

OLDE FLORIDA GOLF CLUB
LISTED SPECIES SURVEY REPORT

Prepared For:
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Exhibit G1

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1. INTRODUCTION

The Olde Florida Golf Club project site encompasses approximately 552± acres and is located in Section 31, Township 48 South, Range 27 East, Collier County, Florida. A private 18-hole golf course with club house and maintenance facility has been constructed on a portion of the site. The property is bordered on the north by Calusa Pines Golf Club and undeveloped lands, on the east by undeveloped lands, on the south by the Cypress Canal and Golden Gate Estates, and on the west by Golf Club of the Everglades. The property is located in a rapidly developing region of Collier County. A Location Map, showing the approximate location of the subject property is included with this report as Exhibit A.

WilsonMiller Certified Senior Ecologist Craig Schmittler and Certified Ecologist Justin Styer conducted a listed species survey of the project site using field methodology guidelines largely consistent with those established by both the Florida Fish and Wildlife Conservation Commission (FWC) and Collier County Environmental Service Department. This survey included mapping the major vegetative habitats and performing meandering pedestrian transects searching for listed plant and wildlife species utilization of the subject property. In addition to the listed species survey, the ecologists also recorded notes regarding general wildlife observations which are presented in Table 5 of this report.

2. VEGETATION SURVEY AND LISTED PLANT SPECIES

2.1. Vegetation Survey/Mapping Methodology

The dominant plant communities and land uses within the project limits were mapped by WilsonMiller ecologists utilizing field assessment methods. Vegetation mapping was performed utilizing color aerial photographs and ground-truthing of the project site. A detailed analysis of vegetative structure and composition of each habitat was performed during the site visits. The vegetative associations and land uses were classified in general accordance with the Department of Transportation's Florida Land Use, Cover and Forms Classification System (FLUCCS) manual, January 1999 edition. Refer to the included FLUCCS Map for the vegetative community types found on the site (Exhibit B).

The primary factor contributing to alteration of native vegetative communities on the site is a change in site hydrology. With this change, opportunistic plant species (i.e. exotic and/or nuisance species) may establish and further negatively impact the native plant community. Natural site conditions on the property have been altered by human induced activities. Examples include the disruption of the historical hydrological sheet flow with the construction of the Cypress Canal to the south, construction of CR-951 and associated canal to the west, construction of Immokalee Road and Cocohatchee Canal to the north, development of surrounding areas, and a lowered groundwater table. Alteration of the hydrologic regime on the subject property most likely caused a change in the structure and composition of the native plant community, and may have provided an opportunity for exotic and nuisance vegetative species to become established. Exotic vegetation observed on the project site during the 2007 listed species survey include melaleuca (*Melaleuca quinquenervia*), Brazilian pepper (*Schinus terebinthifolius*), and earleaf acacia (*Acacia auriculiformis*). Nuisance species such as Caesar-weed (*Urena lobata*), and muscadine grape (*Vitis rotundifolia*) are also present. One or more of these exotic and/or nuisance species may be influencing the population distribution of the native plant communities on the project site. Levels of exotic plant infestations, based on their aerial cover, were mapped in conjunction with mapping of native vegetation associations and land uses. Code modifier suffixes are appended to descriptive FLUCCS codes to indicate the

approximate abundance of exotic species within a particular FLUCCS community. Code modifiers used for the site are shown below:

E = Exotic Plant Species
E1 = Exotics 10-24%
E2 = Exotics 25-49%
E3 = Exotics 50-75%
E4 = Exotics >75%

N = Nuisance Plant Species
N1 = Nuisance species 10-24%
N2 = Nuisance species 25-49%
N3 = Nuisance species 50-75%
N4 = Nuisance species > 75%

2.2. FLUCCS Categories Documented On Site

The following is a list of the FLUCCS associations mapped on the Olde Florida Golf Club site, along with a brief description of each category.

Golf Course (FLUCCS 182) - This category represents the existing golf course including golf cart paths, practice driving range, internal roads and paths, club house, and maintenance facility.

Saw Palmetto Prairies- (FLUCCS 321) - These areas typically lack a canopy stratum and are dominated by a groundcover of dense saw palmetto (*Serenoa repens*) with scattered sub-canopy and herbaceous vegetation occurring scattered throughout. Sub-canopy species include rusty lyonia (*Lyonia ferruginea*), winged sumac (*Rhus copallinum*), wax myrtle (*Myrica cerifera*), gallberry (*Ilex glabra*), American beautyberry (*Callicarpa americana*), and myrsine (*Rapanea punctata*). Groundcover vegetation includes saw palmetto, bracken fern (*Pteridium aquilinum*), winged sumac, shiny blueberry (*Vaccinium myrsinites*), myrsine, and muscadine grape (*Vitis rotundifolia*).

Other Shrubs and Brush (FLUCCS 329) - This category describes several small areas immediately north of the Cypress Canal on the southern end of the property. These areas are dominated by Brazilian pepper (*Schinus terebinthifolius*), wax myrtle (*Myrica cerifera*), rayless golden rod (*Euthamia minor*), dog fennel (*Eupatorium capillifolium*), ragweed (*Ambrosia artemisiifolia*), Caesar-weed, muscadine grape vine, broom sedge (*Andropogon glomeratus*) and scattered cypress (*Taxodium distichum*).

Pine Flatwoods - Palmetto Understory (FLUCCS 411) - These areas are dominated by a canopy of slash pine with a ground cover dominated by saw palmetto. Sub-canopy species include slash pine, winged sumac, cabbage palm (*Sabal palmetto*), buckthorn (*Bumelia tenax*), myrsine, wax myrtle, dahoon holly (*Ilex cassine*), gallberry, and rusty lyonia. The dominant groundcover vegetation is saw palmetto with scattered pennyroyal (*Piloblephis rigida*), chocolate weed (*Melochia corchorifolia*), poison ivy (*Toxicodendron radicans*), muscadine grape, winged sumac, love vine (*Cassytha filiformis*), Caesar-weed, dog fennel, gulfdune paspalum (*Panicum monostachyum*), chalky bluestem (*Schizachyrium* spp.), Virginia creeper (*Parthenocissus quinquefolia*), cabbage palm, snowberry (*Chiococca alba*), rustweed (*Polypremum procumbens*), and catbriar (*Smilax bona-nox*). Melaleuca, Brazilian pepper and downy rose myrtle (*Rhodomyrtus tomentosus*) are also present in these areas.

Pine Flatwoods - Graminoid Understory (FLUCCS 416) - These areas are dominated by slash pine in the canopy. Sub-canopy species include slash pine, cabbage palm, widely scattered cypress (*Taxodium* spp.), wax myrtle, cabbage palm, myrsine, American beautyberry, winged sumac, rusty lyonia, and dahoon holly. Groundcover species include

Caesar-weed, broomsedge (*Andropogon virginicus*), pennyroyal, muscadine grape, winged sumac, love vine, Caesar-weed, catbriar, myrsine, red bay (*Persea borbonia*), and ragweed.

Brazilian Pepper (FLUCCS 422) - This habitat contains a dense monoculture of Brazilian pepper with very little other vegetation present. When other species are present they are limited to widely scattered swamp fern (*Blechnum serrulatum*) and scattered willow (*Salix caroliniana*) and grape vine or poison ivy. These areas are typically associated with previously cleared or disturbed habitats on the property.

Live Oak (FLUCCS 427) - This habitat includes areas where live oak (*Quercus virginicus*) dominates the canopy. Other sub-canopy and ground cover species present include cabbage palm, slash pine, saw palmetto, grape vine, green briar, pennyroyal and other incidental ground cover species.

Cabbage Palm (FLUCCS 428) - Relatively pure stands of cabbage palm may be found on the site. Some scattered live oak, laurel oak (*Quercus laurifolia*) and slash pine may also be present in the canopy. Subcanopy species include scattered live oak, myrsine (*Myrsine floridana*), red bay, and Brazilian pepper. Ground cover species include scattered saw palmetto, Boston fern (*Thelypteris exaltata*), wild coffee (*Psychotria nervosa*), shoebutton ardisia (*Ardisia elliptica*), poison ivy, American beautyberry, and myrsine.

Western Everglades Hardwoods (FLUCCS 433) - This category represents one of the dominant habitat types found on site. Cabbage palm dominates this habitat, but cypress is relatively abundant in many areas. This habitat type was historically part of a large cypress-dominated slough. The construction of Immokalee Road and Cocohatchee Canal to the north and the excavation of the Cypress Canal on the southern property boundary resulted in significant and permanent alteration to the historic water table in this region of the county. The alteration of hydrology and decrease in hydro-period has resulted in an increase in the number of cabbage palms, transitional and upland vegetation throughout the general area. Cabbage palm now dominates most of the vegetative strata in this habitat, but cypress, occasional red maple (*Acer rubrum*), laurel oak and other incidental species are present. Grape vine forms a dense ground cover and thick mat in the ground cover in many of these areas.

Previously Cleared/Disturbed Lands – (FLUCCS 740) - These areas are highly disturbed habitats that have been previously cleared and are dominated by nuisance and/or exotic vegetation. Grape vine and Brazilian pepper usually dominate these areas. These disturbed areas are used as disposal sites for much of the vegetative debris generated during routine golf course maintenance activities.

Borrow Areas – (FLUCCS 742) - These areas include large, shallow excavations where the topsoil was removed in the past during the original golf course construction. These areas have been scraped down to the underlying limerock in most instances and vegetation is limited to nuisance and/or exotic species that can tolerate the fluctuations in water levels from summer to winter months. Most of these areas are dominated by dense Brazilian pepper with primrose willow (*Ludwigia peruviana*), willow and scattered herbaceous species that are seasonally present.

3. LISTED SPECIES SURVEY AND RESULTS

3.1. Survey Methodology

Prior to field investigations, a literature search was performed and color aerials were reviewed to identify the various vegetative communities present on the project site. Information regarding listed plant and animals that have the potential to occur in habitats

onsite was obtained from the Florida Fish and Wildlife Conservation Commission (FWC) and the Florida Natural Areas Inventory (FNAI). The FWC's publication Florida's Endangered Species, Threatened Species and Species of Special Concern, Official List, December 1999, was reviewed to determine the current state and federal status of listed wildlife and plant species potentially present onsite. In-house FWC data is depicted on the enclosed FWC Regional Listed Species Data Map (Exhibit C).

Field surveys consisted of meandering pedestrian transects through each habitat present on the project site. These survey methodologies were generally consistent with those prescribed by the FWC (FGFWFC 1988 Wildlife Methodology Guidelines for Section 18.D of the Application for Development Approval. FGFWFC, Tallahassee, FL).

WilsonMiller ecologists were equipped with a compass, aerials, binoculars, and field notebooks for documentation purposes. While performing meandering pedestrian transects, ecologists periodically stopped, looked for wildlife, signs of wildlife, and listened for wildlife vocalizations.

Pedestrian transects were conducted in the early morning and late evening. Early morning transects were started one-half hour before sunrise and evening transects lasted until one-half hour after sunset. The listed species survey was performed on August 25, September 23, 24 and 29 and October 1, 2008. WilsonMiller Exhibit D shows the Listed Species Transects and Locations Map for the listed species survey. Table 1 lists pertinent information relating to the vegetation mapping/listed species survey.

Table 1 - Listed Vegetation Species Survey

Ecologists involved, survey dates and time and weather conditions during survey (temperature given represents temperature at beginning of survey when no range is specified).

| ECOLOGIST | DATE | TIME OF DAY | WEATHER |
|------------------|---------|--------------------|--|
| Justin Styer | 8/25/08 | 7:00 am – 10:30 am | 75°F- 85°F, sunny skies, wind 0 – 5 mph |
| Justin Styer | 9/23/08 | 7:15 am – 3:00 pm | 73°F- 90°F, partly cloudy, wind 5 – 10 mph |
| Justin Styer | 9/24/08 | 7:15 am – 3:00pm | 72°F-90°F, mostly sunny, wind 10-15 mph |
| Craig Schmittler | 9/29/08 | 11:00 am – 7:10 pm | 85°F, partly cloudy, wind 0 – 5 mph |
| Craig Schmittler | 10/1/08 | 11:15 am – 7:30 pm | 87°F, mostly sunny, wind 0 – 5 mph |

The following provides a discussion of how the methodologies employed during the surveys deviated from the specific subcategories of wildlife survey methods recommended in the referenced FWC document.

"Upland Surveys" - Methods used were consistent except that in the majority of cases, the density of transects occupied exceeded the recommended density; and surveys addressed more species than those listed in the 1988 FWC publication.

"Small Mammal Sampling" - No small mammal trapping was performed. None of the species listed under this methodology could be reasonably expected to occur on the property due to inappropriate range and habitat.

"Herpetofaunal Surveys" - No herpetofaunal trapping was performed. None of the species listed under this methodology could be reasonably expected to occur on the property due to inappropriate habitat.

3.2. Listed Plant Species Documented Onsite

During the course of mapping vegetation associations and conducting listed species transects, WilsonMiller ecologists also searched for plants listed by the Florida Department

of Agriculture (FDA) and/or the U.S. Fish and Wildlife Service (FWS) that may be present on the project site.

The above-noted agencies have categorized the various listed 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 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 entails restrictions 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. Those plants listed by the FDA, which were documented by the listed species survey to exist on the project site, are listed in Table 2.

There were four species of listed plants, per the FDA list, were observed on the property: the twisted air plant (*Tillandsia flexuosa*), the stiff-leaved wild pine (*Tillandsia fasciculata*), the wild pine (*Tillandsia balbisinia*), and the butterfly orchid (*Encyclia tampensis*). The twisted air plant is listed by the FDA as Endangered, the stiff-leaved wild pine is listed by the FDA as Endangered, the wild pine is listed as Endangered, and the butterfly orchid is listed as Commercially Exploited by the FDA. None of these plant species are listed by the FWS. The above-mentioned plant species, although listed by the FDA, are relatively common in southwest Florida.

Table 2 - Listed plant species observed

| COMMON NAME | SCIENTIFIC NAME | STATUS | | HABITAT |
|------------------------|-------------------------------|--------|-----|---------------|
| | | FDA | FWS | |
| Twisted air plant | <i>Tillandsia flexuosa</i> | E | NL | 411, 416, 433 |
| Stiff-leaved wild pine | <i>Tillandsia fasciculata</i> | E | NL | 411, 416, 433 |
| Wild pine | <i>Tillandsia balbisinia</i> | E | NL | 428 |
| Butterfly orchid | <i>Encyclia tampensis</i> | C | NL | 416, 433, 621 |

- FDA = Florida Department of Agriculture
- FWS = United States Fish and Wildlife Service
- E = Endangered
- T = Threatened
- NL = Not Listed
- Habitat = Major FLUCCS categories in which indicated species were observed or are most likely to occur.

3.3. Listed Plant Species That Could Potentially Occur On Site But Were Not Observed

The following species listed in Table 3 could potentially be found on the project site due to the presence of appropriate habitat, but were not actually observed.

Table 3 - Listed plant species that could potentially occur but were not observed

| COMMON NAME | SCIENTIFIC NAME | STATUS | | HABITAT |
|-----------------|------------------------------|--------|-----|---------------|
| | | FDA | FWS | |
| Giant wild pine | <i>Tillandsia utriculata</i> | E | NL | 411, 416, 433 |

- FDA = Florida Department of Agriculture and Consumer Services
- FWS = United States Fish and Wildlife Service

| | | |
|---------|---|---|
| E | = | Endangered |
| C | = | Commercially exploited |
| NL | = | Not listed |
| Habitat | = | Major FLUCCS categories in which indicated species were observed or are most likely to occur. |

3.4. Listed Wildlife Species Documented Onsite

During the listed species survey, state and federally listed wildlife species were observed on the project site including the gopher tortoise (*Gopherus polyphemus*), Big Cypress fox squirrel (*Sciurus niger avicennia*) and American alligator (*Alligator mississippiensis*). The gopher tortoise is listed as Threatened by the FWC and is not listed by the FWS. The Big Cypress fox squirrel is listed as Threatened by the FWC and is listed not listed by the FWS. The American alligator is listed as a Species of Special Concern by the FWC and is not listed by the FWS.

A total of seventeen active and inactive gopher tortoise burrows were observed on the site and their approximate locations are presented on the Listed Species Transects and Locations Map (Exhibit D).

Several listed wading birds were observed foraging in the stormwater management lakes within the existing golf course during the listed species survey. These species include the little blue heron (*Egretta caerulea*), snowy egret (*Egretta thula*), white ibis (*Eudocimus albus*), and tri-colored heron (*Egretta tricolor*). These wading birds are listed by the FWC as Species of Special Concern and are not listed by the FWS.

3.5. Listed Wildlife Species That Could Potentially Occur Onsite But Were Not Observed

Although not observed during the listed species survey, the following state and/or federally listed wildlife species could utilize or visit the site as a result of potentially suitable habitat being present: Florida panther, Eastern indigo snake, bald eagle, wood stork, and the Florida black bear. Various sources of information were used to determine the possibility of occurrence (FNAI, 1998; FWS 1997, FWC 1997, FDA 1997). Table 4 denotes listed wildlife species that have a potential to occur on the project site, although they were not observed. Common habitat occurrence, state/federal status, and potential for occurrence are also given in Table 4.

Florida Panther - The Florida panther is listed as Endangered by the FWS and the FWC. A portion of the western-most property is located within the FWS Panther Secondary Protection Zone, as mapped by the FWS. WilsonMiller Exhibit C shows the Secondary Protection Zone mapped for this region of the county.

The FWC telemetry data indicates Florida panther #28 was documented occurring on or near the property on June 21 and June 23, 1989. FWC telemetry data indicates Florida panther (Texas Cougar #101) was documented occurring approximately 1.0 and 1.6 miles north and northwest of the project site in 1995. This female Texas cougar was introduced into the population in the mid-1990's in an effort to restore historic genetics of the Florida panther population. FWC telemetry data indicates Florida panther #66 was documented occurring approximately 1.3 miles to the east of the site in 1998. FWC telemetry data indicates Florida panther #92 was documented occurring approximately 1.3 miles north of the site in 2001. The FWC data indicates that a collared panther has not been documented on the subject property for 19 years and two panthers occurred within 1.3 miles of the site 10 years ago and 7 years ago. No individuals or signs of panther were observed on the site during the listed species survey.

Florida Black Bear - The Florida black bear is listed as Threatened by the FWC and is not listed by the FWS. The black bear is a transient animal that is highly opportunistic, and is not an uncommon occurrence in residential neighborhoods in search of food. Current FWC data indicates that the nearest documented Florida black bear location to the project

site were individuals more than two (2) miles south of the site in the Golden Gate Estates. Black bear have also been documented occurring four miles to the east and northeast of the site. Although there is a possibility of a black bear to walk across or visit the project site, no individuals or signs of this species were observed during the listed species survey.

Eastern Indigo Snake - The Eastern indigo snake (*Drymarchon corais couperi*) has the potential to occur on the project site. The indigo snake is listed as Threatened by FWS and FWC. No individuals or signs of this species were observed on the site during listed species surveys.

Wood Stork - There is a potential for the wood stork (*Mycteria americana*), to forage on or otherwise utilize the property. The wood stork is listed as Endangered by the FWC and the FWS. The site is located within the 18-mile wood stork foraging core of Corkscrew Swamp Sanctuary.

Bald Eagle - There is a potential for the bald eagle (*Haliaeetus leucocephalus*) to forage on or otherwise utilize the property. The bald eagle has been taken off the endangered species list but is still protected by the Golden and Bald Eagle Protection Act. The FWC data indicates the presence of an active bald eagle nest within 1 mile of the site. The FWS and FWC protection zones established around active bald eagle nest trees are a 330' and 660' foot radius from the tree. The documented bald eagle tree is located near the southwest property corner of the Calusa Pines Golf Club and is approximately a mile or more for the site. The bald eagle could spend time foraging for fish within the stormwater management lakes on the property.

Table 4 - Listed wildlife species that could potentially occur but were not observed

| SCIENTIFIC NAME | COMMON NAME | FWC Status | FWS Status | Habitat (FLUCCS) | Observed During Survey | Potential For Occurrence | COMMENTS |
|------------------------------------|----------------------|------------|------------|------------------|------------------------|--------------------------|-------------------------------|
| <i>Felis concolor coryi</i> | Florida panther | E | E | All | No | Low - Moderate | Unlikely transient |
| <i>Ursus americanus floridanus</i> | Florida black bear | T | NL | All | No | Low - Moderate | Unlikely transient |
| <i>Haliaeetus leucocephalus</i> | Bald eagle | NL | NL | 527, 433, 621 | No | Low | Potential visitor |
| <i>Mycteria americana</i> | Wood stork | E | E | 527, 621, 740 | No | Moderate | Potential visitor |
| <i>Drymarchon corais couperi</i> | Eastern indigo snake | T | T | All | No | Moderate | Potential resident or visitor |

- FWC = Florida Fish and Wildlife Conservation Commission
- FWS = United States Fish and Wildlife Service
- E = Endangered
- T = Threatened
- SSC = Species of Special Concern
- NL = Not Listed
- Habitat = Major FLUCCS categories in which indicated species were observed or are most likely to occur.

3.6. Non-listed Species Documented Onsite (General Wildlife Observations)

Table 5 gives a list of non-listed wildlife species and their FLUCCS occurrence as documented on the site during the listed species survey.

Table 5 - List of non-listed wildlife species observed

| COMMON NAME | SCIENTIFIC NAME | FLUCCS Occurrence |
|------------------|------------------------------|-------------------|
| BIRDS | | |
| Cardinal | <i>Cardinalis cardinalis</i> | 428, 433 |
| Common nighthawk | <i>Chordeiles minor</i> | 411 |

| COMMON NAME | SCIENTIFIC NAME | FLUCCS Occurrence |
|------------------------|-----------------------------------|--------------------|
| Blue jay | <i>Cyanocitta crisata</i> | 416 |
| Pileated woodpecker | <i>Dryocopus pileatus</i> | 411 |
| Red-bellied woodpecker | <i>Melanerpes carolinus</i> | 411, 416 |
| Mockingbird | <i>Mimus polyglottos</i> | 411, 433, 416 |
| Downy woodpecker | <i>Picoides pubescens</i> | 411, 416, 433 |
| Mourning dove | <i>Zenaida macroura</i> | 411, 416, 433, 740 |
| AMPHIBIANS & REPTILES | | |
| Brown anole | <i>Anolis sagrei</i> | 411, 416, 433, 621 |
| Cuban anole | <i>Anolis s. sagrei</i> | 411, 416, 433, 621 |
| Cuban treefrog | <i>Osteopilus septentrionalis</i> | 433 |
| MAMMALS | | |
| Nine-banded armadillo* | <i>Dasypus novemcinctus</i> | 411, 416 |
| White-tailed deer* | <i>Odocoileus virginianus</i> | 411, 428, 433, 740 |
| Raccoon* | <i>Procyon lotor</i> | 411, 416, 433 |
| Feral hog | <i>Sus scrofa</i> | 411, 416, 428, 433 |
| Marsh rabbit | <i>Sylvilagus palustris</i> | 416 |

* Signs of these species (i.e. – tracks, scat, burrows, rubs, etc.) were observed.

4. SUMMARY

4.1. Listed Plants

The protection afforded plants listed by the FDA entails restrictions on harvesting or destroying listed plants found on private lands of another or on public lands without permission and/or a permit from the FDA. There are no restrictions for landowners, unless the sale of plants is involved. No plants listed by the FWS were observed on the site. The following plants, listed by the FDA as Endangered, were observed on the project site: the stiff-leaved wild pine, twisted air plant, wild pine, and butterfly orchid. These species of listed air plants are relatively common in southwest Florida.

4.2. Listed Wildlife

The Florida panther has not been documented by the FWC as occurring on the site but the property occurs within the Secondary Protection Zone as mapped by the FWS. The site has not functioned during recent decades as any portion of any known home range of breeding females, adult males or sub-adult males. Furthermore, the site has not been documented contributing to the survival of any collared female, adult or sub-adult dispersing male panthers. The site offers limited landscape linkage to panther dispersal routes. The property is not adjacent to habitats that are currently occupied by panther. The FWS describes the Secondary Zone as natural and potentially restorable disturbed lands adjacent to the Primary Zone that are not known to support panthers on a regular basis. The site does not provide habitat important for transient sub-adult male panthers.

The Florida black bear has not been documented occurring on or otherwise utilizing the site however black bear have been documented by the FWC occurring in nearby Golden Gate Estates properties to the south and east. Black bears have been documented by the FWC occurring over 2 miles to the south and over 4 miles to the east of the property. There is a potential for black bear to walk across or otherwise visit the site in the future. Therefore, the FWC and Collier County Environmental Services Department may require the preparation of a Florida black bear management plan.

The Big Cypress fox squirrel has been documented utilizing the site and there is potential for the Big Cypress fox squirrel to utilize the property in the future. Therefore, the FWC, South Florida Water Management District and Collier County Environmental Services will likely require the preparation of a Big Cypress fox squirrel management plan.

The Eastern indigo snake has the potential to utilize the property but has not been documented onsite. The FWC, FWS, U.S. Army Corps of Engineers, and Collier County Environmental Services Department may require the preparation of an Eastern indigo snake management plan.

The gopher tortoise has been documented occurring on the property. There were a total of seventeen active and inactive burrows observed within native habitats. Using the FWC burrow occupancy conversion factor of 0.614, approximately ten ($17 \times 0.614 = 10.4$) tortoises are estimated to inhabit the site. Collier County will likely request the tortoises to be preserved on the site within retained native vegetation. A gopher tortoise relocation permit will need to be processed through the FWC and Collier County should the tortoises be required to be relocated within the property. A gopher tortoise permit to relocate tortoises' offsite could also be obtained through FWC and Collier County.

The wood stork has the potential to forage on or otherwise utilize portions of the property. The Olde Florida Club property is within 18-miles of a documented nesting site (Corkscrew Swamp Sanctuary). If wetland impacts are proposed on the site, technical assistance with FWS will be required to address mitigation for impacts to wood stork habitat. The exact amount of mitigation required for impacting potential wood stork habitat is not known and will be determined when the project goes through the federal permitting process.

The bald eagle has the potential to occur on the property and an active bald eagle nest is documented by FWC occurring within 1 mile of the site. However, the Olde Florida Club property is located well out of the established 330' and 660' protection zones for bald eagle nest trees. No bald eagle individual or nests were observed on the property during the listed species survey.

The listed wading birds documented foraging on the subject property are fairly common to south Florida. No nests of these species were documented occurring on the site. It is anticipated listed wading birds will continue to foraging on or utilize the site.

The Florida panther, Eastern indigo snake, wood stork, bald eagle, and the Florida black bear have the potential to utilize the project site. However, none of the above-listed wildlife species, or signs of their presence, were observed occurring on the project site during the listed species survey. This region of the county is rapidly developing and represents fragmented wildlife habitat. This plays a significant role in deterring wildlife species, listed or otherwise, from utilizing the site. With the proper approved state, federal and local agency wildlife management plans in place, no adverse impacts to listed wildlife species are anticipated to occur as a result of the future development of the property.

5. REFERENCES

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EXHIBITS



LEGEND

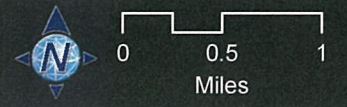
 Approximate Property Boundary

Prepared By:

WilsonMiller GIS

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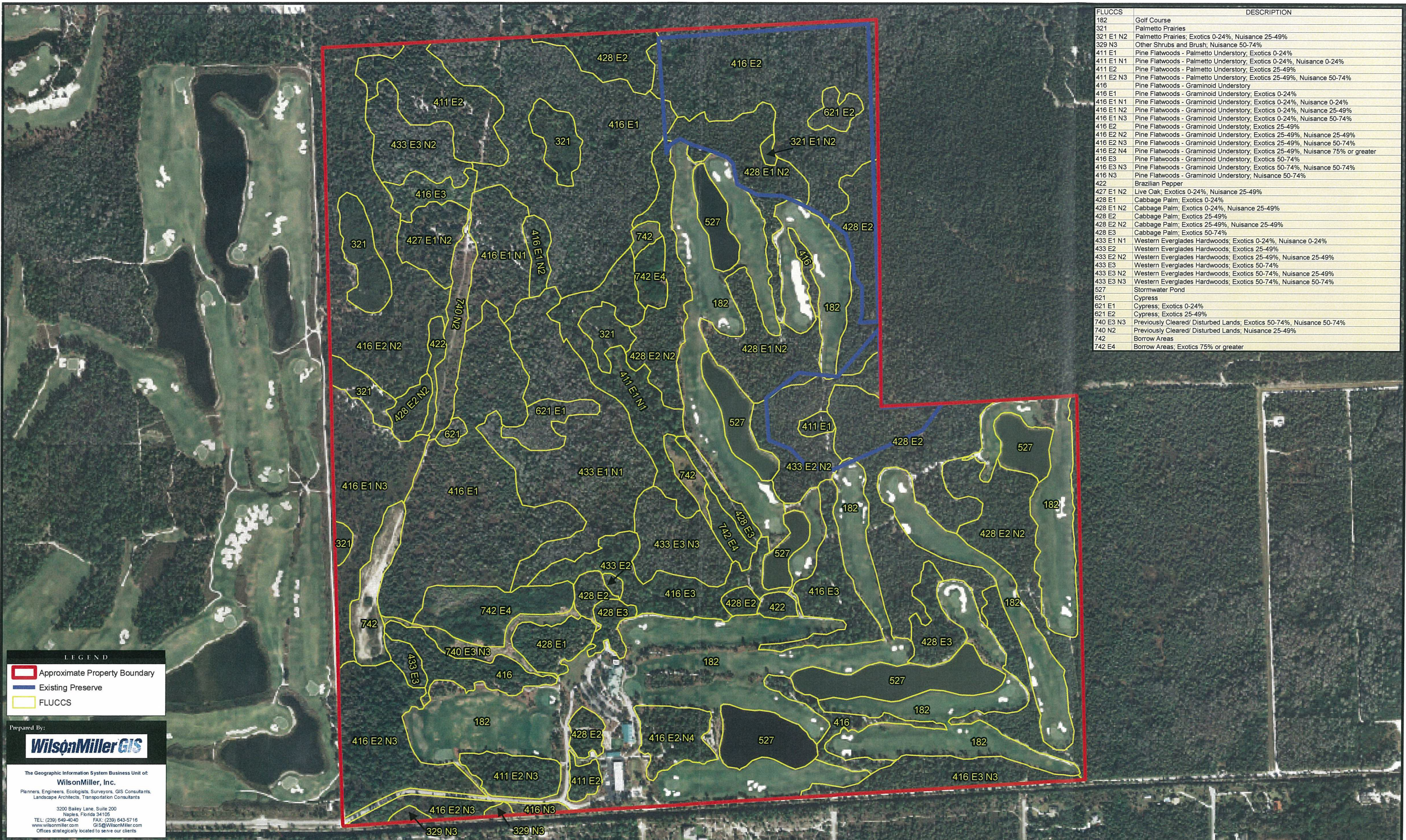


OLDE FLORIDA GOLF CLUB
 LOCATION MAP - EXHIBIT A

GENERAL NOTES

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 Created: Naples, 07-20-2007
 Source: T:\Project\100107-OldFloridaGolfClub\GIS\Map07_02_07_1175_Location_20081006_07_2182.mxd



| FLUCCS | DESCRIPTION |
|-----------|--|
| 182 | Golf Course |
| 321 | Palmetto Prairies |
| 321 E1 N2 | Palmetto Prairies; Exotics 0-24%, Nuisance 25-49% |
| 329 N3 | Other Shrubs and Brush; Nuisance 50-74% |
| 411 E1 | Pine Flatwoods - Palmetto Understory; Exotics 0-24% |
| 411 E1 N1 | Pine Flatwoods - Palmetto Understory; Exotics 0-24%, Nuisance 0-24% |
| 411 E2 | Pine Flatwoods - Palmetto Understory; Exotics 25-49% |
| 411 E2 N3 | Pine Flatwoods - Palmetto Understory; Exotics 25-49%, Nuisance 50-74% |
| 416 | Pine Flatwoods - Graminoid Understory |
| 416 E1 | Pine Flatwoods - Graminoid Understory; Exotics 0-24% |
| 416 E1 N1 | Pine Flatwoods - Graminoid Understory; Exotics 0-24%, Nuisance 0-24% |
| 416 E1 N2 | Pine Flatwoods - Graminoid Understory; Exotics 0-24%, Nuisance 25-49% |
| 416 E1 N3 | Pine Flatwoods - Graminoid Understory; Exotics 0-24%, Nuisance 50-74% |
| 416 E2 | Pine Flatwoods - Graminoid Understory; Exotics 25-49% |
| 416 E2 N2 | Pine Flatwoods - Graminoid Understory; Exotics 25-49%, Nuisance 25-49% |
| 416 E2 N3 | Pine Flatwoods - Graminoid Understory; Exotics 25-49%, Nuisance 50-74% |
| 416 E2 N4 | Pine Flatwoods - Graminoid Understory; Exotics 25-49%, Nuisance 75% or greater |
| 416 E3 | Pine Flatwoods - Graminoid Understory; Exotics 50-74% |
| 416 E3 N3 | Pine Flatwoods - Graminoid Understory; Exotics 50-74%, Nuisance 50-74% |
| 416 N3 | Pine Flatwoods - Graminoid Understory; Nuisance 50-74% |
| 422 | Brazilian Pepper |
| 427 E1 N2 | Live Oak; Exotics 0-24%, Nuisance 25-49% |
| 428 E1 | Cabbage Palm; Exotics 0-24% |
| 428 E1 N2 | Cabbage Palm; Exotics 0-24%, Nuisance 25-49% |
| 428 E2 | Cabbage Palm; Exotics 25-49% |
| 428 E2 N2 | Cabbage Palm; Exotics 25-49%, Nuisance 25-49% |
| 428 E3 | Cabbage Palm; Exotics 50-74% |
| 433 E1 N1 | Western Everglades Hardwoods; Exotics 0-24%, Nuisance 0-24% |
| 433 E2 | Western Everglades Hardwoods; Exotics 25-49% |
| 433 E2 N2 | Western Everglades Hardwoods; Exotics 25-49%, Nuisance 25-49% |
| 433 E3 | Western Everglades Hardwoods; Exotics 50-74% |
| 433 E3 N2 | Western Everglades Hardwoods; Exotics 50-74%, Nuisance 25-49% |
| 433 E3 N3 | Western Everglades Hardwoods; Exotics 50-74%, Nuisance 50-74% |
| 527 | Stormwater Pond |
| 621 | Cypress |
| 621 E1 | Cypress; Exotics 0-24% |
| 621 E2 | Cypress; Exotics 25-49% |
| 740 E3 N3 | Previously Cleared/ Disturbed Lands; Exotics 50-74%, Nuisance 50-74% |
| 740 N2 | Previously Cleared/ Disturbed Lands; Nuisance 25-49% |
| 742 | Borrow Areas |
| 742 E4 | Borrow Areas; Exotics 75% or greater |

LEGEND

- Approximate Property Boundary
- Existing Preserve
- FLUCCS

Prepared By:

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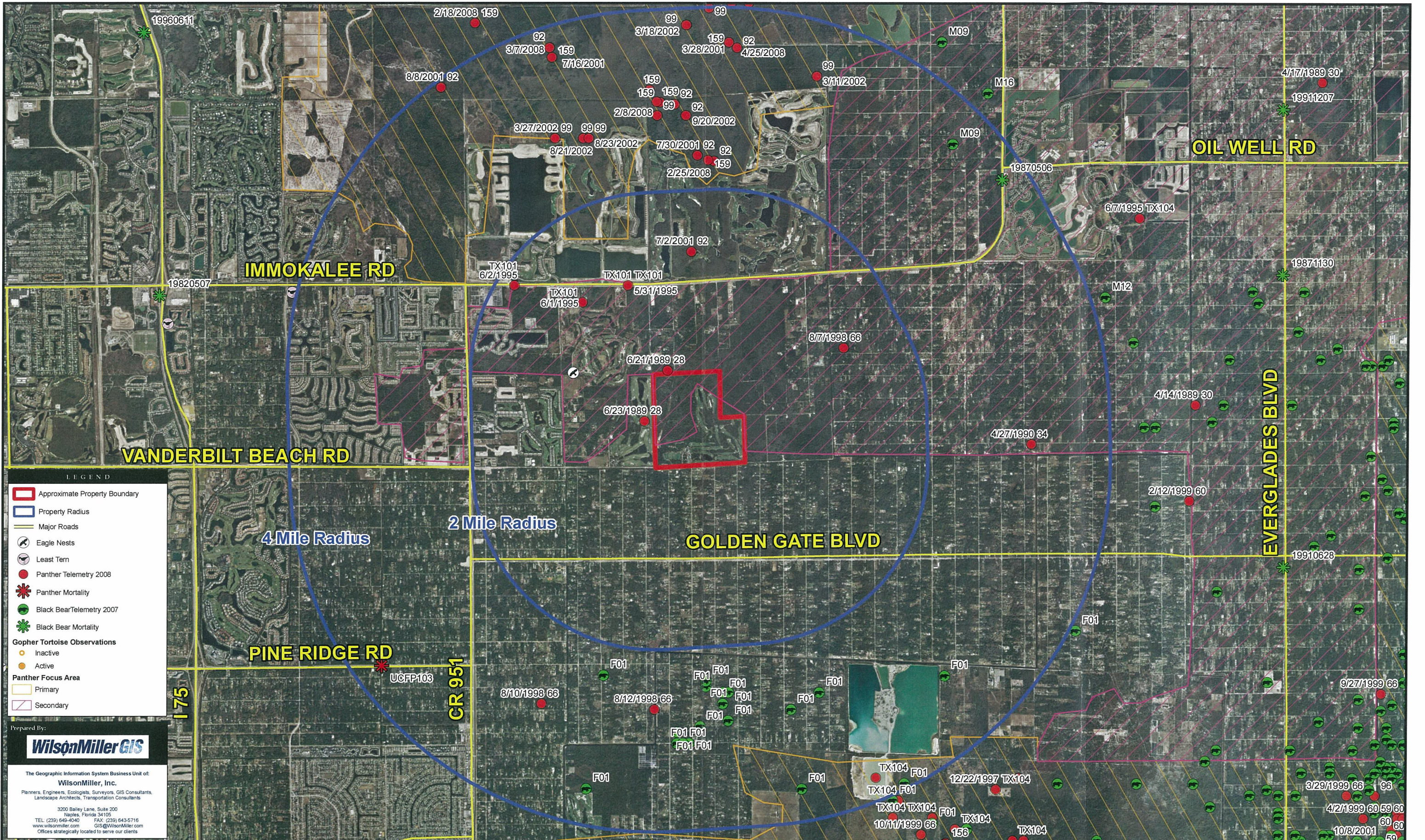
OLDE FLORIDA GOLF CLUB

FLUCCS MAP - EXHIBIT B

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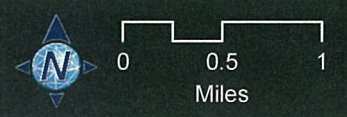
- Approximate Property Boundary
- Property Radius
- Major Roads
- Eagle Nests
- Least Tern
- Panther Telemetry 2008
- ✱ Panther Mortality
- Black Bear Telemetry 2007
- ✱ Black Bear Mortality
- Gopher Tortoise Observations**
- Inactive
- Active
- Panther Focus Area**
- Primary
- Secondary

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OLDE FLORIDA GOLF CLUB
FWC REGIONAL LISTED SPECIES DATA MAP - EXHIBIT C

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 Source: FFWPC, Florida Fish and Wildlife Conservation Commission
 Date: 10/11/07, Prepared: FFWPC, 2008 007_01_2182.mxd



LEGEND

- Approximate Property Boundary
- Transect Lines

Gopher Tortoise Points

Status

- Inactive
- Active

Species Observations

Species

- American Alligator
- Big Cypress Fox Squirrel
- Limpkin
- Little Blue Heron
- Snowy Egret
- Tricolored Heron
- White Ibis

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OLDE FLORIDA GOLF CLUB

LISTED SPECIES TRANSECTS AND LOCATIONS MAP - EXHIBIT D

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