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**USF NORTH PROPERTY**  
**TAMPA, FLORIDA**  
**ECOLOGICAL ASSESSMENT REPORT**



Prepared For:  
The University of South Florida

Prepared by:  
Timothy L Neldner, PWS  
Heidt Design, LLC

October 2021

## **INTRODUCTION AND PURPOSE**

The following Ecological Assessment Report summarizes the results of the habitat evaluation and general listed species site review conducted for the USF North Property site (a portion of Folio No. 036499-0000; 748± AC.; the Property), located in Tampa, Florida (Sections 2, 3 & 4, Township 28S, Range 19E, Hillsborough County). The Property is located along the north side of Fletcher Ave, east of 46<sup>th</sup> St to USF Riverfront Park (Location and Quad Maps).

This report will assess the potential uses of the Property and the various constraints to those uses posed by the regulatory and entitlement processes.

## **POTENTIAL PROPERTY USE DISCUSSION**

The Property can be divided into four areas to discuss its potential use (Potential Area Use Map). These areas are assessed based on their differing ecological conditions and regulatory constraints. The Property is under the regulatory purview of the City of Tampa (City), Hillsborough County (County) and the Southwest Florida Water Management District (SWFWMD). Both the County and the City provide utility service to the Property. Wetland impacts are regulated by the Environmental Protection Commission of Hillsborough County (EPC) and the SWFWMD with the Florida Department of Environmental Protection (FDEP) having additional regulatory authority over impacts to Waters of the US. Impacts to listed species are regulated by the Florida Fish and Wildlife Conservation Commission (FWC) for State-listed species and by the US Fish and Wildlife Service (USFWS) for federally listed species.

Area 1, the golf course, is a likely parcel for development because of its past and current intensively managed land use and its proximity to the rest of the University campus and existing infrastructure including transportation corridors and utilities. The area could likely be properly entitled and permitted for residential, commercial and/or mixed-use development.

The existing ecological and physical conditions of Area 2 and the detailed regulatory review required for any proposed impacts to the existing habitats are significant constraints to any development within Area 2. The time and expenditures for pursuing authorizations from the regulatory agencies plus the cost of construction make the area unfeasible for improvements beyond minimally intrusive activities, such as elevated boardwalks and observation platforms. However, the ecological and physical conditions in Area 2 may be an opportunity for use as a wetland mitigation bank through a protective covenant or encumbrance such as a conservation easement, or as a desirable property for acquisition by a State or local conservation lands program.

Areas 3 and 4 are upland areas that abut a major roadway corridor. These uplands could likely be developed in a manner that is consistent with surrounding uses after appropriate entitlements are acquired and required permits are obtained.

The existing ecological conditions and development constraints associated with each area are provided in Appendix 1. These considerations provided the basis for the potential use discussion and following conclusions.

## **CONCLUSIONS**

It appears the portion of the Property best suited for conventional development (residential, commercial, retail, and/or mixed-use) is Area 1. While Area 2 is not a viable location for conventional development, the area may be a candidate for purchase as conservation lands by a program such as the County's Environmental Lands Acquisition and Preservation Program (ELAPP) or a State conservation lands acquisition. Another opportunity may be the establishment of a wetland mitigation bank in Area 2 where a conservation easement could be placed over the area and the mitigation credits generated by the

easement could be sold to permit applicants. The location of Area 2 as part of the Hillsborough River OFW and its adjacency to other potential acquisition lands may make it a desirable property for a conservation lands transaction or mitigation bank. Areas 3 and 4 could be developed with a likely requirement of relocating the existing gopher tortoises, but these areas could also leverage their existing ecological conditions and proximal location for use as potential educational/research and conservation/mitigation banking opportunities. Although further detailed evaluation of these potential land uses must be explored, the USF North Property can remain an important component of the University's continued growth and success.

## **REFERENCES**

Florida Department of Transportation. 2001. Florida Land Use, Cover and Forms Classification System (FLUCCS). Tallahassee, Florida.

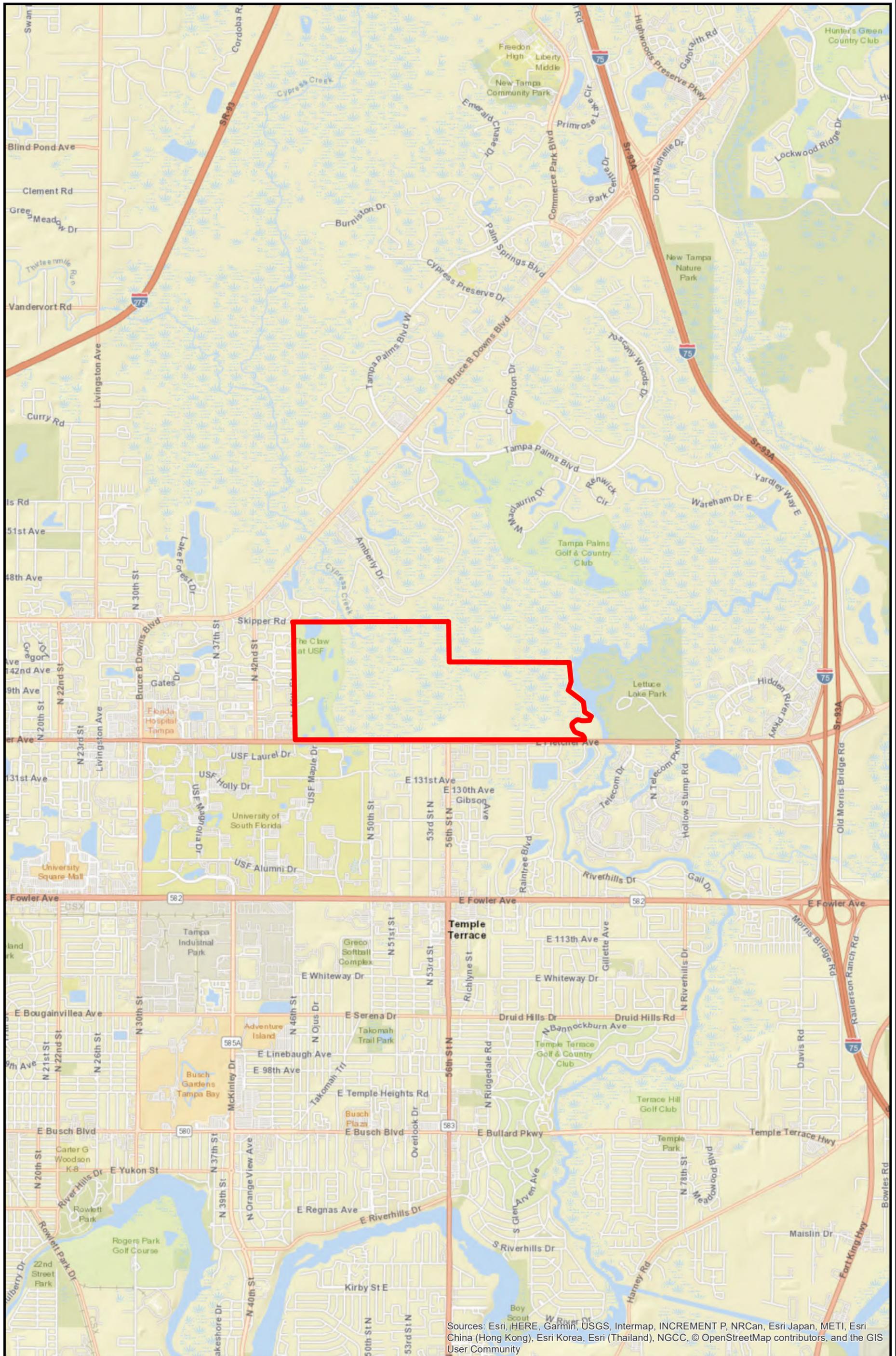
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<https://maps.hillsboroughcounty.org/mapHillsborough/maphillsborough.html> (Date accessed 09/30/2021)

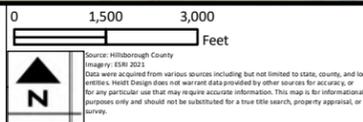
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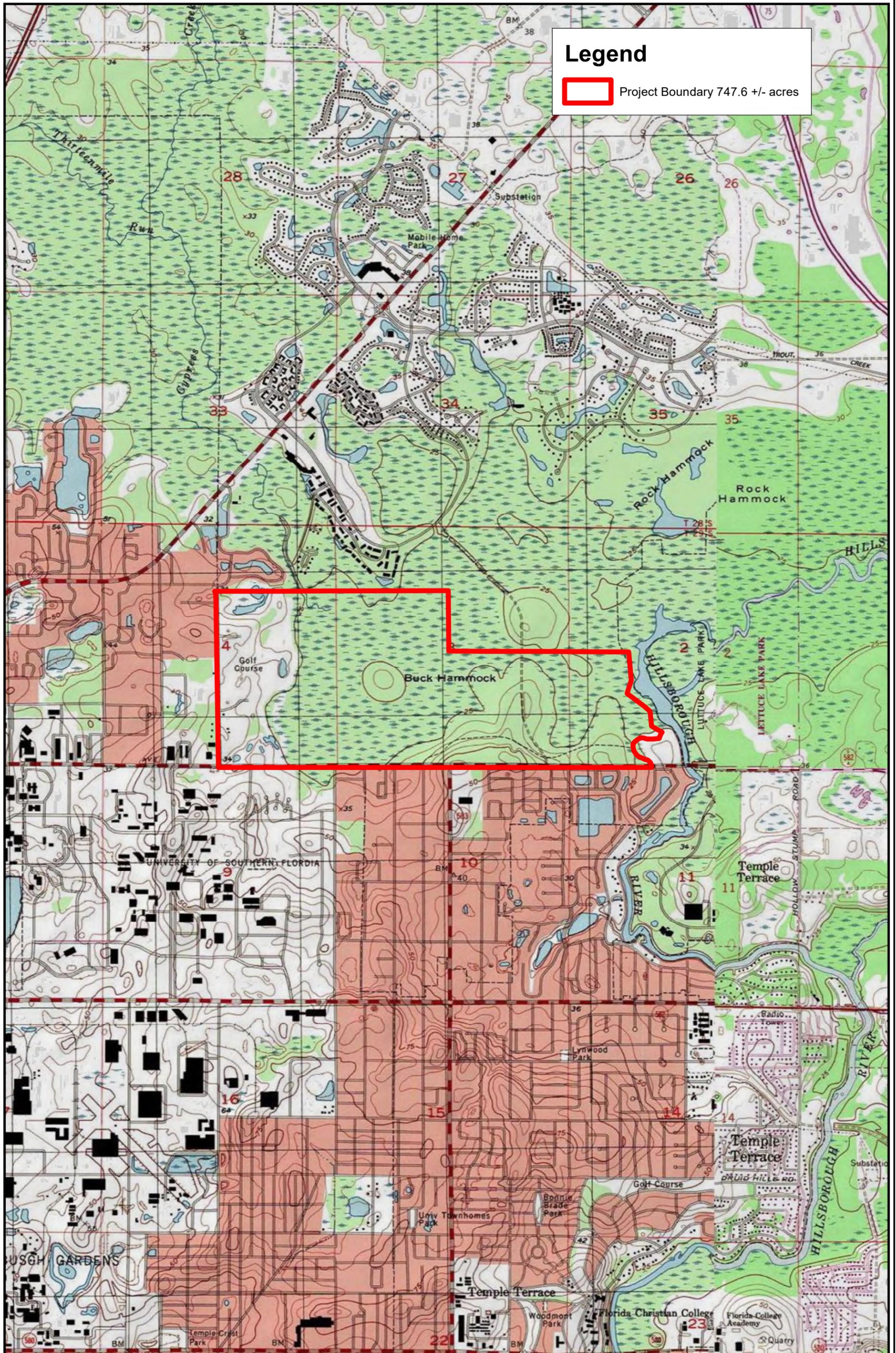


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

# USF North Property Location Map

Hillsborough County





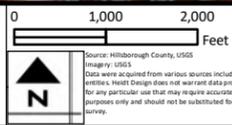
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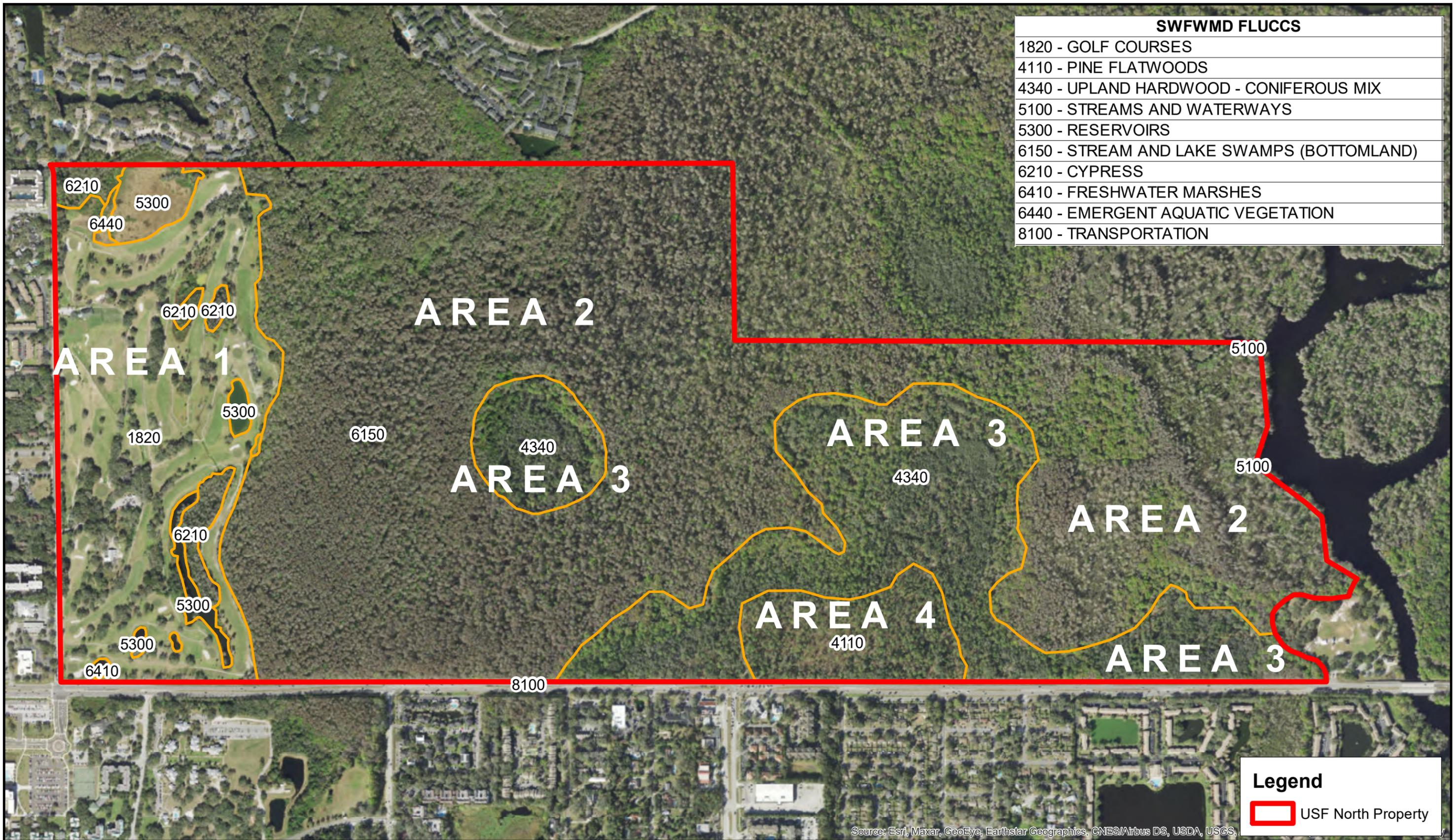
Project Boundary 747.6 +/- acres

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USF North Property  
USGS Quad Map

Hillsborough County



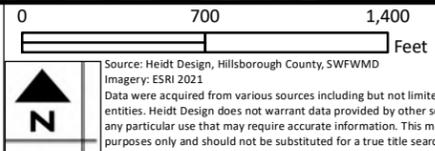


SWFWMD FLUCCS	
1820	- GOLF COURSES
4110	- PINE FLATWOODS
4340	- UPLAND HARDWOOD - CONIFEROUS MIX
5100	- STREAMS AND WATERWAYS
5300	- RESERVOIRS
6150	- STREAM AND LAKE SWAMPS (BOTTOMLAND)
6210	- CYPRESS
6410	- FRESHWATER MARSHES
6440	- EMERGENT AQUATIC VEGETATION
8100	- TRANSPORTATION

**Legend**  
 USF North Property

**USF North Property**  
 Potential Use Areas

Hillsborough County



Source: Heidt Design, Hillsborough County, SWFWMD  
 Imagery: ESRI 2021  
 Data were acquired from various sources including but not limited to state, county, and local entities. Heidt Design does not warrant data provided by other sources for accuracy, or for any particular use that may require accurate information. This map is for informational purposes only and should not be substituted for a true title search, property appraisal, or survey.



**APPENDIX 1**  
**USF NORTH PROPERTY**  
**EXISTING CONDITIONS AND REGULATORY CONSTRAINTS**



## **EXISTING CONDITIONS**

### **Soils Descriptions**

According to the Hillsborough County Soil Survey, 12 soil types occur on the Property (NRCS Hydric Soils Map). Five soil types are considered hydric and cover approximately 535 acres of the site. Additionally, there are approximately 6.5 acres of water (ponds on the golf course). The remaining soils on the Property include soil types that are poorly drained and somewhat poorly drained, but there are also areas of moderately well-drained and excessively drained soils.

### **Habitat Descriptions**

The habitats on the Property have been given a land use/cover code based on the September 2021 site inspection using the Florida Land Use, Cover and Forms Classification System (FLUCCS) (SWFWMD FLUCCS Map). There are 10 total land use/cover types identified within the Property. The dominant habitat types are described below.

#### **Stream & Lake Swamps (Bottomland) – 448.3± AC. [FLUCCS 6150]**

This habitat is also called riverine swamp as it is associated with the Cypress Creek/Hillsborough River watershed. It is dominated by wetland forest, mainly cypress (*Taxodium ascendens*, *T. distichum*) and swamp tupelo (*Nyssa sylvatica* var. *biflora*) interiorly with various hardwoods along the fringe habitats. Water depths at the time of the site review ranged from saturation at the surface to over 3 feet. The wetland habitat is in very good ecological condition with few nuisance species or physical perturbations present. The area lies within the Hillsborough River Outstanding Florida Waters (the OFW) designation by the State of Florida.

#### **Upland Hardwood – Coniferous Mix – 131.3± AC. [FLUCCS 4340]**

Oak (*Quercus virginiana*, *Q. laurifolia*, *Q. nigra*, others) and pine (*Pinus palustris*, *P. elliotii*) dominate this mesic forested habitat. Understory is predominantly thick saw palmetto (*Serenoa repens*) with frequent shrubs (*Morella cerifera*, *Lyonia lucida*, *Ilex* spp.) and smaller oaks and pines. Two small isolated grassy ponds were observed in this habitat. It is possible that gopher frog (*Lithobates capito*, formerly State-listed species) and other amphibians use these ponds for breeding. The habitat is quite overgrown from lack of natural burns. Several vehicle trails are present in various states of overgrowth and accessibility. The eastern portion of this habitat adjacent to Riverfront Park contains a portion of a disc golf course with areas of cleared vegetation and associated “tee stands,” “fairways,” and “greens.”

#### **Golf Courses – 116.4± AC. [FLUCCS 1820]**

This land use is the actual play area of The Claw including the practice range and associated support buildings. Several ponds and wetland areas are identified as separate land use features.

#### **Pine Flatwoods – 27.1± AC. [FLUCCS 4110]**

This habitat is dominated by longleaf pine with a much less dense understory of saw palmetto. Canopy cover is less. Wiregrass (*Aristida* spp.) and other herbs associated with well-drained soils are present in the understory to a much greater extent than the upland hardwood habitat. Elevations here are the highest on the Property. This area showed evidence of past burns as would be expected in a drier habitat. Gopher tortoise (*Gopherus polyphemus*) burrows are present within this habitat.

### **Floodplain**

Based upon the mapping done by FEMA, most of the Property is within a flood zone. However, further detailed engineering evaluation, based on actual topography and other existing conditions on the

Property, and recent flood studies from nearby projects and state and local governments may allow the amount of flood zone to be reduced.

**Listed Species Assessment**

During the September 2021 site review, Heidt Design ecologist performed pedestrian and vehicle transects to identify areas within the Property that might be utilized by listed species of wildlife and to observe evidence of listed species use. During the site review, evidence of only one listed species of wildlife was observed, the gopher tortoise (*Gopherus polyphemus*), listed as threatened under State of Florida regulations. Active and inactive tortoise burrows were found in the pine flatwoods habitat, but it is possible burrows could be found in the higher elevations of the upland hardwood habitat. Onsite observations/evidence of listed species are shown on the Wetlands and Wildlife Observations Map. Additionally, the Florida Natural Areas Inventory (FNAI) Biodiversity Matrix Map Server was reviewed to identify potential listed species of wildlife that may occur on or in the vicinity of the Property.

Scientific and Common Names	Listed Status	Potential for Occurrence
Gopher Tortoise <i>Gopherus polyphemus</i>	State listed – threatened	Very likely present. Active burrows observed.
Wood Stork <i>Mycteria americana</i>	Federal and State listed – threatened	No nests observed. Nesting could occur in the interior portions of the riverine swamp.
Bald Eagle <i>Haliaeetus leucocephalus</i>	Not listed but protected under the Bald and Golden Eagle Protection Act	No nests observed and no nests historically located on the Property by FWC. Nesting could occur in the interior portions of riverine swamp.
Florida Pine Snake <i>Podomys floridanus</i>	State listed – threatened	None observed or evidence observed. Very unlikely occurrence; desirable habitat severely limited.
Short-tailed Snake <i>Lampropeltis extenuate</i>	State listed – threatened	None observed or evidence observed. Very unlikely occurrence; desirable habitat and prey severely limited.
Florida Sandhill Crane <i>Grus canadensis pratensis</i>	State listed – threatened	No nests or birds observed. Very unlikely occurrence; desirable nesting and forage habitat severely limited.
Eastern indigo snake <i>Drymarchon couperi</i>	Federal and State listed – threatened	None observed or evidence observed. Very unlikely occurrence; desirable habitat severely limited.
Burrowing Owl <i>Athene cunicularia</i>	State listed – threatened	No nests or birds observed. Very unlikely occurrence; desirable habitat severely limited.

**REGULATORY CONSTRAINTS**

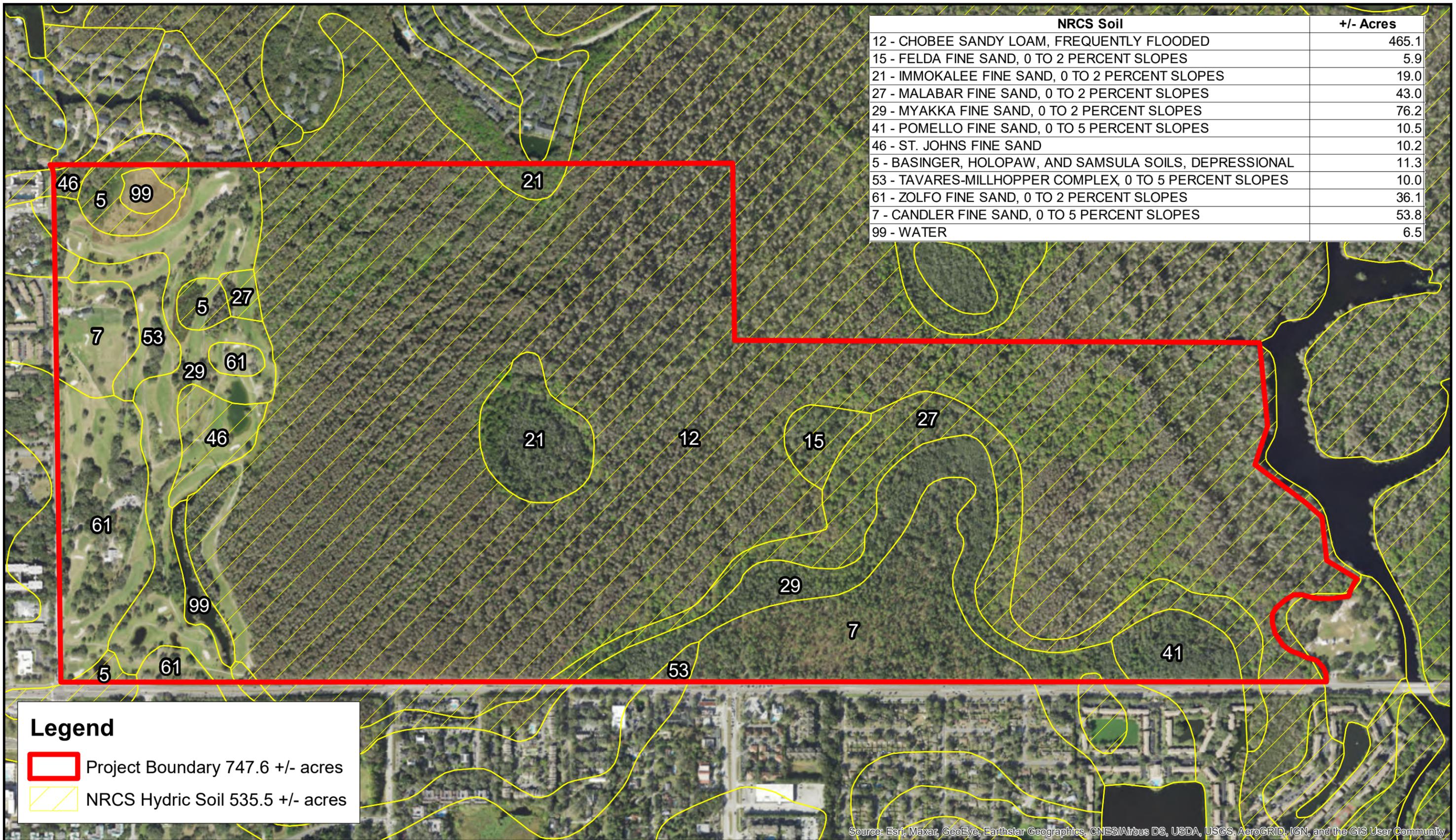
The golf course (Area 1) is a stand-alone type of parcel based on its proximity to the rest of the university campus and its separation from the eastern lands by the large forested riverine swamp. Area 1 has been used and intensively managed as a golf course since the late 1960s. Any ecologically sensitive habitats in

Area 1, such as undisturbed wetlands and uplands, are either non-existent, confined to small, scattered locations, and/or located on the peripheries. The wetlands have been either filled, excavated, ditched and/or drained to some extent, and the uplands have been extensively cleared, developed, and maintained. Ecological constraints to development are low. The mapped flood zone in Area 1 should be more exactly defined and evaluated as development review by the regulatory agencies will require storage volume compensation onsite. This type of review is required of all development projects and is not unique to the Property.

The riverine forest (Area 2) extends from the east edge of the golf course to Riverfront Park as a contiguous wetland habitat of canopy with varying water depths. Based on its location within the OFW, its ecological conditions, and the intensive regulatory scrutiny of any impacts proposed to this habitat, normal development activities would be difficult to get permitted, except perhaps minimally invasive structures such as boardwalks and observation platforms. Substantial mitigation would likely be required by the regulatory agencies for any activities but the most minimally intrusive ones. While the ecological and physical conditions in Area 2 may make development potential difficult, these same conditions could make the area desirable for use as a wetland mitigation bank or for a conservation lands purchase. Wetland mitigation banking would likely require a conservation easement or other protective covenant or encumbrance be placed over the Area 2 property. The State and federal regulatory agencies determine the environmental benefit afforded by this preservation effort through their separate mitigation banking authorizations. The amount of credits is also established, and the mitigation bank can then sell the credits to prospective permit applicants at a price established by the banker and the market demand. Conservation lands are typically purchased by the State or local governmental program and managed for preservation as native habitat. Public access may or may not be granted depending on the program's established objectives and goals or the requirements of how the monies can be spent. Hillsborough County has an established environmental lands acquisition and preservation program (ELAPP) while the State of Florida has several conservation lands acquisition programs.

Areas 3 and 4 are the forested upland habitat (represented by FLUCCS codes 4340 and 4110, respectively, on the Potential Area Use Map) immediately east of Area 2 along Fletcher Ave including the isolated hammock within Area 2. Area 4, the more well-drained and higher pine flatwoods habitat, is entirely surrounded by Area 3, the mesic oak/pine habitat. As Areas 3 and 4 are upland areas abutting a major roadway corridor, it is likely that typical development could be entitled on the parcels for uses that would be compatible with the surrounding areas. The appropriate regulatory agencies would review the drainage and construction design similarly as in Area 1, while other agencies would require the relocation of any gopher tortoises adversely affected by the proposed development. Similar to the potential wetland mitigation banking option in Area 2, Areas 3 and 4, whether all or in part, could be used as a conservation bank. Conservation banks are established to benefit upland wildlife and most specifically listed species that are impacted through development within their habitat. The State and federal wildlife agencies provide the authorization and establishment of credits through their regulatory processes for conservation banks. The conservation banks then sell these credits to permit applicants whose projects require this type of mitigation. The banker can establish the credit price as is deemed appropriate, certainly considering what the market will bear.

Conservation and wetland mitigation banking are extremely detailed regulatory processes and should be further studied to determine their actual applicability to the Property. Such efforts as detailed species surveys and wetland delineations should be performed to inform decisionmakers going forward. This information would also benefit discussions with regulatory agency staffs which are vital in determining these banking options for the Property.



NRCS Soil	+/- Acres
12 - CHOBEE SANDY LOAM, FREQUENTLY FLOODED	465.1
15 - FELDA FINE SAND, 0 TO 2 PERCENT SLOPES	5.9
21 - IMMOKALEE FINE SAND, 0 TO 2 PERCENT SLOPES	19.0
27 - MALABAR FINE SAND, 0 TO 2 PERCENT SLOPES	43.0
29 - MYAKKA FINE SAND, 0 TO 2 PERCENT SLOPES	76.2
41 - POMELLO FINE SAND, 0 TO 5 PERCENT SLOPES	10.5
46 - ST. JOHNS FINE SAND	10.2
5 - BASINGER, HOLOPAW, AND SAMSULA SOILS, DEPRESSIONAL	11.3
53 - TAVARES-MILLHOPPER COMPLEX, 0 TO 5 PERCENT SLOPES	10.0
61 - ZOLFO FINE SAND, 0 TO 2 PERCENT SLOPES	36.1
7 - CANDLER FINE SAND, 0 TO 5 PERCENT SLOPES	53.8
99 - WATER	6.5

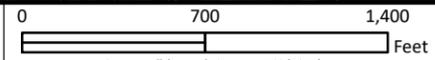
**Legend**

- Project Boundary 747.6 +/- acres
- NRCS Hydric Soil 535.5 +/- acres

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

USF North Property  
NRCS General and Hydric Soils

Hillsborough County

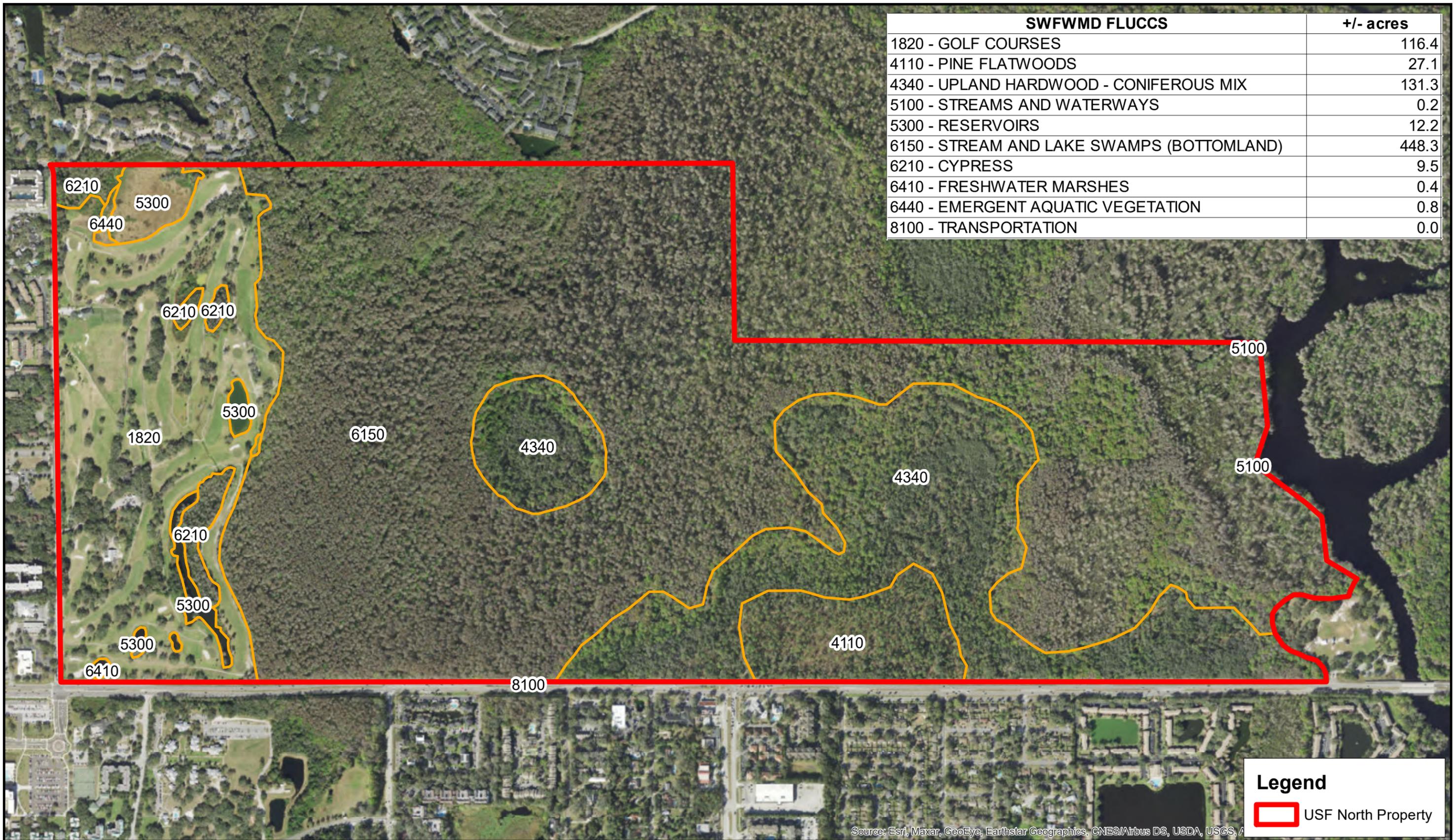


Source: Hillsborough County, NRCS (FGDL)  
Imagery: ESRI 2021  
Data were acquired from various sources including but not limited to state, county, and local entities. Heidt Design does not warrant data provided by other sources for accuracy, or for any particular use that may require accurate information. This map is for informational purposes only and should not be substituted for a true title search, property appraisal, or survey.



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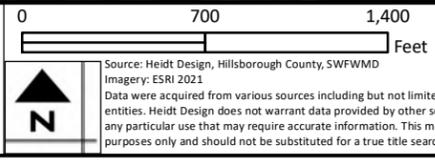
SWFWMD FLUCCS	+/- acres
1820 - GOLF COURSES	116.4
4110 - PINE FLATWOODS	27.1
4340 - UPLAND HARDWOOD - CONIFEROUS MIX	131.3
5100 - STREAMS AND WATERWAYS	0.2
5300 - RESERVOIRS	12.2
6150 - STREAM AND LAKE SWAMPS (BOTTOMLAND)	448.3
6210 - CYPRESS	9.5
6410 - FRESHWATER MARSHES	0.4
6440 - EMERGENT AQUATIC VEGETATION	0.8
8100 - TRANSPORTATION	0.0



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, A

**USF North Property**  
SWFWMD FLUCCS

Hillsborough County

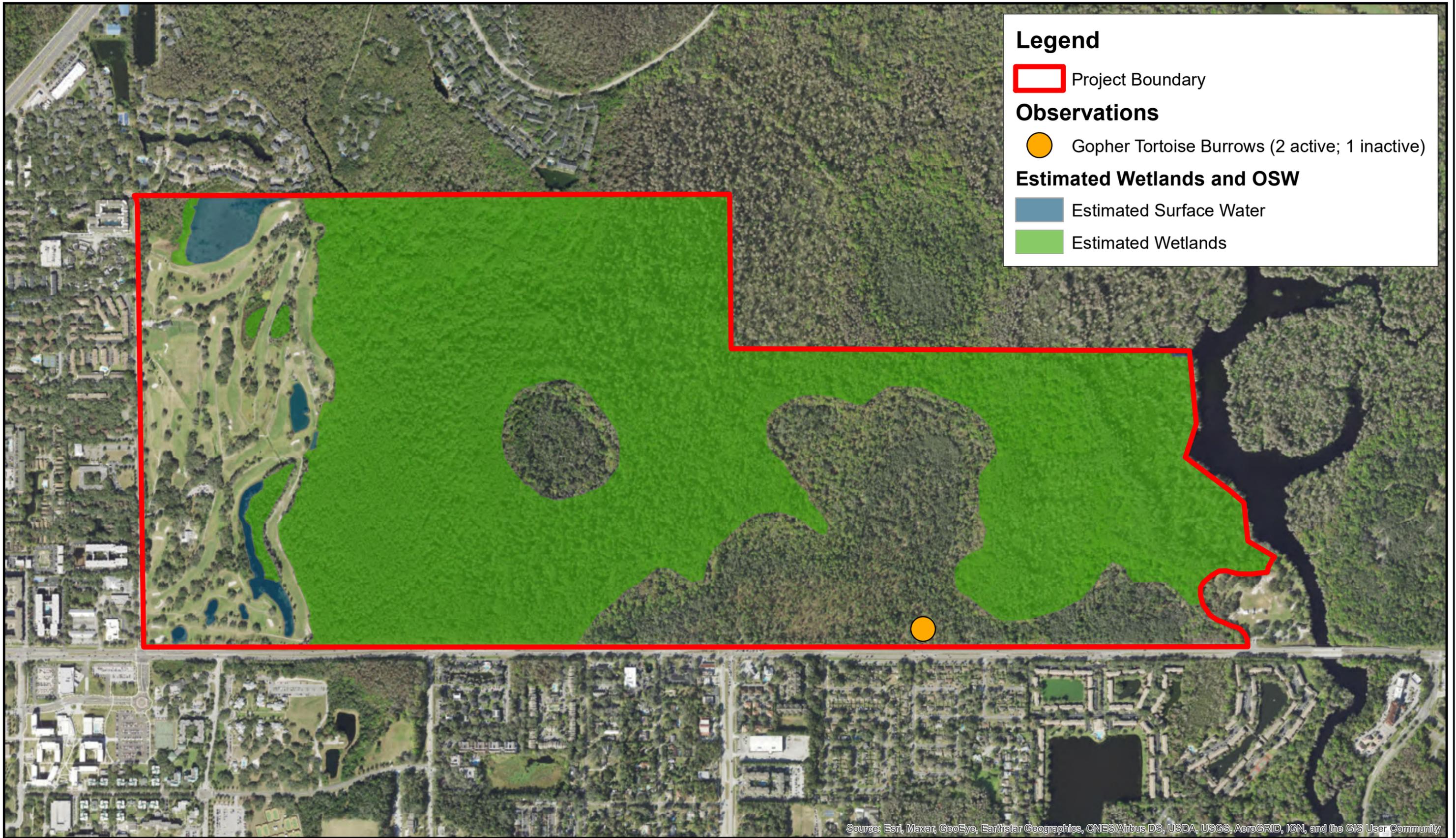


Source: Heidt Design, Hillsborough County, SWFWMD  
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**Legend**

USF North Property

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**Legend**

- Project Boundary

**Observations**

- Gopher Tortoise Burrows (2 active; 1 inactive)

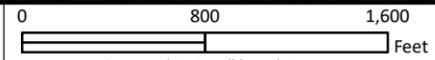
**Estimated Wetlands and OSW**

- Estimated Surface Water
- Estimated Wetlands

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

**USF North Property**  
 Wetlands and Listed Species Occurences

**Hillsborough County**



Source: Heidt Design, Hillsborough County  
 Imagery: ESRI 2021  
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