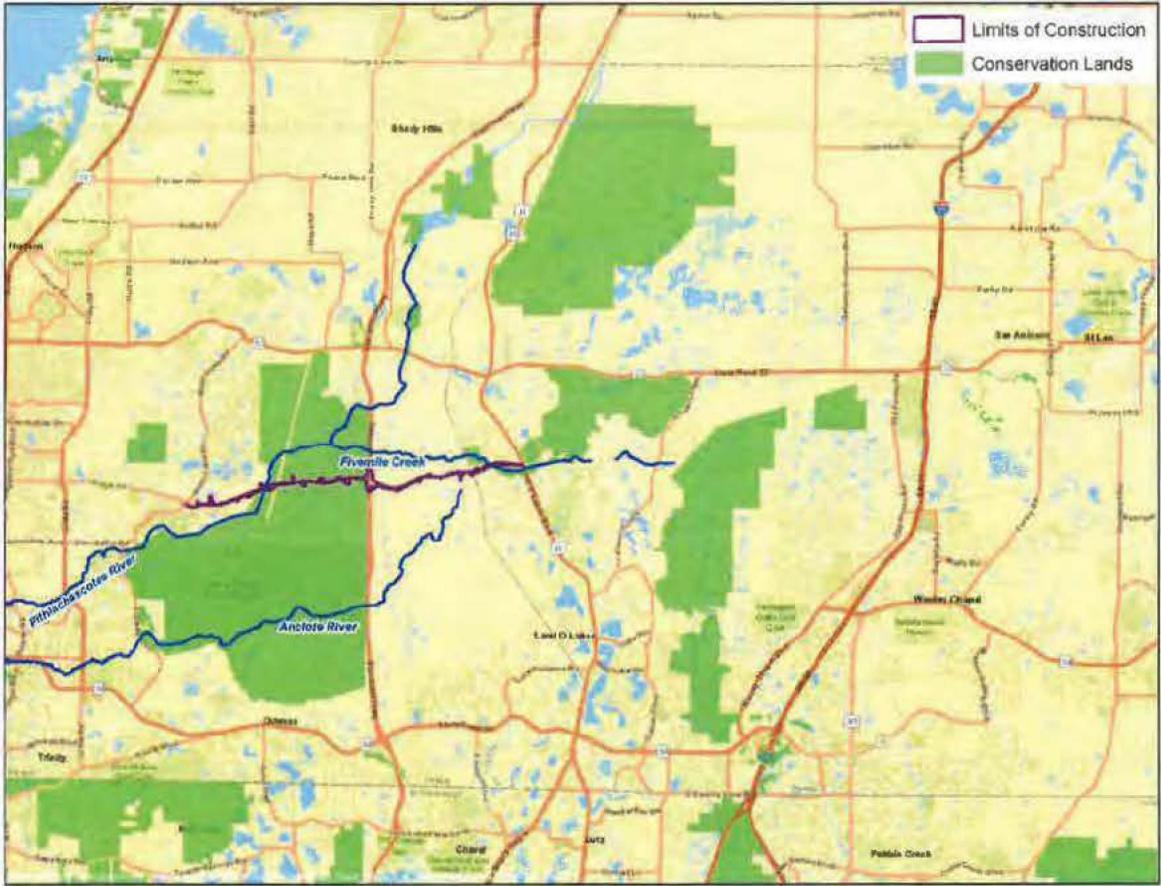
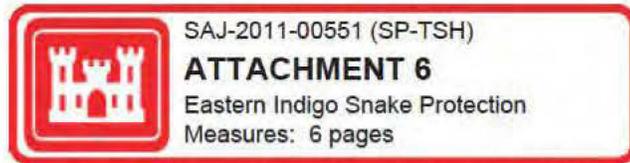


Figure 1-1 Ridge Road Extension in the context of major roadways, streams, and regional conservation land ownership



STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE
U.S. Fish and Wildlife Service
August 12, 2013

The eastern indigo snake protection/education plan (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida for use by applicants and their construction personnel. At least **30 days prior** to any clearing/land alteration activities, the applicant shall notify the appropriate USFWS Field Office via e-mail that the Plan will be implemented as described below (North Florida Field Office: jaxregs@fws.gov; South Florida Field Office: verobeach@fws.gov; Panama City Field Office: panamacity@fws.gov). As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the attached poster and brochure), no further written confirmation or “approval” from the USFWS is needed and the applicant may move forward with the project.

If the applicant decides to use an eastern indigo snake protection/education plan other than the approved Plan below, written confirmation or “approval” from the USFWS that the plan is adequate must be obtained. At least 30 days prior to any clearing/land alteration activities, the applicant shall submit their unique plan for review and approval. The USFWS will respond via e-mail, typically within 30 days of receiving the plan, either concurring that the plan is adequate or requesting additional information. A concurrence e-mail from the appropriate USFWS Field Office will fulfill approval requirements.

The Plan materials should consist of: 1) a combination of posters and pamphlets (see **Poster Information** section below); and 2) verbal educational instructions to construction personnel by supervisory or management personnel before any clearing/land alteration activities are initiated (see **Pre-Construction Activities** and **During Construction Activities** sections below).

POSTER INFORMATION

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (a final poster for Plan compliance, to be printed on 11” x 17” or larger paper and laminated, is attached):

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

SIMILAR SNAKES: The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands

and agricultural areas. Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTION UNDER FEDERAL AND STATE LAW: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. “Taking” of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. “Take” is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of \$25,000 for civil violations and up to \$50,000 and/or imprisonment for criminal offenses, if convicted.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

IF YOU SEE A LIVE EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and allow the live eastern indigo snake sufficient time to move away from the site without interference;
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor or the applicant’s designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

IF YOU SEE A DEAD EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and immediately notify supervisor or the applicant’s designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

Telephone numbers of USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

North Florida Field Office – (904) 731-3336
Panama City Field Office – (850) 769-0552
South Florida Field Office – (772) 562-3909

PRE-CONSTRUCTION ACTIVITIES

1. The applicant or designated agent will post educational posters in the construction office and throughout the construction site, including any access roads. The posters must be clearly visible to all construction staff. A sample poster is attached.
2. Prior to the onset of construction activities, the applicant/designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational brochure including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office (a final brochure for Plan compliance, to be printed double-sided on 8.5" x 11" paper and then properly folded, is attached). Photos of eastern indigo snakes may be accessed on USFWS and/or FWC websites.
3. Construction staff will be informed that in the event that an eastern indigo snake (live or dead) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Field Office. The contact information for the USFWS is provided on the referenced posters and brochures.

DURING CONSTRUCTION ACTIVITIES

1. During initial site clearing activities, an onsite observer may be utilized to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).
2. If an eastern indigo snake is discovered during gopher tortoise relocation activities (i.e. burrow excavation), the USFWS shall be contacted within one business day to obtain further guidance which may result in further project consultation.
3. Periodically during construction activities, the applicant's designated agent should visit the project area to observe the condition of the posters and Plan materials, and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.

POST CONSTRUCTION ACTIVITIES

Whether or not eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the appropriate USFWS Field Office within 60 days of project completion. The report can be sent electronically to the appropriate USFWS e-mail address listed on page one of this Plan.



ATTENTION:

THREATENED EASTERN INDIGO SNAKES MAY BE PRESENT ON THIS SITE!!!

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- Cease clearing activities and allow the eastern indigo snake sufficient time to move away from the site without interference.
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor or the applicant's designated agent, **and** the appropriate U.S. Fish and Wildlife Service (USFWS) office, with the location information and condition of the snake.
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Panama City Field Office – (850) 769-0552

South Florida Field Office – (772) 562-3909

Killing, harming, or harassing indigo snakes is strictly prohibited and punishable under State and Federal Law.

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

SIMILAR SNAKES: The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands and agricultural areas. Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

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Panama City ES Office – (850) 769-0552
South Florida ES Office – (772) 562-3909

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LEGAL STATUS: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. “Taking” of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. “Take” is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of \$25,000 for civil violations and up to \$50,000 and/or imprisonment for criminal offenses, if convicted.



August 12, 2013

ATTENTION:
THREATENED EASTERN INDIGO
SNAKES MAY BE PRESENT ON
THIS SITE!!!



Please read the following information provided by the U.S. Fish and Wildlife Service to become familiar with standard protection measures for the eastern indigo snake.



November 18, 2019

Mr. Shayne Hayes, Chief
Pensacola Permits Section
US Army Corps Engineers, Jacksonville District
41 North Jefferson Street, Suite 301
Pensacola, FL 32502

Re: SAJ-2011-00551 (SP-TSH) – Ridge Road Extension

Subject: Final Mitigation Plan
Ridge Road Extension, Phase I & II and Suncoast Parkway Interchange

Dear Mr. Hayes:

The purpose of this letter is to present to the Army Corps of Engineers (Corps) for concurrence, the final mitigation plan for the Ridge Road Extension, Phase I & II and Suncoast Parkway Interchange project. As indicated in our March 22, 2019 response to item 7 from the Corps' May 11, 2017 letter requesting additional information, Pasco County will utilize mitigation credits purchased from the Old Florida Mitigation Bank or another federally permitted bank to mitigate for all the unavoidable wetland impacts associated with the Ridge Road Extension project Phases I and II. As documented in the Florida's Turnpike Enterprise (FTE) letter dated June 6, 2019 (see Enclosure 1), FTE will utilize a combination of excess mitigation credits from the Suncoast Parkway I project and the purchase of mitigation credits from a federally permitted bank with a service area that encompasses the project to mitigate the unavoidable wetland impacts associated with the interchange segment of the project.

Based on the guidance provided by the Corps in January 2017, this Final Mitigation Plan provides information relative to paragraphs (c)(5) and (c)(6) from the 2008 Mitigation Rule (33 CFR 332.4).

Baseline Information - (c)(5)

In July 2018, the applicants submitted wetland impact maps and Unified Mitigation Assessment Method (UMAM) forms Part I, Qualitative Description, and Part II, Quantification of Assessment Area along with color maps illustrating the impact areas. These previously submitted items provided the baseline information requested by paragraph (c)(5) and quantified the various types of impact areas within the wetlands as determined from the Corps' issued Preliminary Jurisdictional Determination (PJD) dated June 15, 2017.

The final summary of impacts and corresponding functional loss units was provided to the Corps via email on December 19, 2018. An expanded version of the original summary (impact acreages and loss units unchanged) that provides the split between forested and herbaceous impacts is provided as Enclosure 2. Table 1, below provides a summary of the project impacts:

Engineering Services Administration

Ridge Road Extension - UMAM Summary			Unit Type		Acres	
Assessment Area Type	Acres	Units	Forested	Herbaceous	Forested	Herbaceous
Phase I - County Property, Direct Impacts	7.32	-5.18	-3.62	-1.56	5.34	1.98
Phase I - County Property, Indirect Impacts	172.22	-11.82	-11.71	-0.11	170.70	1.52
Phase II - County Property, Direct Impacts	18.33	-11.39	-10.64	-0.75	17.43	0.90
Phase II - County Property, Indirect Impacts	139.25	-8.92	-8.91	-0.01	139.16	0.09
County Total:	337.12	-37.31	-34.88	-2.43	332.63	4.49
FDOT Interchange, Direct Impacts	11.72	-7.09	-6.03	-1.06	9.93	1.79
FDOT Interchange, Indirect Impacts	42.73	-2.18	-2.18	0.00	42.73	0.00
FDOT Total:	54.45	-9.27	-8.21	-1.06	52.66	1.79
Project Total:	391.57	-46.58	-43.09	-3.49	385.29	6.28

Table 1 – UMAM Summary of Impact Areas and Loss Units

Determination of Credits - (c)(6)

As indicated in the aforementioned FTE letter dated June 6, 2019, FTE will apply the excess 6.73 credits from the previously completed compensatory mitigation from the Suncoast Parkway project (SAJ-1996-04305) against the 9.27 units of loss associated with the interchange portion of the Ridge Road Extension project. This results in a balance of 2.54 credits needed to be provided under this mitigation plan.

On March 17, 2019 Pasco County provided information relative to its proposal to address functional losses due to the temporary impacts to wetlands between bridges associated with bridge construction. The functional loss for the temporary impacts was computed using UMAM as -0.80 of forested loss. The Corps provided concurrence of this approach to quantify and account for the temporary construction impacts on May 2, 2019.

The resulting functional loss summary for the complete project to be mitigated for through the purchase of credits is provided in Table 2 below:

Ridge Road Extension - UMAM Summary			Unit Type	
Assessment Area Type	Acres	Units	Forested	Herbaceous
Phase I - County Property, Direct Impacts	7.32	-5.18	-3.62	-1.56
Phase I - County Property, Indirect Impacts	172.22	-11.82	-11.71	-0.11
Phase I - Temporary Construction Impacts (at bridges)	3.21	-0.80	-0.80	0.00
Phase II - County Property, Direct Impacts	18.33	-11.39	-10.64	-0.75
Phase II - County Property, Indirect Impacts	139.25	-8.92	-8.91	-0.01
County Total:	340.33	-38.11	-35.68	-2.43
FDOT Interchange, Direct Impacts	11.72	-7.09	-6.03	-1.06
FDOT Interchange, Indirect Impacts	42.73	-2.18	-2.18	0.00
Excess Credits from Suncoast I	n/a	6.73	5.97	0.76
FDOT Total:	54.45	-2.54	-2.24	-0.30
Project Total:	394.78	-40.65	-37.92	-2.73

Table 2 – Adjusted UMAM Summary of Impact Areas and Loss Units

Based on current Pasco County Capital Improvement Plan (CIP) funding, the initial construction of the project will be limited to Phase I, the interchange segment and a short segment of Phase II (0.25 mile). Funding for the construction of the remaining segment of Phase II has been approved for fiscal years 2022/2023.

The initial Phase II segment begins at the eastern terminus of the Interchange segment (Station 286+28) and ends at Station 299+50, approximately 165' west of wetland 2-01A. There are no direct wetland impacts within this segment. There are indirect impacts within this segment that were previously included in the UMAM analysis. They are impact areas: 2-67, 2-68, 2-69, 2-70a and 2-70b. Additionally, impact area 2-01A, ultimately a direct impact, will be an indirect impact in the interim condition and therefore is also included. These indirect impact areas are all forested. Table 3 below provides a summary of the indirect impact losses associated with the initial 0.25 mile segment of Phase II.

Initial Segment Phase II - Indirect Impacts										
Assessment Area	Type	Location		Water		Structure		Ac.	RFL	Loss Units
		W/O	With	W/O	With	W/O	With			
2-01A	621	7	5	8	8	6	6	1.9	-0.07	-0.13
2-67	621	7	5	6	6	6	6	1.51	-0.07	-0.10
2-68	621	7	5	6	6	6	6	1.47	-0.07	-0.10
2-69, 2-70a	621	7	5	8	8	6	6	7.56	-0.07	-0.50
2-70b	621	7	5	8	8	6	6	1.6	-0.07	-0.11
Totals								14.04		-0.94

Table 3 – Summary of Indirect Impacts - Initial Segment Phase II

The impacts associated with all the segments of the project that will initially be constructed are summarized in Table 4 below:

Ridge Road Extension Initial Construction - UMAM Summary			Unit Type	
Assessment Area Type	Acres	Units	Forested	Herbaceous
Phase I - County Property, Direct Impacts	7.32	-5.18	-3.62	-1.56
Phase I - County Property, Indirect Impacts	172.22	-11.82	-11.71	-0.11
Phase I - Temporary Construction Impacts (at bridges)	3.21	-0.80	-0.80	0.00
Phase II - Initial Construction Segment - Indirect Impacts	14.04	-0.94	-0.94	0.00
County Total:	196.79	-18.74	-17.07	-1.67
FDOT Interchange, Direct Impacts	11.72	-7.09	-6.03	-1.06
FDOT Interchange, Indirect Impacts	42.73	-2.18	-2.18	0.00
Excess Credits from Suncoast I	n/a	6.73	5.97	0.76
FDOT Total:	54.45	-2.54	-2.24	-0.30
Initial Construction Total:	251.24	-21.28	-19.31	-1.97

Table 4 – Summary of Impacts – Initial Construction

To provide sufficient mitigation for the three segments of initial construction, Pasco County has reserved credits from the Old Florida Mitigation Bank (see Enclosure 3). The credit reservation consists of 24.54 dual forested and 2.73 dual non-forested wetland mitigation credits. The credits that Pasco County has reserved will provide those needed for the initial Ridge Road Extension construction to offset the losses of -19.31 forested and -1.97 non-forested units.

After deduction of the necessary number of reserved credits for the construction of the initial segments of Ridge Road Extension, Pasco County will have a balance of 5.23 forested and 0.76 non-forested credits. Pasco County may apply the unused credits to the remaining segment of Phase II prior to starting additional construction of the Ridge Road Extension or to other County projects yet to be identified. As indicated above, remaining credits needed will be purchased from the Old Florida Mitigation Bank or another federally permitted bank with a service area that encompasses the project.

We look forward to the Corps' concurrence on this Final Mitigation Plan for the segments of the Ridge Road Extension project that will initially be constructed.

Sincerely,



Margaret W. Smith, P.E.
Engineering Services Director/ County Engineer

MWS/tjm

- Encl.: 1. FTE Mitigation Plan Letter, dated June 6, 2019
2. UMAM Summary Tables - Forested & Herbaceous Split, dated November 15, 2019
3. Old Florida Mitigation Bank Reservation Letter, dated May 30, 2019

Copies Furnished:

Sam Beneck, Pasco County
Annemarie Hammond, Florida's Turnpike Enterprise
Fred Gaines, Atkins, Florida's Turnpike Enterprise
Dwight Beranek, Dawson Associates
Dave Barrows, Dawson Associates
Tom Montgomery, NV5
John Bailey, Cardno



Florida Department of Transportation

RON DESANTIS
GOVERNOR

Florida's Turnpike Enterprise
P.O. Box 613069, Ocoee, FL 34761
407-532-3999

KEVIN J. THIBAUT, P.E.
SECRETARY

June 6, 2019

Mr. Shayne Hayes
Chief, Pensacola Permits Section
Jacksonville District, Regulatory Division U.S. Army Corps of Engineers
41 N Jefferson Street, Suite 301
Pensacola, FL 32502

Re: SAJ-2011-00551 (SP-TSH)
FPID 258958-1 Suncoast Parkway (SR589)/Ridge Road Interchange Mitigation Plan
Pasco County, Florida

Dear Mr. Hayes:

The Florida Department of Transportation (FDOT), Florida's Turnpike Enterprise (FTE) appreciates the recent U.S. Army Corps of Engineers (Corps) feedback documented via email dated April 22, 2019 regarding FTE's March 13, 2018 draft mitigation submittal for the above-referenced project. Based on the extensive coordination between the Corps and FTE on this project over the years, FTE acknowledges the Corps' April 22, 2019 determination relative to FTE's March 13, 2018 draft mitigation submittal. FTE confirms the following approach detailed in April 22, 2019 Corps email:

- The Suncoast Parkway project, which was authorized by multiple Corps permits in April 1998, was permitted with excess mitigation documented under file number SAJ-1996-04305.
- The SAJ-1996-04305 permit for the Suncoast Parkway included a compensatory mitigation requirement for 402.11 credits.
- Although not required by the Corps, the FDOT, as applicant/permittee, provided a total of 408.84 mitigation credits, as was documented in the SAJ-1996-04305 permit instrument.
- Since the excess mitigation was completed, there are 6.73 excess credits to be applied toward offsetting the wetland impacts currently proposed for the Ridge Road Extension interchange with the Suncoast Parkway (SAJ-2011-00551).
- Based on the revised UMAM assessments provided to the Corps in December 2018, for the currently proposed project (SAJ-2011-00551), construction of the interchange would result in a functional loss of 9.27 credits, including both direct and indirect wetland impacts.
- FTE will apply the excess 6.73 credits from the previously completed compensatory mitigation (SAJ-1996-04305) leaving a balance of 2.54 credits needed for SAJ-2011-00551.

Mr. Shayne Hayes
Chief, Pensacola Permits Section
Jacksonville District, Regulatory Division U.S. Army Corps of Engineers
June 6, 2019
Page 2

- The 2.54 balance of credits needed to offset the proposed impacts for SAJ-2011-00551 will be purchased from a federally permitted mitigation bank with a service area that encompasses the project.

FTE appreciates the Corps review of the Suncoast Parkway SAJ-1996-04305 file and the Suncoast Parkway/Ridge Road Interchange files SAJ-2011-00551 *et al* regarding the history of the projects. FTE understands that the Corps allowing use of excess mitigation from previously permitted projects is not the Corps standard practice and that the Corps makes these decisions on a case-by-case basis.

Please let me know via email at Annemarie.Hammond@dot.state.fl.us or via phone at 407-264-3293 if additional information is required.

Sincerely,



Annemarie Hammond
Environmental Permits Coordinator

cc: Sam Beneck – Pasco County
Francisco Cardona, PE – HTNB/FTE
Fred Gaines, PWS – Atkins/FTE

Ridge Road Extension Project UMAM Summary Tables (11-15-19)

Ridge Road Extension - UMAM Summary			Unit Type		Acres	
Assessment Area Type	Acres	Units	Forested	Herbaceous	Forested	Herbaceous
Phase 1 - County Property, Direct Impacts	7.32	-5.18	-3.62	-1.56	5.34	1.98
Phase 1 - County Property, Indirect Impacts	172.22	-11.82	-11.71	-0.11	170.70	1.52
Phase 2 - County Property, Direct Impacts	18.33	-11.39	-10.64	-0.75	17.43	0.90
Phase 2 - County Property, Indirect Impacts	139.25	-8.92	-8.91	-0.01	139.16	0.09
County Total:	337.12	-37.31	-34.88	-2.43	332.63	4.49
FDOT Interchange, Direct Impacts	11.72	-7.09	-6.03	-1.06	9.93	1.79
FDOT Interchange, Indirect Impacts	42.73	-2.18	-2.18	0.00	42.73	0.00
FDOT Total:	54.45	-9.27	-8.21	-1.06	52.66	1.79
Project Direct Impacts Total:	37.37	-23.66	-20.29	-3.37	32.70	4.67
Project Indirect Impacts Total:	354.20	-22.92	-22.80	-0.12	352.59	1.61
Project Total:	391.57	-46.58	-43.09	-3.49	385.29	6.28

ENCLOSURE NO. 2

Phase 1 - County Property, Direct Impacts											
Assessment Area	Type	Forested or Herbaceous	Location		Water		Structure		Ac.	RFL	Loss Units
			W/O	With	W/O	With	W/O	With			
1-03A	630	Forested	5	0	4	0	4	0	0.09	-0.43	-0.04
1-04A	621	Forested	5	0	7	0	7	0	0.60	-0.63	-0.38
1-06A, 06D	630	Forested	5	0	7	0	8	0	3.92	-0.67	-2.61
1-07A and 7C	621	Forested	6	0	7	0	7	0	0.10	-0.67	-0.07
1-08A	617	Forested	6	0	7	0	7	0	0.16	-0.67	-0.11
1-09A	630	Forested	8	0	9	0	9	0	0.03	-0.87	-0.03
1-11A, 11B, 11E, 11G	621	Forested	9	0	8	0	7	0	0.09	-0.80	-0.07
1-14	621	Forested	9	0	9	0	8	0	0.34	-0.87	-0.29
1-20a, 1-21A and 1-21C	621	Forested	8	0	8	0	7	0	0.02	-0.77	-0.02
Forested Total:									5.35		-3.620
1-01A	641	Herbaceous	4	0	5	0	5	0	0.18	-0.47	-0.08
1-12B and 1-13	643	Herbaceous	9	0	9	0	9	0	0.21	-0.90	-0.19
1-15, 15A, 15D, 16A, 16C	643	Herbaceous	9	0	9	0	9	0	0.06	-0.90	-0.05
1-17	643	Herbaceous	9	0	8	0	8	0	0.31	-0.83	-0.26
1-18	643	Herbaceous	9	0	8	0	8	0	0.24	-0.83	-0.20
1-19A, 19C	643	Herbaceous	9	0	8	0	8	0	0.36	-0.83	-0.30
1-22A, 23B and 24	643	Herbaceous	8	0	7	0	8	0	0.62	-0.77	-0.48
Herbaceous subtotal:									1.98		-1.56
Phase 1 Total:									7.33		-5.18

Phase 1 - County Property, Indirect Impacts											
Assessment Area	Type	Forested or Herbaceous	Location		Water		Structure		Ac.	RFL	Loss Units
			W/O	With	W/O	With	W/O	With			
1-34a, 35, 36, 39, 40	621	Forested	8	6	8	8	8	8	6.78	-0.07	-0.45
1-34b, 37b	621	Forested	8	7	8	8	8	8	8.18	-0.03	-0.27
1-37a	621	Forested	8	6	8	8	8	8	15.31	-0.07	-1.02
1-41, 43b	621	Forested	9	8	8	8	8	8	7.23	-0.03	-0.24
1-42, 43a	621	Forested	9	7	8	8	8	8	19.62	-0.07	-1.31
1-44, 45a, 46a, 47	621	Forested	9	7	9	9	9	9	28.91	-0.07	-1.93
1-45b, 46b	621	Forested	9	8	9	9	9	9	5.81	-0.03	-0.19
1-48, 49, 50, 51, 52a, 53a	621	Forested	8	6	9	9	9	9	9.29	-0.07	-0.62
1-52b, 53b	621	Forested	8	7	9	9	9	9	2.6	-0.03	-0.09
S-1, S-2, S-3, S-4, S-5	621	Forested	9	6	9	8	9	5	5.33	-0.27	-1.42
S-6, S-7	621	Forested	8	5	9	8	9	5	1.29	-0.27	-0.34
1-25a	630	Forested	6	4	5	5	5	5	8.76	-0.07	-0.58
1-25b, 29b	630	Forested	6	5	5	5	5	5	20.95	-0.03	-0.70
1-27, 28, 30, 31	630	Forested	5	3	5	4	5	5	6.84	-0.10	-0.68
1-29a	630	Forested	6	4	5	4	5	5	12.28	-0.10	-1.23
1-32a	630	Forested	6	4	5	5	5	5	7.72	-0.07	-0.51
1-32b	630	Forested	7	6	5	5	5	5	3.8	-0.03	-0.13
Forested Total:									170.7		-11.71
1-26	641	Herbaceous	4	2	5	3	5	3	0.12	-0.20	-0.02
1-33, 38	641	Herbaceous	7	5	7	7	7	7	1.4	-0.07	-0.09
Herbaceous total:									1.52		-0.11
Phase 1 Total:									172.22		-11.82

ENCLOSURE NO. 2

Phase 2 - County Property, Direct Impacts											
Assessment Area	Type	Forested or Herbaceous	Location		Water		Structure		Ac.	RFL	Loss Units
			W/O	With	W/O	With	W/O	With			
2-01A	621	Forested	6	0	6	0	7	0	1.90	-0.63	-1.20
2-02	621	Forested	6	0	4	0	4	0	0.05	-0.47	-0.02
2-07b	621	Forested	7	0	7	0	7	0	1.64	-0.70	-1.15
2-09	621	Forested	7	0	6	0	6	0	0.27	-0.63	-0.17
2-10a	621	Forested	7	0	8	0	8	0	0.78	-0.77	-0.60
2-13b	621	Forested	6	0	8	0	8	0	1.04	-0.73	-0.76
2-14af	621	Forested	5	0	7	0	7	0	0.99	-0.63	-0.63
2-22	621	Forested	4	0	4	0	5	0	0.27	-0.43	-0.12
2-08A, 2-08ff	630	Forested	7	0	7	0	6	0	1.50	-0.67	-1.00
2-10b	630	Forested	7	0	7	0	7	0	1.34	-0.70	-0.94
2-14Ap	630	Forested	4	0	5	0	5	0	0.79	-0.47	-0.37
2-15A, 2-15D	630	Forested	4	0	6	0	7	0	1.16	-0.57	-0.66
2-16Af	630	Forested	4	0	6	0	7	0	0.73	-0.57	-0.41
2-16Ah	631	Forested	4	0	6	0	6	0	2.46	-0.53	-1.31
2-17	631	Forested	4	0	4	0	4	0	0.52	-0.40	-0.21
2-18	631	Forested	4	0	3	0	2	0	0.39	-0.30	-0.12
2-19, 2-20	631	Forested	4	0	3	0	3	0	0.29	-0.33	-0.10
2-21A, 2-21B	641	Forested	4	0	4	0	4	0	0.37	-0.40	-0.15
2-03A, 2-03C, 2-04B	621/630	Forested	7	0	8	0	8	0	0.94	-0.77	-0.72
Forested subtotal:										17.43	-10.64
2-08Fh	641	Herbaceous	7	0	9	0	9	0	0.86	-0.833	-0.72
2-05	643	Herbaceous	7	0	7	0	7	0	0.04	-0.7	-0.03
Herbaceous subtotal:										0.9	-0.75
Project Phase Total:										18.33	-11.39

Phase 2 - County Property, Indirect Impacts											
Assessment Area	Type	Forested or Herbaceous	Location		Water		Structure		Ac.	RFL	Loss Units
			W/O	With	W/O	With	W/O	With			
2-67	621	Forested	7	5	8	8	6	6	1.51	-0.07	-0.10
2-68	621	Forested	7	5	6	6	6	6	1.47	-0.07	-0.10
2-69, 2-70a	621	Forested	7	5	8	8	8	8	7.56	-0.07	-0.50
2-70b	621	Forested	7	5	8	8	8	8	1.6	-0.07	-0.11
2-71	621	Forested	7	5	8	8	8	8	2.5	-0.07	-0.17
2-72a	621	Forested	7	5	8	8	8	8	12.16	-0.07	-0.81
2-72b	621	Forested	7	5	8	8	8	8	2.8	-0.07	-0.19
2-74a, 2-75, 2-78, 2-79a	621	Forested	7	5	8	8	8	8	27.7	-0.07	-1.85
2-74b	621	Forested	7	5	8	8	8	8	3.51	-0.07	-0.23
2-79b, 2-81	621	Forested	7	5	7	7	7	7	12.05	-0.07	-0.80
2-80	621	Forested	7	5	8	8	8	8	1.15	-0.07	-0.08
2-82a, 2-83	621	Forested	6	5	8	8	7	7	7.82	-0.03	-0.26
2-82Ah	621	Forested	7	5	8	8	7	7	0.8	-0.07	-0.05
2-82b	621	Forested	6	5	8	8	8	8	3.85	-0.03	-0.13
2-84	621	Forested	5	3	7	7	7	7	1.37	-0.07	-0.09
2-85	621	Forested	4	2	7	7	6	6	2.87	-0.07	-0.19
2-86, 2-86a	621	Forested	5	3	7	7	8	8	7.16	-0.07	-0.48
2-86b	621	Forested	5	3	7	7	8	8	3.24	-0.07	-0.22
2-87	621	Forested	4	2	6	6	5	5	4.75	-0.07	-0.32
2-88	621	Forested	4	2	6	6	6	6	16.73	-0.07	-1.12
2-89	621	Forested	4	2	6	6	5	5	2.25	-0.07	-0.15
2-90	621	Forested	4	2	3	3	3	3	0.32	-0.07	-0.02
2-91	621	Forested	4	2	3	3	3	3	1.25	-0.07	-0.08
2-92	621	Forested	4	2	4	4	4	4	0.55	-0.07	-0.04
2-94	621	Forested	4	2	4	4	5	5	0.42	-0.07	-0.03
2-93	631	Forested	4	2	4	4	4	4	0.84	-0.07	-0.06
2-95	631	Forested	4	2	4	4	4	4	1.1	-0.07	-0.07
2-76, 2-77	641	Forested	7	5	7	7	7	7	0.4	-0.07	-0.03
2-78h, 2-79Ah	641	Forested	7	5	9	9	9	9	7.81	-0.07	-0.52
2-80h	641	Forested	7	5	9	9	9	9	1.62	-0.07	-0.11
Forested subtotal:										139.16	-8.91
2-73	643	Herbaceous	7	5	7	7	7	7	0.09	-0.07	-0.01
Project Phase Total:										139.25	-8.92

ENCLOSURE NO. 2

FDOT Interchange, Direct Impacts											
Assessment Area	Type	Forested or Herbaceous	Location		Water		Structure		Ac.	RFL	Loss Units
			W/O	With	W/O	With	W/O	With			
T-06 (ERP ID WL9)	621	Forested	5	0	7	0	7	0	1.32	-0.63	-0.84
T-07	621	Forested	4	0	7	0	7	0	2.94	-0.60	-1.76
T-09	621	Forested	6	0	8	0	8	0	2.86	-0.73	-2.10
T-11 (ERP ID WL4)	621	Forested	4	0	3	0	3	0	0.54	-0.33	-0.18
T-12A, T-12B	621	Forested	4	0	5	0	7	0	0.68	-0.53	-0.36
T-13A, 13B (ERP ID WL5)	621	Forested	5	0	4	0	5	0	1.37	-0.47	-0.64
T-14A	621	Forested	5	0	7	0	7	0	0.07	-0.63	-0.04
T-01	631	Forested	8	0	7	0	7	0	0.15	-0.73	-0.11
									Forested subtotal:		-6.03
T-02 and T-03 (ERP IDs WL12 and 13)	641	Herbaceous	7	0	6	0	5	0	0.37	-0.60	-0.22
T-04 (ERP ID WL 11)	641	Herbaceous	7	0	6	0	5	0	0.05	-0.60	-0.03
T-05 (ERP ID WL10)	641	Herbaceous	7	0	6	0	6	0	0.17	-0.63	-0.11
T-07h	641	Herbaceous	4	0	7	0	6	0	0.9	-0.57	-0.51
T-09h	643	Herbaceous	6	0	7	0	7	0	0.27	-0.67	-0.18
T-10	643	Herbaceous	2	0	4	0	4	0	0.03	-0.33	-0.01

Herbaceous subtotal: -1.06

11.72 -7.09

Phase 1 - FDOT Interchange, Indirect Impacts											
Assessment Area	Type	Forested or Herbaceous	Location		Water		Structure		Ac.	RFL	Loss Units
			W/O	With	W/O	With	W/O	With			
T-53a	621	Forested	8	6	7	7	8	8	1.87	-0.07	-0.12
T-53b	621	Forested	8	7	7	7	8	8	1.04	-0.03	-0.03
T-54, T56a	621	Forested	7	5	7	7	8	8	7.98	-0.07	-0.53
T-56b, T58, T59, T60	621	Forested	6	4	7	7	8	8	8.45	-0.07	-0.56
T-61	621	Forested	4	4	3	3	3	3	0.98	0.00	0.00
T-62	621	Forested	4	4	3	2	4	4	1.96	-0.03	-0.07
T-63f	621	Forested	5	4	7	7	8	8	1.52	-0.03	-0.05
T-64, T66	621	Forested	5	4	8	8	8	8	10.63	-0.03	-0.35
T-65	621	Forested	4	4	7	6	7	7	1.26	-0.03	-0.04
T-66B	621	Forested	5	4	7	7	7	7	0.21	-0.03	-0.01
T-55, T55a	641	Forested	7	5	7	7	5	5	2.32	-0.07	-0.15
T-55b	641	Forested	5	3	7	7	5	5	1.3	-0.07	-0.09
T-62h	641	Forested	4	4	5	5	6	6	0.34	0.00	0.00
T-63h	641	Forested	4	3	7	7	7	7	0.51	-0.03	-0.02
T-96	641	Forested	5	3	7	7	5	5	0.48	-0.07	-0.03
T-66h, T-65h	643	Forested	5	3	7	7	7	7	1.88	-0.07	-0.13

42.73

-2.18



Old Florida and Upper Coastal
Wetland Mitigation Banks

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May 30, 2019

Via E-mail

Pasco County

Margaret Smith, Director/County Engineer

8731 Citizens Drive

Suite 321

New Port Richey, FL 34654

mwsmith@pascocountyfl.net

Re: Reservation of wetland mitigation credits from the Old Florida Mitigation Bank for the Pasco County's Ridge Road Extension project located in Pasco County, Florida

Dear Margaret,

This letter shall serve to provide documentation that 24.54 dual forested and 2.73 dual non-forested wetland mitigation credits have been secured from the Old Florida Mitigation Bank (the sponsor for which is EIP Credit Co., LLC) and are reserved for:

Permittee:

Pasco County
37918 Meridian Avenue
Dade City, FL 33525

If there are any questions regarding this reservation and credit availability, please do not hesitate to contact Joe Williams at 443.921.9441. Thank you very much.

Sincerely,

DocuSigned by:

BBCAF9A0032F4C1...

Nick Dilks

Manager, EIP Credit Co., LLC

nick@ecosystempartners.com