LG2 Environmental Solutions, Inc.
A Sustainment and Restoration Services Company
10475 Fortune Parkway, Suite 201
Jacksonville, FL 32256
(904) 363-1686
www.lg2es.com

April 21, 2022

Mr. Jeff White
SEDA Homes
Via Email: jwhite@sedaconstruction.com

RE: Listed Wildlife and Habitat Assessment
Sandy Oaks Property
Parcel Identification Number: 39-3N-27-0000-0001-0000, 39-3N-27-0000-0001-0010
Nassau County, Florida

Dear Mr. White:

Pursuant to your request, LG^2 Environmental Solutions, Inc. (LG2) has conducted a listed wildlife species and habitat assessment of the above-referenced property. The purpose of the assessment was to determine the potential presence and extent of wildlife species listed by the Florida Fish and Wildlife Conservation Commission (FWC) and U.S. Fish and Wildlife Service (USFWS). Additionally, onsite habitat types, including jurisdictional wetlands, were examined and their extents mapped. Please find a report of our findings attached.

If you have any questions or require additional information, please feel free to contact me.

Sincerely,

LG2 Environmental Solutions, Inc.

Senior Project Manager

Attachment 1 – Listed Wildlife and Habitat Assessment Report

Listed Wildlife and Habitat Assessment Report

Sandy Oaks

Yulee, Nassau County, Florida
Parcel Identification Number: 39-3N-27-0000-0001-0000, 39-3N-27-0000-0001-0010

Project Number: 312022380

Phase Number: 0054

May 2022

Prepared for

SEDA New Homes
2120 Corporate Square Blvd., Suite 3
Jacksonville, Florida 32216

Prepared by

ONEIDA
LG2 Environmental Solutions

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10475 Fortune Parkway, Suite 201
Jacksonville, Florida 32256

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1.0 Introduction

On March 9, 2022, LG^2 Environmental Solutions, Inc. (LG2) conducted a listed wildlife and habitat assessment of the subject property in Nassau County, Florida. The purpose of the assessment was to determine the potential presence and extent of wildlife species and their associated habitats listed as endangered, threatened, and/or Species of Special Concern (SSC) by the Florida Fish and Wildlife Conservation Commission (FWC) and U.S. Fish and Wildlife Service (USFWS). Additionally, on-site habitat types, including jurisdictional wetlands, were examined and their approximate extents mapped.

The subject property is in Township 3 North, Range 27 East, Section 39 on the U.S. Geological Survey (USGS) 7.5-minute *St. Marys (GA)* Topographic Quadrangle map (Appendix A: Figure 1). The subject property is bordered to the north by Bells River, to the east and west by undeveloped land, and to the south by undeveloped and/or residential land (Appendix A: Figure 2).

2.0 Methodology

Prior to the site assessment, aerial orthophoto satellite images, USGS topographic maps, and U.S. Department of Agriculture (USDA) soil survey maps were reviewed for the potential presence of onsite listed wildlife habitats. The soil survey for Nassau County was reviewed to help evaluate suitable habitat for sensitive species depending on substrate requirements (USDA 2020). Databases from the Florida Fish and Wildlife Conservation Commission (FWC 2022), Florida Natural Areas Inventory Biodiversity Matrix (FNAI 2022), bald eagle (*Haliaeetus leucocephalus*) nest locator (FWC 2022), USFWS Information for Planning and Consultation (IPaC) Endangered Species List (USFWS 2022), USACE Jacksonville District USFWS Wood Stork Programmatic Key (USFWS 2008) and Eastern Indigo Snake Programmatic Effect Determination Key (USFWS 2013), were assessed in order to determine the potential for sensitive wildlife species and their suitable habitats.

During the subject property assessment, meandering pedestrian transects were conducted through accessible areas of each vegetative community. Within each transect, data collection included, but was not limited to, plant species, wildlife species, weather conditions, time of assessment, and anthropogenic activity. Vegetative communities were identified according to the Florida Land Cover Classification System (FLCCS) (FWC 2018). These methods are consistent with recognized FWC survey guidelines for a general wildlife assessment.

3.0 Database Review of Site Conditions

3.1 USDA Soil Survey

The *Soil Survey of Nassau County* (USDA-NRCS 2020) reported five soil types on the subject property. The soil types are described below and depicted on the attached Appendix A: Figure 3.

Hurricane-Pottsburg fine sands, 0 to 5 percent slopes (6) – This soil series consists of somewhat poorly drained soils with a parent material of sandy marine deposits. The water table is usually 24 to 42 inches below ground surface. Slopes range from 0 to 5 percent. This soil series is primarily found southern area of the property.

Leon fine sand, 0 to 2 percent slopes (9) – This soil series consists of poorly drained soils with a parent material of sandy marine deposits. The water table is usually 6 to 18 inches below ground surface. Slopes range from 0 to 2 percent. This soil series is generally found in the northeast and southern areas of the property.

Ortega fine sand, 0 to 5 percent slopes (20) – This soil series consists of moderately well drained soils with a parent material of eolian or sandy marine deposits. The water table is usually 42 to 60 inches below ground surface. Slopes range from 0 to 5 percent. This soil series is generally found throughout the property.

Ridgewood fine sand, 0 to 5 percent slopes (27) – This soil series consists of somewhat poorly drained soils with a parent material of sandy marine deposits. The water table is usually 18 to 42 inches below ground surface. Slopes range from 0 to 5 percent. This soil series is generally found throughout the northern area of the property.

Tisonia mucky peat (28) – This soil series consists of very poorly drained soils with a parent material of organic material over clayey alluvium. The water table is usually at the surface to 6 inches below ground surface. Slopes range from 0 to 1 percent. This soil series is primarily found along the northeast border of the property.

4.0 Site Visit Summary

On March 9, 2022, LG2 biologists conducted a site visit to assess the onsite habitats with emphasis on the presence of listed wildlife species. The location of natural resource issues of concern and occurrences were recorded using a hand-held global positioning system (GPS) unit for later use in generating report graphics and recommendations. The observed vegetative communities are described in Section 4.1. The weather conditions during the site visit were reported as sunny to partly cloudy skies with an average high temperature of 82°F. These conditions, considering the time of day, the season, and the scope of the inspection, may have influenced the wildlife species observed. The presence of specific wildlife species was determined audibly and visually, by evidence of tracks, scat, nests, burrows, and/or dens. Observed wildlife species were recorded and are described in Section 4.2.

4.1 Observed Vegetative Communities

During the site assessment, LG2 biologists conducted a series of pedestrian transects throughout the subject property to categorize the on-site vegetative communities in accordance with FLCCS criteria. The vegetative communities observed onsite are described below and are depicted on the attached Appendix A: Figure 4.

4.1.1 Uplands

Pine – Mesic Oak (FLCCS 1124) – This vegetative community consisted primarily of longleaf pine (*Pinus palustris*), live oak (*Quercus viriginiana*), turkey oak (*Quercus laevis*), water oak (*Quercus nigra*), laurel oak (*Quercus laurifolia*), American holly (*Ilex opaca* var. *opaca*), cabbage palm (palmetto), red cedar (*Juniperus virginiana*), black cherry (*Prunus serotina*), pignut hickory (*Carya glabra*), red mulberry (*Morus rubra*), yaupon (*Ilex vomitoria*), sparkleberry (*Vaccinium arboreum*), gallberry (*Ilex glabra*), wax myrtle (*Morella cerifera*), yellow jessamine (*Gelsemium sempervirens*) and muscadine (*Vitis rotundifolia*).

Sandhill (FLCCS 1240) – This vegetative community consisted primarily of longleaf pine, slash pine (*Pinus elliottii*), live oak, turkey oak, red cedar, saw palmetto (*Serenoa repens*), sparkleberry, yaupon, wiregrass (*Aristida stricta*), yellow jessamine and muscadine.

4.1.2 Wetlands

Bottomland Forest (FLCCS 22331) – This vegetative community consisted primarily of water oak, laurel oak, loblolly bay, dwarf palmetto (*Sabal minor*), red maple (*Acer rubrum*), titi (*Cyrilla racemiflora*), wax myrtle, cinnamon fern (*Osmundastrum cinnomomea*), netted chain fern (*Woodwardia areolata*), fetterbush (*Lyonia lucida*), large gallberry (*Ilex coriacea*), blue flag iris (*Iris virginica*), switchgrass (*Panicum virgatum*) and pinxter azalea (*Rhododendron canescens*).

4.2 Wildlife

During the site assessment, LG2 biologists conducted meandering pedestrian transects and stationary observations to survey the onsite habitat types, with emphasis on those areas with vegetative assemblages, hydrology, and/or soils potentially indicative for the presence of listed wildlife species identified in the desktop review. The scope of this effort was a presence/absence survey for listed wildlife species and the supporting habitats identified for each species. Formal, species-specific, surveys were not within the scope of this site assessment but can be conducted to satisfy any future permitting requirements. Observed wildlife and potentially occurring listed species are detailed in the following sections. The wildlife species observed during the site assessment are listed on the following page in Table 1.

Table 1 – Observed Wildlife Species

Common Name	Scientific Name	Observation	Listing Status*
American crow	*Corvus brachyrhynchos*	Visual/Auditory	None
Armadillo	*Dasypus novemcinctus*	Burrows	None
Black vulture	*Coragyps atratus*	Visual	None
Blue jay	*Cyanocitta cristata*	Auditory	None
Blue-grey gnatcatcher	*Polioptila caerulea*	Visual	None
Carolina wren	*Thryothorus ludovicianus*	Auditory	None
Chimney swift	*Chaetura pelagica*	Visual	None
Crayfish	*Procambarus sp.*	Chimneys	None
Downy woodpecker	*Dryobates pubescens*	Visual	None
Gopher tortoise	*Gopherus polyphemus*	Burrows	C/ST
Gray catbird	*Dumetella carolinensis*	Auditory	None
Green anole	*Anolis carolinensis*	Visual	None
Northern cardinal	*Cardinalis cardinalis*	Visual/Auditory	None
Northern mockingbird	*Mimus polyglottos*	Visual/Auditory	None
Red-bellied woodpecker	*Melanerpes carolinus*	Auditory	None
Red-shouldered hawk	*Buteo lineatus*	Auditory	None
Spring peeper	*Pseudacris crucifer*	Auditory	None
White-tailed deer	*Odocoileus virginianus*	Tracks	None
Yellow-rumped warbler	*Setophaga coronate*	Visual	None

*State-designated threatened (ST); Federal Candidate Species (C).

4.2.1 Sensitive Species and Supporting Habitats

Sensitive species are those species listed as federally endangered (FE), State of Florida and federally threatened (ST and FT), and State of Florida SSC by the FWC and/or USFWS. Prior to conducting the site assessment, LG2 biologists reviewed online databases including, but not limited to; FNAI biodiversity matrix, FWC Bald Eagle Nest data, and USFWS IPaC resource list, for known occurrences of listed species and potential suitable habitats within the subject property.

The FNAI biodiversity matrix listed two “documented”, three “likely” and seven “potential” listed wildlife species expected to inhabit the surrounding area. The IPaC listed six additional federally listed wildlife species. The threatened and/or endangered wildlife species mentioned in both reports are detailed on the following page in Table 2 and are attached as Appendix B.

Table 2 – Listed Wildlife Species

FNAI Biodiversity Matrix Listed Wildlife Species				
Result	**Common Name**	**Taxonomic Name**	**Observed On-Site**	**Listing Status***
Documented	Macgillivray's seaside sparrow	*Ammodramus maritimus macgillivraii*	No	N
Documented	Worthington's marsh wren	*Cistothorus palustris griseus*	No	ST
Likely	Eastern indigo snake	*Drymarchon couperi*	No	FT
Likely	Wood stork	*Mycteria americana*	No	FT
Likely	West Indian manatee	*Trichechus manatus*	No	FT
Potential	Atlantic sturgeon	*Acipencer oxyrinchus oxyrinchus*	No	FE
Potential	Florida burrowing owl	*Athene cunicularia floridana*	No	ST
Potential	Gopher tortoise	*Gopherus polyphemus*	Yes	C/ST
Potential	Southern hognose snake	*Heterodon simus*	No	N
Potential	Atlantic salt marsh mink	*Neovison vison lutensis*	No	N
Potential	Striped newt	*Notophthalmus perstriatus*	No	C
Potential	Bachman's sparrow	*Peucaea aestivalis*	No	N
USFWS IPaC Endangered Species List				
Result	**Common Name**	**Taxonomic Name**	**Observed On-Site**	**Listing Status***
Potential	Eastern black rail	*Laterallus jamaicensis* ssp. *jamaicensis*	No	FT
Potential	Red knot	*Calidris canutus rufa*	No	FT
Potential	Green sea turtle	*Chelonia mydas*	No	FE
Potential	Hawksbill sea turtle	*Eretmochelys imbricata*	No	FE
Potential	Leatherback sea turtle	*Dermochelys coriacea*	No	FE
Potential	Loggerhead sea turtle	*Caretta caretta*	No	FT

*Federally-designated endangered (FE); Federally-designated threatened (FT); State-designated threatened (ST); Federal Candidate Species (C); No longer listed (N).

State and federally listed wildlife species that occurred, or could potentially occur, within the subject property are discussed below. The marine aquatic dependent wildlife species mentioned in both reports are omitted from the following discussion because the proposed project site does not contain habitats which could sustain these species. Wildlife species listed in both FNAI and IPaC reports, but no longer classified as threatened or endangered by FWC and/or USFWS, are not included in the discussion below because these species are no longer regulated by State or federal management guidelines.

Worthington's Marsh Wren

The Worthington's marsh wren is classified as a state-threatened species and is protected by Florida's Endangered and Threatened Species Rule (Rule 68A-27, Florida Administrative Code [F.A.C.]). This species can reach a length of five inches. They are similar to all marsh wrens in that they have a white band above their eyes and a white-streaked black triangle on their back. Worthington's marsh wrens inhabit tidal marshes dominated by cordgrass and are found from the St. Mary's/Cumberland Island Sound to the northern edge of the St. Johns River.

The Worthington's marsh wren was not observed during the site assessment. The subject property did not contain suitable marsh habitat to support this species; however, the property is adjacent to marsh habitat along the Bells River. At the time of this assessment, the proposed project is not likely to adversely affect this species.

Florida Burrowing Owl

The Florida burrowing owl is classified as state-threatened species and is protected by Florida's Endangered and Threatened Species Rule. This species is one of the smallest owls in Florida, reaching lengths of nine inches. They have brown backs with patches of white spots and a white underside with bar-shaped brown spots. Unlike most owls, this species is active during the day and spend the majority of their time on or under the ground. Burrowing owls inhabit open prairies in Florida with minimal understory vegetation, such as airports, pastures, golf courses, agriculture fields, and vacant lots.

Florida burrowing owls were not observed during the site assessment. The soils and vegetation within the upland habitats have a low probability of supporting burrowing owls. If any burrowing owls and/or their burrows are later found within the subject property, and are proposed to be impacted, FWC regulations recommend a 100 percent burrowing owl burrow survey to determine if an incidental take permit is needed to avoid unauthorized take. At the time of this assessment, any proposed development on the subject property is not likely to adversely affect this species.

Gopher Tortoise

The gopher tortoise is classified as a state-threatened species and is protected by Florida's Endangered and Threatened Species Rule. Additionally, the gopher tortoise is listed as a federal candidate species.

The gopher tortoise is a moderate-sized, terrestrial turtle averaging 9 to 11-inches in length. The species is identified by its stumpy, elephantine hind feet and flattened; shovel-like forelimbs adapted for digging. The shell is oblong and generally tan, brown, or gray in coloration. They prefer upland habitats with open canopy and well drained soils.

Gopher tortoises and/or their burrows were observed during the site assessment. The soils and vegetation within the upland sandhill habitat were well suited to support gopher tortoises (Appendix A: Figure 6). Formal, species-specific, surveys were not within the scope of this site assessment but can be conducted to satisfy any future permitting requirements. If required, a formal 100% gopher tortoise burrow survey can be conducted within the subject property's potential gopher tortoise habitat and any gopher tortoise burrows proposed to be impacted can be permitted for relocation through FWC. At the time of this assessment, the proposed project is not likely to adversely affect this species.

Eastern Indigo Snake

The eastern indigo snake is listed as threatened by the federal endangered Species Act (ESA) and as federally designated threatened by Florida's Endangered and Threatened Species Rule. They are a non-venomous, bluish-black colored snake that can reach lengths of 8-feet. Eastern indigo snakes inhabit a mosaic of habitats including sandhills, pine flatwoods, hardwood forests, moist hammocks, and areas that surround cypress swamps. Especially in their northern range, eastern indigo snakes are closely associated with gopher tortoise whose burrows provide shelter from winter cold and summer heat.

The eastern indigo snake was not observed during the site assessment. The subject property contained potentially suitable habitat which could sustain eastern indigo snakes, particularly gopher tortoise burrows in which they tend to cohabitate. The USFWS Eastern Indigo Snake Programmatic Key was used to identify potential impacts to eastern indigo snakes and whether further consultation with USFWS would be required. Per the Key and depending on the results of a 100% gopher tortoise burrow survey, projects proposing to impact less than 25 acres of xeric habitat supporting less than 25 gopher tortoise burrows results in a "Not Likely to Adversely Impact" (NLAA) determination, provided the Standard Protection Measures of the eastern indigo snake are followed during construction activities. At the time of this assessment, the proposed project is not likely to adversely affect this species.

Wood Stork

The wood stork is listed as threatened by the federal ESA and as federally designated threatened by Florida's Endangered and Threatened Species Rule. For projects with on-site wetlands, additional consideration must be taken regarding wood storks. They are large wading birds with a long, heavy curved bill and long legs. This species is identified by the scaly appearance of their head due to its lack of feathers. According to the USFWS, wood storks prefer to forage in ponds and marshes with little or no canopy but have been observed in forested wetlands with canopies of less than 20%. Suitable foraging

habitat (SFH) for wood storks includes freshwater marshes, cypress depressions, swamp sloughs and tidal creeks and pools.

For counties in Northeast Florida, USFWS has designated a 13-mile core foraging area (CFA) buffer around active nesting wood stork colonies to protect wood stork SFH. The subject property is approximately 20 miles from the Jacksonville Zoo wood stork nesting colony and is outside of the wood stork CFA (Appendix A: Figure 5).

Wood storks were not observed during the site assessment. The onsite open canopy wetland could be considered potential wood stork SFH, however, the subject property falls outside of the CFA of a wood stork nesting colony and should not require further coordination with USACE/FDEP. At the time of this assessment, the proposed project is not likely to adversely affect this species.

Eastern Black Rail

The Eastern black rail is listed as threatened by the federal ESA and as federally designated threatened by Florida's Endangered and Threatened Species Rule. They are 4-6 inches long with a pale to blackish-gray body and bright red eyes. According to the USFWS, Eastern black rails inhabit salt to freshwater marshes with dense cover and upland areas around these marshes.

The Eastern black rail was not observed during the site assessment. The subject property did not contain suitable marsh habitat to support this species. However, the property is adjacent to marsh habitat along the Bells River. At the time of this assessment, the proposed project is not likely to adversely affect this species.

Red Knot

The red knot is listed as threatened by the federal ESA and as federally designated threatened by Florida's Endangered and Threatened Species Rule. They are robin-sized shorebirds with reddish breeding plumage and mottled pale grey winter plumage. Red knots do not breed in Florida but winter in the southeastern U.S., to include Florida. Red knot wintering habitats generally consist of coastal marine and estuarine habitats with large areas of exposed intertidal sediments and sandy inlets.

Red knots were not observed during the site assessment. The subject property did not contain suitable coastal or estuarine habitat to support this species. At the time of this assessment, the proposed project is not likely to adversely affect this species.

Bald Eagle

Although the bald eagle is no longer protected under the ESA, it is still afforded protection under the Bald and Gold Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA). In addition to the federal law, the state of Florida protects eagles under the State Eagle Rule (Rule 68A-16.002, F.A.C.).

The bald eagle is a large-bodied raptor. Bald eagles typically nest in forested areas adjacent to large bodies of water, staying away from heavily developed areas when possible. Bald eagles are tolerant of human activity when feeding, and may congregate around fish processing plants, dumps, and below dams where fish concentrate. For perching, bald eagles prefer tall, mature coniferous or deciduous trees that afford a wide view of the surroundings.

Bald eagles and/or their nests were not observed during the site assessment. The subject property did contain mature pine trees capable of sustaining bald eagles and/or their nests. LG2 searched the FWC eagle nest locator database for documented bald eagle nests within the proximity of the property. The search results identified one bald eagle nest approximately 2 miles northeast of the subject property (FWC 2022). At the time of this assessment, the proposed project is not likely to adversely affect this species.

5.0 Conclusion and Summary

The Sandy Oaks property was evaluated for the purpose of assessing on-site habitats and vegetative communities and to identify and document the presence of any state or federally protected wildlife species occurring on-site. During the listed wildlife site assessment, LG2 biologists conducted meandering pedestrian transects and stationary observation posts throughout each on-site habitat type to observe the potential presence of listed wildlife species.

LG2 documented one state or federally listed wildlife species, gopher tortoise, utilizing the property during the on-site assessment. If a USACE, SJRWMD, FDEP and/or local government permits are required for the project, USFWS and/or FWC may be notified and allowed to comment on listed species with the potential to occur on the subject property. During this comment period, additional information may be requested from the applicant to document whether the project proposes to impact any potentially occurring listed wildlife species. This request for additional information may take the form of informal correspondence or formal consultation. The species that are more likely to trigger a request for additional information will depend on the nature of the work being proposed and may include, but are not limited to, Worthington's marsh wren, gopher tortoise, eastern indigo snake, wood stork, Eastern black rail and red knot. If state or federal permits are not required, USFWS and/or FWC consultations regarding listed wildlife species will be at the discretion of the applicant.

6.0 References

Army Corps of Engineers, Jacksonville District (USACE) & U.S. Fish & Wildlife Service, Jacksonville Ecological Services Field Office (USFWS) September 2013. Wood Stork Key for Central and North Peninsular Florida. Accessed online at: https://www.fws.gov/northflorida/WoodStorks/Documents/20080900_JAXESO_WOST_Key.pdf

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United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) 2020. Accessed online at: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

United Stated Department of the Interior, Fish and Wildlife Service, Eastern Indigo Snake Programmatic Effect Determination Key, updated 2010; online at https://www.fws.gov/northflorida/indigosnakes/20130813_ltr_Update_addendum_2010_COE_Programmatic_EIS_Key.pdf

United States Fish & Wildlife Service (USFWS) 2022. Threatened & Endangered Species System (TESS); listings by state and territory as of December 2020; online at https://ecos.fws.gov/ecp0/reports/ad-hoc-species-report

APPENDIX A

Figures 1 – 6

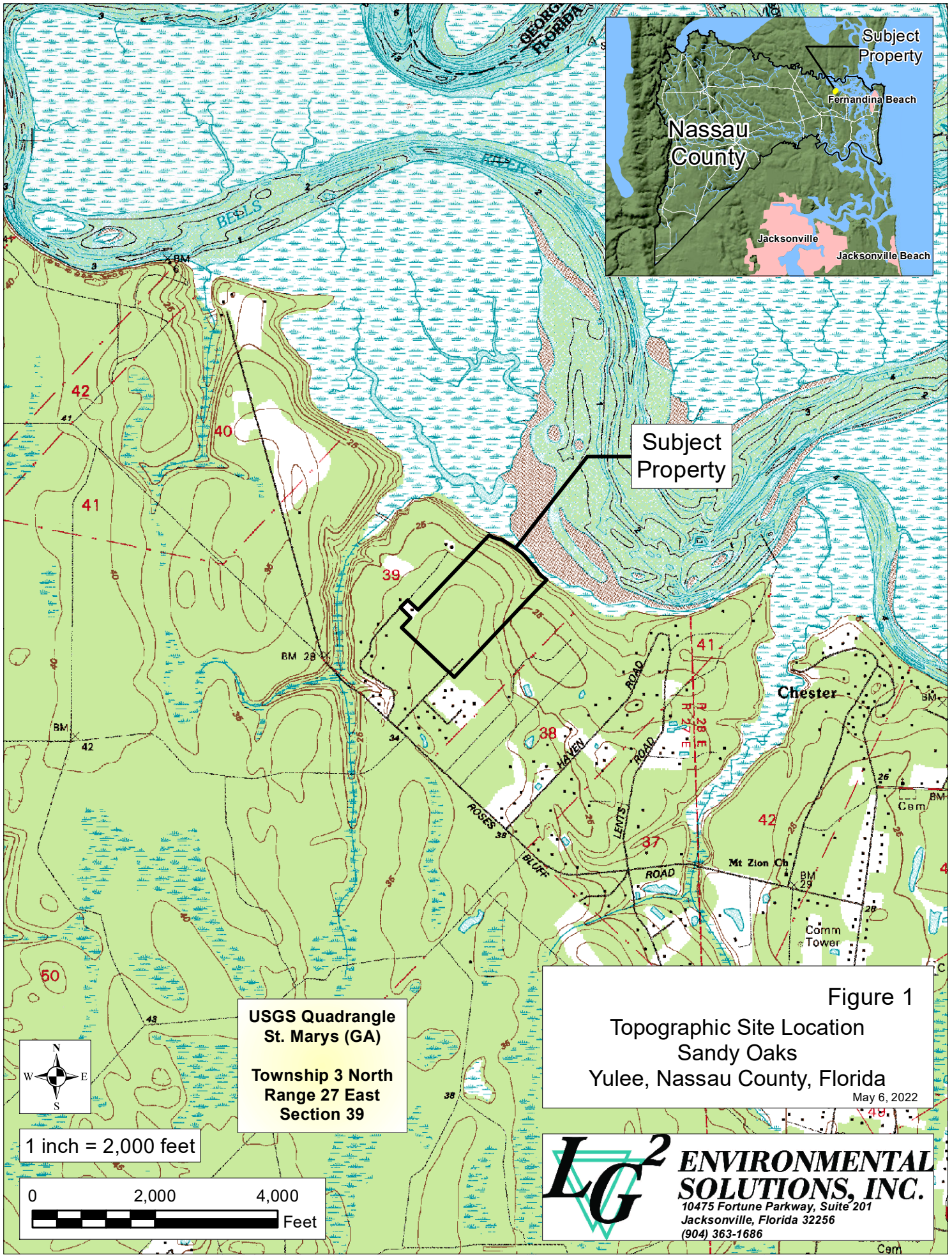

Figure 1

Topographic Site Location

Sandy Oaks

Yulee, Nassau County, Florida

May 6, 2022

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10475 Fortune Parkway, Suite 201
Jacksonville, Florida 32256
(904) 363-1686

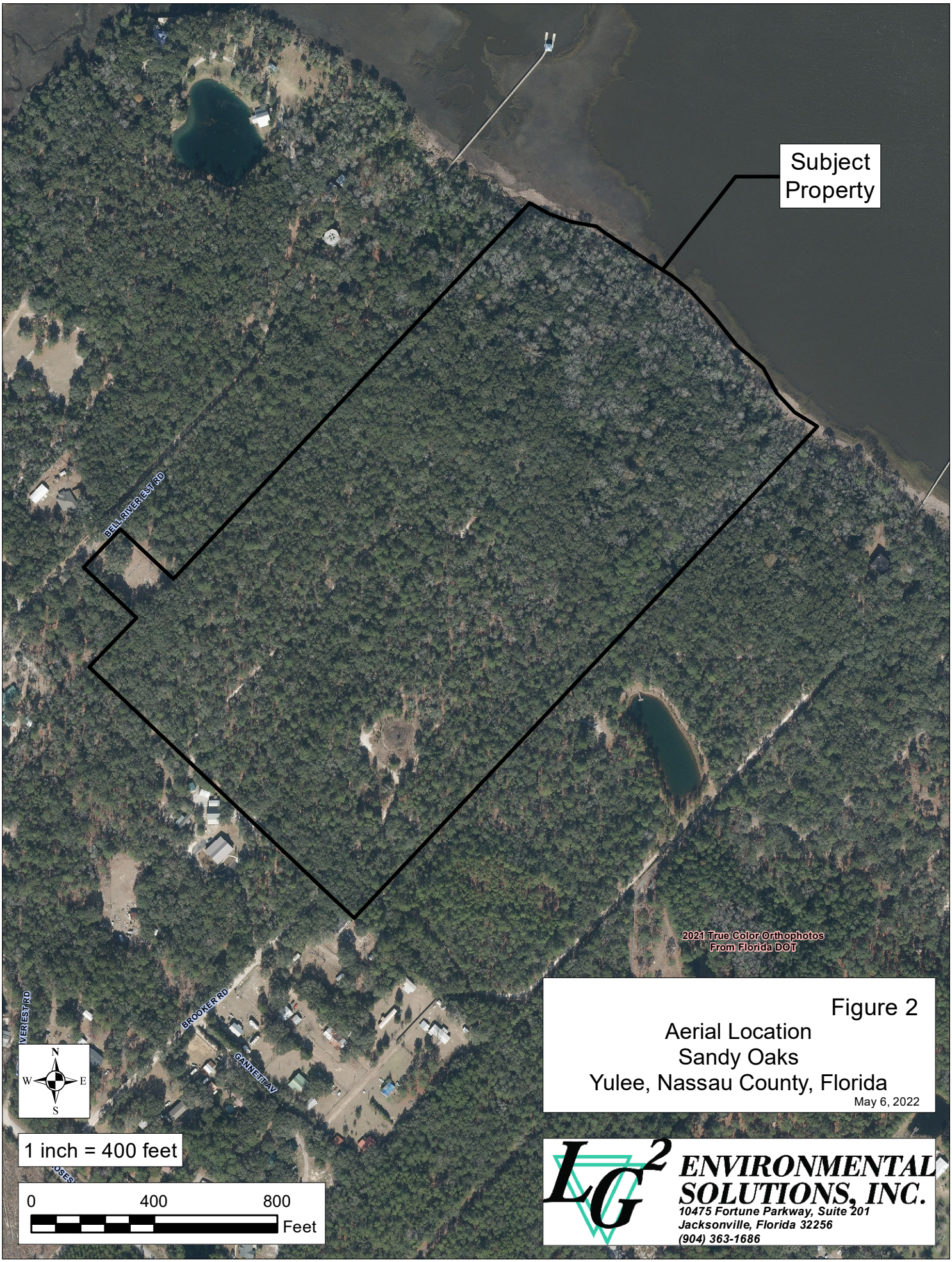

Figure 2
Aerial Location
Sandy Oaks
Yulee, Nassau County, Florida
May 6, 2022

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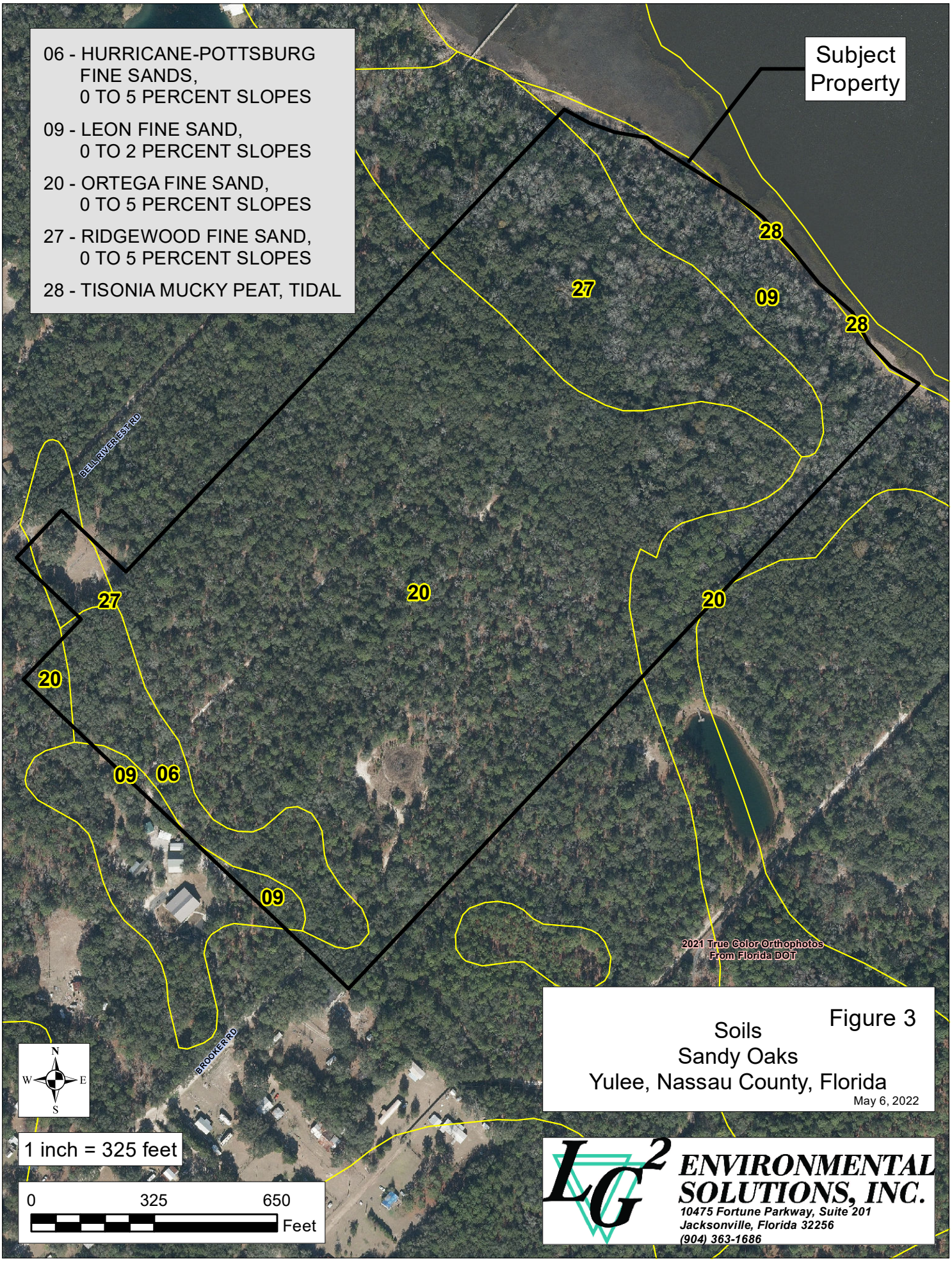

Figure 3

Soils

Sandy Oaks

Yulee, Nassau County, Florida

May 6, 2022

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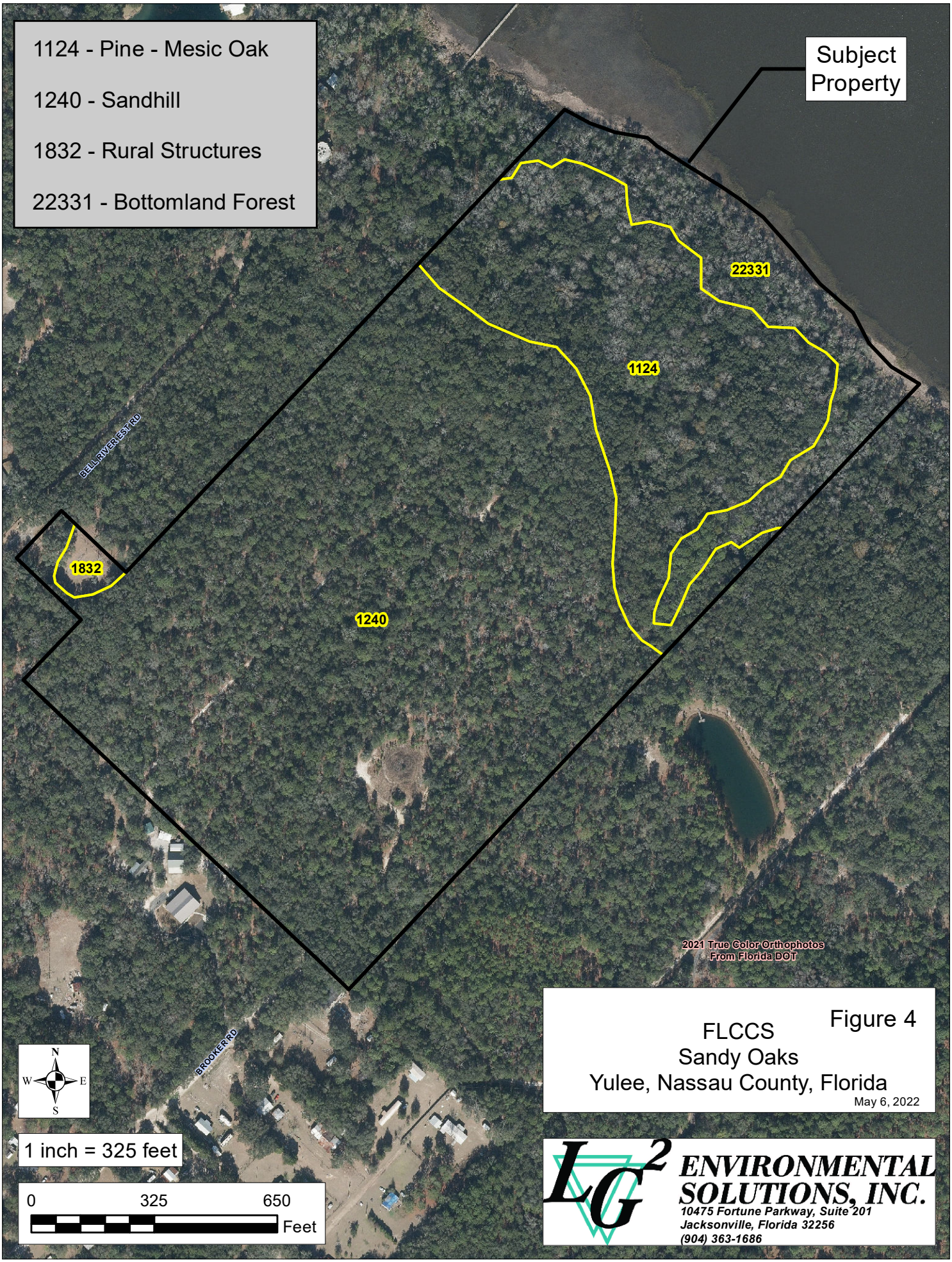

Figure 4

FLCCS
Sandy Oaks
Yulee, Nassau County, Florida

May 6, 2022

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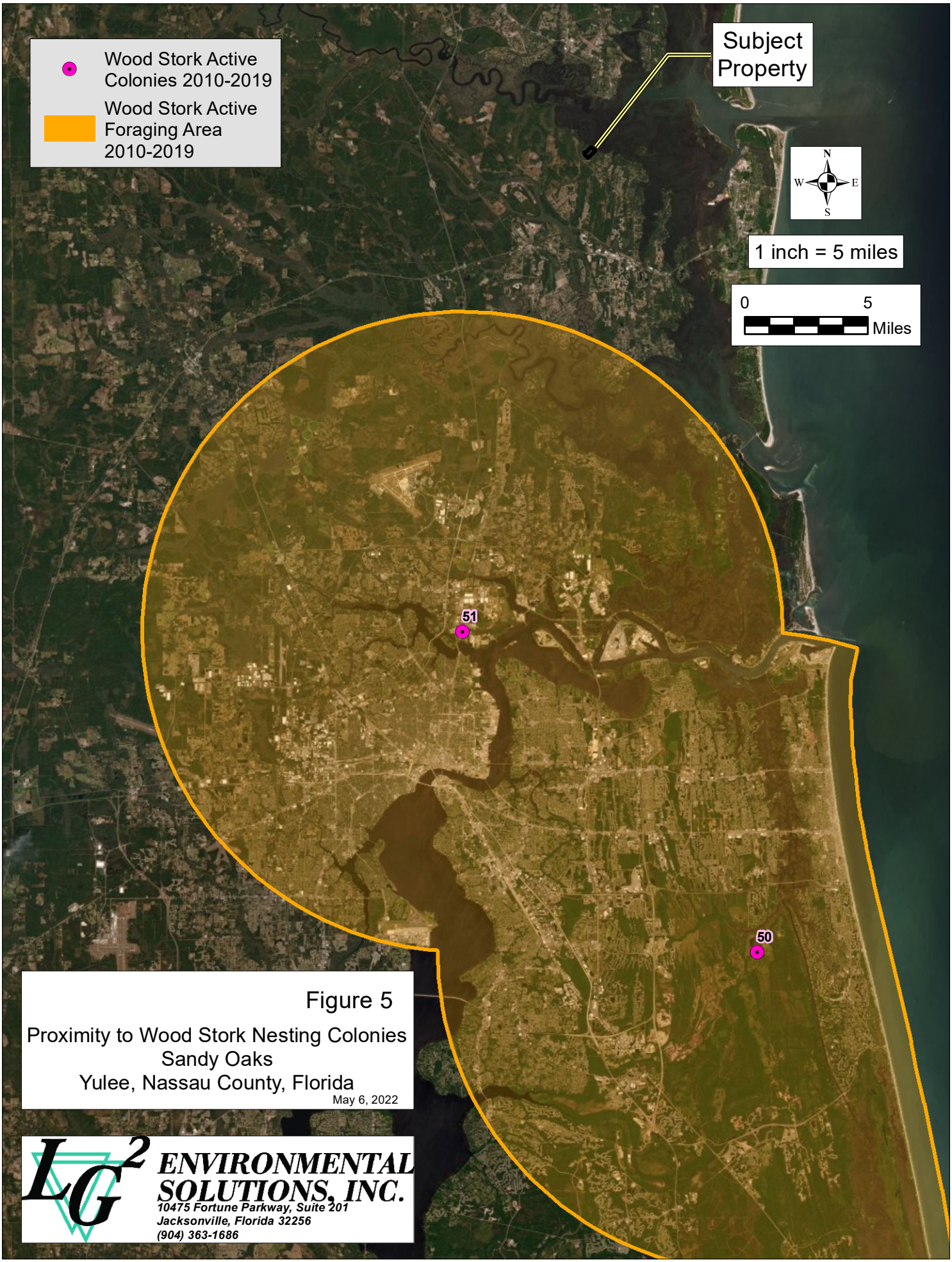

Figure 5

Proximity to Wood Stork Nesting Colonies
Sandy Oaks
Yulee, Nassau County, Florida
May 6, 2022

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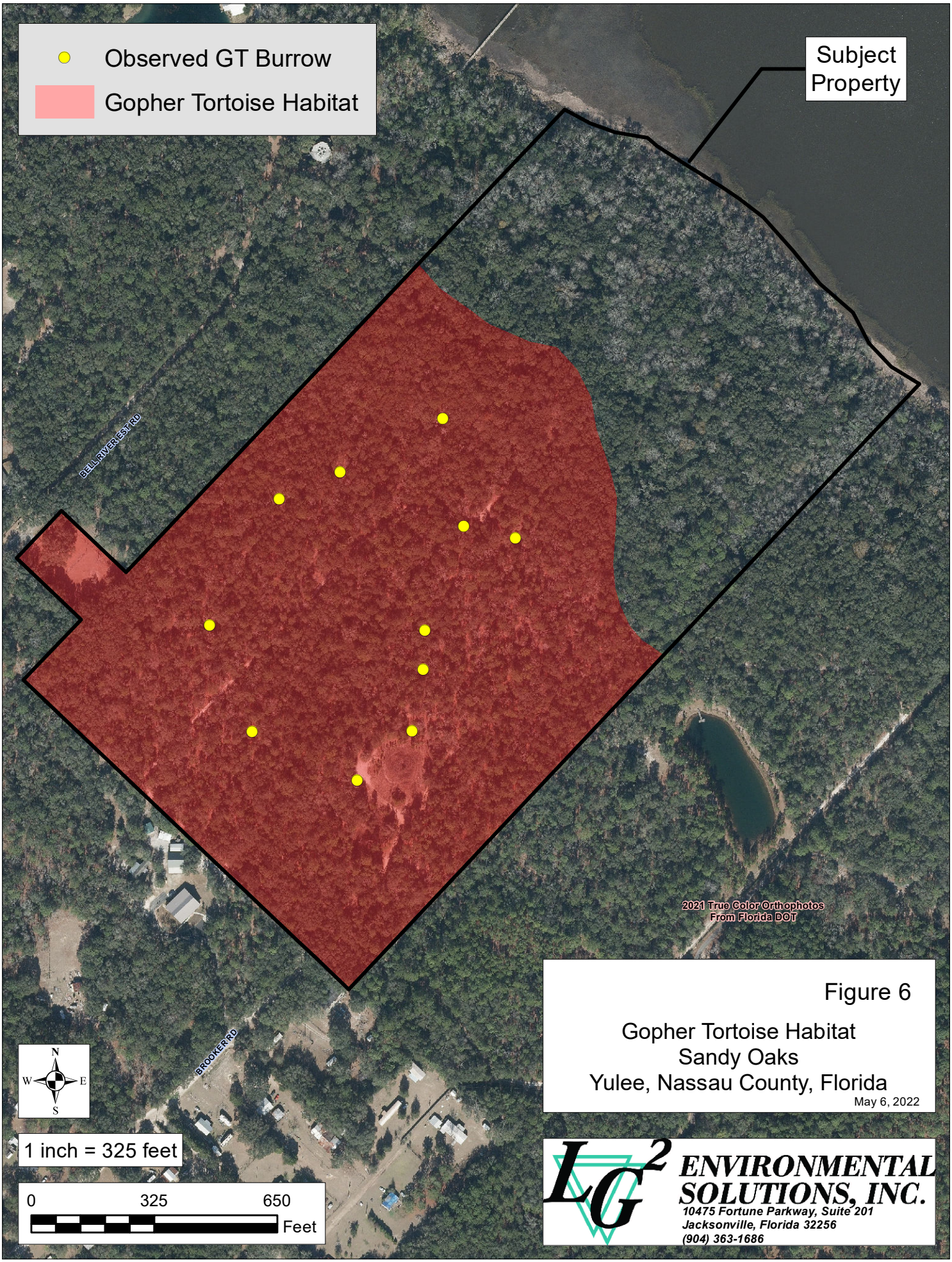

Figure 6

Gopher Tortoise Habitat
Sandy Oaks
Yulee, Nassau County, Florida

May 6, 2022

LG² ENVIRONMENTAL SOLUTIONS, INC.
10475 Fortune Parkway, Suite 201
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APPENDIX B

FNAI Biodiversity Matrix Report

IPaC Endangered Species List

1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
850-224-8207
850-681-9364 fax
www.fnai.org

Florida Natural Areas Inventory

Biodiversity Matrix Query Results

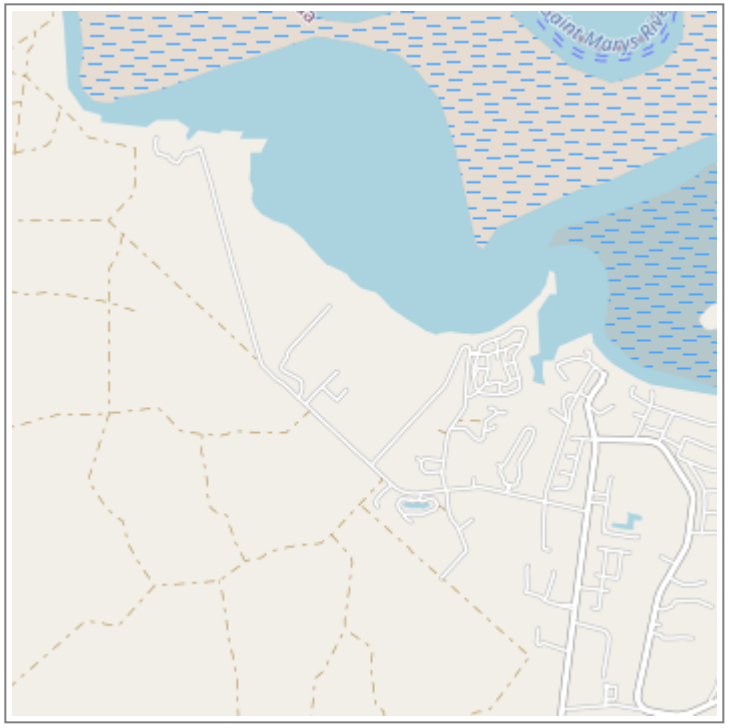
UNOFFICIAL REPORT

Created 3/11/2022

(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 2 Matrix Units: 41961 , 42333



Descriptions

DOCUMENTED - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit.

DOCUMENTED-HISTORIC - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit; however the occurrence has not been observed/reported within the last twenty years.

LIKELY - The species or community is *known* to occur in this vicinity, and is considered likely within this Matrix Unit because:

1. documented occurrence overlaps this and adjacent Matrix Units, but the documentation isn't precise enough to indicate which of those Units the species or community is actually located in; *or*
2. there is a documented occurrence in the vicinity and there is suitable habitat for that species or community within this Matrix Unit.

POTENTIAL - This Matrix Unit lies within the known or predicted range of the species or community based on expert knowledge and environmental variables such as climate, soils, topography, and landcover.

Matrix Unit ID: 41961

2 **Documented** Elements Found

Scientific and Common Names	Global	State	Federal	State

	Rank	Rank	Status	Listing
Ammodramus maritimus macgillivraii Macgillivray's Seaside Sparrow	G4T3	S2	N	N
Cistothorus palustris griseus Worthington's Marsh Wren	G5T3	S2	N	SSC

0 **Documented-Historic** Elements Found

5 **Likely** Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi Eastern Indigo Snake	G3	S3	LT	FT
Mesic flatwoods	G4	S4	N	N
Mycteria americana Wood Stork	G4	S2	LT	FT
Sandhill	G3	S2	N	N
Trichechus manatus West Indian Manatee	G2	S2	LE	FE

Matrix Unit ID: 42333

0 **Documented** Elements Found

0 **Documented-Historic** Elements Found

7 **Likely** Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Ammodramus maritimus macgillivraii Macgillivray's Seaside Sparrow	G4T3	S2	N	N
Cistothorus palustris griseus Worthington's Marsh Wren	G5T3	S2	N	SSC
Drymarchon couperi Eastern Indigo Snake	G3	S3	LT	FT
Mesic flatwoods	G4	S4	N	N
Mycteria americana Wood Stork	G4	S2	LT	FT
Sandhill	G3	S2	N	N
Trichechus manatus West Indian Manatee	G2	S2	LE	FE

Matrix Unit IDs: 41961 , 42333

14 **Potential** Elements Common to Any of the 2 Matrix Units

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Acipenser oxyrinchus oxyrinchus Atlantic Sturgeon	G3T3	S1	LE	FE
Athene cunicularia floridana Florida Burrowing Owl	G4T3	S3	N	SSC
Calopogon multiflorus Many-flowered Grass-pink	G2G3	S2S3	N	T
Coreopsis integrifolia Ciliate-leaf Tickseed	G1G2	S1	N	E
Ctenium floridanum Florida Toothache Grass	G2	S2	N	E
Gopherus polyphemus Gopher Tortoise	G3	S3	C	ST
Heterodon simus Southern Hognose Snake	G2	S2	N	N
Matelea floridana Florida Spiny-pod	G2	S2	N	E
Neovison vison lutensis Atlantic Salt Marsh Mink	G5T3	S3	N	N
Notophthalmus perstriatus Striped Newt	G2G3	S2	C	N
Peucaea aestivalis Bachman's Sparrow	G3	S3	N	N
Pteroglossaspis ecristata Giant Orchid	G2G3	S2	N	T
Pycnanthemum floridanum Florida Mountain-mint	G3	S3	N	T
Rudbeckia nitida St. John's Blackeyed Susan	G3	S2	N	E

Unofficial Report

These results are considered unofficial. FNAI offers a Standard Data Request option for those needing certifiable data.

IPaC **U.S. Fish & Wildlife Service**

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

Nassau County, Florida

Local office

Florida Ecological Services Field Office

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 species[1] 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 Fisheries[2]).

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:

Mammals

NAME	STATUS
West Indian Manatee *Trichechus manatus* Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/4469	Threatened Marine mammal

Birds

NAME	STATUS
Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis* Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10477	Threatened
Red Knot *Calidris canutus rufa* Wherever found There is **proposed** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/1864	Threatened

Wood Stork Mycteria americana — Threatened

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/8477

Reptiles

NAME	STATUS

Eastern Indigo Snake Drymarchon couperi — Threatened

Wherever found

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/646

Gopher Tortoise Gopherus polyphemus — Candidate

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/6994

Green Sea Turtle Chelonia mydas — Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/6199

Hawksbill Sea Turtle Eretmochelys imbricata — Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/3656

Leatherback Sea Turtle Dermochelys coriacea — Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/1493

NAME	STATUS
Loggerhead Sea Turtle Caretta caretta There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/1110	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus 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.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

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-incidental-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 (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

American Kestrel Falco sparverius paulus — Breeds Apr 1 to Aug 31

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

American Oystercatcher Haematopus palliatus — Breeds Apr 15 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8935

Bald Eagle Haliaeetus leucocephalus — Breeds Sep 1 to Jul 31

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.
https://ecos.fws.gov/ecp/species/1626

Black Skimmer Rynchops niger — Breeds May 20 to Sep 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/5234

Lesser Yellowlegs Tringa flavipes — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9679

Prairie Warbler Dendroica discolor — Breeds May 1 to Jul 31

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

Red-headed Woodpecker Melanerpes erythrocephalus — Breeds May 10 to Sep 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Ruddy Turnstone Arenaria interpres morinella — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Short-billed Dowitcher Limnodromus griseus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9480

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

Willet Tringa semipalmata — Breeds Apr 20 to Aug 5
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

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.

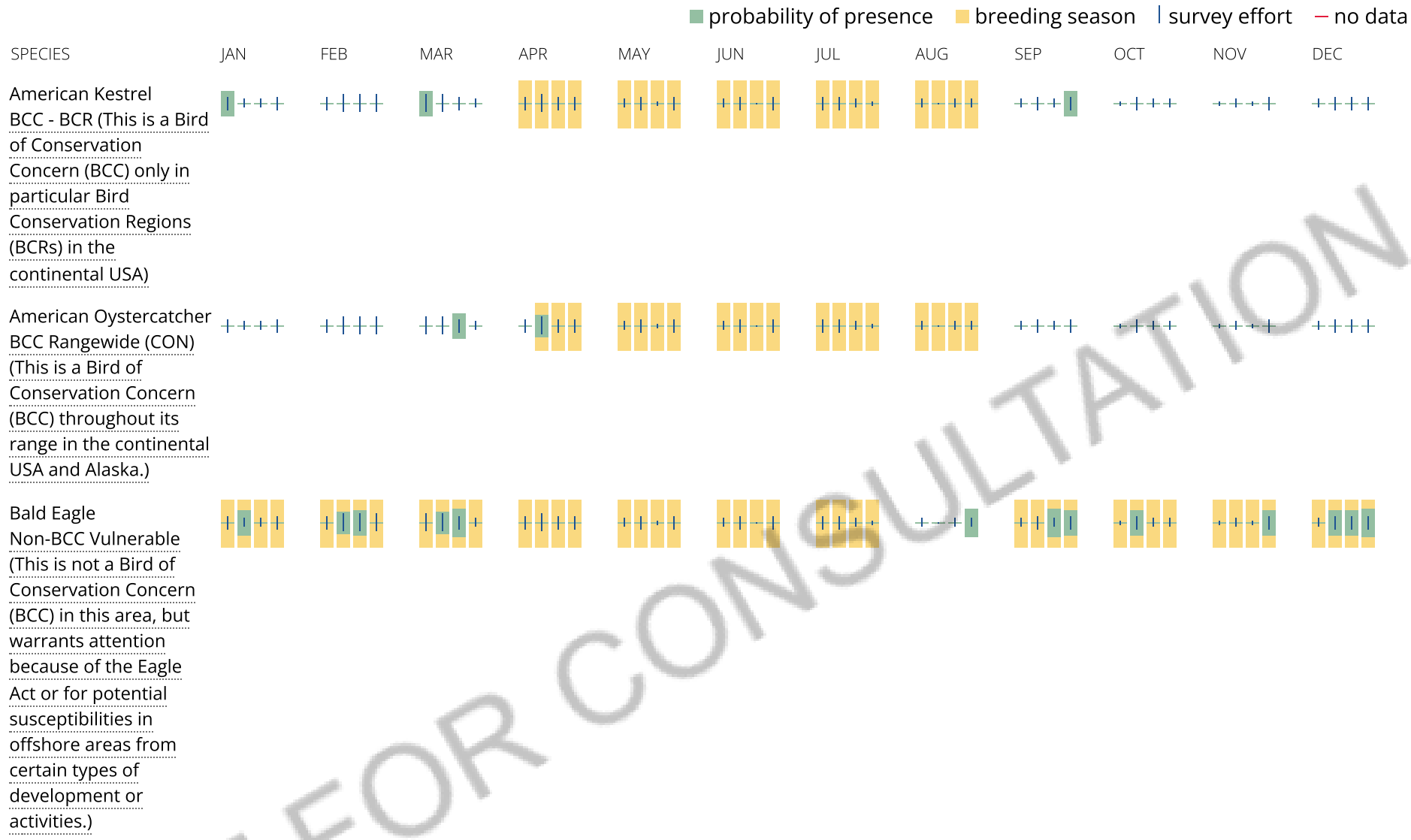
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

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

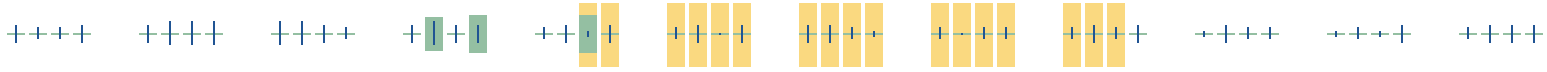
No Data (–)
A week is marked as having no data if there were no survey events for that week.

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.

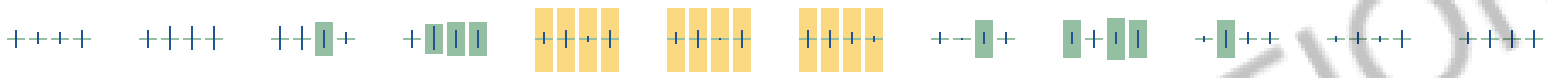


Black Skimmer BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



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

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



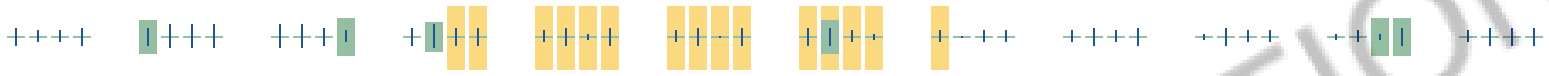
Red-headed Woodpecker BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Ruddy Turnstone BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Short-billed Dowitcher BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Swallow-tailed Kite BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

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



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 migratory birds potentially occurring 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 AKN Phenology 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 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, migrating or present year-round in my project 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 refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. 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.

Marine mammals

Marine mammals are protected under the Marine Mammal Protection Act. Some are also protected under the Endangered Species Act[1] and the Convention on International Trade in Endangered Species of Wild Fauna and Flora[2].

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears, manatees, and dugongs] and NOAA Fisheries[3] [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on this list; for additional information on those species please visit the Marine Mammals page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take (to harass, hunt, capture, kill, or attempt to harass, hunt, capture or kill) of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

1. The Endangered Species Act (ESA) of 1973.
2. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
3. 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 marine mammals under the responsibility of the U.S. Fish and Wildlife Service are potentially affected by activities in this location:

NAME

West Indian Manatee *Trichechus manatus*
https://ecos.fws.gov/ecp/species/4469

Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local Ecological Services Field Office or visit the CBRA Consultations website. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

THERE ARE NO KNOWN COASTAL BARRIERS AT THIS LOCATION.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the official CBRS maps. The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

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.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

ESTUARINE AND MARINE WETLAND

Estuarine

FRESHWATER EMERGENT WETLAND

Palustrine

A full description for each wetland code can be found at the National Wetlands Inventory website

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 tuberficid 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.