ECS Florida, LLC

Results for Preliminary Wetland and Threatened & Endangered Species Assessment

The Paddock-Loxahatchee Groves Property
520, 530, 550, & 570 C Road, Loxahatchee Groves, Florida 33470

For: Bove LLC

354 Royal Tern Road South, Ponte Vedra, Florida 32082

ECS Project Number 55:6583

May 6, 2025

May 6, 2025

Mr. Gabriel Bove
Bove LLC
354 Royal Tern Road South
Ponte Vedra, Florida 32082

ECS Project No. 55:6583

Reference: Results for Preliminary Wetland and Threatened & Endangered Species Assessment, The Paddock-Loxahatchee Groves Property, 520, 530, 550, & 570 C Road, Loxahatchee Groves, Palm Beach County, Florida

Dear Mr. Bove:

ECS Florida, LLC (ECS) is pleased to provide you with results of our Preliminary Wetland and Threatened & Endangered Species Assessment for the The Paddock-Loxahatchee Groves Property. ECS services were provided in general accordance with ECS Proposal No. 55:11034 authorized on April 16, 2024.

If there are questions regarding this report, or a need for further information, please contact the undersigned.

ECS Florida, LLC

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INTRODUCTION

ECS completed a Preliminary Wetland and Threatened & Endangered Species Assessment for the The Paddock-Loxahatchee Groves Property, located at 520, 530, 550, & 570 C Road in Loxahatchee Groves, Palm Beach County, Florida. An aerial view of the subject property is provided in **Appendix I**. The field portion of the survey was conducted on April 23, 2024.

The purpose of the field visit was to evaluate the site for the occurrence and/or potential for occurrence of jurisdictional wetlands and/or protected wildlife species (and their habitats).

The following report (and referenced exhibits) describes relevant ecological conditions observed on the site during the field investigation and the results of documented literature regarding the presence of protected wildlife species and/or habitat on the site and its relevant surroundings. As well as parcel permitting history, and an ecological constraint's discussion.

SITE LOCATION AND DESCRIPTION

The site is located in the physiographic area known as the Eastern Flatwoods District. The site is an approximately 47.02-acre property located at 520, 530, 550, & 570 C Road in Loxahatchee Groves, Palm Beach County, Florida and is identified by the Palm Beach County Property Appraiser as parcel identification number 41-41-43-32-05-000-0030, 41-41-43-32-05-000-0020, 41-41-43-32-05-002-0000, 41-41-43-32-05-000-0010 and 41-41-43-32-05-016-0000 and owned by LOXAHATCHEE GROVES (**Figure 2**).

The site is classified by Palm Beach County as undeveloped land. At the time of this survey, the site was observed to be occupied by undeveloped, wooded land (**Figure 1**).

The upland canopy vegetation is dominated by Laurel oak (*Quercus hemisphaerica*), Pond cypress (*Taxodium ascendens*), Longleaf pine (*Pinus palustris*) and Slash pine (*Pinus elliottii).* The upland herbaceous layer is dominated by saw palmetto (*Serenoa repens*), bitter gallberry (*ilex glabra*), Bracken fern (*Pteridium aquilinum*), and highbush blueberry (*Vaccinium corymbosum*).

The wetland canopy vegetation is dominated by pond cypress (*Taxodium ascendens*) and laurel oak (*Quercus laurifolia*) with a sub canopy dominated by laurel oak (*Quercus laurifolia*). The wetland herbaceous vegetation is dominated by Giant Leather Fern (*Acrostichum danaeifolium),* fetterbush (*Lyonia lucida*), royal fern (*Osmunda regalis),* Virginia chain fern (*Woodwardia virginica*), maidencane (*Panicum hemitomon*), and highbush blueberry.

Site photographs taken at the time of this survey are included in **Appendix II**.

Soils

One (1) general soil type was identified by the Natural Resource Conservation Service's (NRCS) *Soil Survey of* Palm Beach County *County, Florida*. The following soil units and descriptions were mapped by the soil survey on the site:

- Unit 36 - Riviera fine sand consists of poorly drained soils that formed from sandy and loamy marine deposits. These soils are in drainageways and flats on marine terraces. Slopes range from 0 to 2 percent. Riviera fine sand is classified as hydric. These soils reportedly cover the entire site by area.

Figure 3 shows the site and soils as mapped by the Soil Survey.

Vegetative Communities and Land Uses

Prior to the field visit, Geographic Information System (GIS) data from the South Florida Water Management District (SFWMD) was reviewed to identify documented vegetative communities and land uses on the property (**Figure 4**). These site conditions are documented using the Florida Land Use, Cover and Forms Classification System (FLUCCS, Florida Department of Transportation, 1999). FLUCCS classifications for the land covers and uses (as adapted from SFWMD coverages) on the property are as follows:

Landuse Description	**1180: Rural Residential**
LEVEL1 LANDUSE CODE	1000
LEVEL 1 LANDUSE DESCRIPTION	Urban and Built-Up
LEVEL 2 LANDUSE CODE	1100
LEVEL 2 LANDUSE DESCRIPTION	Residential Low Density
LANDCOVER CODE	1180
LANDCOVER DESCRIPTION	1180: Rural Residential
WATER MANAGEMENT DISTRICT	SF
Landuse Description	**4110: Pine Flatwoods**
LEVEL1 LANDUSE CODE	4000
LEVEL 1 LANDUSE DESCRIPTION	Upland Forest
LEVEL 2 LANDUSE CODE	4100
LEVEL 2 LANDUSE DESCRIPTION	Upland Coniferous Forests
LANDCOVER CODE	4110
LANDCOVER DESCRIPTION	4110: Pine Flatwoods
WATER MANAGEMENT DISTRICT	SF
Landuse Description	**4200: Upland Hardwood Forests**
LEVEL1 LANDUSE CODE	4000
LEVEL 1 LANDUSE DESCRIPTION	Upland Forest
LEVEL 2 LANDUSE CODE	4100

LEVEL 2 LANDUSE DESCRIPTION	Upland Coniferous Forests
LANDCOVER CODE	4110
LANDCOVER DESCRIPTION	4110: Pine Flatwoods
WATER MANAGEMENT DISTRICT	SF
Landuse Description	**4340: Upland Mixed Coniferous/Hardwood**
LEVEL1 LANDUSE CODE	4000
LEVEL 1 LANDUSE DESCRIPTION	Upland Forest
LEVEL 2 LANDUSE CODE	4300
LEVEL 2 LANDUSE DESCRIPTION	Upland Mixed Forests
LANDCOVER CODE	4340
LANDCOVER DESCRIPTION	4340: Upland Mixed Coniferous/Hardwood
WATER MANAGEMENT DISTRICT	SF

PRELIMINARY WETLANDS DETERMINATION METHODS

A Preliminary Wetlands Determination/Jurisdictional Flagging was performed on **April 23, 2024** via visual transect in the field to establish potential wetlands on-site. On-site soils, hydrology indicators, and plant communities were generally observed in the field. The wetland determination and flagging were completed in accordance with Chapter 62-340, Florida Administrative Code. More specifically, a jurisdictional wetland is defined as the following:

According to Florida Statutes §373.019(27) and Florida Administrative Code (FAC) Chapter 62-340, a *jurisdictional wetland* is:

"An area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soils."

This determination involves three key criteria:

- Hydric Soils – Soils that are saturated or flooded long enough during the growing season to develop anaerobic conditions.
- Hydrology – Evidence of regular inundation or saturation.
- Hydrophytic Vegetation – Plant species adapted to wet conditions.

Florida uses the Delineation Manual (FAC 62-340) to apply this three-parameter approach and delineate wetland boundaries.

A wetlands field review was performed by Andrea Sanchez, a SFWMD Environmental Analyst, on March 12, 2025**,** approving the wetland delineations.

Results and Discussion

Based on field observations and a review of FLUCCS classifications and the U.S. Fish and Wildlife Service's National Wetland Inventory (NWI) online mapper, ECS confirmed the presence of three (3) wetland features present on the site.

The site has been highly disturbed by adjacent historical activities and recent permitting activities. After a review of the SFWMD permit database, a permit was issued in 1999, and the environmental summary stated no wetlands were located onsite. Nonetheless, ECS observed three distinct isolated wetlands and performed delineations of these areas onsite.

These three (3) distinct wetland areas, which were identified and delineated as Wetlands A, B and C, were reviewed and approved by SFWMD staff on March 12, 2025. Wetland A is located in the northwest portion of the site and consists of approximately 1.65 acres. Wetland B is located in the northeast portion of the site and consists of approximately 0.84 acres. Wetland C is located in the southeast portion of the site and consists of approximately 0.55 acres. Please refer to **Figure 6** for the SFWMD approved delineations of Wetlands A, B and C.

PRELIMINARY THREATENED AND ENDANGERED SPECIES METHODS

A protected wildlife species survey and habitat assessment were conducted on April 23, 2024. Protected wildlife species are defined as those listed as Threatened, Endangered, or Species of Special Concern by the U.S. Fish and Wildlife Service (USFWS) and/or the Florida Fish and Wildlife Conservation Commission (FWC). The project area was surveyed for potential threatened and endangered species of Palm Beach County, Florida.

Results of Survey

Federal and state listed threatened and endangered species for Palm Beach County were reviewed from the USFWS North Florida Ecological Services Office website and the Florida Natural Areas Inventory (FNAI) website prior to the site visit (**Appendix III**). Biota was broken down into six categories:

Amphibians

No threatened or endangered species or their habitats were encountered during the time of this survey.

Birds

ECS reviewed the FWC's Historical Bald Eagle Nesting Areas online database. The nearest documented bald eagle (*Haliaeetus leucodephalus*) nest *(*PB013) is located approximately 4.9 miles south-southeast of the site (**Figure 7A**). This nest is located outside of the FWC recommended buffer distance of 660 feet.

The site appears to be located within the historical range of the Florida scrub jay (*Aphelocoma coerulescens*) (**Figure 7C**). However, no individuals were directly observed, and no suitable potential habitat was noted by the FWC Terrestrial Resources GIS database on, or in the immediate vicinity of, the site.

Crested caracaras (*Caracara cheriway*) are federally listed as Threatened. These birds prefer to nest in scattered cabbage palms or cabbage palm hammocks surrounded by pasture or dry/wet prairie but can also be found in wooded areas with saw palmetto, cypress, scrub oaks, and pastures. The project appears to be within the USFWS-designated Crested caracara consultation area (**Figure 7B**). Marginal potential suitable habitat was observed on site at the time of the survey. However, no individuals were observed.

ECS reviewed the USFWS' map of Wood Stork (*Mycteria americana*) Nesting Colonies and Core Foraging Areas Active Within 2010-2019. The site appears to be located within a Core Foraging Area (**Figure 7A**). However, no individuals or suitable potential habitat were observed on the site at the time of this survey.

The site is located within the USFWS' Everglade Snail Kite (*Rostrhamus sociabilis plumbeus*) Consultation Area (**Figure 7**). However, no individuals or suitable potential habitat were observed on the site at the time of this survey.

No potential habitat for the red-cockaded woodpecker (*Picoides borealis*) was noted by the FWC Terrestrial Resources GIS database on, or in the immediate vicinity of, the site. No individuals were directly observed on the site at the time of this survey. Additionally, the site does not appear to be located within a designated FWC management unit (FWC Red-Cockaded Woodpecker Management Plan, August 2003).

No additional other threatened or endangered bird species or their habitats were encountered at the time of this survey.

Fish

No threatened or endangered species were encountered during the time of this survey. No wetlands capable of sustaining a fish community were observed on the interior portion of the subject property.

Mammals

The subject property is located within the USFWS' Florida bonneted bat (*Eumops floridanus*) Consultation Area (**Figure 7D**). However, no individuals and marginal suitable habitat were observed on the subject property at the time of this survey.

The subject property appears to be located outside of the USFWS' Florida panther (*Puma concolor coryi*) Focus Area - Primary Zone. Additionally, no individuals and marginal potential habitat were observed on the subject property at the time of this survey.

No additional threatened or endangered mammal species or their habitats were encountered during the time of this survey.

Reptiles

Marginal gopher tortoise (*Gopherus polyphemus*) habitat was noted at various locations throughout the site and one (3) active gopher tortoise burrows were directly observed on the site at the time of this survey. However, it is likely only one gopher tortoise is utilizing all three burrows. However, a 100 percent survey will be required by FWC to obtain a 10 or Fewer Burrows permit. Permits will be provided to the local government upon receipt, if required.

The Eastern indigo snake (*Drymarchon corais couperi*) is considered to have a commensal relationship with gopher tortoises, utilizing gopher tortoise burrows as nesting spots. Due to the potential gopher tortoise habitat located on the site, potential Eastern indigo snake habitat is also considered to be present on the site.

No other threatened or endangered species or their habitats were encountered during the time of this survey.

Vascular Plants

No threatened or endangered species or their habitats were encountered during the time of this survey.

ECOLOGICAL CONSTRAINTS - ECO DD

Permitting History

ECS performed a desktop permitting search to determine if any environmental permitting has been completed for the site in the past. A review of flwaterpermits.com and FDEP's Map Direct Environmental Resource Permitting (ERP) Map determined no environmental permits have been issued previously for the site. However, after a review of the SFWMD website, a permit was issued in 1999 by SFWMD, to develop 3 large, rural, single-family lots, approximately 10 acres in size. Based on the site visit, approximately 2.4 acres of permitted dry retention ponds and swales were constructed, as well as the permitted perimeter berm. However, no structures were built. Furthermore, in the 1999 SFWMD permit no. 990730-1, environmental summary, the site was determined to contain no wetlands.

Proposed Development

Based on the current presence of wetlands and/or surface waters onsite, and the proposed plans, an Environmental Resource Permit (ERP) application has been submitted for review by the SFWMD. SFWMD ERP application review takes approximately 4 to 6 months to obtain.

Based on the new Federal revised definition of Waters of the United States, Conforming Rule, removing the "significant nexus" test, the onsite wetlands/surface waters did not appear to connect to Waters of the U.S. (WOTUS), therefore engaging the USACE with a permit application should not be required to develop the site. However, ECS recommends preparing and submitting a request for an Approved Jurisdictional Determination (AJD) to determine if the onsite wetlands are federally jurisdictional, connected to WOTUS. The AJD process is used by the USACE to make a definitive, official determination whether aquatic resources in the review area are or are not jurisdictional.

If determined wetlands/surface waters are connected to WOTUS, the USACE permit review for a Nationwide Permit (impacts are less than 1/2-acre) takes approximately 3 to 5 months and a USACE Individual Permits application (impacts are greater than 1/2-acre) typically takes approximately 8 to 12 months.

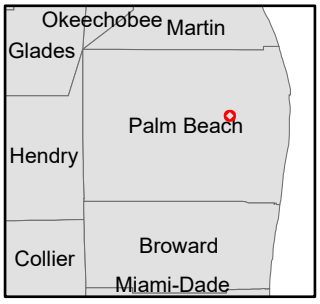
The FWC gopher tortoise 10 or fewer permit, SFWMD Environmental Resource Permit (ERP) , and the USACE permit, if required, will be provided to the City of Loxahatchee Grove, upon receipt.

LIMITATIONS OF THIS REPORT

It is important to note that the conclusions of this report are necessarily based on the conditions observed on the day of the field investigation, as well as our scientific judgment of the site's potential to support wetlands or protected species (based on each species' optimal habitat requirements). Due to this "snapshot" view of the site, the results presented in this report may not accurately reflect changing site conditions and/or potential wetland or wildlife species' temporal and spatial locations.

This report is provided for the exclusive use of the listed client. This report is not intended to be used or relied upon in conjunction with other projects or by other unidentified third parties. The use of this report by any undesignated party will be at such party's sole risk and ECS disclaims liability for any such third party use or reliance.

Appendix I: Figures



Palm Beach County, Florida

55:6583 The Paddock-Loxahatchee Groves
520, 530, 550, 570 C Rd. Loxahatchee, FL

Legend

Approximate Project Boundary

Figure 1: 2023 Aerial

0 125 250 500 Feet

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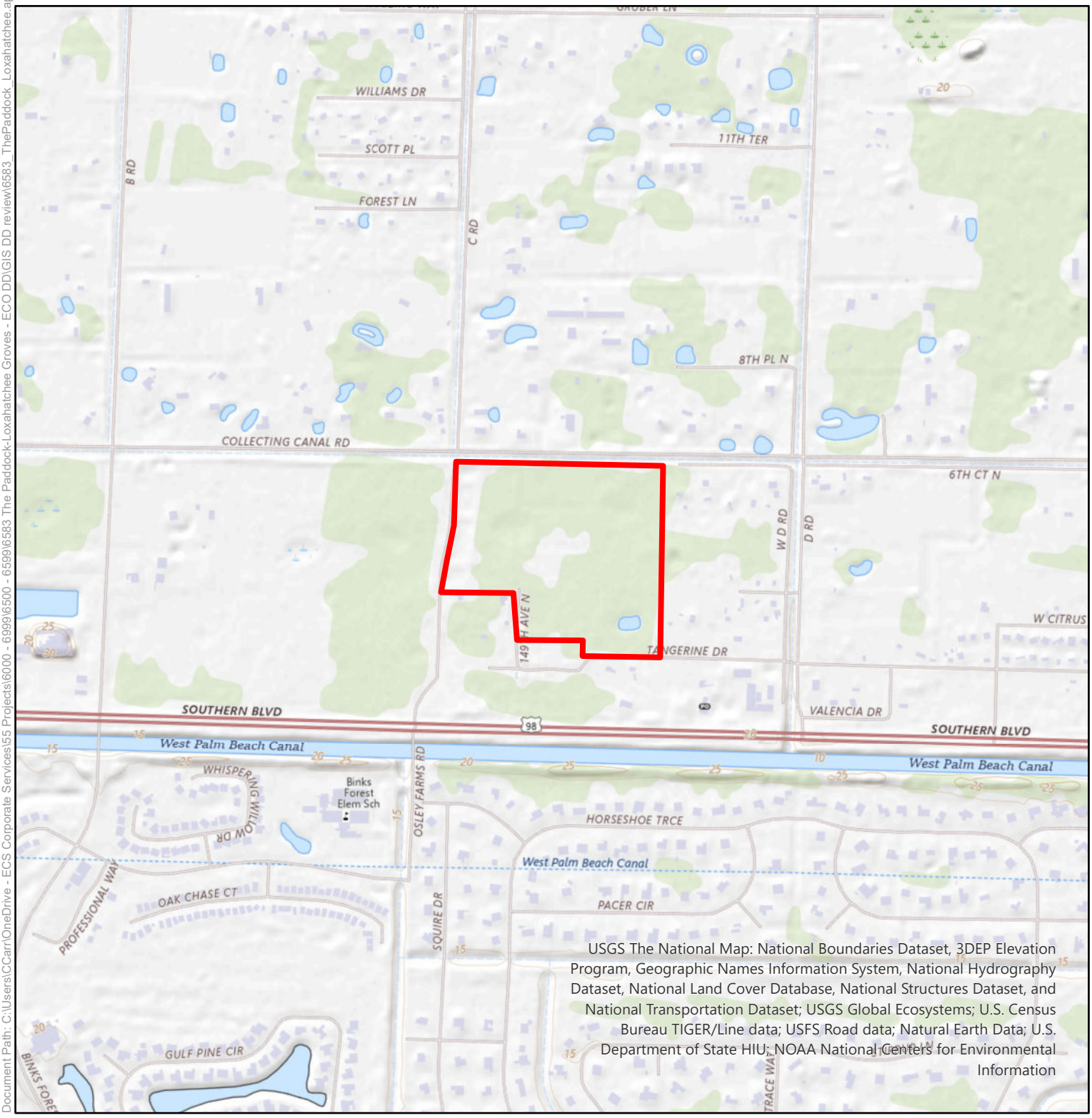

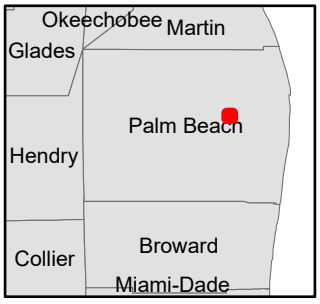

Palm Beach County, Florida

55:6583 The Paddock-Loxahatchee Groves
520, 530, 550, 570 C Rd. Loxahatchee, FL

Legend

Approximate Project Boundary

Figure 2: Topography

0 500 1,000 2,000 Feet

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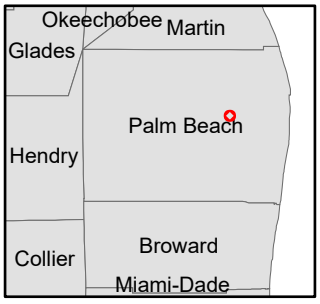

Palm Beach County, Florida

55:6583 The Paddock-Loxahatchee Groves
520, 530, 550, 570 C Rd. Loxahatchee, FL

Legend

Approximate Project Boundary

Hydric Soil Rating

YES

Figure 3: Hydric Soils Rating

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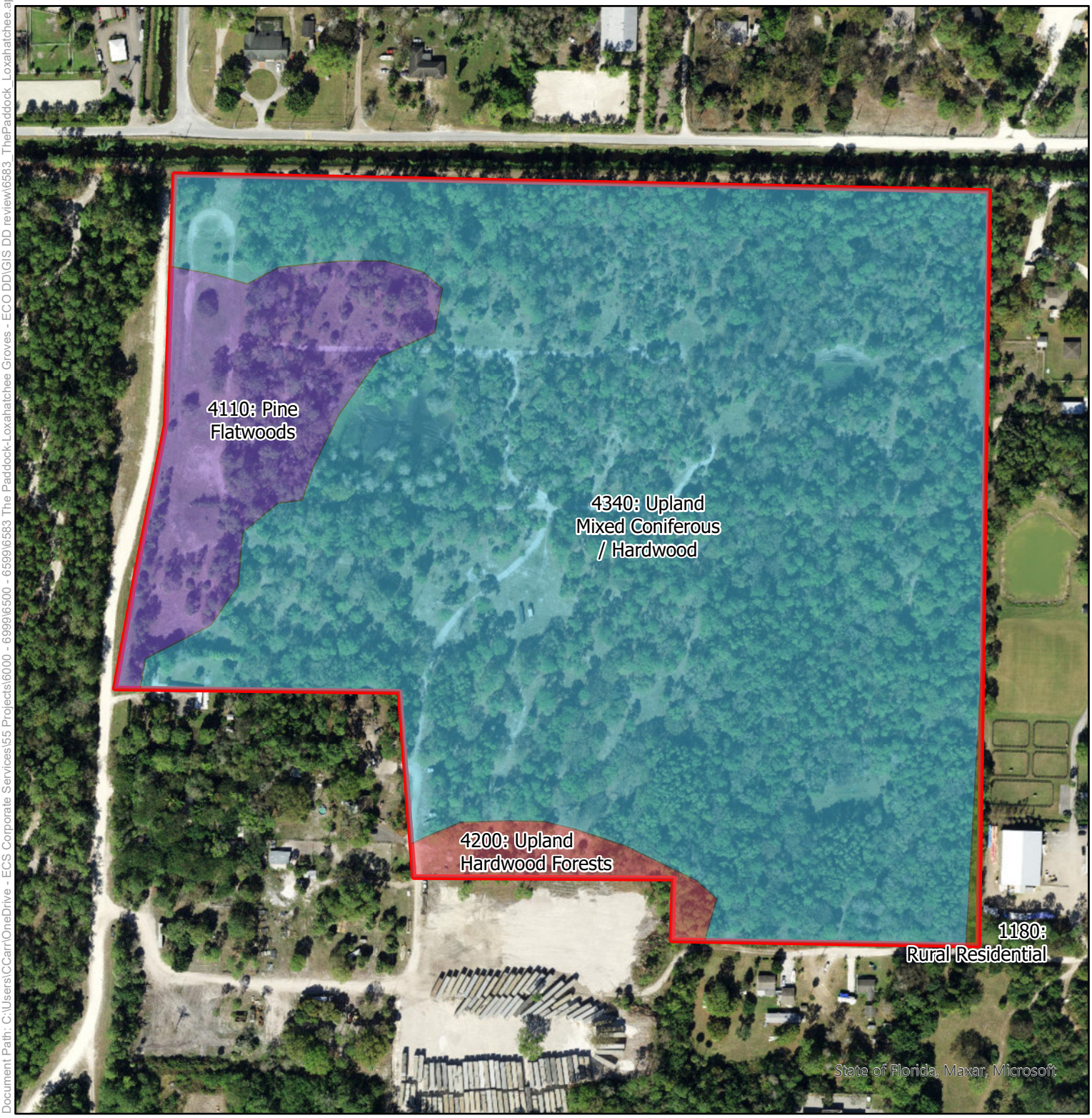

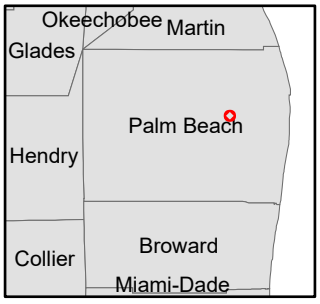

Palm Beach County, Florida

55:6583 The Paddock-Loxahatchee Groves
520, 530, 550, 570 C Rd. Loxahatchee, FL

Legend

- Approximate Project Boundary

Landuse Description

- 1180: Rural Residential
- 4110: Pine Flatwoods
- 4200: Upland Hardwood Forests
- 4340: Upland Mixed Coniferous / Hardwood

Figure 4: FLUCCS

0 125 250 500 Feet

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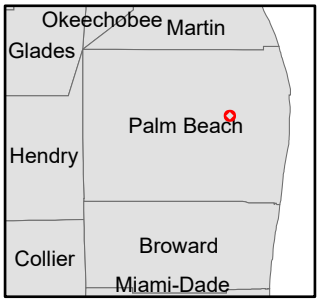

Palm Beach County, Florida

55:6583 The Paddock-Loxahatchee Groves
520, 530, 550, 570 C Rd. Loxahatchee, FL

Legend

Approximate Project Boundary

Wetland Type

RIVERINE

Figure 5: National Wetlands Inventory

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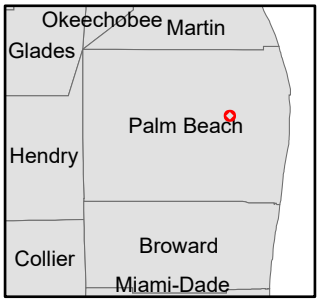

Palm Beach County, Florida

55:6583 The Paddock-Loxahatchee Groves
520, 530, 550, 570 C Rd. Loxahatchee, FL

Legend

- Wetlands
- Approximate Project Boundary

Figure 6: Wetland Delineation

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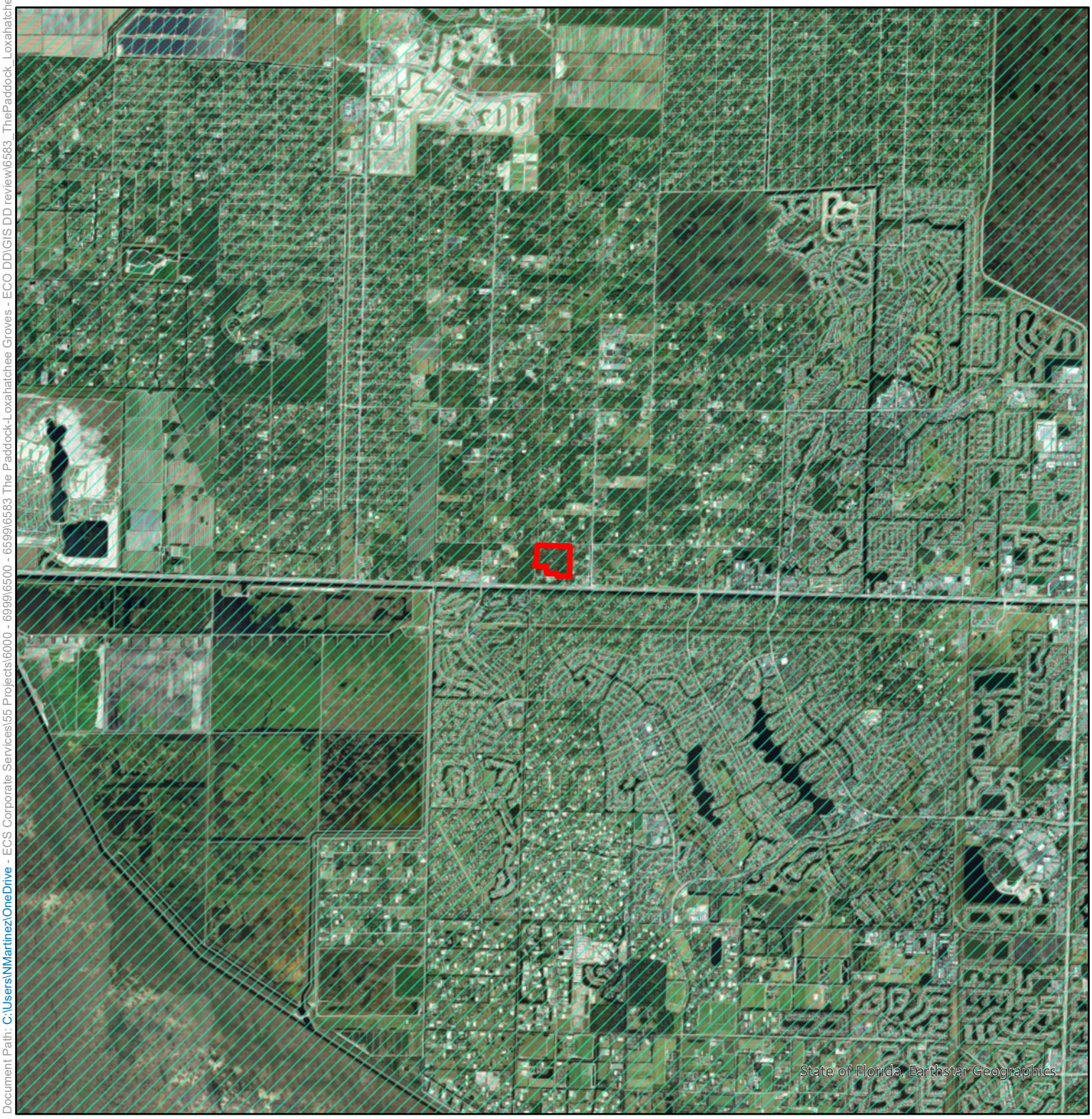

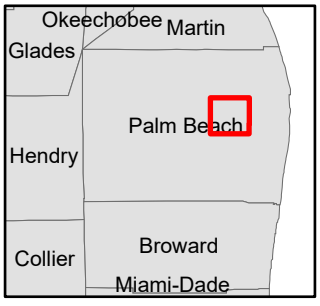

Palm Beach County, Florida

55:6583 The Paddock-Loxahatchee Groves
520, 530, 550, 570 C Rd. Loxahatchee, FL

Legend

Approximate Project Boundary

Consultation Areas

Snail Kite

Figure 7: Threatened and Endangered Species

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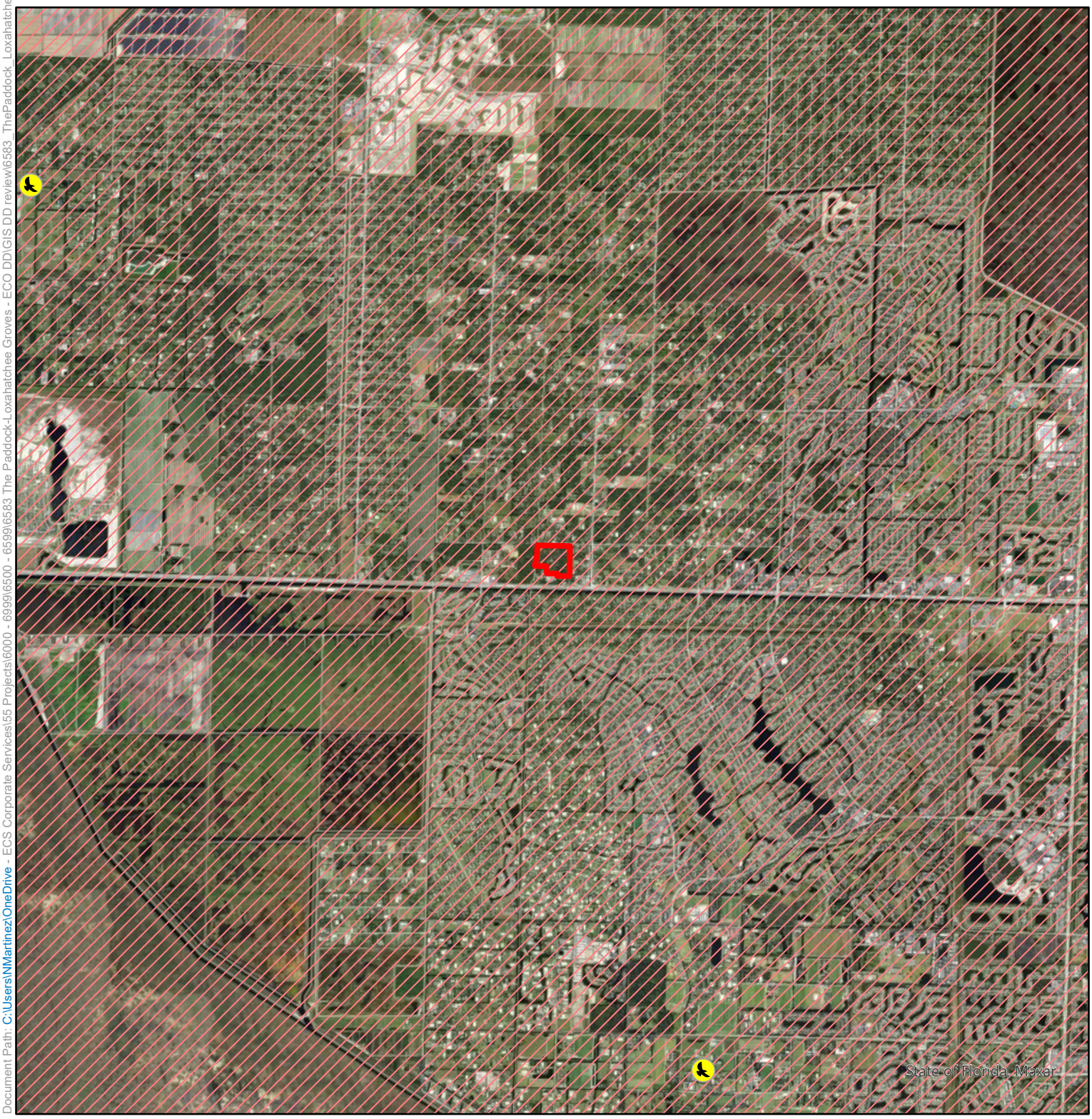

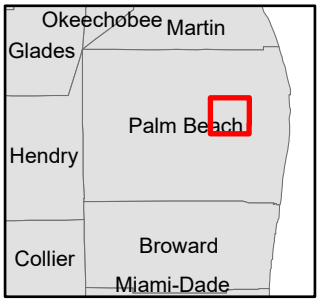

Palm Beach County, Florida

55:6583 The Paddock-Loxahatchee Groves
520, 530, 550, 570 C Rd. Loxahatchee, FL

Legend

- Approximate Project Boundary
- Eagle Nest
- Woodstork Core Foraging Area

Figure 7A: Threatened and Endangered Species

0 3,000 6,000 12,000 Feet

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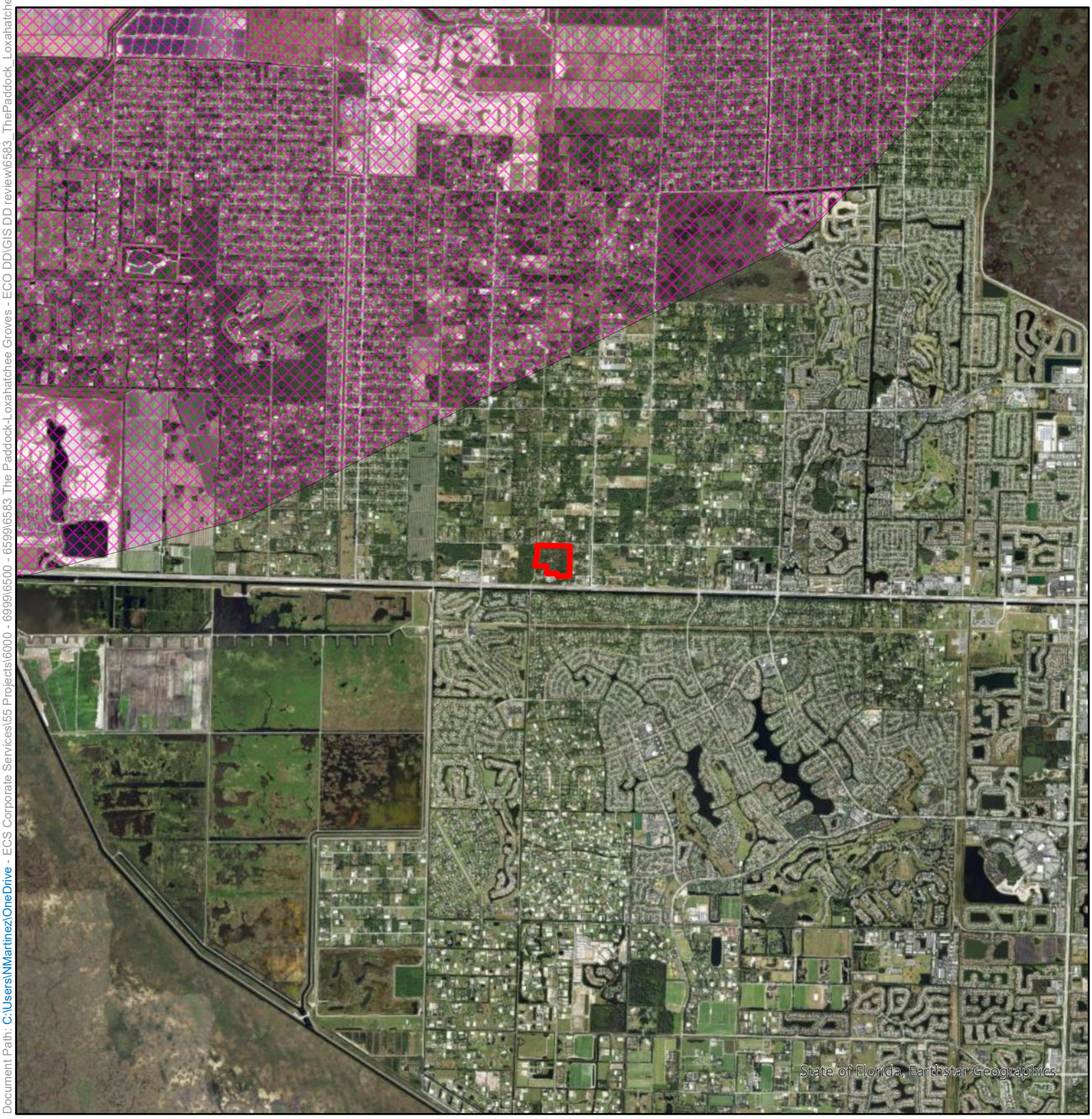

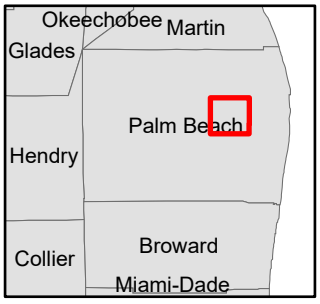

Palm Beach County, Florida

55:6583 The Paddock-Loxahatchee Groves
520, 530, 550, 570 C Rd. Loxahatchee, FL

Legend

Approximate Project Boundary

Consultation Areas

Crested Caracara

Figure 7B: Threatened and Endangered Species

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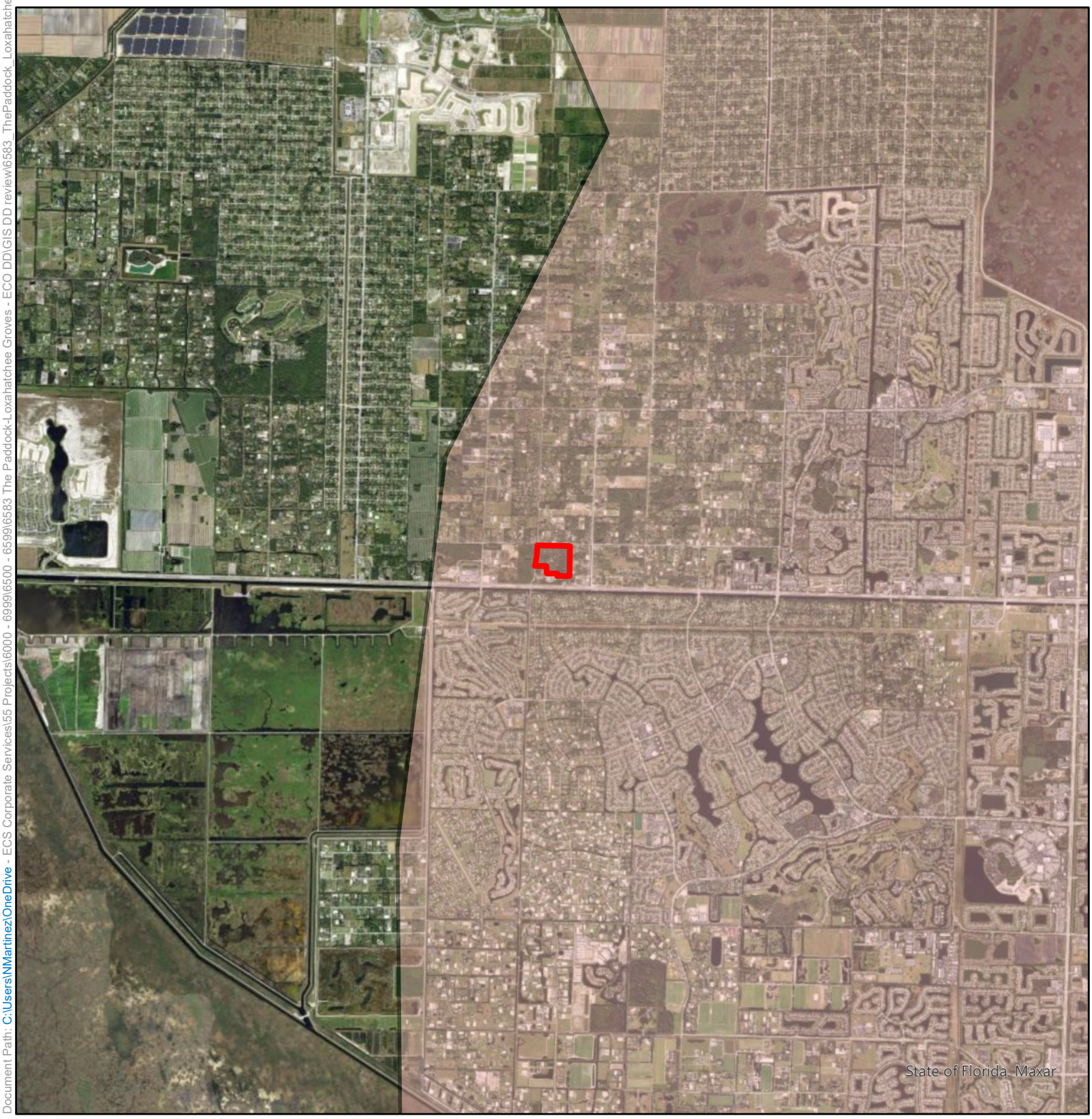

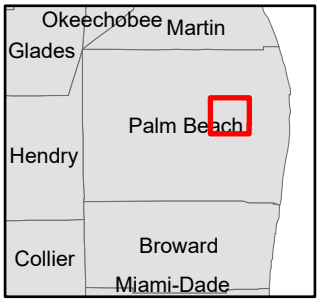

Palm Beach County, Florida

55:6583 The Paddock-Loxahatchee Groves
520, 530, 550, 570 C Rd. Loxahatchee, FL

Legend

Approximate Project Boundary

Consultation Areas

Scrub Jay

Figure 7C: Threatened and Endangered Species

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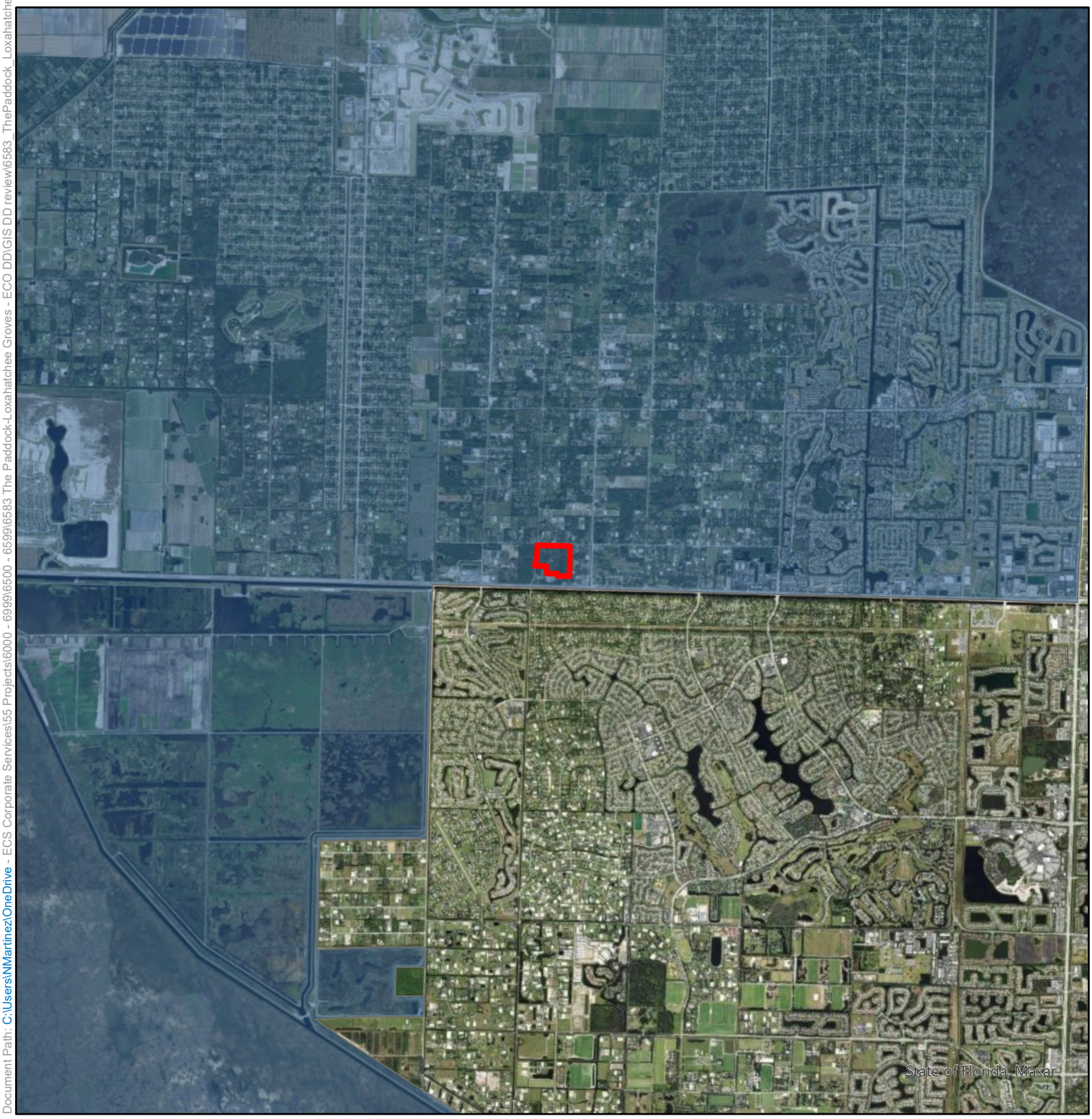

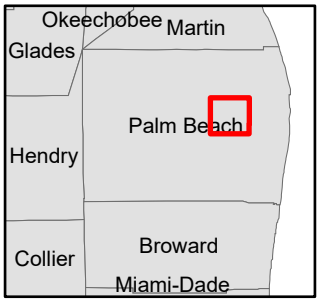

Palm Beach County, Florida

55:6583 The Paddock-Loxahatchee Groves
520, 530, 550, 570 C Rd. Loxahatchee, FL

Legend

- Approximate Project Boundary
- Bonneted Bat

Figure 7D: Threatened and Endangered Species

0 3,000 6,000 12,000 Feet

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Appendix II: Site Photos

1 - Representative Site Photograph - East

2 - Representative Site Photograph - West

3 - Representative Site Photograph - Central

4 - Representative Site Photograph - North

5 - Representative Site Photograph of Wetland C

6 - Representative Site Photograph -South

7 - Borrow Area Photograph - Eastern Boundary

Appendix III: Threatened and Endangered Species

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

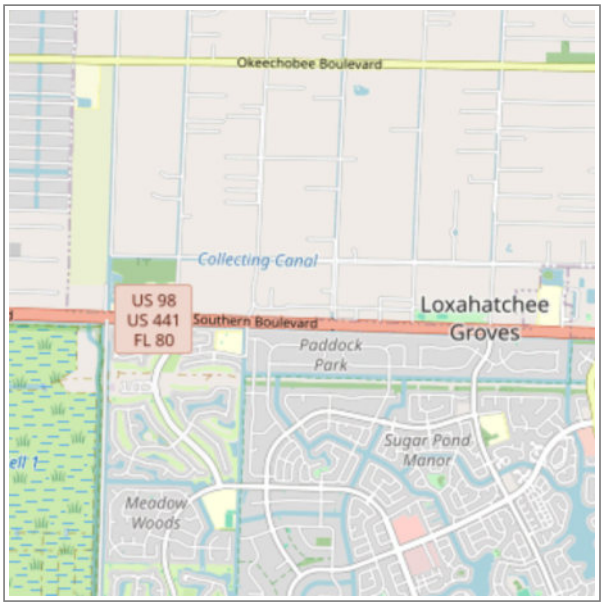
UNOFFICIAL REPORT

Created 5/24/2024

(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 1 Matrix Unit: 67256



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: 67256

0 **Documented** Elements Found

0 **Documented-Historic** Elements Found

2 **Likely** Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Mesic flatwoods	G4	S4	N	N
Mycteria americana Wood Stork	G4	S2	T	FT

Matrix Unit ID: 67256

12 **Potential** Elements for Matrix Unit 67256

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Athene cunicularia floridana Florida Burrowing Owl	G4T3	S3	N	ST
Drymarchon couperi Eastern Indigo Snake	G3	S2?	T	FT
Dryobates borealis Red-cockaded Woodpecker	G3	S2	E, PT	FE
Elytraria caroliniensis var. angustifolia narrow-leaved Carolina scalystem	G4T2	S2	N	N
Gopherus polyphemus Gopher Tortoise	G3	S3	C	ST
Linum carteri var. smallii Small's flax	G2T2	S2	N	E
Nemastylis floridana celestial lily	G2	S2	N	E

Peucaea aestivalis Bachman's Sparrow	G3	S3	N	N
Polygala smallii tiny polygala	G1	S1	E	E
Prosthechea cochleata clamshell orchid	G4G5	S2	N	E
Roystonea regia Florida royal palm	G2G3	S2	N	E
Trichomanes punctatum ssp. floridanum Florida filmy fern	G4G5T1	S1	E	E

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

Palm Beach County, Florida

Local office

Florida Ecological Services Field Office

(352) 448-9151
(772) 562-4288
fw4flesregs@fws.gov

777 37th St
Suite D-101
Vero Beach, FL 32960-3559

https://www.fws.gov/office/florida-ecological-services

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
Florida Bonneted Bat Eumops floridanus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8630	Endangered

Florida Panther Puma (=Felis) concolor coryi — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/1763

Puma (=mountain Lion) Puma (=Felis) concolor (all subsp. except coryi) — SAT
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/6049

Southeastern Beach Mouse Peromyscus polionotus niveiventris — Threatened
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/3951

Tricolored Bat Perimyotis subflavus — Proposed Endangered
Wherever found
This species only needs to be considered if the following condition applies:
- This species only needs to be considered if the project includes wind turbine operations.

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/10515

Birds

NAME	STATUS

Crested Caracara (audubon""s) [fl Dps] Caracara plancus audubonii — Threatened
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/8250

Eastern Black Rail Laterallus jamaicensis ssp. jamaicensis — Threatened
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/10477

Everglade Snail Kite Rostrhamus sociabilis plumbeus — Endangered
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

Red-cockaded Woodpecker Picoides borealis — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/7614

Wood Stork Mycteria americana — Threatened
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/8477

Reptiles

NAME	STATUS
American Alligator Alligator mississippiensis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/776	SAT
American Crocodile Crocodylus acutus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6604	Threatened
Eastern Indigo Snake Drymarchon couperi Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/646	Threatened
Green Sea Turtle Chelonia mydas There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6199	Threatened
Hawksbill Sea Turtle Eretmochelys imbricata Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3656	Endangered
Leatherback Sea Turtle Dermochelys coriacea Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/1493	Endangered
Loggerhead Sea Turtle Caretta caretta There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/1110	Threatened

Insects

NAME	STATUS
Bartram's Hairstreak Butterfly Strymon acis bartrami Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4837	Endangered
Florida Leafwing Butterfly Anaea troglodyta floridalis Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6652	Endangered

Miami Blue Butterfly Cyclargus (=Hemiargus) thomasi bethunebakeri Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3797	Endangered
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Beach Jacquemontia Jacquemontia reclinata No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1277	Endangered
Florida Prairie-clover Dalea carthagenensis floridana There is **proposed** critical habitat for this species. https://ecos.fws.gov/ecp/species/2300	Endangered
Four-petal Pawpaw Asimina tetramera No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3461	Endangered
Tiny Polygala Polygala smallii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/996	Endangered

Lichens

NAME	STATUS
Florida Perforate Cladonia Cladonia perforata No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7516	Endangered

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.

Bald & Golden Eagles

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

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- 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
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

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

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* 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	Breeds Sep 1 to Jul 31

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 "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "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.

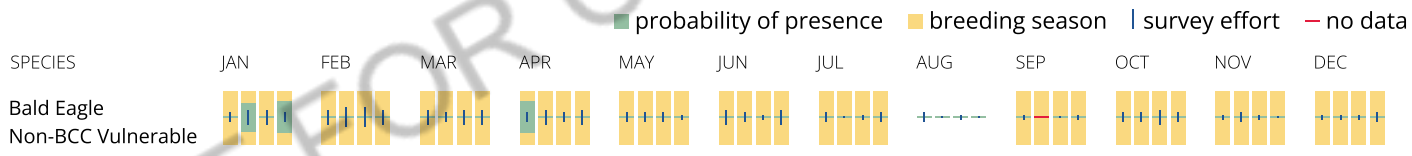
Breeding Season (▮)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence 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). To see 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 of bald and golden eagles 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 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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

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[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

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:

- Eagle Management https://www.fws.gov/program/eagle-management
- 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
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

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, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* 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	Breeds Sep 1 to Jul 31
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25

Great Blue Heron *Ardea herodias occidentalis* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Jan 1 to Dec 31
Least Tern *Sternula antillarum antillarum* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 25 to Sep 5
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Painted Bunting *Passerina ciris* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 25 to Aug 15
Pectoral Sandpiper *Calidris melanotos* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Prairie Warbler *Setophaga discolor* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Semipalmated Sandpiper *Calidris pusilla* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Southeastern American Kestrel *Falco sparverius paulus* 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/4076	Breeds Apr 1 to Aug 31
Swallow-tailed Kite *Elanoides forficatus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8938	Breeds Mar 10 to Jun 30
Worthington's Marsh Wren *Cistothorus palustris griseus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 10 to Aug 31

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 "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "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.

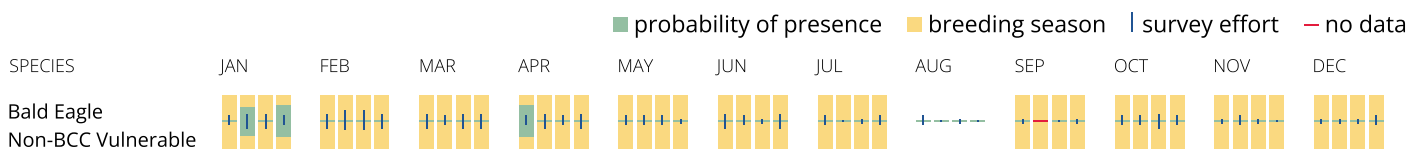
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

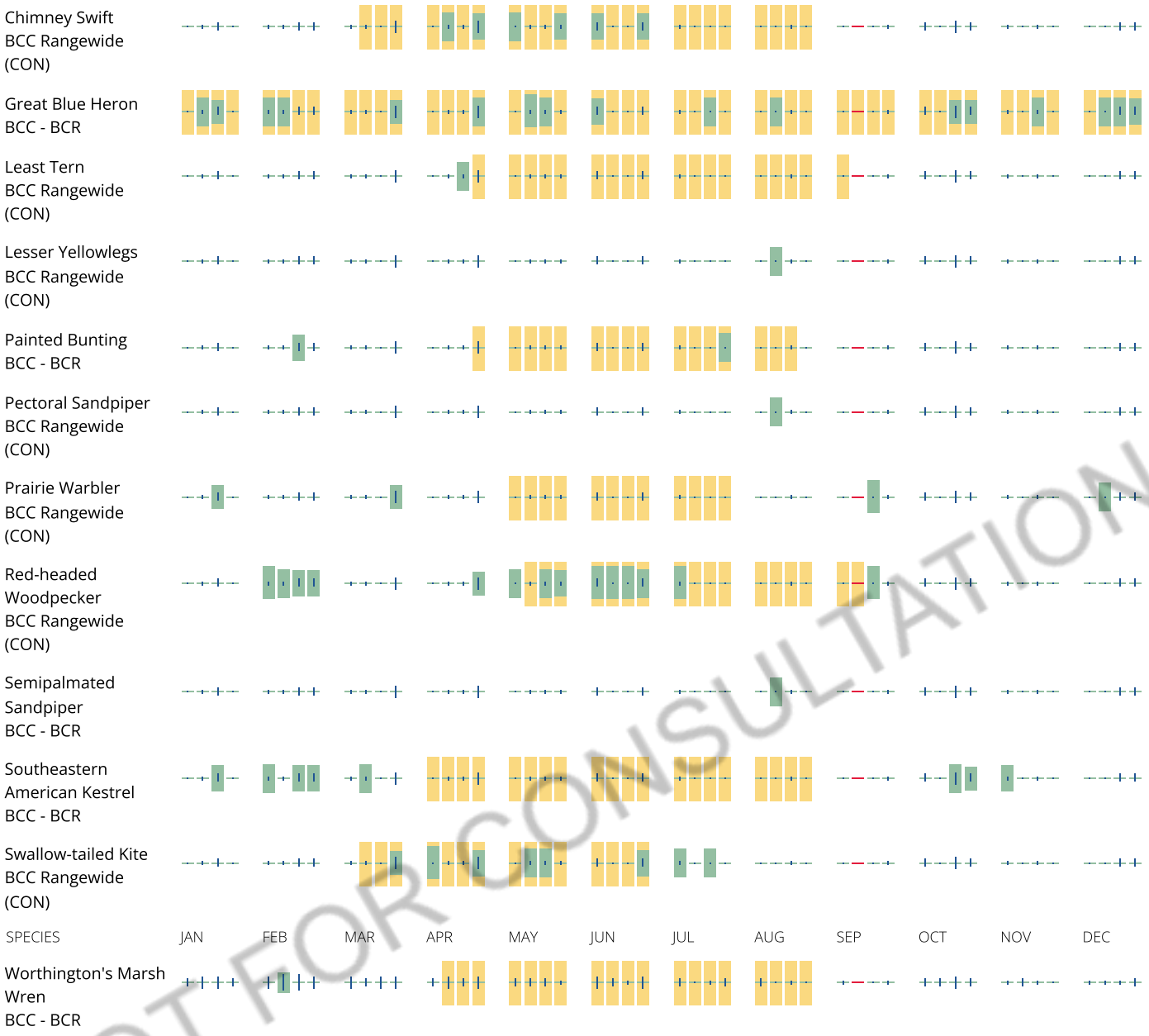
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

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.





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 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

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 (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.

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:

RIVERINE

R2UBHx

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

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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.