

TOWN LAKES COMMERCIAL (LEHIGH ACRES)

**ENVIRONMENTAL ASSESSMENT &
SPECIES SURVEY REPORT**

Lee County STRAP #: 30-44-27-17-0000A.0002

May 2024

Prepared For:

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Introduction

An environmental assessment and species survey was conducted on the Town Lakes property on May 8, 2024. The 3.40± acre site is located in Section 30, Township 44S, and Range 27E, of Lee County, Florida. More specifically, the site is located immediately west of Williams Avenue, north of Lee Boulevard and south of Fountain Mist Boulevard, in Lehigh Acres, Florida. Please see the attached Project Location Map (Exhibit A).

The purpose of this assessment was to identify the potential for either U.S. Army Corps of Engineers (ACOE) Department of Environmental Protection (DEP), and/or South Florida Water Management District (SFWMD) jurisdictional wetlands. The site was also assessed to determine the potential of listed (endangered, threatened, etc.) species inhabiting the site that are regulated by the U.S. Fish & Wildlife Service (FWS) and the Florida Fish & Wildlife Conservation Commission (FWC). Listed (endangered, threatened, etc.) species are regulated by the US Fish & Wildlife Service (FWS) and/or the Florida Fish & Wildlife Conservation Commission (FWC). Specific attention was paid toward that of locating any gopher tortoise (*Gopherus polyphemus*) and/or burrowing owl (*Athene cunicularia floridana*) burrows.

The project's surrounding land uses are a mixture of residential homes, commercial developments, undeveloped vacant land, and forested land. The surveys were conducted in the morning; the temperatures were in the mid 70's to low 80's, with light breezes, and mostly sunny skies.

Background

The ACOE, DEP, and the SFWMD are the agencies that regulate development activities in wetlands. To be considered wetlands by the ACOE, DEP, and/or SFWMD, the area should exhibit wetland hydrology, contain wetland vegetation, and have hydric soils. For an area to be considered wetlands, a site should have hydric soils, wetland hydrology, and wetland vegetation present. The property was reviewed for indicators of these parameters.

Hydric soils are identified by certain characteristics that are unique to wetland soils. Wetland hydrology is normally present if the soil is saturated or inundated for a period of time; typically from May through November; the rainy season in Southwest Florida. In the absence of visual signs of saturation or inundation, the regulatory agencies typically use hydrologic indicators such as adventitious rooting, lichen lines, or algal matting as method of guidance. If the majority of the shrubs/plants that are present are those that are adapted to saturated soil conditions, it's likely wetland vegetation.

The FWS and FWC are the primary agencies that review potential impacts to listed species. The FWS reviews potential impacts and provides comments to the ACOE and DEP during the permitting process, while the FWC provides comments to the SFWMD. In general, the wildlife agency concerns need to be addressed in order for the permits to be authorized by the ACOE, DEP, and/or the SFWMD.

Methodology

The protected species survey methodology consisted of overlapping parallel transects performed for all FLUCFCS communities on-site. The frequency of transects performed in these habitats, unless otherwise discussed, were designed to meet the minimum coverage requirements. This method is comprised of a several step process; the vegetation communities or land-uses on the study area are delineated on an aerial photograph using the Florida Land Use, Cover and Forms Classification System (FLUCFCS). Next, these FLUCFCS codes are cross-referenced with the Lee County Protected Species List. With a list of the potential listed plants and animals, each FLUCFCS community is searched in the field for these species.

An intensive pedestrian survey is conducted using parallel belt transects that are approximately 10-20 feet apart, depending upon both the thickness of vegetation and visibility, as a means of searching for plants and animals. In addition, periodic “stop-look-listen” and quiet stalking methods are conducted for animals. Signs or sightings of these species are then recorded. The table at end of the report lists the FLUCFCS communities found on the parcel and the corresponding species which have a probability of occurring in them.

Existing Site Conditions

Boundary – The project boundary was obtained from the Lee County parcel data and is assumed to be approximately 3.40± acres.

Soils - The soils on the property have been mapped by the National Resource Conservation Service (NRCS, formerly the Soil Conservation Service). These mappings are general in nature but can provide a certain level of information about the site as to the possible extent of wetland area. The agencies commonly use these mappings as justification for certain wetland/upland determinations. According to these mappings, the parcel is underlain by Boca fine sand (NRCS #13; non-hydric) soil. Boca fine sand soils is considered non-hydric at both the local and national levels. Please see the attached NRCS Soils Map (Exhibit D).

Vegetation Descriptions – Vegetation is one parameter used in determining the presence of uplands or wetlands; these community mappings will generally reflect what a specific area could be considered by the regulatory agencies. During the initial site assessment, we did not identify any wetlands or “other surface water” communities on-site.

While on-site, generalized community delineations are hand-drawn on an aerial defining the different vegetation associations on-site. These general delineations were based on the nomenclature of the Florida Land Use, Cover and Forms Classification System (FLUCFCS), Level III and IV (FDOT 1999). Please see the attached FLUCFCS Map with Aerial (Exhibit B) and FLUCFCS Map without Aerial (Exhibit C). Listed below are the vegetation communities and land-uses identified on the site.

FLUCFCS Codes & Community Descriptions

Uplands

The following community areas have been designated as upland habitats. Uplands are any area that does not qualify as a wetland because the associated hydrologic regime is not sufficiently wet enough to elicit development of vegetation, soils, and/or hydrologic characteristics associated with wetlands.

FLUCFCS 310 Herbaceous – 3.37± Acres

This upland community type occupies 3.37± acres of the property. The canopy is mostly open with widely scattered live oak (*Quercus virginiana*), slash pine (*Pinus elliottii*), and earleaf acacia (*Acacia auriculiformis*). The sub-canopy is also mostly open with widely scattered Brazilian pepper (*Schinus terebinthifolius*) and cabbage palm (*Sabal palmetto*). The groundcover is dominated by bahia grass (*Paspalum notatum*), with dog fennel (*Eupatorium capillifolium*), Spanish needle (*Bidens pilosa*), ragweed (*Ambrosia trifida*), caesar weed (*Urena lobata*), hairy beggar-ticks (*Bidens alba*), smutgrass (*Sporobolus sp.*), flatter goldenrod (*Euthamia caroliniana*), and other various opportunistic weedy species. Commonly observed vines include greenbrier (*Smilax sp.*) and grapevine (*Vitis rotundifolia*). This community should be considered uplands by regulatory agencies.

FLUCFCS 814 Roadway – 0.03± Acres

This upland community type includes a paved access road to the property off Fountain Mist and right of way turn lane for Williams Avenue and occupies 0.03± acres of the property. The canopy and sub-canopy is open. The groundcover along the edges included bahia grass (*Paspalum notatum*), with broom sedge (*Andropogon virginicus*), Spanish needle (*Bidens alba*), ragweed (*Ambrosia artemisiifolia*), and caesar weed (*Urena lobata*), with various other opportunistic weedy species. This community would be considered uplands by the regulatory agencies.

Table 1. FLUCFCS Community Table

FLUCFCS Code	Community Description	Habitat Type	Acres
310	Herbaceous	Upland	3.37± Ac.
814	Road and Right-of-Ways	Upland	0.03± Ac.
Total			3.40± Ac.

Species Survey Results

During our field survey for protected species on the property, we did not observe any protected species or signs thereof. There were no gopher tortoise (*Gopherus polyphemus*) and/or burrowing owl (*Athene cunicularia floridana*) burrows identified on-site. There were several other burrows, believed to belong to that of the eastern nine-banded armadillo (*Dasypus novemcinctus*), that were identified; there was no evidence that these burrows were being used by gopher tortoises. There were no other protected species or signs thereof observed; there were no nest-like structures or tree cavities noted while conducting the protected species survey on-site.

There were several non-listed species identified while conducting the protected species survey, among those were several mourning doves (*Zenaida macroura*), an eastern cottontail rabbit (*Sylvilagus floridanus*), and a black racer (*Coluber constrictor*). The various listed species that may occur in the FLUCFCS communities on-site have been tabulated on the attached table. Please see the attached Protected Species Map (Exhibit E).

Summary

In general, this site does not contain much native, undisturbed community types in which protected species would typically inhabit. Due to the disturbed nature of the site, the surrounding land uses, and busy roadways, it is unlikely that this site supports or would provide habitat for any other protected species. Community locations were drawn using non-rectified aerial images with approximate property boundaries; hence their location, aerial extent, and acreage is approximate.

The determination of ecological system classifications, functions, values, and boundaries is an inexact science, and different individuals and agencies may reach different conclusions. The on-site conditions can vary throughout the year; therefore, the findings of this survey were based upon the site conditions at the time of the inspection. It is not possible for BearPaws Environmental Consulting to guarantee the outcome of such determinations; therefore, the conclusions of this report are preliminary in nature and would require a full review by the appropriate regulatory agencies.

The information contained and the work performed as part of this initial assessment, conforms to the standards and generally accepted practices in the environmental field, and was prepared substantially in accordance with then-current technical guidelines and criteria. The conclusions of this report represent the results of our analysis of the information provided by the client and their consultants, together with information gathered in the course of the study. No other guarantee, expressed or implied, is made.

Table 3: Listed Species by Habitat with Current Status

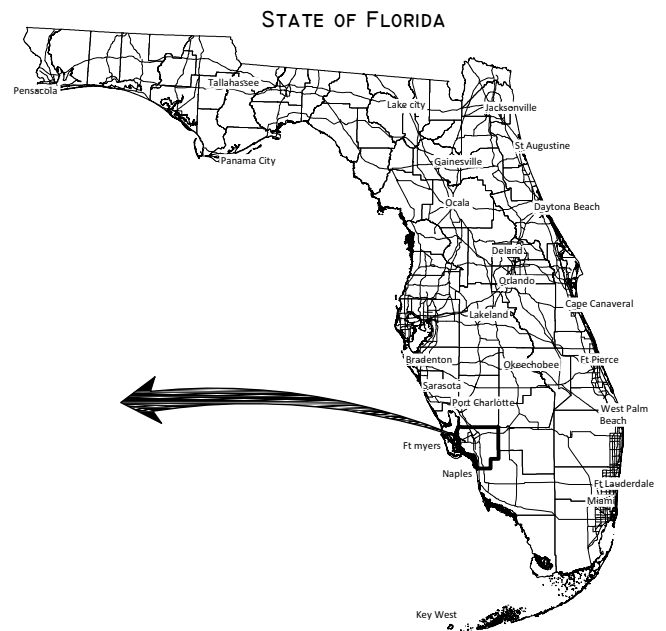
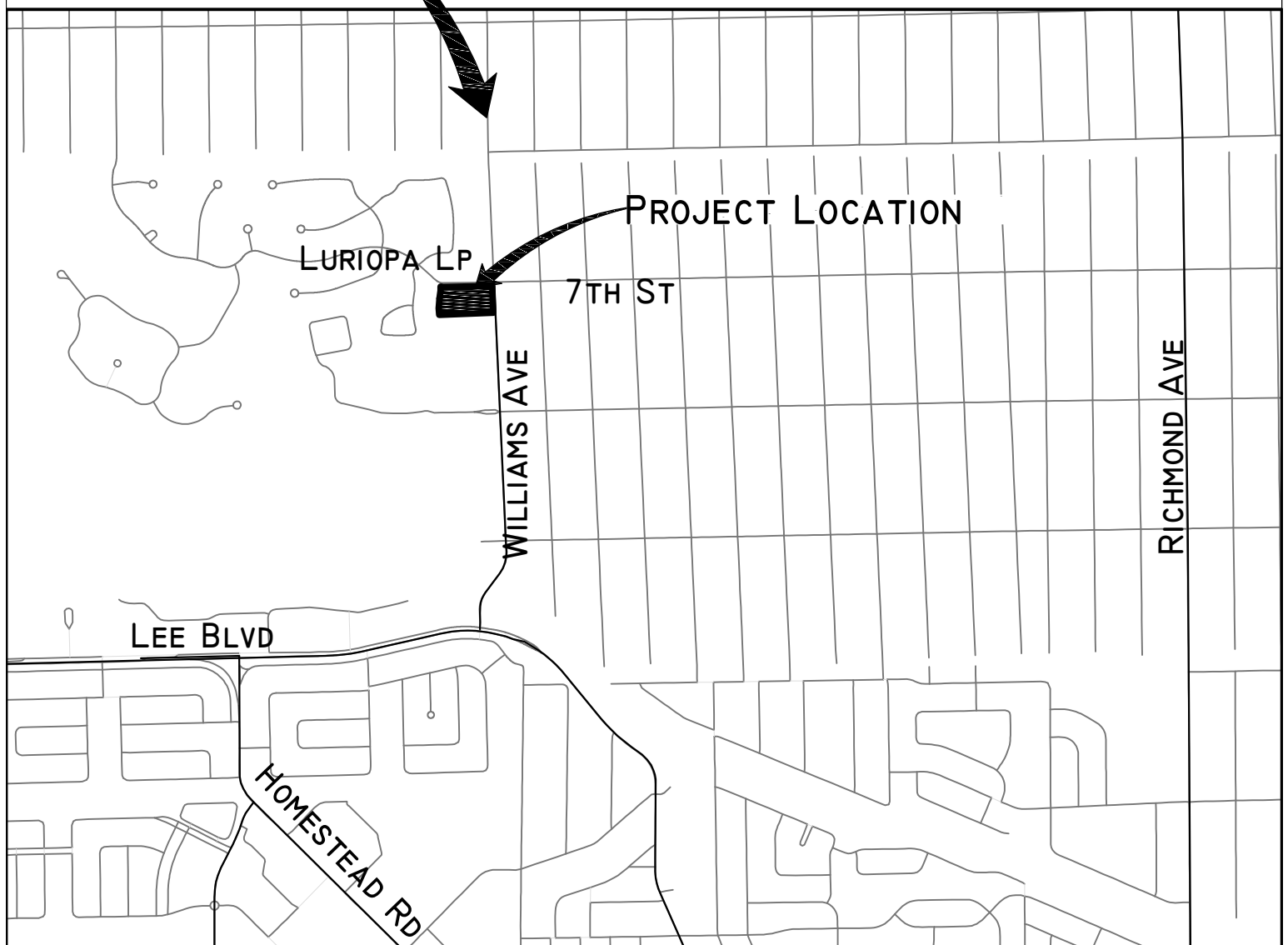
FLUCFCS Code	FLUCFCS Description	Common Name	Scientific Name	Observed	USDA	FDA&CS	FWS	FWC
310	Herbaceous	Florida Sandhill crane	<i>Grus canadensis pratensis</i>	--	--	--	--	T
		Gopher tortoise	<i>Gopherus polyphemus</i>	--	--	--	T	T
814	Roadways	N/A	<i>N/A</i>	--	--	--	--	--

C = Commercially Exploited, SAT = Similarity of Appearance Threatened, SSC = Species of Special Concern, T = Threatened, E = Endangered

Table designates listed species with potential to occur in each FLUCFCS community.

EXHIBIT A

Project Location Map



DRAWN BY:	DATE:	CATEGORY
BWS	5/10/24	LOCATION
JOB NUMBER		SCALE:
		NTS
S/T/R		COUNTY
30/44S/27E		LEE

Location Map



EXHIBIT B

FLUCFCS Map with Aerial



FLUCFCS Table		
FLUCFCS Code	Description	Project Acreage
310	Herbaceous	3.37
814	Roads and Right-Of-Ways	0.03
Total		3.40

NOTES:

FLUCFCS lines estimated from 1"=200' aerial photographs and locations approximated.

FLUCFCS per Florida Land Use, Cover and Forms Classification System (FLUCFCS) (FDOT 1999).

Aerial photographs were acquired from the Lee County GIS Dept. and have a flight date of 2023.

Revisions	Date:	Drawn By:	Date:
		BWS	5/10/24
		Job Number	
		S/T/R	
		30/44S/27E	

Town Lakes Commercial Aerial FLUCFCS Map

Category
FLUCFCS
Scale:
1" = 100'
County
Lee

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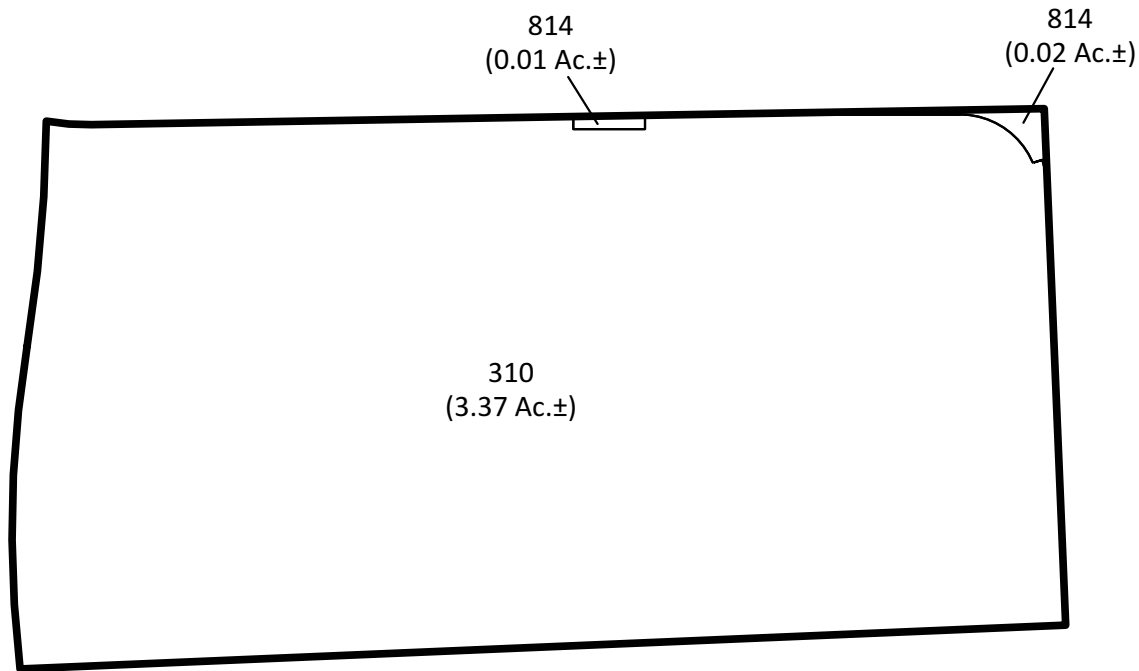
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Exhibit
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EXHIBIT C

FLUCFCS Map



Scale: 1" = 100'



FLUCFCS Table		
FLUCFCS Code	Description	Project Acreage
310	Herbaceous	3.37
814	Roads and Right-Of-Ways	0.03
Total		3.40

NOTES:

FLUCFCS lines estimated from 1"=200' aerial photographs and locations approximated.

FLUCFCS per Florida Land Use, Cover and Forms Classification System (FLUCFCS) (FDOT 1999).

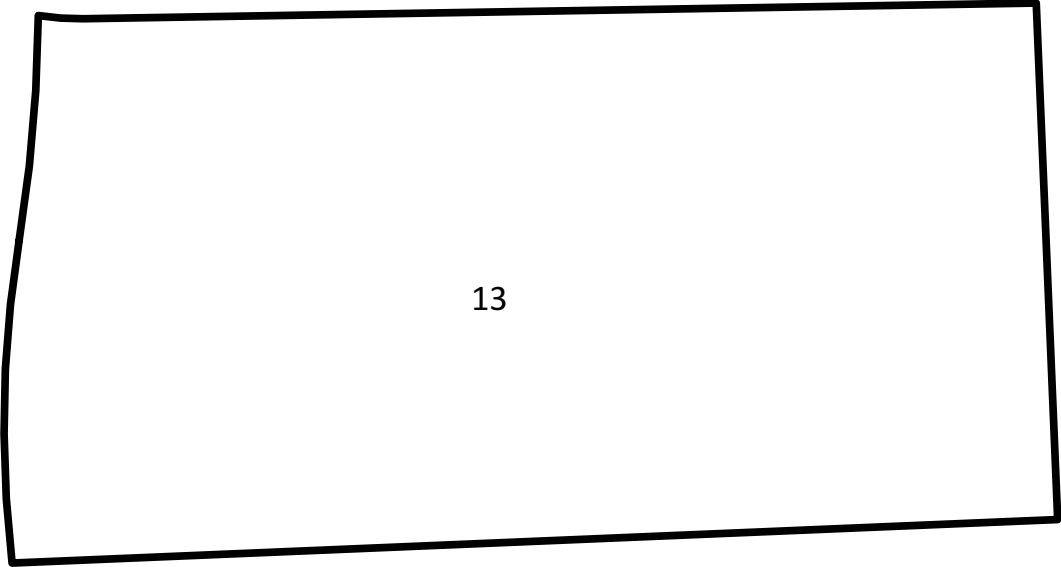
Revisions	Date:	Drawn By: BWS Date: 5/10/24 Job Number	Town Lakes Commercial FLUCFCS Map	Category FLUCFCS	 1599 Covington Circle East Fort Myers, FL 33919 (239) 340-0678 bearpaws.env.consulting@gmail.com	Page
		S/T/R 30/44S/27E		Scale: 1" = 100'		-
				County Lee		Exhibit
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EXHIBIT D

NRCS Soils Map



Scale: 1" = 100'



NRCS Soils Legend		
Soil No	Description	Status
13	BocaFineSand	Non-Hydric

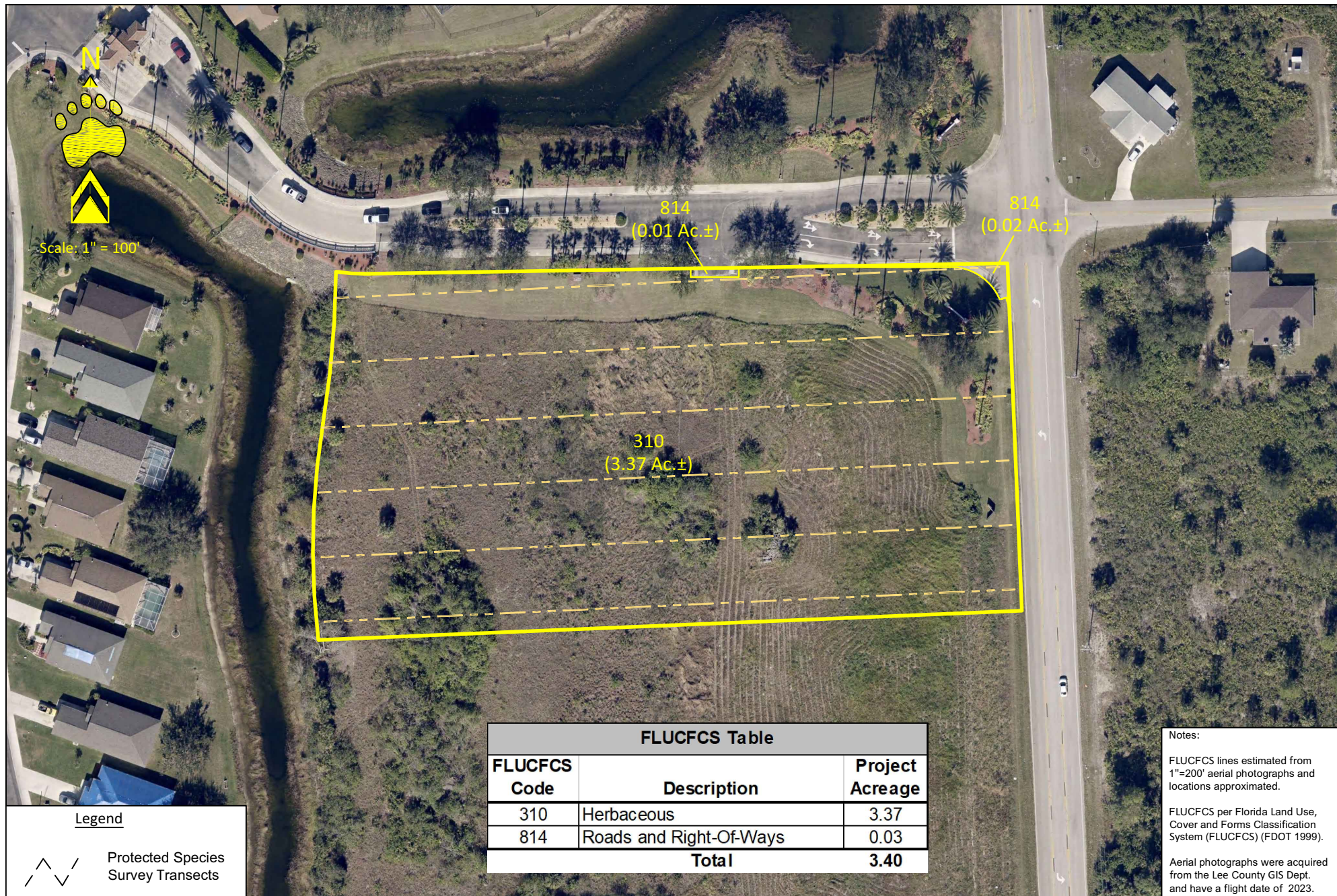
NOTES

Soils were acquired from LABINS and are from the NRCS.

Revisions	Date:	Drawn By:	Date:	Town Lakes Commercial Soils Map	Category	 1599 Covington Circle East, Fort Myers, FL 33919 (239) 340-0678 bearpaws.env.consulting@gmail.com	Page
		BWS	5/10/24		Soils		-
		Job Number			Scale:		Exhibit
		S/T/R			1" = 100'		-
		30/44S/27E		County			
				Lee			

EXHIBIT E

Protected Species Survey Map



Legend

 Protected Species Survey Transects

FLUCFCS Table		
FLUCFCS Code	Description	Project Acreage
310	Herbaceous	3.37
814	Roads and Right-Of-Ways	0.03
Total		3.40

Notes:

FLUCFCS lines estimated from 1"=200' aerial photographs and locations approximated.

FLUCFCS per Florida Land Use, Cover and Forms Classification System (FLUCFCS) (FDOT 1999).

Aerial photographs were acquired from the Lee County GIS Dept. and have a flight date of 2023.

Revisions	Date:	Drawn By:	Date:
		BWS	5/10/24
		Job Number	
		S/T/R	
		30/44S/27E	

Town Lakes Commercial

Aerial PSS Map

Category	PSS		Page
Scale:	1" = 100'		-
County	Lee		Exhibit
		1599 Covington Circle East, Fort Myers, FL 33919 (239) 340-0678 bearpaws.env.consulting@gmail.com	-