



**Bio-Tech Consulting Inc.**  
Environmental and Permitting Services

Environmental Report  
22Z00004  
Storsafe

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November 29, 2021

Austin Anderson  
10043 W Dublin Street  
Crystal River, Florida 33428

**Proj: Brevard Storage – Brevard County, Florida**  
**Sections 23 Township 25 South, Range 36 East**  
**(BTC File #597-24)**  
**Re: Environmental Assessment Report**

Dear Mr. Anderson:

During November of 2021, Bio-Tech Consulting, Inc. (BTC) conducted an environmental assessment of the approximately 12.83-acre Brevard Storage property. The site is located east of US-1 South, and north of Coquina Road, within Section 23, Township 25 South, Range 36 East, Brevard County, Florida (Figures 1, 2 & 3). This environmental assessment includes the following elements:

- general review of site topography;
- review of soil types mapped within the site boundaries;
- evaluation of land use types/vegetative communities present;
- field review for occurrence of protected flora and fauna, and
- permitting summary.

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## SOILS

According to the Soil Survey of Brevard County, Florida, prepared by the U.S. Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS), three (3) soil types exist within the subject site (Figure 4). These soil types include the following:

- **Cocoa sand (#15)**
- **Tomoka muck, undrained (#67)**
- **Urban land (#69)**

The following presents a brief description of each of the soil types mapped for the subject property:

**Cocoa sand (#15)** this is a nearly level and gently sloping, well-drained, sandy soil over coquina rock. These are undulating soils on low ridges. The surface layer is dark-brown sand about 6 inches thick. The water table is below a depth of 6 feet all the time. The permeability is rapid in all layers of this soil series.

**Tomoka muck, undrained (#67)** is a nearly level, very poorly drained muck soil in broad flat marshes, small depressions, and swamps. Sandy and loamy layers are at a depth of 16 to 40 inches. The water table is within a depth of 10 inches for 9 to 12 months in most years, and water is frequently above the surface. In dry periods it is between 10 and 30 inches.

**Urban Land (#69)** consists of areas that are 60 to more than 75 percent covered with streets, buildings, large parking lots, shopping centers, industrial parks, airports, and related facilities. Unoccupied areas, mostly lawns, parks, vacant lots, and playgrounds, are Astatula, Paola, Myakka, St. Lucie, Immokalee, Pomello, Cocoa, and Canaveral soils in tracts too small to be mapped separately.

The Florida Association of Environmental Soil Scientists (FAESS) considers the components of Tomoka muck, undrained (#67) to be hydric in nature. This information can be found in the Hydric Soils of Florida Handbook, Third Edition (March, 2000).

## LAND USE TYPES/VEGETATIVE COMMUNITIES

The subject site currently supports two (2) land use types/vegetative communities (Figure 5). These land use types/vegetative communities were identified utilizing the Florida Land Use, Cover and Forms Classification System, Level III (FLUCFCS, FDOT, January 1999). The on-site upland land use types/vegetative communities are classified as Industrial (150) and Open

Land (190). No wetland/surface water land use types were found on site. The following provides a brief description of the on-site land use types/vegetative communities:

### **Uplands:**

#### **150 Industrial**

The property contains an abandoned warehouse with a store and a parking lot that is most consistent with the Industrial (150) FLUCFCS code. Vegetative species identified include Brazilian pepper (*Schinus terebinthifolia*), lantana (*Lantana strigocamara*), Spanish needles (*Bidens alba*), Mexican clover (*Richardia brasiliensis*), switchgrass (*Panicum virgatum*), and bahiagrass (*Paspalum notatum* var. *notatum*).

#### **190 Open Land**

Surrounding the warehouse on either side are fields with no structures being most consistent with the Open Land (190) FLUCFCS code. Vegetative species identified include live oak (*Quercus virginiana*), cabbage palm (*Sabal palmetto*), slash pine (*Pinus elliottii*), Australian pine (*Casuarina equisetifolia*), golden bamboo (*Phyllostachys aurea*), carrotwood (*Cupaniopsis anacardioides*), chinaberry tree (*Melia azedarach*), golden raintree (*Koelreuteria paniculata*), white lead tree (*Leucaena leucocephala*), saw palmetto (*Serenoa repens*), Mexican clover (*Richardia brasiliensis*), and bahiagrass (*Paspalum notatum* var. *notatum*).

### **PROTECTED SPECIES**

Using methodologies outlined in the Florida's Fragile Wildlife (Wood, 2001); Measuring and Monitoring Biological Diversity Standard Methods for Mammals (Wilson, et al., 1996); and Florida Fish and Wildlife Conservation Commission's (FFWCC) Gopher Tortoise Permitting Guidelines (January 2017); a cursory assessment for "listed" floral and faunal species was conducted at the subject property on November 23, 2021. This assessment included both direct observations and indirect evidence, such as tracks, burrows, tree markings and birdcalls that indicated the presence of species observed. The assessment focused on species that are "listed" by the FFWCC's Official Lists - Florida's Endangered Species, Threatened Species and Species of Special Concern (June 2021) that have the potential to occur in Brevard County (See attached Table 1).

No plant species "listed" by either the state or federal agencies were identified on the subject site during the assessments conducted. The following is a list of those wildlife species identified during the evaluation of the site:

**Reptiles and Amphibians**

brown anole (*Anolis sagrei*)  
green anole (*Anolis caroliniana*)  
six-lined racerunner (*Cnemidophorus sexlineatus sexlineatus*)  
gopher tortoise (*Gopherus polyphemus*)

**Birds**

Black Vulture (*Coragyps atratus*)  
Blue Jay (*Cyanocitta cristata*)  
Mourning Dove (*Zenaida macroura*)  
Northern Mockingbird (*Mimus polyglottos*)  
Northern Cardinal (*Cardinalis cardinalis*)  
Red-shouldered Hawk (*Buteo lineatus*)

**Mammals**

eastern cottontail (*Sylvilagus floridanus*)  
eastern gray squirrel (*Sciurus carolinensis*)  
nine-banded armadillo (*Dasypus novemcinctus*)  
Virginia opossum (*Didelphis virginiana*)

None of the above wildlife species were identified in the FFWCC's Official Lists - Florida's Endangered Species, Threatened Species and Species of Special Concern (June 2021). The following provides a brief description of the species as they relate to the development of the project site.

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

State Listed as "Threatened" by FFWCC

While the site presently was not observed to have a gopher tortoise (*Gopherus polypemus*) population, updated wildlife surveys should be completed to ensure that future populations do not inhabit the project site and cause construction delays.

Currently the gopher tortoise (*Gopherus polyphemus*) is classified as a "Category 2 Candidate Species" by USFWS, and as of September 2007 is now classified as "Threatened" by FFWCC, and as "Threatened" by FCREPA. The basis of the "Threatened" classification by the FFWCC for the gopher tortoise is due to habitat loss and destruction of burrows. Gopher tortoises are commonly found in areas with well-drained soils associated with the pine flatwoods, pastures and abandoned orange groves. Several other protected species known to occur in Brevard County have a possibility of occurring in this area as these species are gopher tortoise commensal species. These species include the eastern indigo snake (*Drymarchon corais couperi*), Florida mouse (*Peromyscus floridanus*) and the gopher frog (*Rana capito*). However, none of these species were observed during the survey conducted.

**Bald Eagle (*Haliaeetus leucocephalus*)**

State protected by F.A.C. 68A-16.002 and federally protected by both the Migratory Bird Treaty Act (1918) and the Bald and Golden Eagle Protection Act (1940)

In August of 2007, the US Fish and Wildlife Service (USFWS) removed the Bald Eagle from the list of federally endangered and threatened species. Additionally, the Bald Eagle was removed from FFWCC's imperiled species list in April of 2008. Although the Bald Eagle is no longer protected under the Endangered Species Act, it is still protected under the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act, and FFWCC's Bald Eagle rule (Florida Administrative Code 68A-16.002 Bald Eagle (*Haliaeetus leucocephalus*)).

In May of 2007, the USFWS issued the National Bald Eagle Management Guidelines. In April of 2008, the FFWCC adopted a new Bald Eagle Management Plan that was written to closely follow the federal guidelines. In November of 2017, the FFWCC issued "A Species Action Plan for the Bald Eagle" in response to the sunset of the 2008 Bald Eagle Management Plan. Under the USFWS's management plans, buffer zones are recommended based on the nature and magnitude of the project or activity. The recommended protective buffer zone is 660 feet or less from the nest tree, depending on what activities or structures are already near the nest. As provided within the above referenced Species Action Plan, the USFWS is the regulating body responsible for issuing permits for Bald Eagles. In 2017, the need to obtain a State permit (FFWCC) for the take of Bald Eagles or their nests in Florida was eliminated following revisions to Rule 68A-16.002, F.A.C.. A USFWS Bald Eagle "Non-Purposeful Take Permit" is not needed for any activity occurring outside of the 660-foot buffer zone. No activities are permitted within 330 feet of a nest without a USFWS permit.

In addition to the on-site evaluation for listed species, BTC conducted a review of FFWCC's database and Audubon's Eagle Watch program database for recorded Bald Eagle nests within the surrounding 660 feet of the subject site. This review revealed no Bald Eagle nests, through the 2020-2021 nesting season, located within one (1) mile of the subject site (see attached Bald Eagle Nest Data). Therefore, there will be no development constraints regarding Bald Eagle nests unless a new nest is found.

## USFWS CONSULTATION AREAS

The U.S. Fish and Wildlife Service has established "consultation areas" for certain listed species. Generally, these consultation areas only become an issue if USFWS consultation is required, which is usually associated with permitting through the U.S. Army Corps of Engineers. The reader should be aware that species presence and need for additional review are often determined to be unnecessary early in the permit review process due to lack of appropriate habitat or other conditions. However, the USFWS makes the final determination.

Consultation areas are typically very regional in size, often spanning multiple counties where the species in question are known to exist. Consultation areas by themselves do not indicate the presence of a listed species. They only indicate an area where there is a potential for a listed species to occur and that additional review might be necessary. Such review might include the need for species-specific surveys using established methodologies that have been approved by the USFWS.

The following paragraphs include a list of the USFWS Consultation Areas associated with the subject property. Also included, is a brief description of the respective species habitat and potential for additional review:

### ***Florida Scrub-jay (*Aphelocoma coerulescens*)***

*Federally Listed as "Threatened" by USFWS*

Currently the Florida Scrub-Jay is listed as threatened by the USFWS. Florida Scrub-jays are largely restricted to scattered, often small and isolated patches of sand pine scrub, xeric oak, scrubby flatwoods, and scrubby coastal stands in peninsular Florida (Woolfenden 1978a, Fitzpatrick et al. 1991). They avoid wetlands and forests, including canopied sand pine stands. Optimal Scrub-jay habitat is dominated by shrubby scrub, live oaks, myrtle oaks, or scrub oaks from 1 to 3 m (3 to 10 ft.) tall, covering 50% to 90 % of the area; bare ground or sparse

vegetation less than 15 cm (6 in) tall covering 10% to 50% of the area; and scattered trees with no more than 20% canopy cover (Fitzpatrick et al. 1991).

No Florida Scrub-jays were observed on the subject site during the wildlife survey conducted by BTC. The subject site does contain suitable Live Oak habitat in the eastern portion of the site. As such, no further action should be required pertaining to this species.

***Audubon's Crested Caracara (Polyborus plancus audubonii)***  
*Federally Listed as "Threatened" by USFWS*

The subject site falls within the USFWS Consultation Areas for the species Audubon's Crested Caracara (*Polyborus planeus audubonii*). Currently the Audubon's Crested Caracara is listed as threatened by the USFWS due primarily to habitat loss. The Audubon's Crested Caracara commonly occurs in dry or wet prairie areas with scattered cabbage palms, lightly wooded areas with saw palmetto, scrub oaks and cypress. The Audubon's Crested Caracara also uses improved or semi-improved pasture with seasonal wetlands. Audubon's Crested Caracaras construct new nests each nesting season, often in the same tree as the previous year.

Although the subject site falls within the USFWS Audubon's Crested Caracara consultation area, no crested caracaras were observed and no suitable habitat for this species exists within the project boundaries. No further action should be required pertaining to crested caracaras.

***West Indian Manatee (Trichechus manatus)***  
*Federally Listed as "Threatened" by USFWS*

The subject site falls within the USFWS Consultation Area for the West Indian manatee. Currently the West Indian manatee is listed as "Threatened" by the USFWS. Manatees are protected under the Marine Mammal Protection Act, which prohibits the take (i.e., harass, hunt, capture, or kill) of all marine mammals. Manatees are found in marine, estuarine and freshwater environments. The West Indian manatee (*Trichechus manatus*), includes two distinct subspecies, the Florida manatee (*Trichechus manatus latirostris*) and the Antillean manatee (*Trichechus manatus manatus*). While morphologically distinctive, both subspecies have many common features. Manatees have large, seal-shaped bodies with paired flippers and a round, paddle-shaped tail. They are typically grey in color (color can range from black to light brown) and occasionally spotted with barnacles or colored by patches of green or red algae. The muzzle is heavily whiskered and coarse, single hairs are sparsely distributed throughout the body. Adult manatees, on average, are about nine feet long (3 meters) and weigh about 1,000 pounds (200 kilograms). At birth, calves are between three and four feet long (1 meter) and weigh between 40 and 60 pounds (30 kilograms).

As the site is not located within or abutting any surface waters, no future permitting issues should arise as a result of site development.

***Piping Plover (*Charadrius melodus*)***  
*Federally Listed as "Threatened" by USFWS*

The subject site falls within the USFWS Consultation Areas for the species Piping Plover (*Charadrius melodus*). Currently the Piping Plover is listed as threatened by the USFWS due primarily to habitat loss. Piping plovers do not breed in Florida, but they spend a large portion of their year "wintering" here. They typically inhabit sandy beaches, sand flats, and mudflats along costal areas. The main threat to Piping Plovers is habitat loss due to the development of beaches. The Piping Plover is protected by the U.S. Migratory Bird Treaty Act, as well as the Federal Endangered Species Act.

No Piping Plovers were observed on the subject site during the survey conducted by BTC. The subject site does not contain suitable habitat for this species. Therefore, the proposed action will have no effect on the Piping Plover.

**ENVIRONMENTAL PERMITTING SUMMARY**

There are no wetlands or other surface waters located within or abutting the project site. This site resides in the Northern Indian River Lagoon basin.

**St. Johns River Water Management District**

An Environmental Resource Permit (ERP) will be required through the SJRWMD to authorize the construction and operation of a stormwater management system for the site. Since the site does not contain any wetlands and/or surface waters, no wetland mitigation will be required by SJRWMD in association with the proposed site development plan. Coordination with the Division of Historical Resources (DHR) and the Florida Fish and Wildlife Conservation Commission (FFWCC) will be necessary as part of the ERP process. However, no wildlife or archeological issues are anticipated as the site has been historically developed.

**US Army Corps of Engineers (USACE)**

There are no wetlands or other surface waters located within the project boundary. As such, no permitting is required through the ACOE for any development of this site as USACE permits only address wetland impacts and not the stormwater management system. You may, however, request a "No Permit Required" determination from the USACE. However, this process may



take several months to complete as this request would be considered a "low priority" for USACOE to address.

The environmental limitations described in this document are based on observations and technical information available on the date of the on-site evaluation. This report is for general planning purposes only. The limits of any on-site wetlands/surface waters can only be determined and verified through field delineation and/or on-site review by the pertinent regulatory agencies. The wildlife surveys conducted within the subject property boundaries do not preclude the potential for any listed species, as noted on Table 1 (attached), currently or in the future. Should you have any questions or require any additional information, please do not hesitate to contact our office at (407) 894-5969. Thank you.

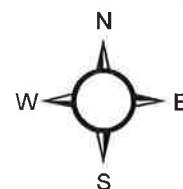
Regards,

*Adam Mirajkar*

Adam Mirajkar  
Field Biologist

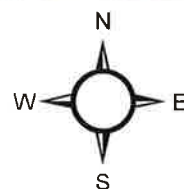
*Stephanie Salvilla*

Stephanie Salvilla  
Project Manager



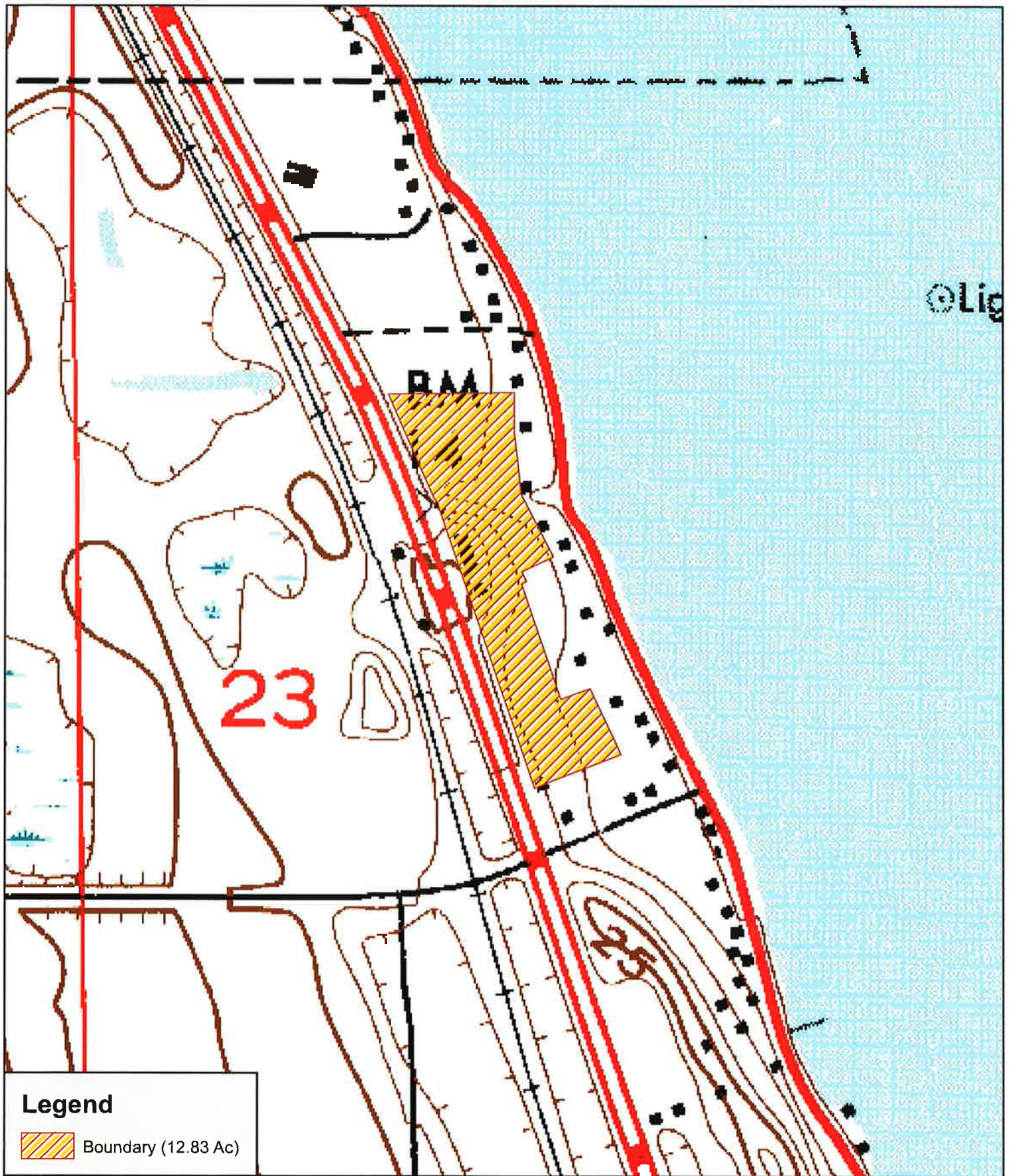
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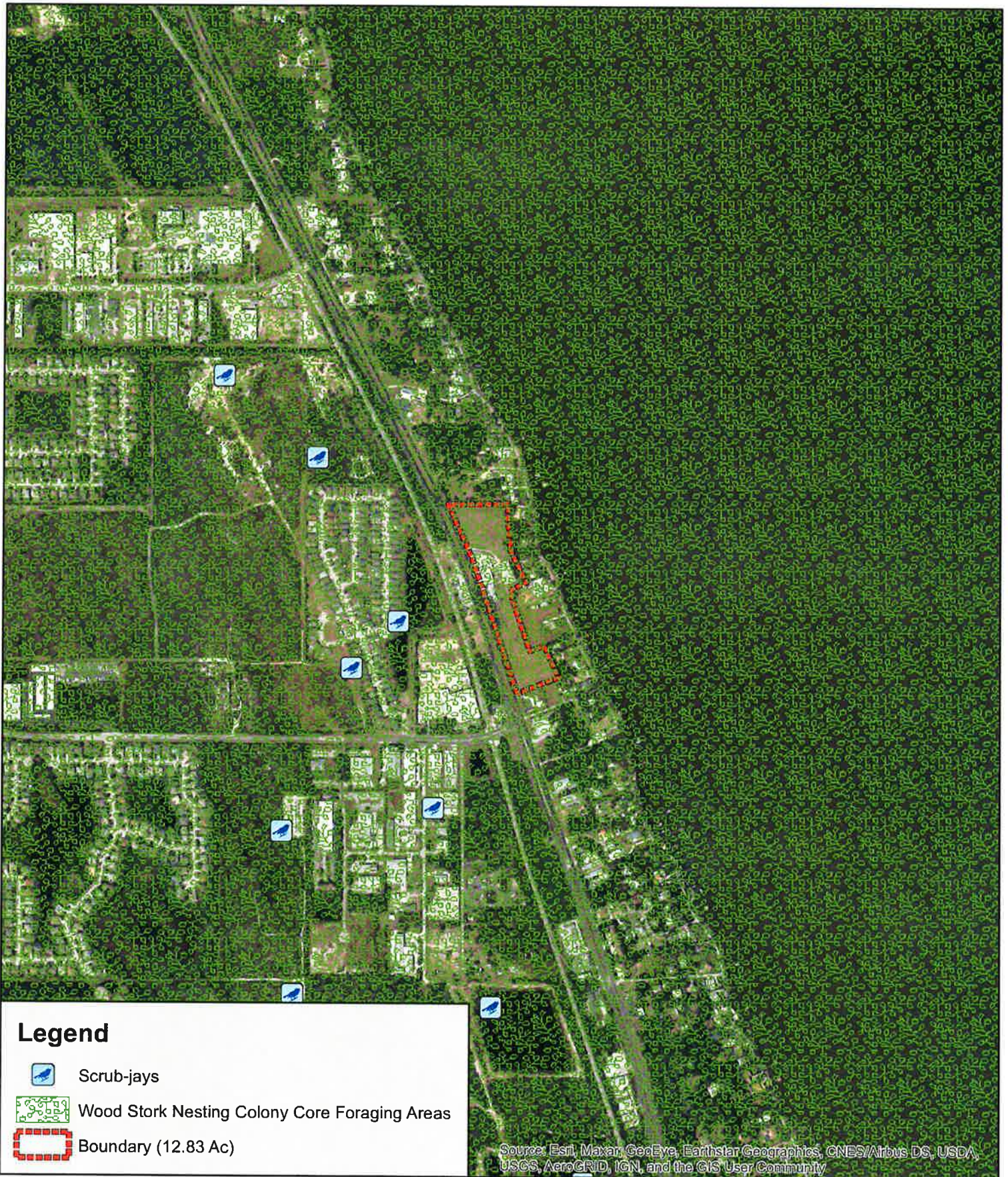






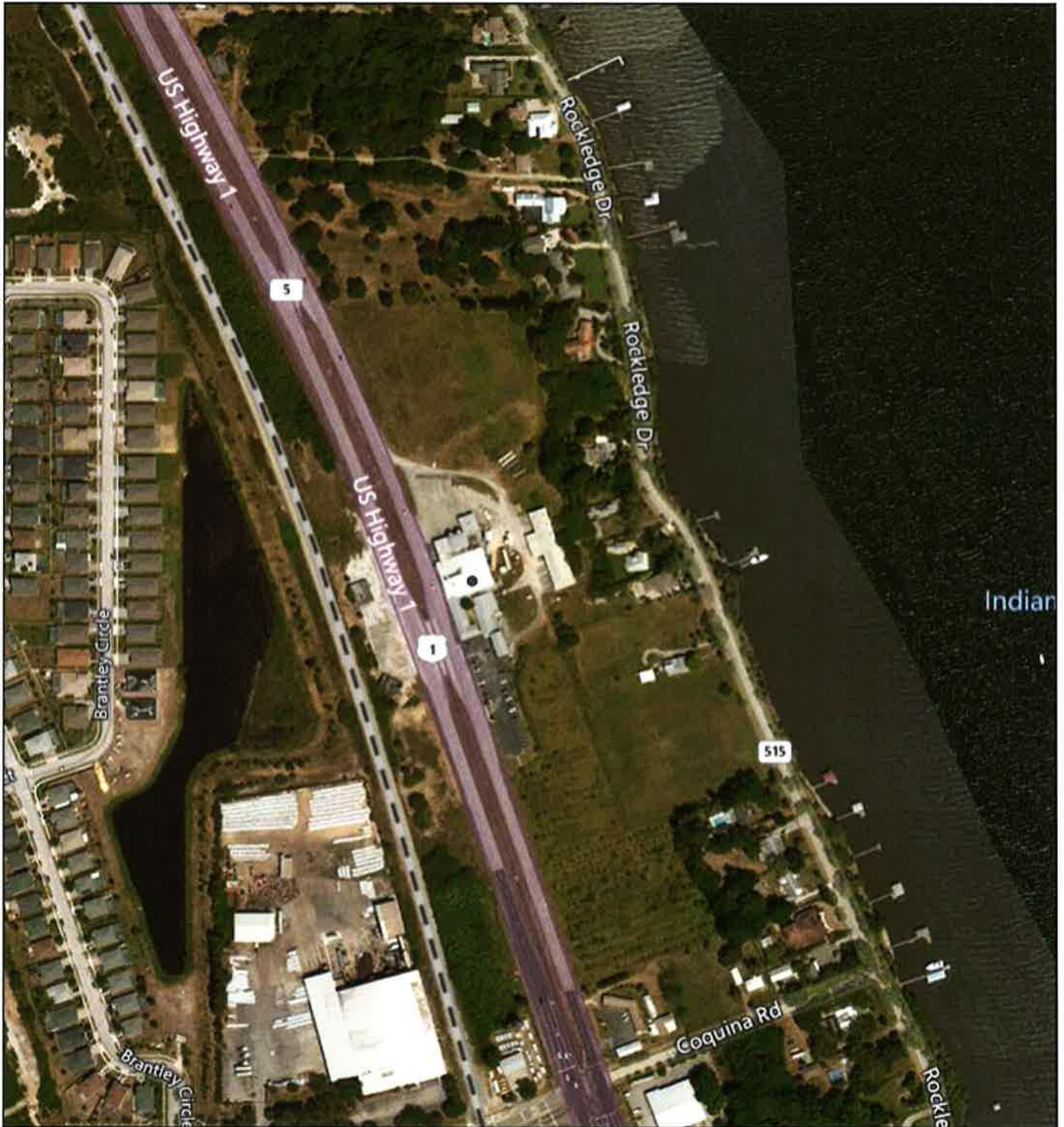




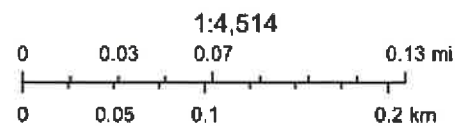




# EagleWatch Map



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**Table 1:**

**Potentially Occurring Listed Wildlife and Plant Species in  
Brevard County, Florida**

Scientific Name	Common Name	Federal Status	State Status	Occurrence Status
<b>FISH</b>				
<i>Acipenser oxyrinchus</i>	Atlantic sturgeon	LE	FE	C
<b>REPTILES</b>				
<i>Alligator mississippiensis</i>	American alligator	T(S/A)	FT(S/A)	C
<i>Caretta caretta</i>	loggerhead sea turtle	LT	FT	C
<i>Chelonia mydas</i>	green sea turtle	LT	FT	C
<i>Dermochelys coriacea</i>	leatherback sea turtle	LE	FE	C
<i>Drymarchon corais couperi</i>	eastern indigo snake	LT	FT	C
<i>Gopherus polyphemus</i>	gopher tortoise	C	ST	C
<i>Lepidochelys kempii</i>	Kemp's ridley sea turtle	LE	FE	P
<i>Pituophis melanoleucus mugitus</i>	Florida pine snake	N	ST	C
<b>BIRDS</b>				
<i>Platalea ajaja</i>	roseate spoonbill	N	ST	C
<i>Aphelocoma coerulescens</i>	Florida scrub-jay	LT	FT	C
<i>Polyborus plancus audubonii</i>	Audubon's crested caracara	LT	FT	C
<i>Charadrius melodus</i>	piping plover	LT	FT	P
<i>Egretta caerulea</i>	little blue heron	N	ST	C
<i>Egretta rufescens</i>	reddish egret	N	ST	C
<i>Egretta tricolor</i>	tricolored heron	N	ST	C
<i>Falco sparverius paulus</i>	southeastern American kestrel	N	ST	P
<i>Grus canadensis pratensis</i>	Florida sandhill crane	N	ST	C
<i>Haematopus palliatus</i>	American oystercatcher	N	ST	P
<i>Haliaeetus leucocephalus</i>	bald eagle	N	**	C
<i>Mycteria americana</i>	wood stork	LT	FT	C
<i>Pandion haliaetus</i>	osprey	N	SSC*	C
<i>Picoides borealis</i>	red-cockaded woodpecker	LE	FE	C
<i>Rynchops niger</i>	black skimmer	N	ST	C
<i>Athene cunicularia</i>	burrowing owl	N	ST	P
<i>Sterna antillarum</i>	least tern	N	ST	C
<b>MAMMALS</b>				
<i>Eubalaena glacialis</i>	North Atlantic right whale	LE	FE	C
<i>Peromyscus polionotus niveiventris</i>	southeastern beach mouse	LT	FT	C
<i>Sciurus niger shermani</i>	Sherman's fox squirrel	N	SSC	P
<i>Trichechus manatus (Trichechus manatus latirostris)</i>	West Indian manatee (Florida manatee)	E, PT	FE	C

\*\* See Rank and Status Explanations and Definitions, Special Animal Listings - Federal and State Status



## County Occurrence Status

### Vertebrates and Invertebrates:

**C = (Confirmed)** Occurrence status derived from a documented record in the FNAI data base.

**P = (Potential)** Occurrence status derived from a reported occurrence for the county or the occurrence lies within the published range of the taxon.

**N = (Nesting)** For sea turtles only; occurrence status derived from documented nesting occurrences.