

FDOT Programmatic Approach for Minor Transportation Activities

Prepared in partnership with

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The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding December 14, 2016, and executed by FHWA and FDOT.

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I. PROPOSED ACTION

This Programmatic Approach (PA) for minor transportation activities includes activities conducted by the Florida Department of Transportation (FDOT) that result in none to moderate amounts of ground-disturbing work as a result of routine maintenance or modernization activities. *Maintenance* activities are those activities that involve repair, replacement, or preventative actions to maintain or restore existing infrastructure in order to retain existing conditions and functionality of the transportation system. *Modernization* activities are those activities that enhance the existing transportation system, primarily to correct for substandard conditions for the safety of its users. Projects for the purpose of maintenance and modernization do not have significant environmental impacts to protected species and habitat. Activities covered under this PA are limited to those within existing FDOT rights-of-way (ROW); coverage is not provided for new construction activities in newly acquired ROW.

The purpose of this PA is to streamline the consultation of minor transportation projects proposed by FDOT with the U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the Endangered Species Act (ESA) of 1973, as amended (87 Stat. 884; 16 United State Code [USC] *et seq.*). The PA identifies minor transportation projects that are not expected to adversely affect the threatened and endangered species described in this document or their designated critical habitat. The PA also identifies the appropriate effect determinations (i.e., no effect, may affect, not likely to adversely affect) for these species associated with the consultation process and provides the Service's support or concurrence for these determinations. In some instances, conservation measures have been identified to further minimize minor effects that may occur because of these projects. Finally, the PA identifies when the minor transportation projects listed in this document require additional assessment of their effects to the listed species and further consultation with the Service.

This PA addresses frequent routine projects conducted by FDOT that have predictable, repetitive outcomes, and sets consistent expectations statewide for these activities and any measures needed to avoid or minimize minor impacts to the covered species. This streamlined environmental review process will allow limited staff and resources to be more focused and effective on reviewing projects of greater concern.

This PA can be utilized statewide for federal transportation projects that may have no/minor impacts to covered species that fall under the jurisdiction of the USFWS. Those species include: Audubon's crested caracara (*Caracara cheriway* = *Polyborus plancus audubonii*), Florida scrub-jay (*Aphelocoma coerulescens*), piping plover (*Charadrius melodus*), wood stork (*Mycteria americana*), green sea turtle¹ (*Chelonia mydas*), hawksbill sea turtle¹ (*Eretmochelys imbricata*), Kemp's Ridley sea turtle¹ (*Lepidochelys kempii*), leatherback sea turtle¹ (*Dermochelys coriacea*), loggerhead sea turtle¹ (*Caretta caretta*), blue-tailed mole skink (*Plestiodon egregius lividus* = *Eumeces egregius lividus*), sand skink (*Plestiodon* [= *Neoseps*] *reynoldsi*), eastern indigo snake

¹ Sea turtles are only covered under this PA when under USFWS jurisdiction. The USFWS and NMFS share Federal jurisdiction for sea turtles with USFWS having lead responsibility on nesting beaches and NMFS the marine environment. Any impacts to swimming sea turtles require separate consultation with NMFS.

(*Drymarchon couperi* = *Drymarchon corais couperi*), Florida panther (*Puma concolor coryi*), West Indian manatee (*Trichechus manatus*), Gulf sturgeon (*Acipenser oxyrinchus desotoi*)².

Terrestrial and freshwater species listed under the ESA are under jurisdiction of the USFWS, while the National Marine Fisheries Service (NMFS) has jurisdiction over marine species. However, for some species, USFWS and NMFS share jurisdiction (e.g., gulf sturgeon, sea turtles). This PA only applies to USFWS-jurisdictional species; thus, any impacts to species that fall under NMFS' jurisdiction require separate consultation with NMFS. The Florida Fish and Wildlife Conservation Commission (FWC) also provides state protection to federally listed species under Chapter 68A-27 Florida Administrative Code (F.A.C.) and provides additional state regulations that may require permits or authorizations for certain species (e.g. sea turtles, manatees). This PA does not preclude the need for any federal, state, or local permits that may be required to lawfully carry out covered activities.

Pursuant to 23 *United States Code (U.S.C.)* § 327 and the implementing Memorandum of Understanding (MOU) executed on December 14, 2016, the FDOT has assumed and Federal Highway Administration (FHWA) has assigned its responsibilities under the *National Environmental Policy Act (NEPA)* for highway projects on the State Highway System (SHS) and Local Agency Program (LAP) projects off the SHS (*NEPA* Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. *NEPA* Assignment includes responsibility for environmental review, interagency consultation and other activities pertaining to the review or approval of *NEPA* actions. Consistent with law and the MOU, FDOT will be the Lead Federal Agency for highway projects with approval authority resting in the Office of Environmental Management (OEM). In instances where a project is federalized through a permit, FDOT will use this PA as technical assistance to inform Section 7 consultation under the lead permitting agency. For non-federal actions when Section 7 is not applicable, the PA can be used to provide guidance for avoiding and minimizing adverse effects to federally protected species. Additional coordination, consultation, or conservation measures may be required when obtaining permits from non-signatory parties.

² Gulf sturgeon are only covered under this PA when under USFWS jurisdiction (FR 68:13370-13495). The USFWS and NMFS share Federal jurisdiction for gulf sturgeon with USFWS having lead responsibility in riverine units and NMFS the marine environment. Estuarine units are under USFWS jurisdiction when the action agency is DOT, Environmental Protection Agency (EPA), U.S. Coast Guard (USCG), or Federal Emergency Management Agency (FEMA). NMFS has jurisdiction in estuarine units for Department of Defense (DOD), U.S. Army Corps of Engineers (USACE), and any other federal agency not explicitly mentioned above. Any impacts to gulf sturgeon under NMFS jurisdiction requires separate consultation. Coordination with USFWS may be needed to confirm jurisdiction for projects involving gulf sturgeon.

II. COVERED SPECIES

This consultation applies to the following species under jurisdiction of the USFWS. Specific species descriptions are provided in **Appendix A**.

A. BIRDS

Audubon's Crested Caracara (*Caracara cheriway*)

Federal Listing: Threatened (07/06/1987; 52 FR 25229 25232)

Critical Habitat Designation: None

Florida Scrub-jay (*Aphelocoma coerulescens*)

Federal Listing: Threatened (06/03/1987; 52 FR 20715 20719)

Critical Habitat Designation: None

Piping Plover (*Charadrius melodus*)

Federal Listing: Threatened (12/11/1985; 50 FR 50726 50734)

Critical Habitat Designation: (07/10/2001; 66 FR 36038 36086)

Wood Stork (*Mycteria americana*)

Federal Listing: Threatened (02/28/1984; Reclassified 06/30/2014; 79 FR 37077 37103)

Critical Habitat Designation: None

B. REPTILES

Eastern Indigo Snake (*Drymarchon corais couperi*)

Federal Listing: Threatened (03/03/1978; 43 FR 4026 4029)

Critical Habitat Designation: None

Green Sea Turtle (*Chelonia mydas*) - NESTING

Federal Listing: Threatened (Revised: 04/06/2016; 81 FR 20057 20090)

Critical Habitat Designation: None

Hawksbill Sea Turtle (*Eretmochelys imbricata*) - NESTING

Federal Listing: Endangered (06/02/1970; 35 FR 8491 8498)

Critical Habitat Designation: None in Florida

Kemp's Ridley Sea Turtle (*Lepidochelys kempii*) - NESTING

Federal Listing: Endangered (12/02/1970; 35 FR 18319 18322)

Critical Habitat Designation: None in Florida

Leatherback Sea Turtle (*Dermochelys coriacea*) - NESTING

Federal Listing: Endangered (06/02/1970; 35 FR 8491 8498)

Critical Habitat Designation: None in Florida

Loggerhead Sea Turtle (*Caretta caretta*) - NESTING

Federal Listing: Threatened (07/23/1978; Revised: 09/22/2011; 76 FR 58868 58952)

Critical Habitat Designation: (07/10/2014; 79 FR 39755 39854)

Blue-tailed Mole Skink (*Eumeces egregius lividus*)

Federal Listing: Threatened (11/06/1987; 52 FR 42658 42662)
Critical Habitat Designation: None

Sand Skink (*Plestiodon [=Neoseps] reynoldsi*)

Federal Listing: Threatened (11/06/1987; 52 FR 42658 42662)
Critical Habitat Designation: None

C. MAMMALS

Florida Panther (*Puma concolor coryi*)

Federal Listing: Endangered (03/11/1967; 32 FR 4001)
Critical Habitat Designation: None

West Indian Manatee (*Trichechus manatus*)

Federal Listing: Threatened (03/11/1967; Reclassified: 04/05/2017; 82 FR 16668)
Critical Habitat Designation: (09/22/1977; 42 FR 47840 47845)

D. FISHES

Gulf Sturgeon (*Acipenser oxyrinchus desotoi*) – USFWS ONLY

Federal Listing: Threatened (09/30/1991; 56 FR 49653 49658)
Critical Habitat Designation: (03/19/2003; 68 FR 13370 13495)

III. COVERED ACTIVITIES

A proposed activity will be covered for one or more species under this approach provided that:

- 1) an effect determination that does not warrant further consultation with the Service is reached, and
- 2) FDOT (or Local Agencies through a LAP Agreement³) adheres to the applicable species' conservation measures and Best Management Practices (BMPs).

Consistent with Section 7 consultation protocols, effect determinations must be made for each species that has the potential to occur in the action area as determined through a preliminary environmental review (e.g., desktop review, existing data information, field verification). We recommend referring to USFWS' Information Planning and Consultation (IPaC) website (<https://ecos.fws.gov/ipac/>) to view a preliminary list of federally listed species that may occur within the project area.

To receive coverage under this approach, potential impacts to covered species must be: (1) insignificant (consequences are incapable of being detected, measured, or evaluated); (2) discountable (extremely unlikely to occur); or (3) wholly beneficial (positive outcomes without any negative consequences to the species or individuals of the species). Projects must occur within existing ROW and not have significant environmental effects to protected species or its habitat.

This PA cannot be used to receive concurrence if one or more of the applicable conservation measures and BMPs associated with the proposed activities cannot be implemented. For a project that includes activities or species (including plants) beyond those covered under this approach, additional consultation with USFWS and/or NMFS is required to comply with the ESA.

A. ACTIVITIES WITH NO GROUND DISTURBANCE

1. Highway safety or traffic operations improvement projects with no ground disturbance.
2. Bridge maintenance activities with no ground disturbance, such as painting, cleaning, and sealing of cracks.

B. ACTIVITIES WITH MINIMAL GROUND DISTURBANCE

1. Upgrade, removal, or addition of guardrail. Installation or replacement of impact attenuators. Upgrade or installation of median barriers.
2. Clear zone safety improvements, such as fixed object removal or relocation; does not include any type of vegetation management, such as tree removal.
3. Landscaping, comprising of installation of vegetation, mulch, irrigation; and/or hardscaping, comprising of street furniture, specialty paving, tree grates, walls, planters, fountains.
4. Installation, replacement, and repair of fencing, signs, and traffic signals. Repair or replacement of lighting.
5. Installation of new lighting.
6. Installation of electronics, photonics, communications, or information processing systems. Examples include traffic control and detector devices, lane management,

³ For LAP Projects, FDOT acts as the lead agency for ESA consultation but measures are carried out by the local entity through agreements with FDOT. Applicable throughout.

- electronic payment equipment, all electronic tolling equipment, highway information systems (ITS), automated passenger counters, and dynamic message signs.
7. Restoration, replacement, and rehabilitation of culverts, inlets, drainage pipes, and other associated features.
 8. Curb and gutter construction.
 9. Minor bridge maintenance and rehabilitation activities, such as railing and guardrail replacement, repair of spalls and slabs, etc.
 10. Modification of slopes to address roadway or drainage deficiencies.
 11. Environmental restoration and pollution abatement actions to minimize or mitigate the impacts of any existing transportation facility to address water pollution or environmental degradation, such as stormwater retrofitting.
 12. Restoration, rehabilitation, or resurfacing of existing pavement. Preventative maintenance activities such as skid hazard treatment, concrete slab replacement, joint repair, pavement patching, shoulder repair, and the removal and replacement of existing pavement structures. Improvements to railroad crossings.
 13. Improving vertical and horizontal alignments of roadways without adding capacity (excluding bridges).
 14. Vegetation management during construction to maintain clear right-of-way, such as clearing, grubbing, mowing, herbicide use, tree trimming, tree relocation, and tree removal.
 15. Installation or modification of bus shelters.
 16. Improvements to existing rest areas, truck weigh stations, and park-and-ride lots without adding impervious area.
 17. Widening of bridges to add pedestrian or bicycle facilities that do not require in-water work.
 18. Use of vessels and barges.

C. ACTIVITIES WITH MODERATE GROUND DISTURBANCE OR IN-WATER WORK

1. Widening of pavement with existing ROW that does not add capacity, such as adding shoulders, auxiliary lanes, or turn lanes and intersection modifications.
2. In-kind bridge replacement (defined as - new bridge with same span lengths, number of spans, number of lanes with superstructure and substructure the same or very similar to existing. Rails may be upgraded to current standards).
3. Widening of substandard bridges to provide safety shoulders without adding through lanes.
4. Adding or replacing riprap, seawalls, bulkheads, scour repair, or repairing bridge embankments.
5. Sidewalk, trail or multi-use path construction.
6. Improvements to existing rest areas, truck weigh stations, and park-and-ride lots that require additional impervious area including areas subject to vehicular traffic or drainage modifications.
7. Bridge maintenance and rehabilitation activities that require minor in-water work, such as fender repairs, pile jackets, sister piles, and cathodic protection.

IV. EFFECT DETERMINATIONS

Table 1 outlines the possible effect determination for each species and activity covered under this PA.

If the use of this PA results in a determination of **no effect** (NE) based on activity type or through determination of unoccupied habitat, no further consultation is necessary with the USFWS.

If the use of this PA results in a determination of **may affect, not likely to adversely affect (MANLAA)**, then FDOT must follow the avoidance and minimization measures listed under Section V for USFWS to concur with the determination. If all applicable measures can be followed for the species, no further consultation is necessary. Consultation is required if all applicable conservation measures cannot be carried out.

If the use of this PA results in a determination of **may affect (MA)**, the FDOT must consult with USFWS (informally or formally) to determine the impacts the project will have on the species. This PA does not provide concurrence for **MA** determinations.

Table 1. Activity Matrix with Effect Determinations		Audubon's Crested Caracara ¹	Florida Scrub-jay	Piping Plover	Wood Stork	Eastern Indigo Snake	Blue- tailed Mole Skink ¹	Sand Skink ¹	Florida Panther	West Indian manatee	Sea Turtles ²	Gulf Sturgeon ³
Instructions: For any MANLAA determination, continue to Section V. A MA determination requires consultation and concurrence is not provided. It is the responsibility of the user to confirm if any other species (including plants) protected under the Endangered Species Act may occur within the limits of the project and consult with the USFWS as appropriate.												
Category A Activities with No Ground Disturbance												
(1)	Highway safety or traffic operations improvement projects with no ground disturbance.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
(2)	Bridge maintenance activities with no ground disturbance, such as painting, cleaning, and sealing of cracks.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Category B Activities with Minimal Ground Disturbance												
(1)	Upgrade, removal, or addition of guardrail. Installation or replacement of impact attenuators. Upgrade or installation of median barriers.	NE	NE	NE	NE	NE	Use key	Use key	NE	NE	NE	NE
(2)	Clear zone safety improvements, such as fixed object removal or relocation; does not include any type of vegetation management, such as tree removal.	NE	NE	NE	NE	NE	Use key	Use key	NE	NE	NE	NE
(3)	Landscaping, comprising of installation of vegetation, mulch, irrigation; and/or hardscaping, comprising of street furniture, specialty paving, tree grates, walls, planters, and fountains.	NE	NE	NE	NE	NE	Use key	Use key	NE	NE	NE	NE
(4)	Installation, replacement, and repair of fencing, signs, and traffic signals. Repair or replacement of lighting.	Use key	NE	NE	NE	NE	Use key	Use key	MANLAA	NE	MANLAA	NE
(5)	Installation of new lighting.	NE	NE	NE	NE	NE	Use key	Use key	MA	NE	See Appendix D	NE
(6)	Installation of electronics, photonics, communications, or information processing systems. Examples include traffic control and detector devices, lane management, electronic payment equipment, all electronic tolling equipment, highway information systems (ITS), automated passenger counters, and dynamic message signs.	NE	NE	NE	NE	NE	Use key	Use key	NE	NE	NE	NE
(7)	Restoration, replacement, and rehabilitation of culverts, inlets, drainage pipes, and other associated features.	Use key	NE	NE	MANLAA *	NE	Use key	Use key	NE	MANLAA	NE	NE
(8)	Curb and gutter construction.	NE	NE	NE	NE	NE	Use key	Use key	NE	NE	NE	NE
(9)	Minor bridge maintenance and rehabilitation activities, such as railing and guardrail replacement, repair of spalls and slabs, etc.	NE	NE	NE	NE	NE	Use key	Use key	NE	NE	NE	NE
(10)	Modification of slopes to address roadway or drainage deficiencies.	Use key	NE	NE	MANLAA *	NE	Use key	Use key	NE	NE	NE	NE
(11)	Environmental restoration and pollution abatement actions to minimize or mitigate the impacts of any existing transportation facility to address water pollution or environmental degradation, such as stormwater retrofitting.	Use key	NE	NE	NE	NE	Use key	Use key	NE	NE	NE	NE
(12)	Restoration, rehabilitation, or resurfacing of existing pavement. Preventative maintenance activities such as skid hazard treatment, concrete slab replacement, joint repair, pavement patching, shoulder repair, and the removal and replacement of existing pavement structures. Improvements to railroad crossings.	NE	NE	NE	NE	NE	Use key	Use key	NE	NE	NE	NE
(13)	Improving vertical and horizontal alignments of roadways without adding capacity (excluding bridges).	Use key	NE	NE	NE	NE	Use key	Use key	NE	NE	NE	NE

Table 1. Activity Matrix with Effect Determinations		Audubon's Crested Caracara ¹	Florida Scrub-jay	Piping Plover	Wood Stork	Eastern Indigo Snake	Blue- tailed Mole Skink ¹	Sand Skink ¹	Florida Panther	West Indian manatee	Sea Turtles ²	Gulf Sturgeon ³
Instructions: For any MANLAA determination, continue to Section V. A MA determination requires consultation and concurrence is not provided. It is the responsibility of the user to confirm if any other species (including plants) protected under the Endangered Species Act may occur within the limits of the project and consult with the USFWS as appropriate.												
(14)	Vegetation management during construction to maintain clear right-of-way, such as clearing, grubbing, mowing, herbicide use, tree trimming, tree relocation, and tree removal.	Use key	MANLAA *	NE	MANLAA *	MANLAA	Use key	Use key	NE	NE	NE	NE
(15)	Installation or modification of bus shelters.	NE	NE	NE	NE	NE	Use key	Use key	NE	NE	NE	NE
(16)	Improvements to existing rest areas, truck weigh stations, and park and ride lots without adding impervious area.	NE	NE	NE	NE	NE	Use key	Use key	NE	NE	NE	NE
(17)	Widening of bridges to add pedestrian or bicycle facilities that do not require in-water work.	Use key	NE	NE	NE	NE	Use key	Use key	NE	NE	NE	NE
(18)	Use of vessels or barges.	NE	NE	NE	NE	NE	NE	NE	NE	MANLAA	MANLAA	MANLAA
Category C Activities with Moderate Ground Disturbance or In-Water Work												
(1)	Widening of pavement within existing right-of-way that does not add capacity (e.g., adding shoulders, auxiliary lanes, turn lanes, intersection modifications).	Use key	MANLAA *	MANLAA	MANLAA *	MANLAA	Use key	Use key	MANLAA *	NE	MANLAA	NE
(2)	In-kind bridge replacement (defined as - new bridge with same span lengths, number of spans, number of lanes with superstructure and substructure the same or very similar to existing. Rails may be upgraded to current standards).	Use key	NE	MANLAA	MANLAA *	NE	Use key	Use key	MANLAA *	MANLAA	MA	MA
(3)	Widening of substandard bridges to provide safety shoulders without adding through lanes.	Use key	NE	MANLAA	MANLAA *	NE	Use key	Use key	MANLAA *	MANLAA	MA	MA
(4)	Adding or replacing riprap, seawalls, bulkheads, scour repair, or repairing bridge embankments.	NE	NE	MANLAA	MANLAA *	NE	Use key	Use key	MANLAA *	MANLAA	MA	MANLAA
(5)	Sidewalk, trail or multi-use path construction.	Use key	MANLAA *	NE	MANLAA *	MANLAA	Use key	Use key	MANLAA *	NE	MANLAA	NE
(6)	Improvements to existing rest areas, truck weigh stations, and park and ride lots that require additional impervious area including areas subject to vehicular traffic or drainage modifications.	Use key	MANLAA *	NE	MANLAA *	MANLAA	Use key	Use key	MANLAA *	NE	NE	NE
(7)	Minor bridge maintenance and rehabilitation activities that require minor in-water work, such as fender repairs, pile jackets, sister piles ⁴ , and cathodic protection.	NE	NE	MANLAA	MANLAA *	NE	Use key	Use key	NE	MANLAA	MA	MANLAA

¹ Species consultation keys are provided as appendices.

² Only impacts to sea turtle nesting and nesting habitat are covered under this PA. Impacts to swimming sea turtles require separate consultation with NMFS.

³ Only impacts to gulf sturgeon under USFWS jurisdiction are covered under this PA. Impacts to gulf sturgeon under NFMS jurisdiction requires separate consultation with NFMS.

⁴ A pile driven next to an existing pile to provide extra support.

NE – No effect: No consultation or concurrence required.

MANLAA – May affect, not likely to adversely affect: Service concurs with this determination provided that applicable conservation measures in Section V are followed*.

MA – May affect: Consultation (informal or formal) is required with the Service.

Use key – Species consultation keys are provided in the appendices to determine an activity's effect and the appropriate conservation measures to follow, if needed.

* Effect determination may change dependent on conditions listed in Section V.

V. CONSERVATION MEASURES

A. MEASURES APPLICABLE TO ALL PROJECTS

1. Staging and Storage Areas

Construction contractors are responsible for obtaining clearance from FDOT for any off-project activities (e.g., borrow pits, disposal sites, storage sites). FDOT is responsible for investigating the proposed off-project activities for potential impacts to protected, threatened or endangered species. After completing the review, FDOT notifies the contractor of any mitigation measures or permit requirements needed in the event that the proposed off-project activity has potential to impact protected species. No off-project activity may commence until all clearances are obtained. This process is fulfilled through FDOT’s *Standard Specifications for Road and Bridge Construction 7-1.4: Compliance with Federal Endangered Species Act and Other Wildlife Regulations*.

B. SPECIES-SPECIFIC AVOIDANCE AND MINIMIZATION MEASURES

1. Audubon’s Crested Caracara

See **Appendix B** to determine appropriate effect determination based on level of involvement with suitable habitat.

2. Florida Scrub-Jay

a) Occupied Habitat⁴

If Florida scrub-jay surveys (Scrub-Jay Survey Guidelines [USFWS 2007]) determine the action area is occupied **or** the lead Federal agency presumes occupancy without conducting surveys, FDOT will adhere to the following avoidance and minimization measures:

i) Vegetation Removal or Alteration

- a. Scrub habitat must be avoided.
- b. Scrub habitat must be noted on plan sheets and delineated on-site prior to initiation of ground-disturbing activities and maintained throughout construction of the project.
- c. Any delineation materials must be removed after construction is complete.

b) Unoccupied Habitat

Unoccupied habitat are areas otherwise suitable for Florida scrub-jays but are determined not present after conducting surveys (Scrub-Jay Survey Guidelines, USFWS 2007). If the action area is unoccupied, then no conservation measures are required for Florida scrub-jay **no effect**

⁴ Scrub-jay habitat is defined as scrub and scrubby flatwoods or any upland community where scrub oak species (*Quercus* spp.) make up 15% or more of the ground cover (Fitzpatrick et al. 1991).

3. Piping Plover

a) Occupied Habitat

Habitat should be considered occupied when: piping plovers are observed, or suitable habitat is present and the action area occurs within one mile of previous documentations of piping plovers, or the action area occurs in designated critical habitat. If the action area is occupied, then the following avoidance and minimization measures apply:

- i) Vehicle and Equipment Usage
 - a. Follow FWC’s *Best Management Practices for Operating Vehicles on the Beach*.
- ii) Vegetation Removal or Habitat Alteration
 - a. Beach dune vegetation cannot be removed, altered, or destroyed.
 - b. Plover suitable habitat must be noted on plans.
 - c. Plover suitable habitat cannot be altered or destroyed (e.g. adding riprap to intertidal areas).
- iii) Trash Disposal
 - a. Predator-proof trash receptacles must be installed and maintained during construction at or near beaches to minimize the potential for attracting predators of piping plovers.

4. Wood Stork

a) Suitable Foraging Habitat

Suitable Foraging Habitat (SFH) includes water bodies and wetlands that typically have shallow, open water areas that are relatively calm and have a permanent or seasonal water depth of 2 to 15 inches deep. SFH supports or is capable of supporting small fish, frogs, and other aquatic prey.

If a project is within 0.47 miles of an active colony.....**may affect**

If a project has the potential to impact SFH, and is not within 0.47 miles (2500 ft) of an active colony, then the following measures apply.....
**may affect, not likely to adversely affect**

- i. Wetland impacts less than or equal to 0.5 acres where wood storks have not been observed require no further action.
- ii. Wetland impacts greater than 0.5 acres where wood storks have not been observed and occur outside of a Core Foraging Area⁵ require no further action.

⁵ Core Foraging Areas (CFA) differ dependent on geographic location. It is 13 miles, 15 miles, and 18.6 miles from an active colony site for North, Central, and South Florida respectively. https://www.fws.gov/northflorida/WoodStorks/WOST_Data/2019-WOST_FL_colonies_map_update_20190508.pdf

- iii. Wetland impacts greater than 0.5 acres and occur within a Core Foraging Area or wood storks have been observed foraging onsite, then:
 - a. SFH impacts must be compensated for type-for-type at a USFWS-approved wetland mitigation bank or wood stork conservation bank; or
 - b. SFH must be created or restored onsite for in-kind replacement equivalent to the quantity and quality of the impacted SFH acres.

b) No Suitable Foraging Habitat

If there is no suitable foraging habitat and the project is not within 0.47 miles (2500 ft) of an active colony **no effect**

5. Eastern Indigo Snake

- i) If Eastern indigo snakes have the potential to occur, then the most recent version of the *Standard Protection Measures for the Eastern Indigo Snake* must be followed during site preparation and project construction.
- ii) If gopher tortoise burrows are onsite and do not require excavation by FWC permit⁶, then silt fence must be installed to protect the burrow from destruction during ground-disturbing activities. Silt fence must be installed to allow any animals to leave the burrow and escape the project area.
- iii) Snake refugia must be inspected each morning before planned site manipulation, and if an indigo snake is found, no work will commence until the snake has left the work area on its own volition.

6. Sea Turtles (Green, Hawksbill, Kemp’s Ridley, Leatherback, Loggerhead)

a) Occupied Habitat

The action area is considered occupied if it is adjacent to a sea turtle nesting beach or traverses a waterbody used by swimming sea turtles. Activities affecting swimming sea turtles require separate consultation with NMFS.

- i) Lighting
 - a. For new lighting installation, see **Appendix D**.
 - b. Lighting replaced along coastal roadways adjacent to sea turtle nesting habitat must comply with FDOT’s *Standard Specification for Road and Bridge Construction 992-2.4.2 Luminaires from Wildlife-Sensitive Conventional Lighting* and

⁶ FWC regulates activities that occur within 25 feet of a gopher tortoise burrow under their *Gopher Tortoise Permitting Guidelines*.

the *FDOT Design Manual 231.2.1 Wildlife-Sensitive Conventional Lighting*.

- c. Work zone lighting must comply with FDOT special provision *SP0080401-1 Additional Requirements for Night Work Along Coastal Roads*.

- ii) Vehicles and Equipment

- a. Follow FWC’s *Best Management Practices for Operating Vehicles on the Beach*.
- b. Staging and storage of equipment cannot be placed on sea turtle nesting beaches.

7. Sand Skink and Blue-tailed Mole Skink

See **Appendix C** to determine if the action area can be considered unoccupied. If habitat is determined unoccupied by sand skinks, the project will have **no effect**, and no additional conservation measures are needed and no further consultation is necessary.

8. Florida Panther

For projects that occur within the USFWS Panther Focus Area⁷ or where there has been documented evidence of panther occurrence within a two-mile radius of the project in the last two years, the following avoidance and minimization measures apply.

- i) ROW Fencing

- a. Fence ends should be positioned so that animals are not funneled onto the roadway. Ideally, fence ends should occur at bridges or culverts to encourage safe passage beneath the roadway.

- ii) Riprap Modifications

- a. Modifications of riprap should consider incorporation of wildlife shelves⁸ for bridges that experience high seasonal inundation that may limit wildlife passage.

- iii) Expansion of Impervious Area or Bridge Replacement

- a. If the project is greater than 1 acre in size and creates an increase in traffic and/or change in vehicle traffic patterns
.....**may affect**
- b. If a temporary bridge crossing is being constructed
.....**may affect**

⁷ The Panther Focus Area is a habitat model that identifies landscape conditions that are supportive of panthers, panther habitat, or their dispersal. Projects that fall within the Panther Focus Area have the potential to negatively affect panthers, such as loss and fragmentation of habitat, loss of prey, increase potential for traffic related mortalities, and increase potential for human/panther interactions.

⁸ FDOT’s *Wildlife Crossing Guidelines* provides additional information on wildlife shelves.

9. West Indian Manatee

For projects that involve in-water work or include modifications to culverts, drains, inlets, and pipes where water bodies are accessible to manatees, then the following avoidance and minimization measures apply:

- i) The *Standard Manatee Conditions for In-Water Activities* must be followed.
- ii) If drains, inlets, and pipes that are being modified are larger than 8" in diameter (up to 8 ft.) and are not grated but are accessible to manatees, they will be retrofitted with a grate or other exclusion device in accordance with FWC guidance *Grates and Other Manatee Exclusion Devices for Culverts and Pipes* (2015).
- iii) If seagrasses are present:
 - a. Vessels must maintain appropriate clearance to prevent prop scour.
 - b. Anchoring of vessels must be outside of seagrass beds.
 - c. In order to comply with seagrass conditions, Districts must add FDOT specification *SP0070104-9 Additional Requirements for Seagrass Beds* to the specification package.
- iv) To avoid crushing manatees, vessels must use fenders or buoys to prevent manatees from becoming entrapped between a vessel and a vertical bulkhead or between vessels.
- v) Keep all mooring lines taut to prevent entanglement of manatees. If slack remains in the line, it should be sleeved with PVC.

10. Gulf Sturgeon (USFWS Only)

If the action area involves in-water work in water bodies where gulf sturgeon is known to occur, or within designated Critical Habitat, then the avoidance and minimization measures listed below apply. Activities affecting gulf sturgeon in the marine environment require separate consultation with NMFS.

- i) In-Water Work
 - a. If water bodies are accessible to sturgeon, then the *Construction Special Provisions: Gulf Sturgeon Protection Guidelines (Pursuant to NMFS and USFWS)* must be followed.

VI. DOCUMENTATION

When a project activity qualifies to be covered under this PA, the FDOT District must document its use within the Environmental Document in the StateWide Environmental Project Tracker (SWEPT). Appropriate documentation includes a list of applicable covered activities and the highest effect determination reached for each of the involved species. Any required conservation measures must be commitments carried forward through construction of the project.

VII. REPORTING

Under the responsibility of OEM, FDOT will provide annual reports to USFWS in a memorandum summarizing:

- The number of projects where this PA was utilized, including:
 - Project Name
 - Location
 - Activities Covered
 - Species/Critical Habitat Covered
 - Construction Timeframe (Start month/year and approximate duration in days)
 - Conservation Measures
- District feedback on the use of the PA; and,
- Any challenges in implementing the conservation measures.

Reports will be submitted to the Service(s) by March 31st of each year that this PA is effective. The report will be available to stakeholder agencies upon request. An annual interagency coordination meeting will be held to discuss the effectiveness of this PA and determine if updates and improvements are needed, or if any additional species should be considered for inclusion in the PA.

The Service(s) will review any emerging science, technology, guidelines, or protocols applicable to this PA and share with FDOT to determine if any amendments to this PA are needed (e.g., new survey guidelines, changes to consultation areas, conservation measures).

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Appendix A

Species Descriptions

Species Descriptions

The following species descriptions are sourced from U.S. Fish and Wildlife Services' (USFWS) Environmental Conservation Online System (ECOS), Florida Fish and Wildlife Conservation Commission's species profiles, and National Marine Fisheries Service's Species Directory. Maps from USFWS ECOS or Florida Natural Areas Inventory (FNAI 2001) are included but may not accurately depict the extent of the full range for each species. Other resources such as the Environmental Screening Tools (EST) GIS layers and agency-developed data products should be used when determining a species' potential to occur in a project area.

Audubon's Crested Caracara (*Caracara cheriway*)

The long neck, long yellow legs, and massive gray-blue bill of the caracara make its appearance unique among the raptors. About 58 cm in length, the crested caracara has a white head and throat, white wing tips, and white tail contrasting with a dark body, red face, and signature black crest. Audubon's crested caracara inhabits wet prairies with cabbage palms (*Sabal palmetto*), or other open habitats such as pastures. Breeding activity can occur from September through June, with the primary nesting season being November through April. Audubon's crested caracara is found throughout south central Florida, and also occurs in Texas, Arkansas, Mexico, Cuba, and Panama.



Source National Audubon Society

No critical habitat has been designated for this species.



Range Map
Source: USFWS

Florida Scrub-jay (*Aphelocoma coerulescens*)

Florida scrub-jays are endemic to peninsular Florida. The plumage of adult males and females looks alike, but males are slightly larger than females. The head, nape, wings, and tail are pale blue. The back and belly are pale gray. The throat and chest are white and bordered by a blue gray bib. Florida scrub-jays live in groups ranging from two (a single mated pair) up to large extended families of eight adults and one to four juveniles. Fledgling scrub-jays remain with the breeding pair in their natal territory as "helpers," forming a closely-knit cooperative family group. Nesting begins March 1st and continues through June 30th and typically occurs at the edge of oak thickets. Scrub-jays only occur in scrub and scrubby flatwoods habitat. This habitat is dominated by evergreen oaks, rusty lyonia (*Lyonia ferruginea*), and Florida rosemary (*Ceratiola ericoides*), and rarely greater than two meters high. Ground cover is sparse with open sandy patches used for foraging and acorn caching. Fire is needed to maintain scrub habitat.

No critical habitat has been designated for this species.



Source National Audubon Society



Range Map
Source: USFWS

Piping Plover (*Charadrius melodus*)

The piping plover is a small (7 inches long) shorebird with a wingspan of 15 in. Throughout the year, adults have sand-colored upper body parts, white undersides, and orange legs. During the breeding season, adults acquire a black forehead, a single black breast band, and an orange bill with a black tip; however piping plovers do not breed in Florida. Plovers depart their breeding grounds for their wintering grounds from July through late August, but southward migration extends through November. Piping plovers spend up to 10 months of their life cycle on their migration and winter grounds, generally July 15 through as late as May 15. Piping plovers migrate through and winter in coastal areas of the U.S. from North Carolina to Texas and in portions of Mexico and the Caribbean. Wintering piping plovers prefer coastal habitat that include sand spits, islets, tidal flats, shoals, and sandbars that are often associated with inlets. Sandy mud flats, ephemeral pools, and over-wash areas are also considered primary foraging habitats.

There is final critical habitat for this species.



Source National Audubon Society



Range Map
Source: USFWS

Wood Stork (*Mycteria americana*)

Wood storks are large, long-legged wading birds, about 50 inches tall, with a wingspan of 60 to 65 inches. The plumage is white except for black primaries and secondaries and a short black tail. The head and neck are largely unfeathered and dark gray in color. The bill is black, thick at the base, and slightly decurved. Immature birds are dingy gray and have a yellowish bill. Storks are birds of freshwater and estuarine wetlands, primarily nesting in cypress or mangrove swamps.



Source National Audubon Society

Wood storks feed in freshwater marshes, narrow tidal creeks, or flooded tidal pools. Particularly attractive feeding sites are depressions in marshes or swamps where fish become concentrated during periods of falling water levels. Suitable foraging habitat (SFH) includes wetlands that typically have shallow-open water areas that are relatively calm and have a permanent or seasonal water depth between 5 to 38 cm (2 to 15 inches) deep. Other shallow non-wetland water bodies are also SFH. SFH support and concentrates, or is capable of supporting or concentrating, small fish, frogs, and other aquatic prey. Examples include freshwater marshes, small ponds, seasonally flooded roadside ditches, seasonally flooded pastures, etc.



Range Map
Source: USFWS

No critical habitat has been designated for this species.

Eastern Indigo Snake (*Drymarchon corais couperi*)

Average adult size is 60-74 inches (152-188 cm), record is 103.5 inches (262.8 cm). Adults are large and thick bodied. The body is glossy black and in sunlight has iridescent blue highlights. The chin and throat is reddish or white, and the color may extend down the body. The belly is cloudy orange and blue-gray. The scales on its back are smooth, but some individuals may possess some scales that are partially keeled. There are 17 dorsal scale rows at midbody. The pupil is round. Juveniles are black-bodied with narrow whitish blue bands. Even though not commonly seen, eastern indigo snakes may be found throughout peninsular Florida in all terrestrial habitats and hydric hammocks which have not suffered high-density urban development. Eastern indigo snakes use gopher tortoise burrows more than other underground refugia.

No critical habitat has been designated for this species.



Source National Fish and Wildlife Foundation /Kevin Schafer



Range Map
Source: USFWS

Green Sea Turtle (*Chelonia mydas*)

The green sea turtle grows to a maximum size of about 4 feet and a weight of 440 pounds. It has a heart-shaped shell, small head, and single-clawed flippers. Color is variable. Hatchlings generally have a black carapace, white plastron, and white margins on the shell and limbs. The adult carapace is smooth, keelless, and light to dark brown with dark mottling; the plastron is whitish to light yellow. Adult heads are light brown with yellow markings. Identifying characteristics include four pairs of costal scutes, none of which borders the nuchal scute, and only one pair of prefrontal scales between the eyes.



Source Network for Endangered Sea Turtles

Green sea turtles can be found in subtropical and temperate oceans of the world. Florida hosts one of the largest grouping of green turtle nests in the western Atlantic. During the day, green turtles occupy shallow flats and seagrass meadows. In the evening, they return to their sleeping quarters of rock ledges, oyster bars and coral reefs.

No critical habitat has been designated for this species.



Range Map
Source: FWC

Hawksbill Sea Turtle (*Eretmochelys imbricata*)

One of the smaller sea turtles, it has overlapping scutes (plates) that are thicker than those of other sea turtles. This protects them from being battered against sharp coral and rocks during storm events. Adults range in size from 30 to 36 inches (0.8-1.0 meters) carapace length and weigh 100 to 200 pounds (45-90 kilograms). Its carapace (upper shell) is an attractive dark brown with faint yellow streaks and blotches and a yellow plastron (under shell). The name "hawksbill" refers to the turtle's prominent hooked beak.



Source NOAA Fisheries

Warm tropical seas are where people are most likely to see hawksbills. In Florida, hawksbills are found primarily on reefs in the Florida Keys and along the southeastern Atlantic coast.

There is final critical habitat for this species



Range Map
Source: FWC

Kemp’s Ridley Sea Turtle (*Lepidochelys kempii*)

The Kemp's ridley turtle is the rarest and smallest of the sea turtles, with adults reaching about 2 feet in length and weighing up to 100 pounds. The adult Kemp's ridley has an oval carapace that is almost as wide as it is long and is usually olive-gray in color. The carapace has five pairs of costal scutes. In each bridge adjoining the plastron to the carapace, there are four inframarginal scutes, each of which is perforated by a pore. The head has two pairs of prefrontal scales. Hatchlings are black on both sides. The Kemp's ridley has a triangular-shaped head with a somewhat hooked beak with large crushing surfaces. This turtle is a shallow water benthic feeder with a diet consisting primarily of crabs.



Source National Wildlife Federation

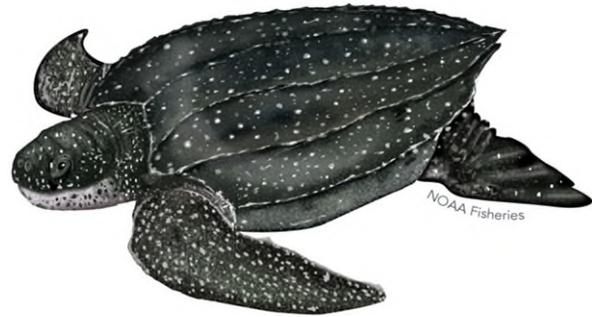
There is proposed critical habitat for this species (published in the Federal Register on November 29, 1978).



Range Map
Source: FWC

Leatherback Sea Turtle (*Dermochelys coriacea*)

The leatherback is the largest, deepest diving, and most migratory and wide ranging of all sea turtles. The adult leatherback can reach 4 to 8 feet in length and 500 to 2000 pounds in weight. Its shell is composed of a mosaic of small bones covered by firm, rubbery skin with seven longitudinal ridges or keels. The skin is predominantly black with varying degrees of pale spotting, including a notable pink spot on the dorsal surface of the head in adults.



Source NOAA Fisheries

Leatherbacks are found in Florida’s coastal waters, with a small number nesting here, mostly on the Atlantic coast. Globally, they are found throughout the Atlantic, Pacific and Indian oceans.

There is final critical habitat for this species



Range Map
Source: FWC

Loggerhead Sea Turtle (*Caretta caretta*)

Loggerheads were named for their relatively large heads, which support powerful jaws and enable them to feed on hard-shelled prey, such as whelks and conch. The carapace (top shell) is slightly heart-shaped and reddish-brown in adults and sub-adults, while the plastron (bottom shell) is generally a pale yellowish color. The neck and flippers are usually dull brown to reddish brown on top and medium to pale yellow on the sides and bottom.



Source NOAA Fisheries

Florida’s sandy Atlantic and Gulf of Mexico beaches host one of the largest loggerhead nesting aggregations in the world. Females return to their nesting beach every two or more years to lay four to seven nests, one about every 14 days. Each nest contains about 100-126 eggs that incubate about 60 days.

There is final critical habitat for this species.



Range Map
Source: FWC

Blue-tailed Mole Skink (*Eumeces egragius lividus*)

A small fossorial lizard (up to 5 inches in length) with a brownish body and a blue tail, which may be pink or orange (indicating an older individual or that the tail has regenerated). Blue-tailed mole skinks have small legs with 5 toes per foot and light-colored line on the dorsal side. Breeding males may have orange sides in late winter. Blue-tailed mole skinks are semi-fossorial where they hunt at the soil surface to consume mostly terrestrial arthropods. Blue-tailed mole skinks do not leave visible tracks, unlike sand skinks, but are often observed with sand skinks. Therefore, sand skink occurrence is used as an indicator of blue-tailed mole skink occurrence where the two species overlap in distribution.



Source USFWS

Skinks inhabit areas with loose sandy soils, primarily in sandhill and xeric hammocks, oak and sand pine scrub, and turkey oak barrens in central Florida along the Lake Wales Ridge. Blue-tailed mole skinks are found in Highlands, Polk, and Osceola Counties.

No critical habitat has been designated for this species.



Range Map
Source: USFWS

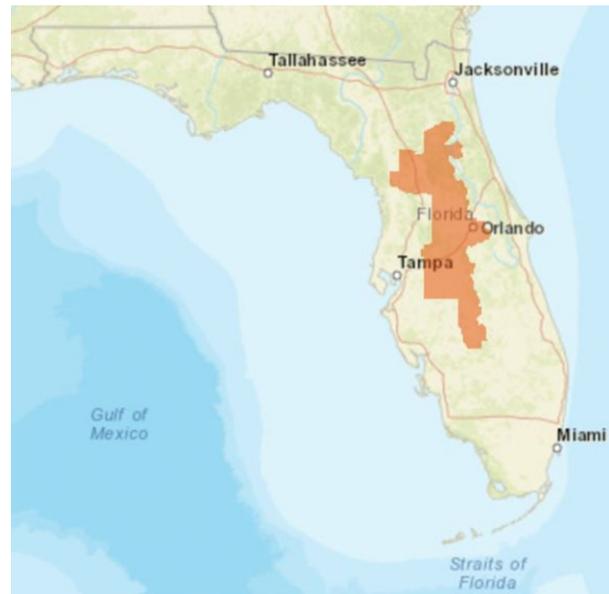
Sand Skink (*Plestiodon [=Neoseps] reynoldsi*)

A unique lizard adapted to an underground existence, the sand skink measures 10 to 13 centimeters (4 to 5 inches) in length and has a gray to tan color. Its forelegs are tiny and bear only one toe; its hindlegs are small and have two toes. The tail comprises about half of the animal's total length. The sand skink has a wedge-shaped head, a partially countersunk lower jaw, body grooves into which the forelegs can be folded, and small eyes which have transparent windows in the lower lids. Skinks typically occur in habitats that contain a mosaic of open sandy patches interspersed with forbs, shrubs, and trees. They are primarily fossorial, meaning they move below the surface in sandy soils. Skinks are generally found at elevations 82 ft above sea level or greater in well-drained sandy soils. They occur in peninsular counties on ridges in central Florida. The extant range of the sand skink includes Highlands, Lake, Marion, Orange, Osceola, Polk, and Putnam counties.

No critical habitat has been designated for this species.



Source Todd Pierson



Range Map
Source: USFWS

Florida Panther (*Puma concolor coryi*)

The Florida panther is large, long-tailed cat whose fur is unspotted, typically rusty reddish-brown on the back, tawny on the sides, and pale gray or buffy underneath. Panthers require large, contiguous areas of suitable habitat to meet their social, reproductive, and energetic needs. The habitat of the Florida panther is an extensive landscape of natural, semi-natural, and agricultural lands. Forested habitats, including pinelands, upland hardwood forests, hardwood swamps, and cypress swamps, are selected by and are of vital importance to panthers. These cover types provide the most important habitat for panthers to meet life cycle requirements that include selection of den sites, daytime-rest sites, and cover for hunting prey. Dense understory vegetation provides some of the most important feeding, resting, and denning cover for panthers. The panther's range is primarily south of the I-4 corridor with most found south of the Caloosahatchee River.



Source Art Wolfe



Range Map
Source: USFWS

No critical habitat has been designated for this species.

West Indian Manatee (*Trichechus manatus*)

Manatees are protected under the Endangered Species Act and the Marine Mammal Protection Act, which prohibits the take (i.e., harass, hunt, capture, or kill) of all marine mammals. Manatees have large, seal-shaped bodies with paired flippers and a round, paddle-shaped tail. Manatees are found in marine, estuarine, and freshwater environments. Preferred habitats include areas near the shore featuring underwater vegetation like seagrass and eelgrass. They feed along grass bed margins with access to deep water channels, where they flee when threatened. Florida manatees can be found throughout Florida for most of the year. However, they cannot tolerate temperatures below 68 degrees Fahrenheit for extended periods of time, and during the winter months these cold temperatures keep the population concentrated in peninsular Florida. Many manatees rely on the warm water from natural springs and power plant outfalls.



Source U.S. Fish and Wildlife Service

There is final critical habitat for this species.



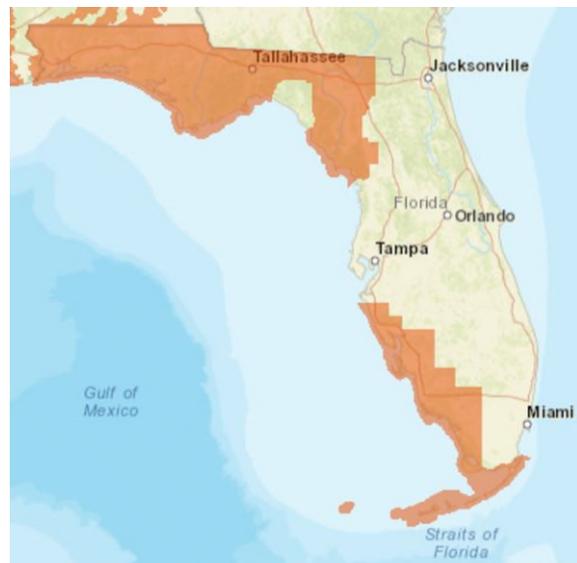
Range Map
Source: USFWS

Gulf Sturgeon (*Acipenser oxyrinchus desotoi*)

Gulf sturgeon are a subspecies of Atlantic sturgeon that occur along the Gulf Coast. They have barbels located on the underside of the snout, no teeth, rubbery lips, and a suctorial mouth for vacuuming food off the bottom. The sturgeon's coloring typically is dark brown along the upper (dorsal) side shading to a creamy white-colored belly. Gulf sturgeon are large fish that can exceed a length of eight feet (2.4 meters), a weight of over 300 pounds (137 kilograms) and possess strength to leap nine feet (2.7 meters) into the air. Sturgeon are anadromous, a term used to describe fish that spend a part of their lives in saltwater, yet travel upstream in freshwater rivers to spawn. Such fish return year after year to the same stream where they were hatched. For Gulf sturgeon, which are found from Florida to Louisiana, this means a move from salt to fresh water between February and April and a move downriver between September and November. They spend the winter in the Gulf of Mexico in sandy-bottom habitats six to 100 feet deep, where their diet consists of marine worms, grass shrimp, crabs and a variety of other bottom-dwelling organisms. They eat very little while in freshwater rivers.



Source NOAA Fisheries



Range Map
Source: USFWS

Gulf sturgeon can be found from the Mississippi River in Louisiana, east to the Suwannee River in Florida where they inhabit both salt and fresh water habitats, annually cycling between the two. Gulf sturgeon migrate into brackish and salt water during the fall and feed there throughout the winter months. In the spring, they migrate into fresh water rivers and remain there through the summer months. Today, the free-flowing, spring-fed Suwannee River supports the largest and most robust population of Gulf sturgeon in the state and the wider Gulf of Mexico region. Adults spawn on scoured limestone substrates in the upper reaches of this 200-mile long river. As they swim along, sturgeon occasionally leap out of the water. Gulf sturgeons are considered home stream spawners, which means they usually will return to the freshwater river that they were born into spawn. Sturgeons spawn during the spring in freshwater rivers when temperature, flow, and pH are optimum.

There is final critical habitat for this species.

Appendix B

Caracara Key

SPECIES-SPECIFIC AVOIDANCE AND MINIMIZATION MEASURES

Audubon’s Crested Caracara (*Caracara cheriway*)

If by using this key, a *may affect, not likely to adversely affect* determination is reached, then the U.S. Fish and Wildlife Service (USFWS) concurs with this determination and no additional consultation is needed. If a *may affect* determination is reached, then consultation (informal or formal) with the USFWS is needed to further assess potential impacts to Audubon’s crested caracara from the project. A *no effect* determination does not require further consultation or concurrence. Definitions are provided below for terms used within this key.

Conduct a Habitat Assessment. If results indicate:

- A. Project within consultation area but will not affect suitable caracara habitat **No Effect**
 Project within consultation area and may affect suitable caracara habitat *Go to B*
- B. Project does not occur within a gathering area *Go to C*
 Project does occur within a gathering area **May Affect (consult with USFWS)**
- C. Suitable nesting habitat is not located in the project footprint or within 985 feet of the project footprint **May Affect, Not Likely to Adversely Affect**
 Suitable nesting habitat is located in the project footprint or within 985 feet of the project footprint *Go to D*
- D. The project will not result in the removal of a potential nest tree (defined as any tree ≥ 22 feet [7 meters] in height) **May Affect, Not Likely to Adversely Affect**
 The project will result in the removal of potential nest tree (defined as any tree ≥ 22 feet [7 meters] in height) *Conduct Abbreviated Survey* and Go to E*
- E. Results of caracara nest survey indicate that active caracara nests do not occur within the project footprint or within 985 feet of the project footprint **May Affect, Not Likely to Adversely Affect**
 Results of caracara nest survey indicate that active caracara nests do occur within the project footprint or within 985 feet of the project footprint May Affect (consult with the USFWS)

DEFINITIONS:

***Abbreviated survey:** Prior to work occurring in the months of January, February or March, within 985 feet of suitable nesting habitat, conduct a caracara nest survey. Surveys during the month of December are not valid. Schedule work such that surveys can be conducted before work begins. The survey will be conducted over two mornings each week for a total of two consecutive weeks (4 survey days total). Each survey will start 15 minutes before sunrise and last for 3 hours

total. Assuming the site is active, territorial occupancy and the nest tree itself will usually be confirmed by observations made after only three visits (Morrison, 2001). The abbreviated survey will:

- Use background research involving review of previous surveys conducted in the region, existing BO's and available GIS data.
- Be performed by Qualified Observers as defined by USFWS in conformance with Survey Design and Planning section of USFWS caracara survey protocol (USFWS, 2017).
- Survey stations for abbreviated surveys must generally be divided up along the corridor with the reviewer remaining stationary at each station for at least 45 minutes. Enough survey stations must be identified to cover all suitable habitats within the project boundary and 985 foot buffer. A survey station is defined as an area easily observable from one vantage point.
- Surveys should be conducted on days where weather conditions allow visibility across a large area (i.e., no rain, no fog) and wind is less than 12mph.

Foraging habitat: Improved pastures, newly plowed or burned fields, dairies, around dwelling and farm buildings, slaughterhouses, poultry houses and urban dumps; drainage ditches, small ponds and wetlands within improved pastures, drying marshes or stock ponds, shallow roadside and agriculture ditches; marshes associated with river oxbows; agriculture land (sod, cane field, citrus grove) to a lesser extent (Morrison, 2001).

Gathering areas: Communal roosts for juvenile caracaras in their first flight year. They may change from year-to-year but are known to occur in several general areas including floodplains and pasture lands along the Kissimmee River as well as other areas identified in Highlands and Glades counties (See Figure 1 in USFWS 2004). A KMZ file to show this area is also available on the OEM resources page at <https://www.fdot.gov/environment/protected-species-and-habitat>.

Nesting habitat: Open landscapes supporting single or small clumps of trees (e.g., cabbage palms, live oaks, cypress) surrounded by short ground vegetation with minimal to absent understory or shrub layers (Morrison 2001). Cabbage palms are generally favored as nest trees but other single, isolated trees or trees within a group of 3-10 may also be utilized. Characteristic nesting habitat includes large expanses of pastures, grasslands, and prairies.

References

- Morrison, J. L. 2001. Recommended management practices and survey protocols for Audubon's crested caracaras (*Caracara cheriway audubonii*) in Florida. Technical Report No. 18. Florida Fish and Wildlife Conservation Commission. Tallahassee, Florida.
- USFWS. 2003. Crested Caracara Consultation Area Map. South Florida Ecological Services Office. July 14, 2003. <https://www.fws.gov/verobeach/BirdsPDFs/CrestedCaracaraConsultationArea.pdf?spcode=A003>
- USFWS. 2004. Audubon's Crested Caracara Species Conservation Guidelines South Florida. South Florida Ecological Services Office. April 20, 2004. <https://www.fws.gov/verobeach/BirdsPDFs/2004SpeciesConservationGuidelinesCaracaraALLINCLUSIVE.pdf?spcode=A003>

USFWS. 2016. USFWS Crested Caracara Draft Survey Protocol – Additional Guidance (2016 – 2017 Breeding Season. South Florida Ecological Services Office. https://www.fws.gov/verobeach/BirdsPDFs/20161209_CCsurveyprotocol.pdf

Appendix C

Blue-tailed Mole Skink and Sand Skink Key

SPECIES-SPECIFIC AVOIDANCE AND MINIMIZATION MEASURES

Blue-tailed Mole Skink (*Eumeces egragius lividus*)

Sand Skink (*Plestiodon [=Neoseps] reynoldsi*)

If the use of this key results in a determination of *no effect* for a particular project, the U.S. Fish and Wildlife Service (USFWS) supports this determination and no further consultation is necessary. A determination of *may affect* requires further consultation with the USFWS, which may be completed informally or formally.

- A. Project is located in the Service’s consultation area for the blue-tailed mole or sand skink and includes ground-disturbing work *Go to B*

 Project is located in the Service’s consultation area for the blue-tailed mole or sand skink but does not include ground-disturbing work **No Effect**

 Project is located outside the Service’s consultation area for the blue-tailed mole or sand skink **No Effect**
- B. Project site is located at an elevation of 82 feet or above *Go to C*

 Project site does not occur at an elevation of 82 feet or above **No Effect**
- C. Project site has soils suitable for blue-tailed mole or sand skinks¹ *Go to D*

 Project site does not contain suitable soils for blue-tailed mole or sand skinks.. **No Effect**
- D. All areas of suitable soils within the project site contain a thick (100%) cover of vegetation or have been altered by fill material (e.g., gravel) that prevents skinks from moving through the soil **No Effect**

 At least some areas of suitable soils within the project site do not contain a thick cover of vegetation or have not been altered by fill material and allow skinks to move through the soil..... *Go to E*
- E. No skinks found during coverboard surveys² **No Effect**

 Skink tracks found during surveys **May Affect** (*consult with USFWS*)

¹ Skinks are found in excessively drained, well-drained, and moderately well-drained sandy soils. Suitable soil types include: Apopka, Arredondo, Archbold, Astatula, Basinger, Candler, Daytona, Duette, Florahome, Gainesville, Hague, Immokalee, Kendrick, Lake, Millhopper, Orsino, Paola, Placid, Pomello, Pompano, Satellite, Samsula, Smyrna, St. Lucie, Urban land (when open sandy soils persist and remnant scrub remains), Tavares, Zolfo and Zuber soil series

² Survey protocols are available through the Vero Beach USFWS Field Office: https://www.fws.gov/verobeach/ReptilesPDFs/20200731_SkinkConservationandConsultationGuide.pdf

Appendix D

Sea Turtles and New Lighting

SPECIES-SPECIFIC AVOIDANCE AND MINIMIZATION MEASURES

Sea Turtles

Lighting and lighting pollution affects many wildlife by altering their foraging, breeding, and/or seasonal migration patterns. It is well documented in sea turtles that lighting and sky glow can cause disorientation, which negatively affects both hatchlings and nesting females. Artificial lighting attracts hatchlings which causes them to move away from the safety of water and can lead to death by dehydration, predation, or vehicle strike. Lighting affects nesting females by disrupting nest selection, nesting behavior, and/or sea-finding after laying a nest.

To understand where road lighting is most likely to affect sea turtles, FDOT, in collaboration with the Florida Fish and Wildlife Conservation Commission (FWC), have developed a map layer that identifies where wildlife friendly lighting is recommended within 300 meters of the coast and where downward directed and shielded lighting is recommended within 500 meters of the coast. These two areas were designated based on where lighting may be visible from the beach and where light pollution may be contributing to sky glow, respectively.

New Lighting Installation

For projects that involve installation of new lighting near coastal roads, the following steps and accompanying avoidance and minimization measures apply:

1. Refer to the FDOT Lighting Buffer layer to determine if lighting modifications are recommended for your project. A Google Earth KMZ layer or GIS shape files showing the suggested area for wildlife friendly lighting consideration can be accessed at <https://www.fdot.gov/environment/protected-species-and-habitat> or through the FGDL metadata explorer at <https://www.fgdl.org/metadataexplorer/explorer.jsp> Keyword search = Turtle. The layer(s) can be applied to a map of the project area.
2. If your project falls within the 300-meter buffer region along the coastline or is denoted within the map layer, follow lighting design criteria as listed in the FDOT Design Manual § 231.2.1 and 992-2.4.2. For use of work zone lighting during night-time construction within these areas, adhere to FDOT Specification 8-4.1.1.
3. If your project falls within the 500-meter buffer of the coastline, consideration should be given to the installation of downward directed and shielded luminaires that concentrate lighting where needed to minimize sky glow. Consider using amber LED's and the minimum wattage necessary to illuminate the desired area. A KMZ or GIS layer to show this area is also available on the OEM Protected Species and Habitat page at <https://www.fdot.gov/environment/protected-species-and-habitat> or through the FGDL metadata explorer as stated above.
4. If your project falls outside of the buffer, Dark Skies best management practices should still be considered to reduce the cumulative negative effect of sky glow on wildlife but are not considered a requirement to reach a MANLAA determination. If these measures can be implemented, the activity **may affect, but not likely to adversely affect** sea turtles and the project may proceed without further consultation with the USFWS. New lighting installation that does not adhere to these measures **may affect** sea turtles and require further consultation.