



Memorandum

To: Jeremy Hockenbury
Public Works Director
City of Wildwood

From: Hannah Smith
Environmental Scientist
Kimley-Horn & Associates, Inc.

Date: June 22, 2023

RE: **Environmental Evaluation**
St Clair Street Improvements
Wildwood, Sumter County, FL

Kimley-Horn and Associates, Inc. (Kimley-Horn) conducted field reconnaissance on June 9, 2023 at the above referenced site. The purpose of this field review was to identify wetlands, surface waters, and evidence of state- or federally- listed species within the project site. The project site consists of the right-of-way (ROW) along St Clair Street, from Huey Street to Barwick Street, located within the City of Wildwood, Sumter County, Florida (See **Figure 1 – Project Location Map**).

Prior to field reconnaissance, a desktop review of readily available documentation regarding wetlands and listed species was reviewed. These sources are listed below:

- Florida Natural Areas Inventory (FNAI) Biodiversity Matrix (<http://www.fnai.org/biointro.cfm>)
- Various Geographic Information System (GIS) data layers from the U.S. Fish and Wildlife Service (USFWS), U.S. Geological Survey (USGS), Florida Fish and Wildlife Conservation Commission (FWC) [(<http://legacy.myfwc.com/bba/data/default.asp>) and (<https://public.myfwc.com/FWRI/EagleNests/nestlocator.aspx>)]
- Audubon Florida EagleWatch Bald Eagle Nest Map (<https://audubon.maps.arcgis.com/apps/SimpleViewer/index.html?appid=75ea06f653f847658c908634ffc6f640>)
- USFWS IPaC Trust Resources Report (<https://ecos.fws.gov/ipac/>)
- U.S. Department of Agriculture (USDA) / Natural Resources Conservation Service (NRCS) Soil Survey of Sumter County, Florida (Web Soil Survey)
- USFWS National Wetlands Inventory (NWI) Maps (Web-based maps available from <http://www.fws.gov/wetlands/Data/mapper.html>)

- USGS Quadrangle Maps, Land Boundary Information System (LABINS); <http://www.labins.org>
- Southwest Florida Water Management District (SWFWMD) GIS data (<https://data-swfwmd.opendata.arcgis.com/>)

The presence of wetlands and surface waters was evaluated based on the Florida unified wetland delineation methodologies in accordance with Chapter 62-340, Florida Administrative Code (FAC) and the U.S. Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0). These methods consider prevalence of wetland vegetation, hydric soil indicators, and wetland hydrology. Surface waters include both natural and manmade bodies of water, such as streams, lakes, ponds, canals, and ditches.

Field Reconnaissance

Field reconnaissance included pedestrian transects throughout the project site to identify wetlands and search for evidence of site utilization by listed species.

The USDA / NRCS *Soil Survey of Sumter County, Florida*, maps the following soils within the project site: (11) Millhopper sand, 0 to 5 percent slopes, and (33) Sparr fine sand, bouldery subsurface, 0 to 5 percent slopes (see **Figure 2 – NRCS Soils Map**).

Field reconnaissance was conducted on June 9, 2023 and vegetative communities within the proposed project site were identified through pedestrian transects and aerial photograph interpretation. Vegetative communities were classified using the Florida Land Use, Cover, and Forms Classification System (FLUCFCS, Florida Department of Transportation, 1999). Classifications within the project site includes (814) Roads and Highways (see **Figure 3 – FLUCFCS Map**). No wetlands or surface waters were identified within the project site.

The project site was evaluated for potential listed species utilization. A list of species potentially occurring within the project site and immediate vicinity was created through the review of the databases described above. Results of the database reviews are summarized below, with **Table 1** listing species that may occur and their likelihood of occurrence. Likelihood of occurrence is based on actual observation of the species, sign of the species (burrows, tracks, scat, etc.), observance of suitable habitat, and/or documented occurrences of the species within various databases. A Low ranking indicates that preferred habitat for that species was found within the project site, but the species has not been documented within one (1) mile of the project site. A Moderate ranking indicates that suitable habitat exists, and the species has been documented within one (1) mile of the project site. A High ranking indicates that suitable habitat exists, and the species was observed during field reconnaissance.

No state or federally listed species were documented within the project site or observed within the project site during field reconnaissance.

FNAI – FNAI reported no documented occurrences of state or federally listed species within the project site or its immediate vicinity (see *Appendix A*).

FWC – No active wading bird rookeries are documented within one (1) miles of the project site. No bald eagle (*Haliaeetus leucocephalus*) nests are located within one (1) miles of the project site. Suitable habitat for the gopher tortoise (*Gopherus polyphemus*) exists within the project site.

USFWS Consultation Areas – The project site is located within the USFWS Consultation Area for the Florida scrub-jay (*Aphelocoma coerulescens*) and Everglade snail kite (*Rostrhamus sociabilis plumbeus*). No suitable habitat is located within the project site; therefore, these species are excluded from further evaluation.

USFWS Wood Stork Colonies – The project site is not located within any wood stork (*Mycteria americana*) Core Foraging Areas (CFAs).

USFWS IPaC Data – The IPaC Trust Resources includes historical data in their reporting, which results in some species findings that do not reflect current on-site conditions. The eastern indigo snake (*Drymarchon corais couperi*) is identified in the data report and suitable habitat exists within the project limits. The project site is not within any USFWS designated Critical Habitat (*Appendix B*). The project site does not contain suitable habitat for the remaining species; therefore, they are excluded from further evaluation.

TABLE 1: Potential Listed Species Occurrence						
Common Name	Scientific Name	Federal Status	State Status	Comments	Likelihood of Occurrence	
REPTILES	Eastern Indigo Snake	<i>Drymarchon corais couperi</i>	T	FT	Observed On-site: No Observed in Proximity: No Habitat present: Yes Habitat Type: Foraging and nesting	Low
	Gopher Tortoise	<i>Gopherus polyphemus</i>	NL	T	Observed On-site: No Observed in Proximity: No Habitat present: Yes Habitat Type: Foraging and burrowing	Low
Federal Status: E = Endangered; T = Threatened; C = Candidate Species; NL = Not Listed. State Status: FE- Federally Endangered; FT – Federally Threatened; T- State Threatened. Note: Coordination is not required with FWC for Federally listed species.						

Eastern Indigo Snake

The eastern indigo snake occurs in a range of habitats, including pine flatwoods, scrubby flatwoods, high pine, dry prairie, tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, coastal dunes, and human-altered habitats. The snake requires large tracts of land to survive and often winters in burrows of gopher tortoises, armadillos, cotton rats, and land crabs (in coastal areas) and forages in hydric habitats. No individuals were observed during field reconnaissance; however, potential habitat for the eastern indigo snake does exist within the project site.

According to the Eastern Indigo Snake Programmatic Effect Determination Key (dated August 1, 2017) the *Standard Protection Measures for the Eastern Indigo Snake* (see **Appendix C**) are recommended during site preparation and project construction. Protection measures include signage and contractor education. With implementation of these measures, no further action regarding this species is anticipated to be required.

Gopher Tortoise

The gopher tortoise prefers dry upland habitats such as pine flatwoods, xeric oak hammocks, open sandy pastures, and disturbed areas. No gopher tortoise burrows were observed during field reconnaissance; however, habitat for the tortoise does exist within the project site. If gopher tortoise burrows are located within 25 feet of project construction, an FWC gopher tortoise relocation permit will be required to excavate and relocate the gopher tortoises.

Other wildlife species observed during field reconnaissance included a northern cardinal (*Cardinalis cardinalis*).

Summary

Kimley-Horn conducted field reconnaissance on June 9, 2023 at the above referenced site to identify potential wetlands, surface waters, and evidence of state- or federally- listed species within the project site. No wetlands or surface waters were identified within the project site. The *Standard Protection Measures for the Eastern Indigo Snake* is recommended to be followed during site preparation and project construction. With implementation of these measures, no further action regarding the eastern indigo snake is anticipated to be required. No gopher tortoise burrows were observed during field reconnaissance; however, habitat for the tortoise does exist within the project site. If gopher tortoise burrows are within 25 feet of project construction, an FWC gopher tortoise relocation permit will be required to excavate and relocate the gopher tortoises.

Attachments:

Figure 1 – Project Location Map

Figure 2 – NRCS Soils Map

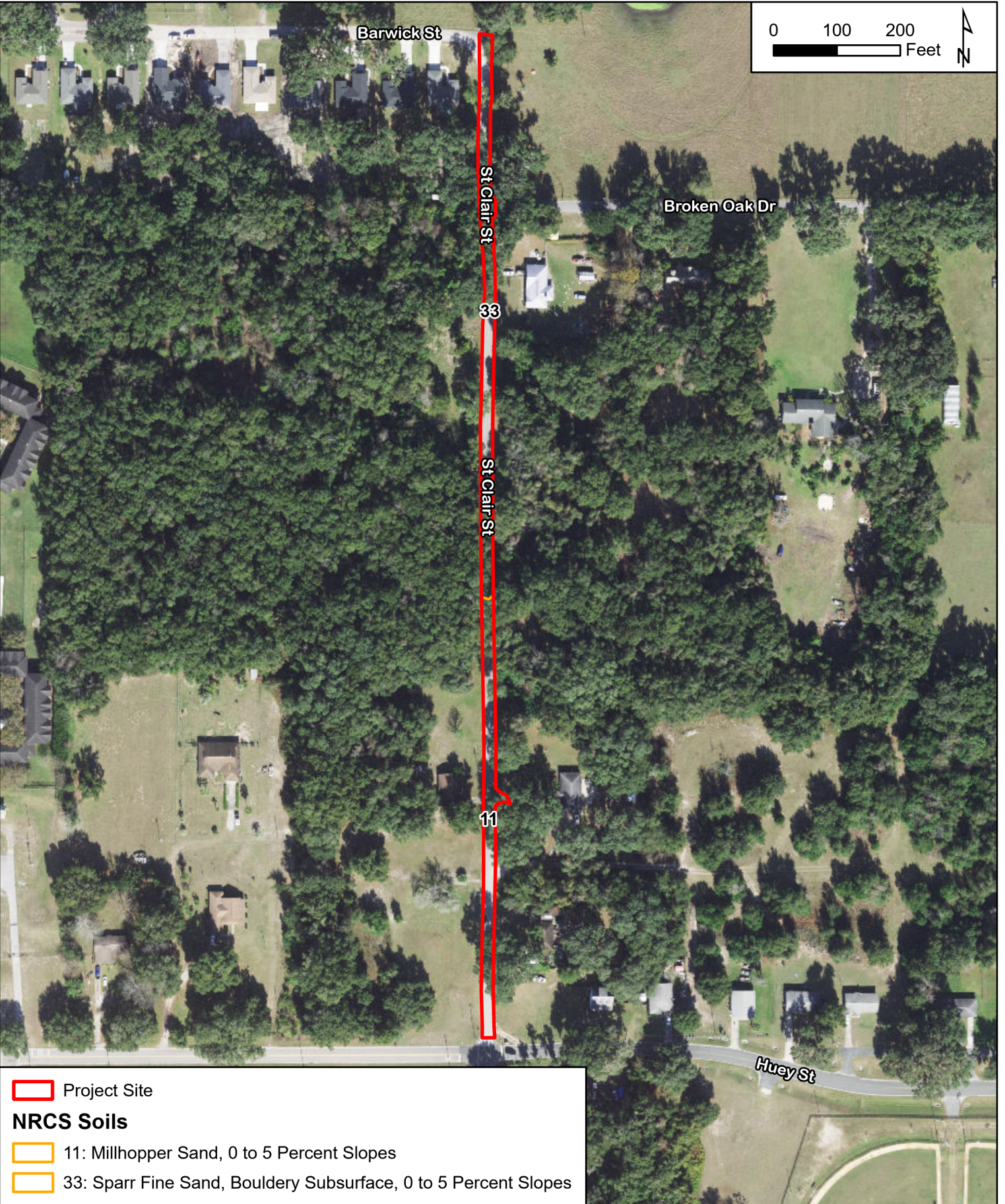
Figure 3 – FLUCFCS Map

Appendix A – FNAI Biodiversity Matrix Report

Appendix B – USFWS IPaC Trust Resources Report

Appendix C – Standard Protection Measures for the Eastern Indigo Snake

Folder: K:\TAM_GIS\City of Wildwood Street Improvements\PROJ

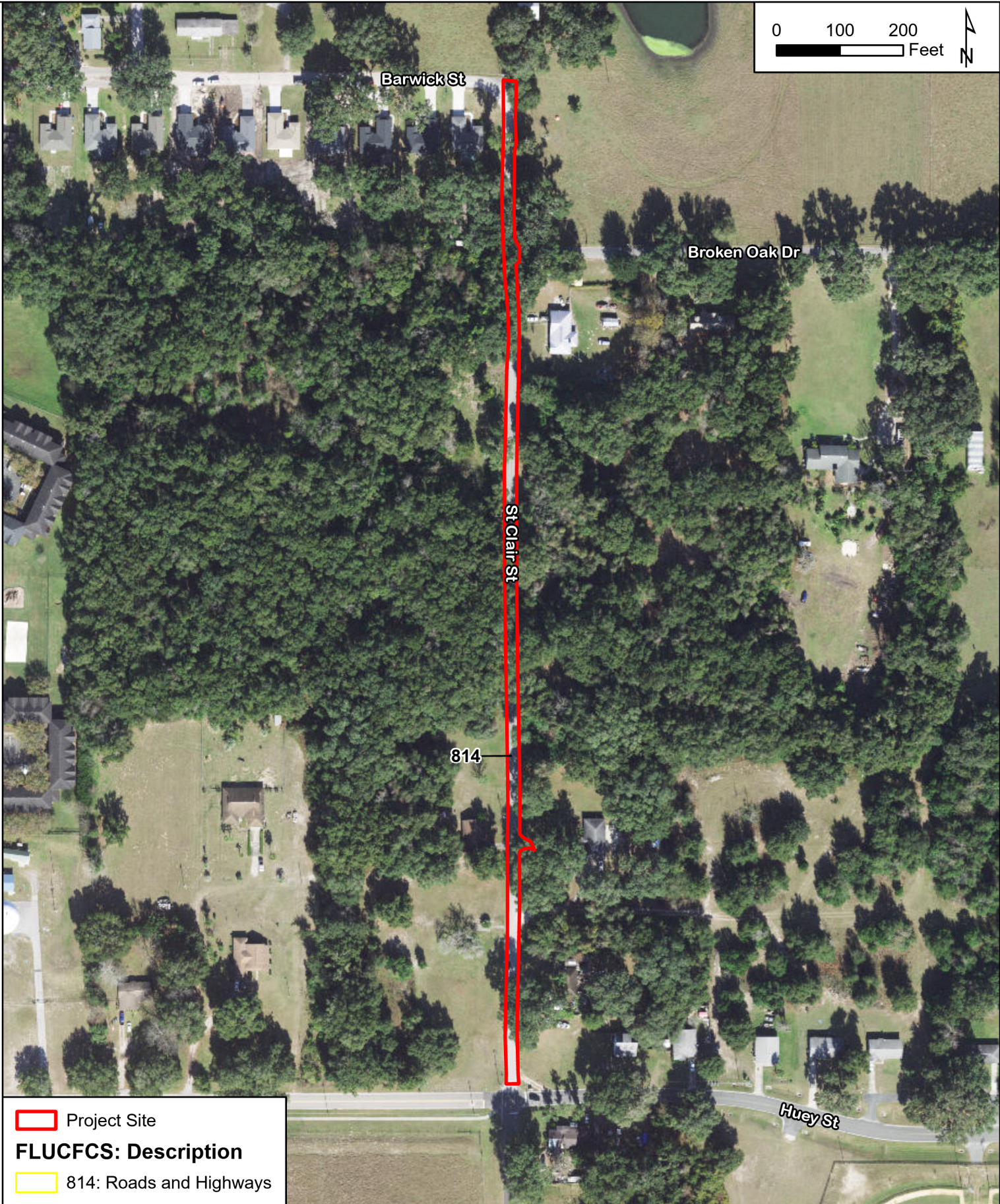
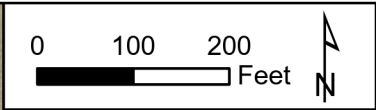


- Project Site
- NRCS Soils**
- 11: Millhopper Sand, 0 to 5 Percent Slopes
- 33: Sparr Fine Sand, Bouldery Subsurface, 0 to 5 Percent Slopes

Kimley»Horn


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NRCS Soils Map			
St Clair Street Improvements			
Wildwood, Sumter County, Florida			
1 IN = 200 FT	PROJECT NUMBER: 142173391	JUNE 2023	FIGURE 2



 Project Site

FLUCFCS: Description

 814: Roads and Highways

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Florida Land Use, Cover, and Forms Classification System Map

**St Clair Street Improvements
 Wildwood, Sumter County, Florida**

1 IN = 200 FT

PROJECT NUMBER: 142173391

JUNE 2023

FIGURE 3

Appendix A
FNAI Biodiversity Matrix Report



Florida Natural Areas Inventory

Biodiversity Matrix Query Results

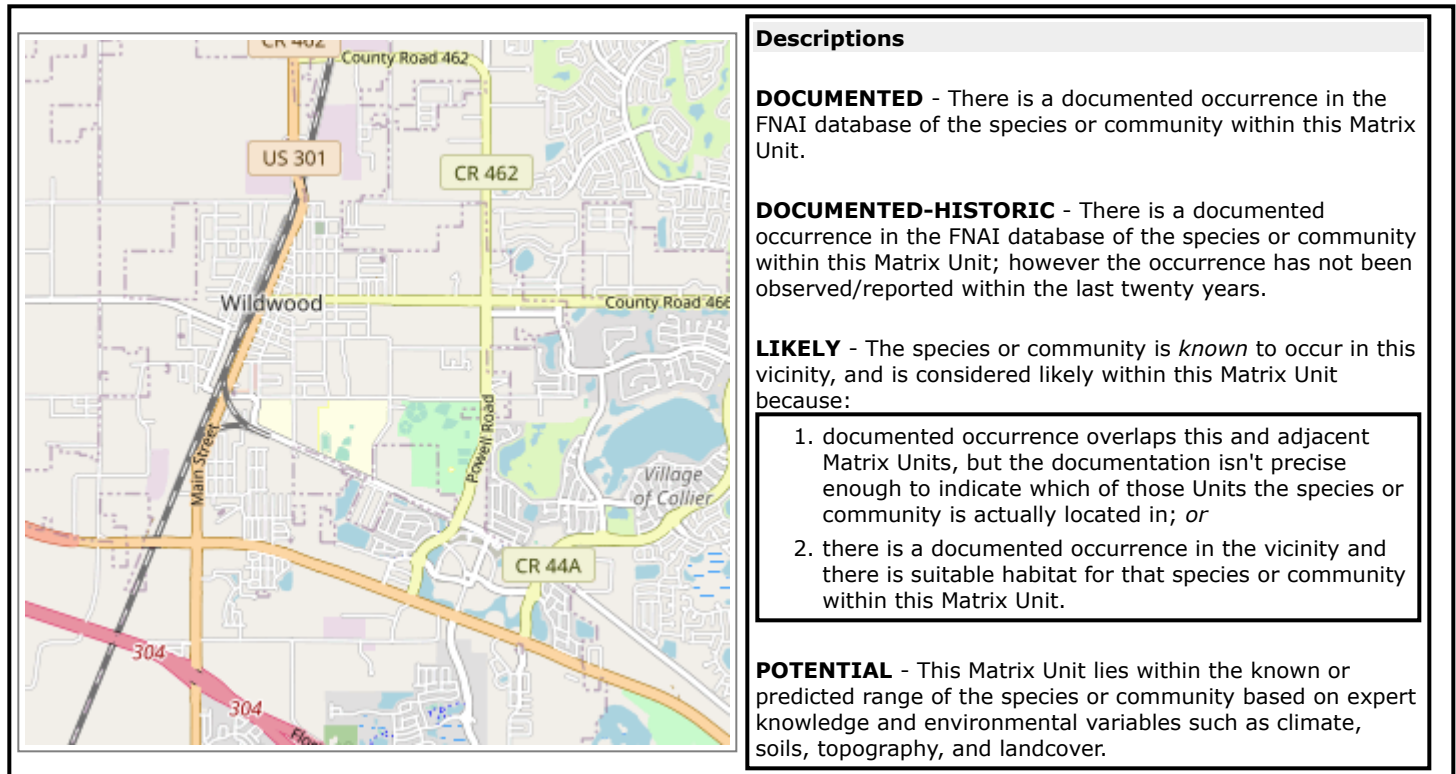
UNOFFICIAL REPORT

Created 6/8/2023

(Contact the FNAI Data Services Coordinator at 850.224.8207 or
kbrinegar@fnai.fsu.edu for information on an official Standard Data Report)

NOTE: The Biodiversity Matrix includes only rare species and natural communities tracked by FNAI.

Report for 4 Matrix Units: 32812 , 32813 , 33133 , 33134



Matrix Unit ID: 32812

0 Documented Elements Found

0 Documented-Historic Elements Found

1 Likely Element Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Mycteria americana Wood Stork	G4	S2	T	FT

Matrix Unit ID: 32813

0 Documented Elements Found

0 Documented-Historic Elements Found

1 Likely Element Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Mycteria americana Wood Stork	G4	S2	T	FT

Matrix Unit ID: 331330 **Documented** Elements Found0 **Documented-Historic** Elements Found**2 Likely** Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Mycteria americana Wood Stork	G4	S2	T	FT
<i>Upland hardwood forest</i>	G5	S3	N	N

Matrix Unit ID: 331340 **Documented** Elements Found0 **Documented-Historic** Elements Found**1 Likely** Element Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Mycteria americana Wood Stork	G4	S2	T	FT

Matrix Unit IDs: 32812 , 32813 , 33133 , 3313432 **Potential** Elements Common to Any of the 4 Matrix Units

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
<i>Antigone canadensis pratensis</i> Florida Sandhill Crane	G5T2	S2	N	ST
<i>Asplenium x curtissii</i> Curtiss' spleenwort	GNA	S1	N	N
<i>Asplenium x heteroresiliens</i> Morzenti's spleenwort	G2	S1	N	N
<i>Asplenium x plenum</i> ruffled spleenwort	G1Q	S1	N	N
Athene cunicularia floridana Florida Burrowing Owl	G4T3	S3	N	ST
<i>Bombus fraternus</i> Southern Plains Bumble Bee	G2G4	S1S2	N	N
Calopogon multiflorus many-flowered grass-pink	G2G3	S2S3	N	T
Centrosema arenicola sand butterfly pea	G2Q	S2	N	E
<i>Digitaria floridana</i> Florida fingergrass	G1	S1	N	N
Drymarchon couperi Eastern Indigo Snake	G3	S2?	T	FT
Egretta caerulea Little Blue Heron	G5	S4	N	ST
Egretta thula Snowy Egret	G5	S3	N	N

Forestiera godfreyi Godfrey's swampprivet	G2	S2	N	E
Gopherus polyphemus Gopher Tortoise	G3	S3	C	ST
Heterodon simus Southern Hognose Snake	G2	S2S3	N	N
Justicia cooleyi Cooley's water-willow	G2Q	S2	E	E
Lithobates capito Gopher Frog	G2G3	S3	N	N
Matelea floridana Florida spiny-pod	G2	S2	N	E
Monotropsis reynoldsiae pygmy pipes	G2	S2	N	E
Mustela frenata peninsulæ Florida Long-tailed Weasel	G5T3?	S3?	N	N
Myotis austroriparius Southeastern Myotis	G4	S3	N	N
Nemastylis floridana celestial lily	G2	S2	N	E
Neofiber alleni Round-tailed Muskrat	G2	S2	N	N
Notophthalmus perstriatus Striped Newt	G2G3	S2	N	C
Plegadis falcinellus Glossy Ibis	G5	S3	N	N
Podomys floridanus Florida Mouse	G3	S3	N	N
Sciurus niger niger Southeastern Fox Squirrel	G5T5	S3	N	N
Spigelia loganioides pinkroot	G2Q	S2	N	E
Trichomanes punctatum ssp. floridanum Florida filmy fern	G4G5T1	S1	E	E
Triphora craigheadii Craighead's nodding-caps	G1	S1	N	E
Ursus americanus floridanus Florida Black Bear	G5T4	S4	N	N
Warea amplexifolia clasping warea	G1	S1	E	E

Disclaimer

The data maintained by the Florida Natural Areas Inventory represent the single most comprehensive source of information available on the locations of rare species and other significant ecological resources statewide. However, the data are not always based on comprehensive or site-specific field surveys. Therefore, this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. FNAI shall not be held liable for the accuracy and completeness of these data, or opinions or conclusions drawn from these data. FNAI is not inviting reliance on these data. Inventory data are designed for the purposes of conservation planning and scientific research and are not intended for use as the primary criteria for regulatory decisions.

Unofficial Report

These results are considered unofficial. FNAI offers a [Standard Data Request](#) option for those needing certifiable data.

Appendix B
USFWS IPaC Trust Resources Report

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Sumter County, Florida



Local office

Florida Ecological Services Field Office

☎ (772) 562-3909

📞 (772) 562-4288

✉ fw4flesregs@fws.gov

1339 20th Street
Vero Beach, FL 32960-3559

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10477	Threatened
Everglade Snail Kite <i>Rostrhamus sociabilis plumbeus</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/7713	Endangered
Whooping Crane <i>Grus americana</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/758	EXPN

Reptiles

NAME	STATUS
Eastern Indigo Snake <i>Drymarchon couperi</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/646	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your

list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<p>American Kestrel <i>Falco sparverius paulus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587</p>	Breeds Apr 1 to Aug 31
<p>Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds Sep 1 to Jul 31
<p>Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 15 to Aug 25
<p>Great Blue Heron <i>Ardea herodias occidentalis</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds Jan 1 to Dec 31
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 1 to Jul 31
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 10 to Sep 10

Swallow-tailed Kite *Elanoides forficatus*

Breeds Mar 10 to Jun 30

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8938>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

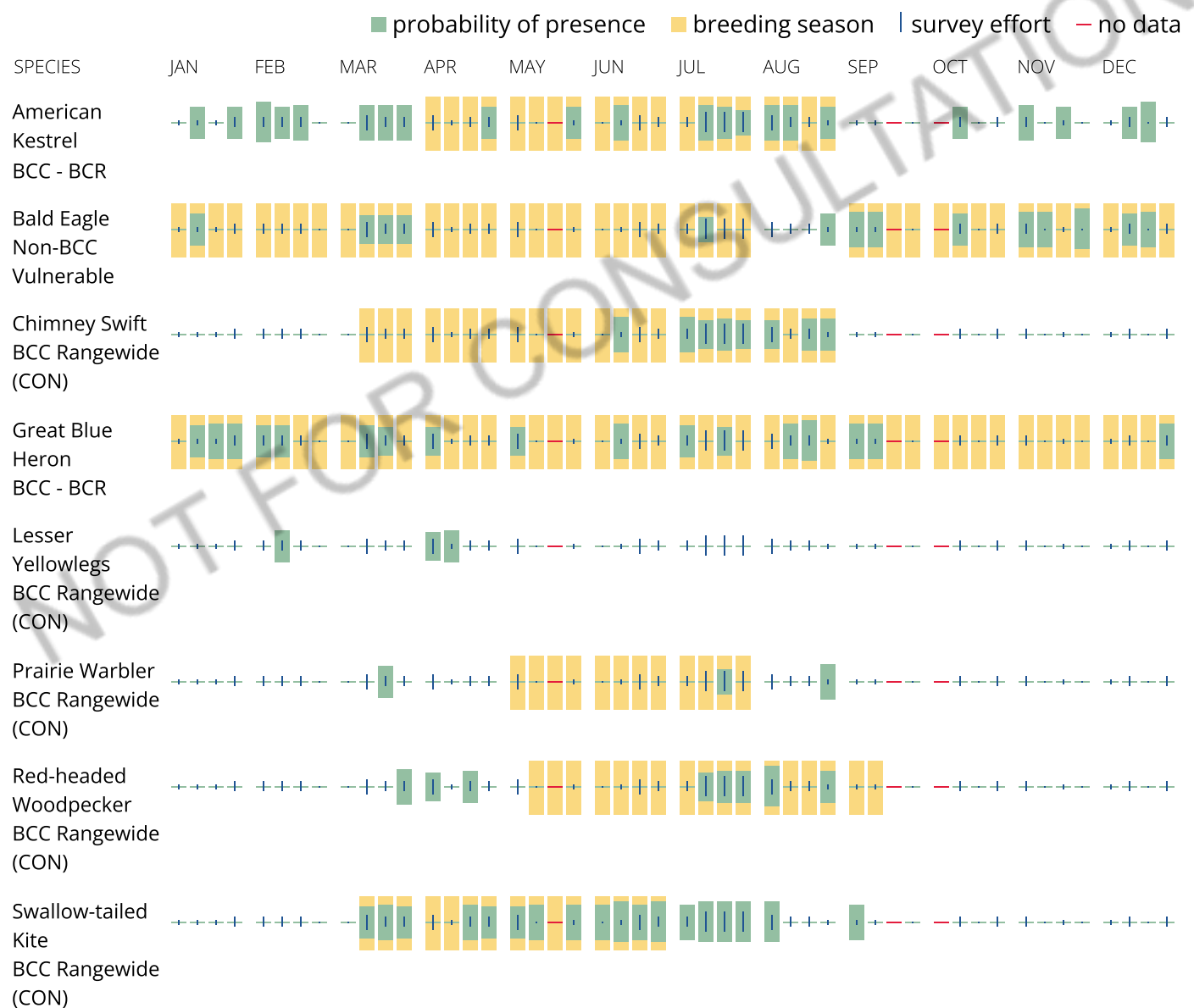
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);

2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

Wildlife refuges and fish hatcheries

Refuge and fish hatchery information is not available at this time

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or

submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

Appendix C
Standard Protection Measures for the Eastern Indigo Snake

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE U.S. Fish and Wildlife Service

March 23, 2021

The eastern indigo snake protection/education plan (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida and Georgia 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; Georgia Field Office: gaes_assistance@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 17in 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 and Georgia. Although they have a preference for uplands, they also utilize some wetlands and agricultural areas and often move seasonally between upland and lowland habitats, particularly in the northern portions of its range (North Florida and Georgia). 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. Reliance on xeric sandhill habitats throughout the northern portion of the range in northern Florida and Georgia is due to the dependence on gopher tortoise burrows for shelter during winter. Breeding occurs during October through February. 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 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. Â
- Immediately notify supervisor or the applicants 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 applicants 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

Georgia Field Office: (706) 613-9493

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 11in paper and then properly folded, is attached). Photos of eastern indigo snakes may be accessed on USFWS and/or FWC or GADNR 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 applicants 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.

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

- 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.
- 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.

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

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

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.

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

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.

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.



ATTENTION:

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

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- Take photographs of the snake, if possible, for identification and documentation purposes.
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