



**Earth Tech Environmental, LLC**  
"Land, water and the environment...protecting what's important."

## **PROTECTED SPECIES SURVEY (PSS)**

PREMIER AUTO SUITES

NE INTERSECTION OF LIVINGSTON ROAD & RADIO ROAD, NAPLES, FLORIDA

APPROXIMATELY 15.97 ACRES

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PREPARED FOR:



**COLLIER COUNTY ENVIRONMENTAL SERVICES  
DEPARTMENT**  
2800 NORTH HORSESHOE DRIVE  
NAPLES, FL 34104



**SOUTH FLORIDA WATER MANAGEMENT DISTRICT  
(SFWMD)**  
Lower West Coast Service Center  
2301 McGregor Boulevard  
Fort Myers, FL 33901

August 25, 2014

## INTRODUCTION

The purpose of this report is to provide a search for listed species on the subject property prior to development of the parcel. The property is a commercial outparcel that was originally permitted as part of the Briarwood development.

## LOCATION

The Premier Auto Suites property is located at the northeast corner of the intersection of Radio Road and Livingston Road in Section 31, Township 49 South, Range 26 East, Collier County, Florida. See (Figure 1). According to a recent land survey, the parcel totals approximately 15.97 acres.

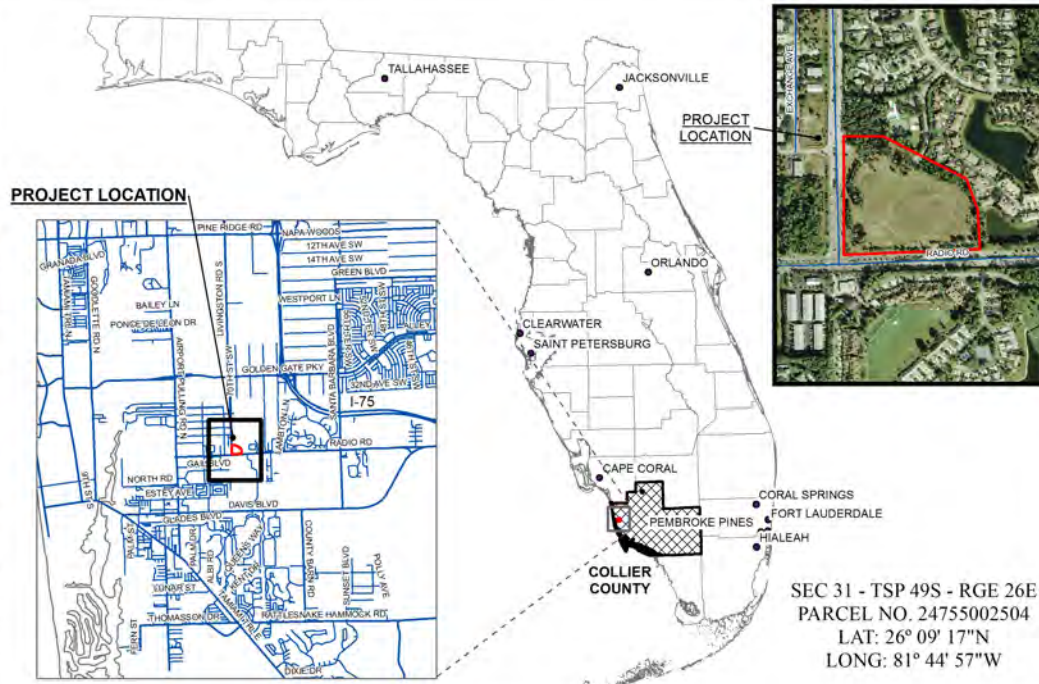


Figure 1. Site Location.

## SPECIES SURVEY MATERIALS & METHODS

The species survey was conducted using a methodology similar to that discussed in the Florida Fish & Wildlife Conservation Commission (FWC) publication “Ecology and Habitat Protection Needs of Gopher Tortoise (*Gopherus polyphemus*) Populations Found on Lands Slated for Large-scale Development in Florida.” This methodology is as follows: Existing vegetation communities or land-uses on the subject site are delineated on a recent aerial photograph (Collier County 2014) using the Florida Land Use, Cover and Forms Classification System (FLUCCS). FLUCCS mapping for this property is detailed below in (Figures 2 & 3). Then the resulting FLUCCS codes are cross-referenced with a list of protected plant and animal species. The lists were obtained from two agency publications:

A list of animals and birds was obtained from the FWC publication “Florida’s Endangered Species, Threatened Species & Species of Special Concern-Official Lists”, Publication Date: January 2013.

A list of protected plant species was obtained from the publication “Notes on Florida’s Endangered and Threatened Plants”, Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Bureau of Entomology, Nematology & Plant Pathology-Botany Section, Contribution 38, 5<sup>th</sup> Edition-2010).

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The result is a composite table that contains the names of the protected species which have the highest probability of occurring in each particular FLUCCS community. See table 1 of this report for the species list that applies to this property.

In the field, each FLUCCS community is searched for listed species or signs of listed species. This is accomplished using a series of transects throughout each vegetation community. If necessary, transect integrity is maintained using a handheld GPS in track mode.

Signs or sightings of all listed and non-listed species are then recorded. Listed species locations are typically flagged and marked by GPS.

Based on the habitat types found on this parcel of land, particular attention was paid to the presence or absence of gopher tortoise, listed plants, and Big Cypress fox squirrels.

### **EXISTING SITE CONDITIONS**

Temperatures during the fieldwork for this survey were in the mid to upper 80's. Cloud cover varied from partly cloudy to full sun. Approximately four (4) man-hours were logged on the property during this species survey. Table 3 details dates and times spent in the field.

The Subject Parcel has the following surrounding land uses:

West	Livingston Road
North	Briarwood Residential Development
South	Radio Road
East	Briarwood Residential Development

Listed below are the FLUCCS communities identified on the site. The following community descriptions correspond to the mappings on the attached FLUCCS map. See Florida Land Use, Cover and Forms Classification System (Department of Transportation, Surveying & Mapping Geographic Mapping Section, 1999) for definitions.

#### **FLUCCS 191, Undeveloped Land within Urban Zone (12.78 Acres Total)**

This community makes up the majority of the parcel. It has been historically cleared, probably during the original development of the adjacent Briarwood development. Vegetation consists of disturbed site species such as coastal sand spur, bahia, Spanish needles, ragweed, and grapevine.

#### **FLUCCS 411-E1 & E2, Pine Flatwoods, Exotics % Varies (3.18 Acres Total)**

This community is the dominant native habitat type and was observed along the northern edge of the property and scattered patches throughout the parcel. The canopy is vegetated by slash pine. Mid-canopy vegetation comprised of scattered wax myrtle, gallberry, myrsine (*Myrsine guianensis*), ear leaf acacia (*Acacia auriculiformis*), downy rose myrtle, beautyberry (*Callicarpa americana*), melaleuca (*Melaleuca quinquenervia*) and saw palmetto. Groundcover includes chocolate weed, Caesarweed (*Urena lobata*), penny royal (*Piloblephis rigida*), Brazilian pepper, rust weed (*Polypremum procumbens*) and wiregrass. Vines are present and include love vine (*Cassytha filiformis*), muscadine grapevine (*Vitis rotundifolia*), and smilax. Exotic and nuisance vegetation species were present and occurred in varying densities throughout the habitat.

#### **FLUCCS 814, Roadway (0.01 Acres Total)**

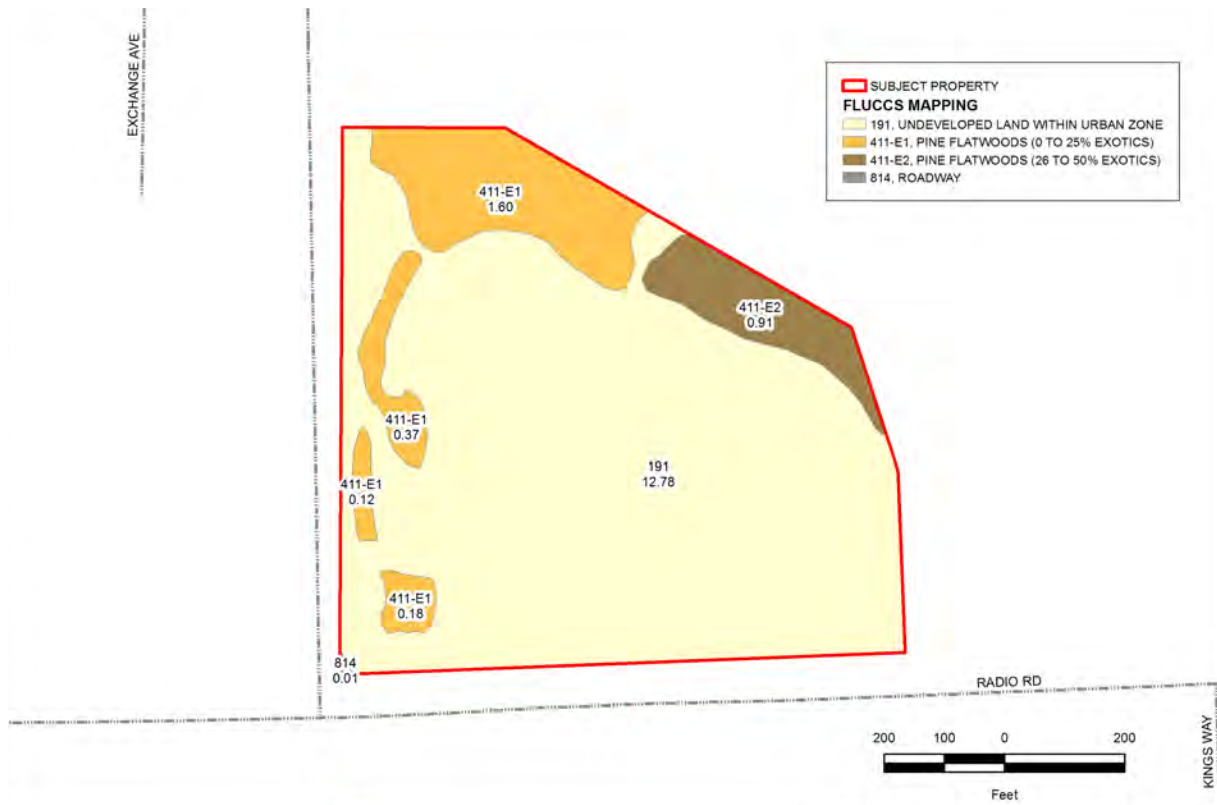
A small portion of road right-of-way falls within the boundary of the property in the southwest corner of the site.

CODE	DESCRIPTION	ACREAGE
191	Undeveloped Land within Urban Zone	12.78
411-E1	Pine Flatwoods (0 to 25% Exotics)	2.27
411-E2	Pine Flatwoods (26 to 50% Exotics)	0.91
814	Roadway	0.01
Site Total:		15.97 acres



Figure 2. Aerial with FLUCCS Mapping.





**Figure 3.** FLUCCS Mapping.

## **RESULTS\ DISCUSSION**

The various protected species which may occur in the corresponding FLUCCS communities are shown in Table 1.

All animal species observed on the subject parcel are detailed in Table 2. Within Table 2, any protected species observed are specifically noted.

See (Figure 4) below for results and field observations.



Figure 4. Protected Species Survey Transect Map.

Below are discussions of each listed species observed on the property:

#### Wild Pine (*Tillandsia fasciculata*)

Several common wild pine (*Tillandsia fasciculata*) were observed in trees within the pine flatwoods habitat.

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

Three (3) potentially occupied gopher tortoises were observed and surveyed within the parcel. All gopher tortoise burrows were flagged in the field and their location was GPS-surveyed (Figure 4). A gopher tortoise burrow was considered potentially occupied if the burrow was in a half-moon shape and the burrow entrance was relatively free of debris. A burrow width of less than 6" inches was designated as a juvenile. Obvious armadillo burrows were flagged in the field for identification.

The projected number of tortoises within the parcel is calculated using a conversion factor of 0.5 gopher tortoises per each observed burrow. Using this conversion factor, it is estimated that 1.5 (rounded to 2) adult gopher tortoises occupy the parcel.

3 potential adult gopher tortoise x conversion factor  
 $(3) * 0.5 = 1.5$  adult gopher tortoises estimated on the parcel.

It is anticipated that an offsite relocation permit will be sought through the FWC.

**Table 1.** Protected species list according to FLUCCS category.

FLUCCS	Potential Listed Species	Scientific Name	Designated Status	
			FWC FDA	or FWS
191	Burrowing Owl	<i>Speotyto cunicularia</i>	SSC	-
	Least Tern	<i>Sterna Antillarum</i>	T	-
411	Beautiful Pawpaw	<i>Deeringothamnus pulchellus</i>	E	E
	Big Cypress Fox Squirrel	<i>Sciurus niger avicennia</i>	T	-
	Eastern Indigo Snake	<i>Drymarchon corais couperi</i>	T	T
	Fakahatchee Burmannia	<i>Burmannia flava</i>	E	-
	Florida Coontie	<i>Zamia floridana</i>	C	-
	Florida Panther	<i>Felis concolor coryi</i>	E	E
	Gopher Frog	<i>Rana capito</i>	SSC	-
	Gopher Tortoise	<i>Gopherus polyphemus</i>	SSC	-
	Red-Cockaded Woodpecker	<i>Picoides borealis</i>	T	E
	Satinleaf	<i>Chrysophyllum oliviforme</i>	E	-
	Southeastern American Kestrel	<i>Falco sparverius paulus</i>	T	-
	Twisted Air Plant	<i>Tillandsia flexouosa</i>	E	-
	Tricolored Heron	<i>Egretta tricolor</i>	SSC	-
	Wood Stork	<i>Mycteria americana</i>	E	E
814	NONE	-	-	-

**Abbreviations:**Agencies

FWC=Florida Fish and Wildlife Conservation Commission

FDA=Florida Department of Agriculture and Consumer Services

FWS=United States Fish and Wildlife Service

Status

E=Endangered

T=Threatened

T(S/A)=Threatened/Similarity of Appearance

SSC=Species of Special Concern

C=Commercially Exploited

**Table 2.** Birds, Mammals, Amphibians, Reptiles, & Plants Observed on the Subject Property.**Birds**

Common Name	Scientific Name	Observation Type	Listed? (Y/N)	Status
Mourning Dove	<i>Zenaida macroura</i>	DV, HV	N	-
Gray Catbird	<i>Dumetella carolinensis</i>	DV, HV	N	-
Common Ground-Dove	<i>Columbina passerina</i>	DV	N	-

**Mammals**

Common Name	Scientific Name	Observation Type	Listed? (Y/N)	Status
Armadillo	<i>Dasypus novemcinctus</i>	OH	N	-

**Reptiles**

Common Name	Scientific Name	Observation Type	Listed? (Y/N)	Status
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Brown Anole	<i>Anolis sagrei</i>	DV	N	-
Gopher Tortoise	<i>Gopherus polyphemus</i>	DV,OH	Y	SSC (FWC)
Southern Black Racer	<i>Coluber constrictor priapus</i>	DV	N	-

### Amphibians

Common Name	Scientific Name	Observation Type	Listed? (Y/N)	Status
Cuban Tree Frog	<i>Osteopilus septentrionalis</i>	DV	N	-

### Plants

Common Name	Scientific Name	Observation Type	Listed? (Y/N)	Status
Common Wild Pine	<i>Tillandsia fasciculata</i>	DV	Y	E-FDA

=Protected Species

#### Abbreviations:

##### Agencies

FWC=Florida Fish and Wildlife Conservation Commission

FDA=Florida Department of Agriculture and Consumer Services

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##### Status

E=Endangered

T=Threatened

T(S/A)=Threatened/Similarity of Appearance

SSC=Species of Special Concern

CE=Commercially Exploited

##### Observations

DV=Direct Visual

HV=Heard Vocalization

OT=Observed Tracks

OH=Observed Hole/Burrow

MT=Marked Tree

C=Cavity

DB=Day Bed

N=Nest

**Table 3.** Field time spent on the subject property.

Date	Start Time	End Time	Hours	Task
May 30, 2014	8:00 am	12:00 pm	4.0	Species Survey
	<b>Total</b>		<b>4.0</b>	