



PELICAN NURSERY LISTED SPECIES SURVEY

PREPARED BY:

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MAY 2017

A handwritten signature in blue ink that reads "Bruce Layman".

BRUCE LAYMAN, CE, PWS



**PELICAN NURSERY
LISTED SPECIES SURVEY**

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1. INTRODUCTION

Peninsula Engineering Ecologist, Bruce Layman, conducted a listed species survey of the project site using field methodology in accordance with Florida Fish and Wildlife Conservation Commission (FWC) and Collier County guidelines. The survey was performed to document listed plant and wildlife species that may occur on site.

The 56-acre project site is located in Section 26; Township 48 South, Range 26 East, Collier County, Florida. It is bordered on the north by Immokalee Road, on the east and south by residential development, and on the west by Collier Boulevard. It represents an operating wholesale plant nursery that was constructed in the early 1980's and is now being phased out in preparation for sale of the property.

2. PROJECT METHODOLOGY

Mr. Layman conducted the listed species survey during the early morning and/or late afternoon on March 28, 29, and 30, 2017. Mr. Layman conducted meandering pedestrian transects along internal nursery travel corridors and around the perimeter of the site. With unlimited visual obstruction, 100% of the parcel was physically observed. Refer to Figure 1 for approximate transect locations. The field observer was equipped with color aerials, binoculars and field notebooks for documentary purposes. During listed species transects, the ecologist periodically stopped, looked for wildlife, signs of wildlife, and listened for wildlife vocalizations. Survey dates, times, and weather conditions are described in Table 1.

2.1. Listed Wildlife Survey

Prior to conducting the listed species survey, color aerial imagery was reviewed to anticipate which habitats may be present. Based on the habitat types identified, and the results of consultation with the U.S. Fish and Wildlife Service (FWS) on prior species surveys in the immediate vicinity, a preliminary list of state and federal listed flora and fauna that could occur on the project site was generated. Various publications and databases were also reviewed to identify listed plant and wildlife species that are regionally present and that could occur in those habitat types. FWC's Florida's Endangered and Threatened Species (FWC, 2016) was used to determine the "listed" state and federal status designation of those potential wildlife species.

2.2. Listed Plant Survey

During the course of conducting surveys for listed wildlife species, Mr. Layman searched for plants listed by the Florida Department of Agriculture (FDA) and/or the FWS.

The above-noted agencies have categorized the various plant species based upon their relative abundance in natural communities. Those categorizations include "Endangered", "Threatened", and "Commercially Exploited". "Endangered" means species of plants native to the State that are in imminent danger of extinction within the State, the survival of which is unlikely if the causes of a decline in the number of plants continue, and includes all species determined to be Endangered or Threatened, pursuant to the Federal Endangered Species Act of 1973, as amended, Public Law No. 93-205 (87 Stat. 884). "Threatened" means species native to the State that are in rapid decline in number of plants within the State, but which have not decreased in such number as to cause them to

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be Endangered. "Commercially Exploited" means species native to the State which are subject to removal in significant numbers from native habitats in the State and sold or transported for sale.

The protection afforded plants listed by the Florida Department of Agriculture (FDA) entails restriction on harvesting or destroying plants found on private lands of another, or public lands, without permission and/or a permit from the FDA. There are no restrictions for landowners, unless the sale of plants is involved. These provisions are found in Section 581.185, FDA under State law.

2.3. Habitat Mapping

The habitat survey included the preparation of a Florida Land Use, Cover and Forms Classification System (FLUCCS) map delineating the major vegetation communities, land forms, and land uses present on the project site. A FLUCCS Map for the project site is provided as Figure 1 entitled *FLUCCS, Listed Species, & Transect Exhibit*. The methods and class descriptions found in the FLUCCS manual (FDOT, 1999) were followed when delineating and assigning areas to an appropriate FLUCCS category (class) or "codes". Land uses were mapped using direct field observations and aerial photo interpretation. The parcel was legally cleared in 1983, consistent with clearing provisions for landscape nurseries. The boundaries of the water management features shown on Figure 1 are based upon topographic survey data and field verification. Color aerial photos were plotted at 1" = 100' scale and were used in the field to map the site.

3. SURVEY RESULTS

3.1. Listed Wildlife Species Observed/Identified On Site

No listed wildlife species were observed within the parcel during the listed species survey conducted in March 2017.

The project site contained no US Fish and Wildlife Service designated critical habitat for listed wildlife.

3.2. Listed Wildlife Species Not Observed But With Potential to Occur On Site

The site falls within the federal consultation areas of the red-cockaded woodpecker (*Picoides borealis*), the Florida scrub jay (*Aphelocoma coerulescens*), the Florida bonneted bat (*Eumops floridanus*), and it falls within the core foraging area of at least one wood stork (*Mycteria americana*) colony. The eastern indigo snake (*Drymarchon couperi*) is typically assumed to have the potential to be present and off-site bald eagle (*Haliaeetus leucocephalus*) nests have the potential to be present. Following are discussions of those species and their relative potential for occurrence.

Red-cockaded woodpecker – The red-cockaded woodpecker (RCW) is listed as endangered by FWS and threatened by FWC. Pine stands, or pine-dominated pine/hardwood stands, with a low or sparse understory and ample old-growth pines, constitute primary red-cockaded woodpecker nesting and roosting habitat. This type of habitat is not present on site and the few pines that are present are isolated from the large expanses of natural habitat located north of Immokalee Road that may be utilized by the species. No RCW cavity trees were observed on

site during the listed species survey and regional barriers sever connectivity of the on-site pines with larger expanses of RCW habitat to the north - suggesting that potential use of pines located on site by RCWs is zero.

Florida scrub jay – The Florida scrub jay is listed as threatened by FWS and FWC. It is endemic to peninsular Florida’s ancient dune ecosystems or scrubs, which occur on well-drained to excessively well-drained sandy soils. This relict oak-dominated scrub, or xeric oak scrub, is essential habitat to the Florida scrub-jay. There are no such habitats on or adjacent to the site. Therefore, the potential for this species to occur on site is zero.

Florida Bonneted Bat – The Florida bonneted bat (FBB) is listed as endangered by FWS and is considered a “wetland dependent species” by South Florida Water Management District (SFWMD). They are not assigned a special status designation by the FWC. The parcel is located within the consultation area of the bonneted bat. No bonneted bats were observed on site during the field surveys. No trees containing cavities were observed on site and the existing on-site buildings are constructed with corrugated plastic, shingle, or corrugated warehouse-style metal roofs – none of which provide potential for FBB to roost. Given the developed nature of the site and the null results of the investigation for potential roosts, it is very unlikely that there is potential for the bonneted bat to roost within the parcel.

Wood Stork – The wood stork is listed as endangered by the FWS and is considered a “wetland dependent species” by SFWMD. They are not assigned a special status designation by the FWC. No wood storks were observed within the project limits during prior listed species surveys. However, the project falls within the Core Foraging Area of at least one wood stork colony. Therefore, it is assumed that storks could opportunistically use the on-site water management system to forage.

Eastern Indigo Snake - The Eastern indigo snake is listed as Threatened by both FWC and FWS. No indigo snakes, or indications of the potential presence of the species such as gopher tortoise burrows where they are known commensal species, were observed within the project limits. Adjacent sites are either cleared or developed. The potential presence of this species is near zero.

Bald Eagle - The bald eagle (*Haliaeetus leucocephalus*) is no longer state or federally listed. It is, however, still regulated by the Bald and Golden Eagle Protection Act and it is considered a "wetland dependent species" by SFWMD. No bald eagles or bald eagle nests were observed on site during the field surveys. There are no trees on site large enough to support an eagle nest. The nearest known eagle nest is approximately one mile to the southeast of the parcel. The potential presence of this species is near zero.

3.3. Listed Plant Species Observed On Site

No listed plants were observed on site during the listed species survey.



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4. SUMMARY

Results of the survey reflect that there are not likely any listed species regularly using the parcel for roosting, denning, foraging or nesting. There is potential for listed wading birds to forage opportunistically in the site's water management features; however, the potential for the remaining named listed species to occur on site is near zero. Given that the proposed project would be required to have water management features within which wading birds could forage, it is not anticipated that the proposed project would adversely affect wading birds or any of the other named listed species.

5. REFERENCES CITED

- Florida Department of Transportation. 1999. *Florida Land Use, Cover and Forms Classification System*. Procedure No. 550-010-001-a. Third Edition. Tallahassee, Florida.
- Florida Fish and Wildlife Conservation Commission. 2016. *Florida's Endangered and Threatened Species*. Tallahassee, Florida.



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TABLES

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Table 1. Listed Species Survey Parameters

Parameter	Date				
	28 Mar. 17	29 Mart. 17	29 Mar. 17	30 Mar. 17	30 Mar. 17
Sunrise/Sunset	7:21 am	7:21 am	7:42 pm	7:20 am	7:43 pm
Time	7:15 am – 9:15 am	7:15 am – 9:15 am	5:45 pm – 7:45 pm	7:15 am – 9:15 am	5:45 pm – 7:45 pm
Temperature (°F)	65	64	80	67	81
Cloud Cover	Clear	Clear	Clear	Clear	Partly Cloudy
Wind (direction/speed)	0 mph	0 mph	0 mph	0 mph	South 0-5 mph
Rain (yes/no)	No	No	No	No	No

Table 2: Non-listed Wildlife Species Observed

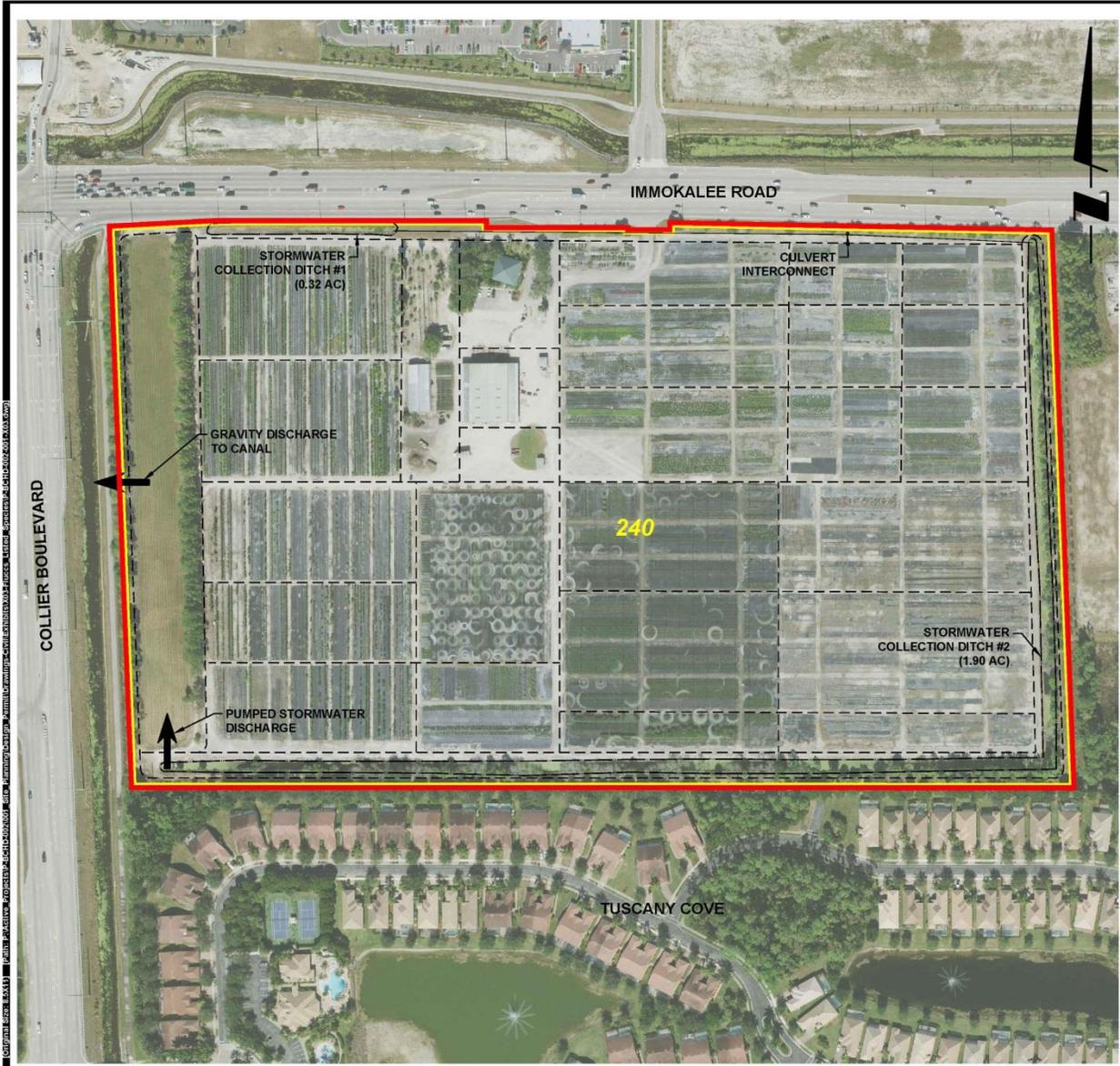
Common Name	Scientific Name
Birds	
Mocking bird	<i>Mimus polyglottos</i>
Boat-tail grackle	<i>Quiscalus major</i>
Common crow	<i>Corvus brachynchos</i>
Killdeer	<i>Charadrius vociferus</i>
Ground dove	<i>Columbina passerina</i>
Mourning dove	<i>Zenaida macroura</i>
Blue jay	<i>Cyanocitta cristata</i>
Great blue heron	<i>Ardea herodias</i>
Pileated woodpecker	<i>Dryocopus pileatus</i>
Green heron	<i>Butorides striatus</i>
Red-winged Blackbird	<i>Agelaius phoeniceus</i>
Amphibians & Reptiles	
Water moccasin	<i>Agkistrodon piscivorus</i>
Cuban anole	<i>Anolis sagrei</i>
Mammals	
Rabbit	<i>Sylvagus spp.</i>
Raccoon *	<i>Procyon lotor</i>
Coyote *	<i>Canis latrans</i>

* Scat and/or tracks.



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**FIGURE 1
FLUCCS, Listed Species, & Transect Exhibit**



LEGEND	
— (Red line)	PARCEL BOUNDARY
— (Yellow line)	FLUCCS BOUNDARY
- - - - -	PEDESTRIAN TRANSECT (APPROX.)

FLUCCS CODE	DESCRIPTION	AREA (AC)
240	NURSERY AND VINEYARDS	55.56
TOTAL		55.56

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