

**PRELIMINARY EVALUATIONS  
OF THE MAY 2023  
FLORIDA FOREVER PROPOSALS**

Prepared by

**Florida Natural Areas Inventory**

1018 Thomasville Road  
Suite 200-C  
Tallahassee, FL 32303



Florida  
Natural Areas  
Inventory

## *Preliminary Evaluations of the May 2023 Florida Forever Proposals*

The Florida Natural Areas Inventory (FNAI) is dedicated to gathering, interpreting, and disseminating information critical to the conservation of Florida's biological resources. The Inventory was founded in 1981 as a member of The Nature Conservancy's international network of natural heritage programs, and it is now part of Florida State University's Institute of Science and Public Affairs. Funding for FNAI is provided through contracts, which currently include work for the Florida Department of Environmental Protection (DEP), the U. S. Fish and Wildlife Service, Florida Forest Service, Florida Fish and Wildlife Conservation Commission, and Florida's Water Management Districts.

FNAI staff builds and maintains a comprehensive statewide database that now includes more than 35,000 occurrences of rare plant and animal species and high-quality natural communities. The database also contains information on more than 2,800 lands managed wholly or in part for conservation. This database includes national forests, parks and wildlife refuges; state parks, forests, aquatic preserves, and wildlife management areas; water management district lands; county and municipal parks; private preserves; and military installations with substantial natural areas. Boundaries of state land acquisition projects are also represented.

As part of an agreement with DEP, FNAI provides data and expertise to assist with the multi-step process of evaluating lands proposed for acquisition through the Florida Forever Program. This document presents our preliminary review of the following proposals submitted for the cycle beginning May 2023:

- Chunky Pond (Levy County)
- Deer Creek Ranch (DeSoto County)
- English Forest Preserve (Leon County)
- Ford Marsh (Volusia County)
- Lake Powell North (Bay County)
- Little Pine Ranch (Levy County)
- Myakka Ranch (Manatee County)
- Trailhead Blue Springs (Levy County)
- Venus Project (Highlands County)
- Waccasassa Bay Headwaters (Levy County)
- Welles Ranch (Charlotte County)
- Yarborough Ranch (Seminole County)

This review includes the following for the proposals: Natural Resource Description; Rare Species on the site; a tabular evaluation of selected Florida Forever Measures; and maps of the proposed site. Recreational and archeological values are not considered in this evaluation.

**Biological Conservation Priority:** In previous years FNAI has summarized our overall preliminary assessment of the proposals as a "Biological Conservation Priority" for each site. This rank represented our initial assessment of a proposal's contribution to the protection of significant ecological resources from a **statewide perspective**. These ranks reflected the FNAI scientific staff's best judgment based on information available at the time of the evaluation. **Because further assessment is generally needed to fully determine the biological importance of a site and many conservation factors may not be simply summarized, we no longer provide this subjective rank.**

**Natural Resource Description:** The description of the natural resources presented for each proposal is developed from information provided in the proposal application, the FNAI database, FNAI staff comments, and aerial photographs. The natural communities listed in this evaluation and the percentage of the total area that each comprises are derived principally from aerial photographs as interpreted by FNAI staff and by landcover information from the Water Management Districts. These data are supplemented by FNAI natural community occurrence data where available. These sources are also used to determine the extent of disturbed lands that no longer support natural communities (agriculture areas, developed areas, mines, etc.). Acreages of communities and disturbances are approximate, but provide a reasonable estimate for this stage of the evaluation process. More precise landcover information is gathered during the project assessment phase for those proposals selected for further evaluation.

Acreages of natural communities, particularly mesic and wet flatwoods, may differ from acreages given in the Florida Forever Measures Evaluation (FFME) evaluation table (described below). The FFME relies on statewide remotely sensed data where on-the-ground information is lacking. Using current high resolution aerial photography, FNAI scientists sometimes identify different acreage of certain landcover types (for example, pine plantation or flatwoods) than is identified through remotely sensed data.

Rare species on the proposed areas are listed in each evaluation. Species recorded in the FNAI database and those reported in the application are listed separately in the table. Potential rare species may be discussed in the evaluation text. FNAI Global and State ranks and Federal and State legal statuses are given for each species in the table. Rank and statuses provided in the text are listed in the same order after the scientific species name. A rank/status explanation sheet is included at the end of this document.

**Florida Forever Measures Evaluation:** Accompanying each evaluation is a table illustrating to what extent each proposed site meets 14 Florida Forever performance measures. These 14 measures were selected because they are resource-based criteria that can be used to set acquisition priorities. For each measure, we report the acres of the resource found on the proposed site and the percentage of the site containing the resource. The data in this assessment represent a highly standardized, statewide perspective of natural resource distributions. More detailed information may be gathered during the Project Assessment phase for those proposals voted upon for further evaluation. The data used in this evaluation are described in detail in the Florida Forever Conservation Needs Assessment Summary Report and Technical Report, available at [www.fnai.org](http://www.fnai.org).

**Maps:** This report provides two maps of each proposed site. The first is a small-scale map showing the proposed site in the context of surrounding conservation lands and land protection projects. The second map is of larger scale and uses recent aerial imagery that provides a view of the overall landcover of each site.

# CHUNKY POND (LEVY COUNTY)

Less-Than-Fee Simple

## Preliminary Evaluation

**Natural Resources Description:** The Chunky Pond Florida Forever proposal comprises two tracts totaling 2,430 acres (per application; 2,456 GIS acres) in east-central Levy County. The larger tract (Chunky Pond Tract, ca. 1,802 acres), which lies 2 miles south of Bronson on the western side of county highway 337, includes lands in and around Chunky Pond, including most of the pond and associated wetlands. The smaller tract (2000's Tract) of 653 acres lies ca. 5 miles to the south, just west of CR-343. Both tracts lie within about ½ mile of the northern end of Goethe State Forest. Upper Waccasassa Conservation Area and Devil's Hammock lie to the west and northwest of the proposal, which is submitted for less-than-fee simple protection without public access.

This evaluation is based on information gathered from the proposal application, aerial photography, U.S. Geological Survey (USGS) 7.5' topographic maps, Cooperative Land Cover data (Florida Natural Areas Inventory [FNAI], Florida Cooperative Land Cover Map, version 3.6), and the FNAI database.

Physiographically, the Chunky Pond Tract lies in a transition zone between the deep sands of the Brooksville Ridge and the Gulf Coastal Lowlands (GCL) to the west; the 2000's Tract is within the GCL. According to the application, the entire proposal includes 1,030 acres of wetlands, with the remainder representing forested uplands. 1,076 acres of the latter are identified as coniferous plantation (planted pine or recently cleared); plantation management is currently supervised by Rayonier, but the lease expires at the end of 2023, at which time the landowners intend to assume forest management. While the entire site is undeveloped, it does support three rustic hunting camps, a storage shed, and miles of unpaved roads chiefly associated with timber management.

Chunky Pond exhibits characteristics of both basin swamp and basin marsh natural communities, although historically it may have been characterized as a sandhill upland lake/basin marsh system. The application notes that the pond, which encompasses nearly 700 acres, includes open water, submerged aquatic marshes and littoral zones, wet prairies, pine islands, and cypress/hardwood swamps. Chunky Pond is considered to be a prime example of the type of sag ponds created at the foot of relict marine terrace scarps where insoluble shoreline sands are underlain by soluble limestones. Surrounding communities include upland hardwood forest/mesic hammock and mesic to wet flatwoods. Historically, at least some of the hardwood communities may have been sandhill. There may be small areas of well drained soils that still support remnants of more xeric communities, including xeric hammock. The eastern-most acreage nearest CR-337 has been recently cleared.

The 2000's tract is a mosaic of pine plantation and wetlands. Headwaters of Mule Creek arise on the tract and eventually drain southward into the Waccasassa River system.



Table 1 provides an approximation of landcover types and their relative representation within the proposal.

Table 1. Natural communities and landcover types within the Chunky Pond Florida Forever proposal.

Community or Landcover	Acres	Percent of Proposal
basin marsh	726	30
basin swamp	254	10
upland hardwood forest/mesic hammock	251	10
wet flatwoods	34	1
pine plantation	1113	45
road	42	2
utility corridor	35	1
<i>Total</i>	2456	100

Table 2 lists rare plant and animal species known or reported to occur onsite. The southern tract is within a general region where the Florida black bear is considered by the Florida Fish and Wildlife Conservation Commission to be common (hence, included in Table 2), whereas bears are considered only occasional in the northern tract. The FNAI database contains no additional records of rare species on the proposal, but this is likely due to a lack of surveys; older nearby records exist for such species as little blue heron and eastern indigo snake, and the cover photo of the application depicts an alligator.

Table 2. Rare plants and animals documented or reported to occur within the Chunky Pond Florida Forever proposal.

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status
<b>Rare plants documented on site</b>					
none					
<b>Additional rare plants reported on site by applicant</b>					
none					
<b>Rare animals documented on site</b>					
<i>Ursus americanus floridanus</i>	Florida black bear	G5T4*	S4	N	N
<b>Additional rare animals reported on site by applicant</b>					
none					

\*Rank and status explanations attached.

The Florida Forever Measures Evaluation (FFME) at the end of this memo is based on the Florida Forever Conservation Needs Assessment developed by FNAI. The data used in that analysis represent a

standardized, statewide perspective of natural community distributions based primarily on the Florida Cooperative Land Cover Map, which explains differences in natural community acreages between Table 1 and the FFME. This proposal contributes most notably (> 95% of acreage) to Strategic Habitat Conservation Areas, Ecological Greenways, Surface Water Protection, and Aquifer Recharge, but also substantially (> 40%) to Natural Floodplain Function (67%), Functional Wetlands (42%), and Sustainable Forestry (50%).

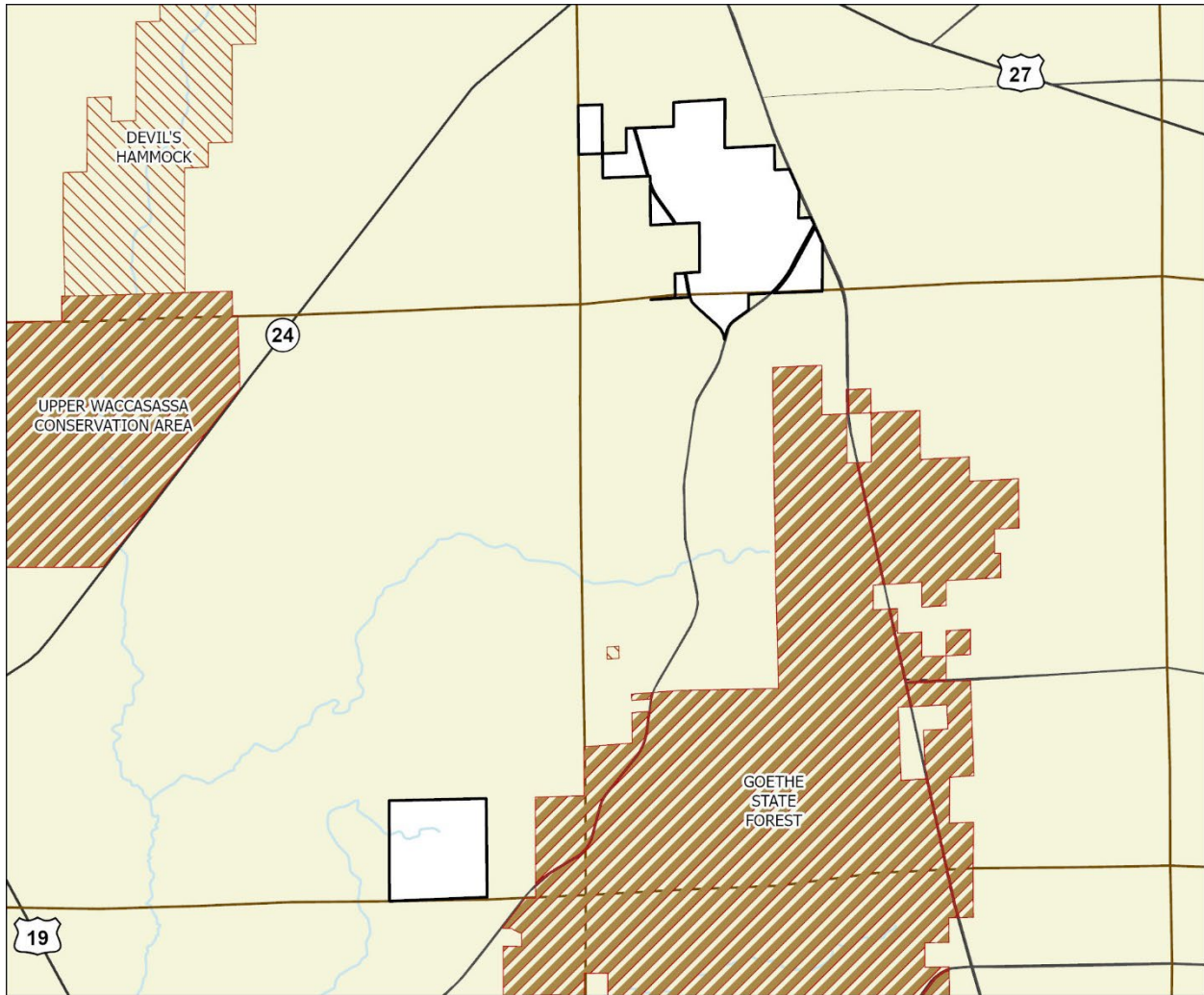
**Chunky Pond : Florida Forever Measures Evaluation 20230509**

GIS ACRES = 2,456

MEASURES	Resource Acres <sup>a</sup>	% of project
<b>B1: Strategic Habitat Conservation Areas</b>		
Priority 1	0	0%
Priority 2	396	16%
Priority 3	1,490	61%
Priority 4	0	0%
Priority 5	338	14%
Total Acres	2,224	91%
<b>B2: FNAI Habitat Conservation Priorities</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	506	21%
Priority 6	762	31%
Total Acres	1,268	52%
<b>B3: Ecological Greenways</b>		
Priority 1	0	0%
Priority 2	2,401	98%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	0	0%
Total Acres	2,401	98%
<b>B4: Under-represented Natural Communities</b>		
Upland Glade (G1)	0	0%
Pine Rockland (G1)	0	0%
Scrub and Scrubby Flatwoods (G2)	0	0%
Rockland Hammock (G2)	0	0%
Dry Prairie (G2)	0	0%
Seepage Slope (G2)	0	0%
Sandhill (G3)	0	0%
Sandhill Upland Lake (G3)	0	0%
Upland Pine (G3)	0	0%
Mesic/Wet Flatwoods (G4)	52	2%
Upland Hardwood Forest (G5)	4	< 1%
Total Acres	56	2%
<b>B6: Occurrences of FNAI Tracked Species</b>		
G1	0	
G2	0	
G3	0	
G4	1	
G5	0	
Total	1	
<b>C4: Natural Floodplain Function</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	1,006	41%
Priority 4	631	26%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	1,637	67%

MEASURES (continued)	Resource Acres <sup>a</sup>	% of project
<b>C5: Surface Water Protection</b>		
Priority 1	0	0%
Priority 2	171	7%
Priority 3	638	26%
Priority 4	457	19%
Priority 5	814	33%
Priority 6	265	11%
Priority 7	0	0%
Total Acres	2,345	96%
<b>C7: Fragile Coastal Resources</b>		
Fragile Coastal Uplands	0	0%
Imperiled Coastal Lakes	0	0%
Coastal Wetlands	0	0%
Total Acres	0	0%
<b>C8: Functional Wetlands</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	698	28%
Priority 4	343	14%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	1,041	42%
<b>D3: Aquifer Recharge</b>		
Priority 1	98	4%
Priority 2	1,716	70%
Priority 3	619	25%
Priority 4	22	< 1%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	2,454	100%
<b>E2: Recreational Trails (miles)</b>		
(prioritized trail opportunities from Office of Greenways and Trails & Univ. Florida)		
Land Trail Priorities	0.0	
Land Trail Opportunities	0.0	
Total Miles	0.0	
<b>F2: Arch. &amp; Historical Sites (number)</b>		3 sites
<b>G1: Sustainable Forestry</b>		
Priority 1	676	28%
Priority 2	186	8%
Priority 3	367	15%
Priority 4	0	0%
Priority 5 - Potential Pinelands	4	< 1%
Total Acres	1,233	50%
<b>G3: Forestland for Recharge</b>		1,210 49%

<sup>a</sup>Acres of each resource in the project and percentage of project represented by each resource are listed except where noted. This analysis converts site boundary into pixels, which causes slight differences from GIS acres; this effect is most noticeable on small sites.



## CHUNKY POND FLORIDA FOREVER PROPOSAL

### LEVY COUNTY

-  Florida Forever Proposed Project
-  State Owned Lands
-  Other Conservation Lands



0 2.5 5 Miles

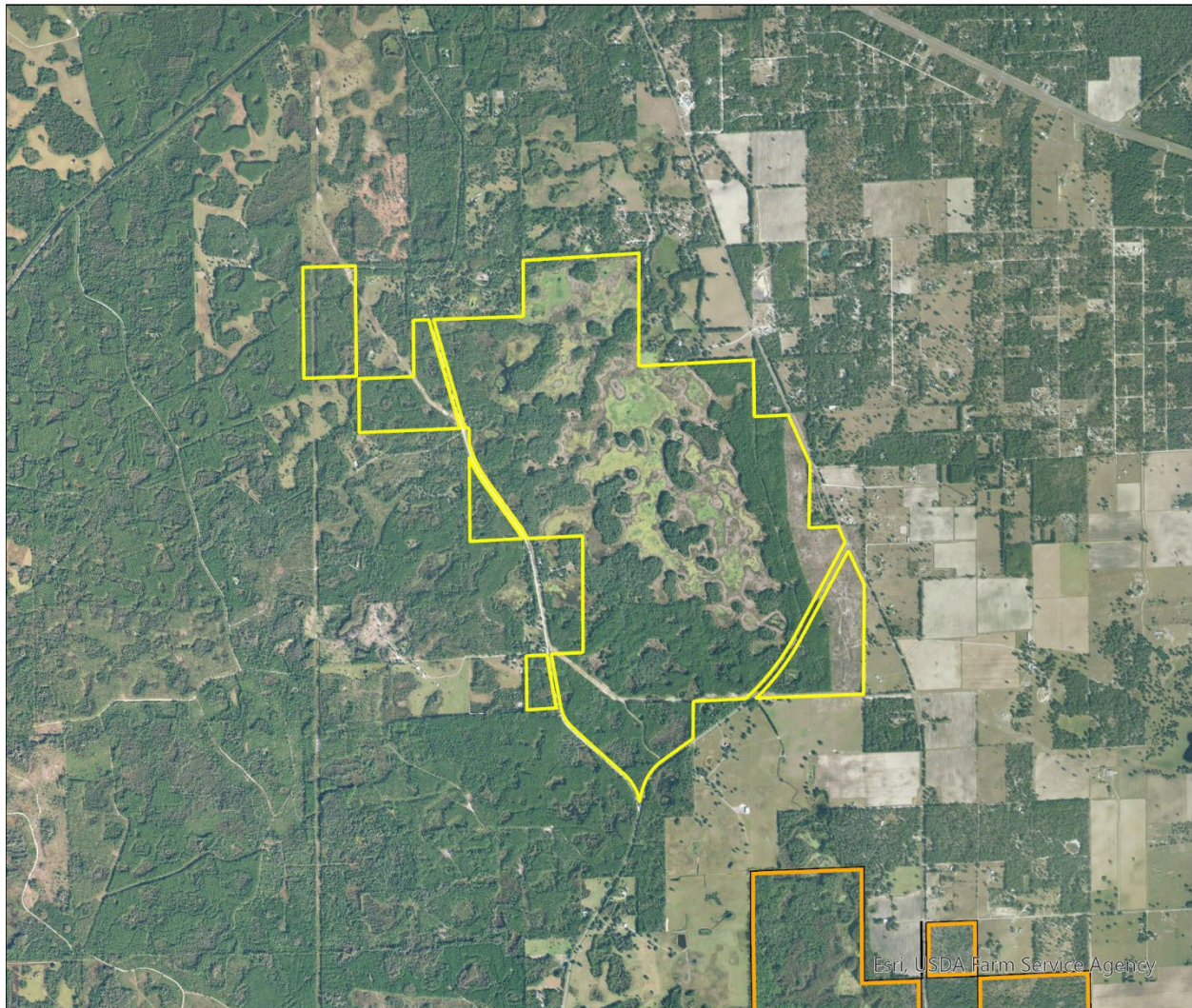


MAP BY FL NATURAL AREAS INVENTORY MAY 2023



# Chunky Pond Florida Forever Proposal, Map 1

FLORIDA FOREVER BOARD OF TRUSTEES PROJECT PROPOSAL BOUNDARY AS OF MAY 2023



Map Produced by: FL Natural Areas Inventory, N. Pasco, May 2023

Background: USDA NAIP Imagery Resolution = 1.0 meter



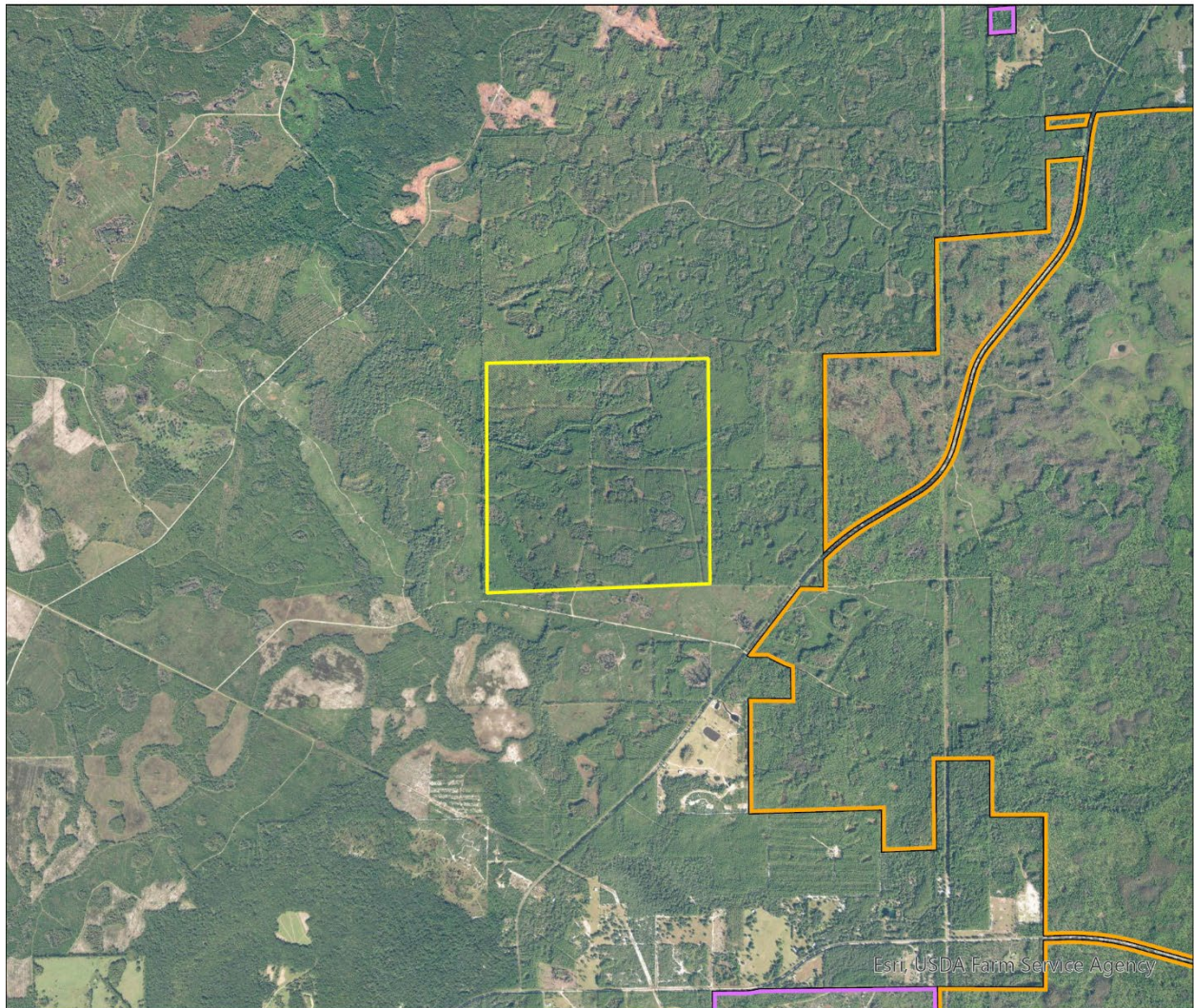
-  Florida Forever Proposal Boundary
-  Existing State Conservation Lands





# Chunky Pond Florida Forever Proposal, Map 2



FLORIDA FOREVER BOARD OF TRUSTEES PROJECT PROPOSAL BOUNDARY AS OF MAY 2023



Map Produced by: FL Natural Areas Inventory, N. Pasco, May 2023

Background: USDA NAIP Imagery Resolution = 1.0 meter



-  Florida Forever Proposal Boundary
-  Existing State Conservation Lands
-  Existing Private Conservation Lands



## DEER CREEK RANCH (DESOTO COUNTY)

Less-Than-Fee Simple

### Preliminary Evaluation

**Natural Resources Description:** The Deer Creek Ranch Florida Forever proposal comprises a contiguous but irregularly shaped tract of 5,934 GIS acres in southeastern DeSoto County, ca. 10 miles southeast of Arcadia. The northern portion of the proposal is contiguous with several existing conservation lands: Halls Tiger Bay Ranch Agricultural and Conservation Easement on the west, Bright Hour Watershed on the north (which adjoins Blue Head Ranch FFBOT project), and Bob Paul Conservation Easement on the east. Tippen Bay Conservation Bank is separated by a gap of just > 0.1 mile (700 ft) from the southeastern corner of the proposal. The proposal is submitted for less-than-fee simple protection with no public use.

This evaluation is based on information gathered from the proposal application, aerial photography, U.S. Geological Survey (USGS) 7.5' topographic maps, Cooperative Land Cover data (Florida Natural Areas Inventory [FNAI], Florida Cooperative Land Cover Map, version 3.6), and the FNAI database.

The proposal lies within the flatlands of south-central Florida and has a very low elevational profile. The site originally supported an uninterrupted mosaic of dry and wet prairies, flatwoods (wet, mesic, and scrubby), and mesic hammock, dotted with depression and basin marshes and dome swamps. Agricultural operations (presumably cattle ranching) have converted two-thirds of the acreage of these native communities to pasture, mostly improved but some semi-improved. Associated with the ranching operation are various structures (residences, barns, sheds), fencing, and unimproved roads.

Depicted on the USGS topographic map are two “streams” that drain southward through the property: Myrtle Slough in the far west, and Tiger Bay Slough crossing the center of the property; both arise on conservation lands to the north and flow southward into Prairie Creek, which drains westward into Shell Creek and eventually the Peace River and Charlotte Harbor. Table 1 provides an approximation of landcover types and their relative representation within the proposal.

Table 1. Natural communities and landcover types within the Deer Creek Ranch Florida Forever proposal.

Community or Landcover	Acres	Percent of Proposal
depression marsh	383	6
dry prairie	381	6
wet prairie	318	5
mesic flatwoods	257	4
scrubby flatwoods	158	3
mesic hammock	144	2

basin marsh	109	2
wet flatwoods	64	1
dome swamp	7	<1
pasture - improved	3388	57
pasture - semi-improved	558	9
successional hardwood forest	99	2
road	28	<1
artificial pond	25	<1
developed	10	<1
pine plantation	3	<1
agriculture	2	<1
<i>Total</i>	<b>5,934</b>	<b>100</b>

Table 2 lists rare plant and animal species known or reported to occur onsite. The FNAI database contains no records of rare species on the proposal, but this almost certainly reflects a lack of biological surveys of the private property. The table includes numerous rare animal species reported in the application as having been observed onsite, and it is likely that other rare plants and animals known regionally may occur here as well (many listed in the application).

Table 2. Rare plants and animals documented or reported to occur within the Deer Creek Ranch Florida Forever proposal.

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status
<b>Rare plants documented on site</b>					
none					
<b>Additional rare plants reported on site by applicant</b>					
none					
<b>Rare animals documented on site</b>					
none					
<b>Additional rare animals reported on site by applicant</b>					
<i>Drymarchon corais couperi</i>	eastern indigo snake	G3*	S2?	T	FT
<i>Gopherus polyphemus</i>	gopher tortoise	G3	S3	N	ST
<i>Antigone canadensis pratensis</i>	Florida sandhill crane	G5T2	S2	N	ST



<i>Aphelocoma coerulescens</i>	Florida scrub-jay	G1G2	S1S2	T	FT
<i>Athene cunicularia floridana</i>	Florida burrowing owl	G4T3	S3	N	ST
<i>Caracara plancus</i>	crested caracara	G5	S2	T	FT
<i>Puma concolor coryi</i>	Florida panther	G5T1	S1	E	FE
<i>Sciurus niger niger</i>	southeastern fox squirrel	G5T5	S3	N	N

\*Rank and status explanations attached.

The Florida Forever Measures Evaluation (FFME) at the end of this memo is based on the Florida Forever Conservation Needs Assessment developed by FNAI. The data used in that analysis represents a standardized, statewide perspective of natural community distributions based primarily on the Florida Cooperative Land Cover Map, which explains differences in natural community acreages between Table 1 and the FFME. This proposal contributes most notably (99–100% of acreage) to Strategic Habitat Conservation Areas, Ecological Greenways, Aquifer Recharge, and Surface Water Protection, but also includes significant acreage in Under-represented natural communities (13% mesic/wet flatwoods, 9% dry prairie, 1% scrub/scrubby flatwoods), Natural Floodplain Function (22%), Functional Wetlands (19%), and Sustainable Forestry (12%).

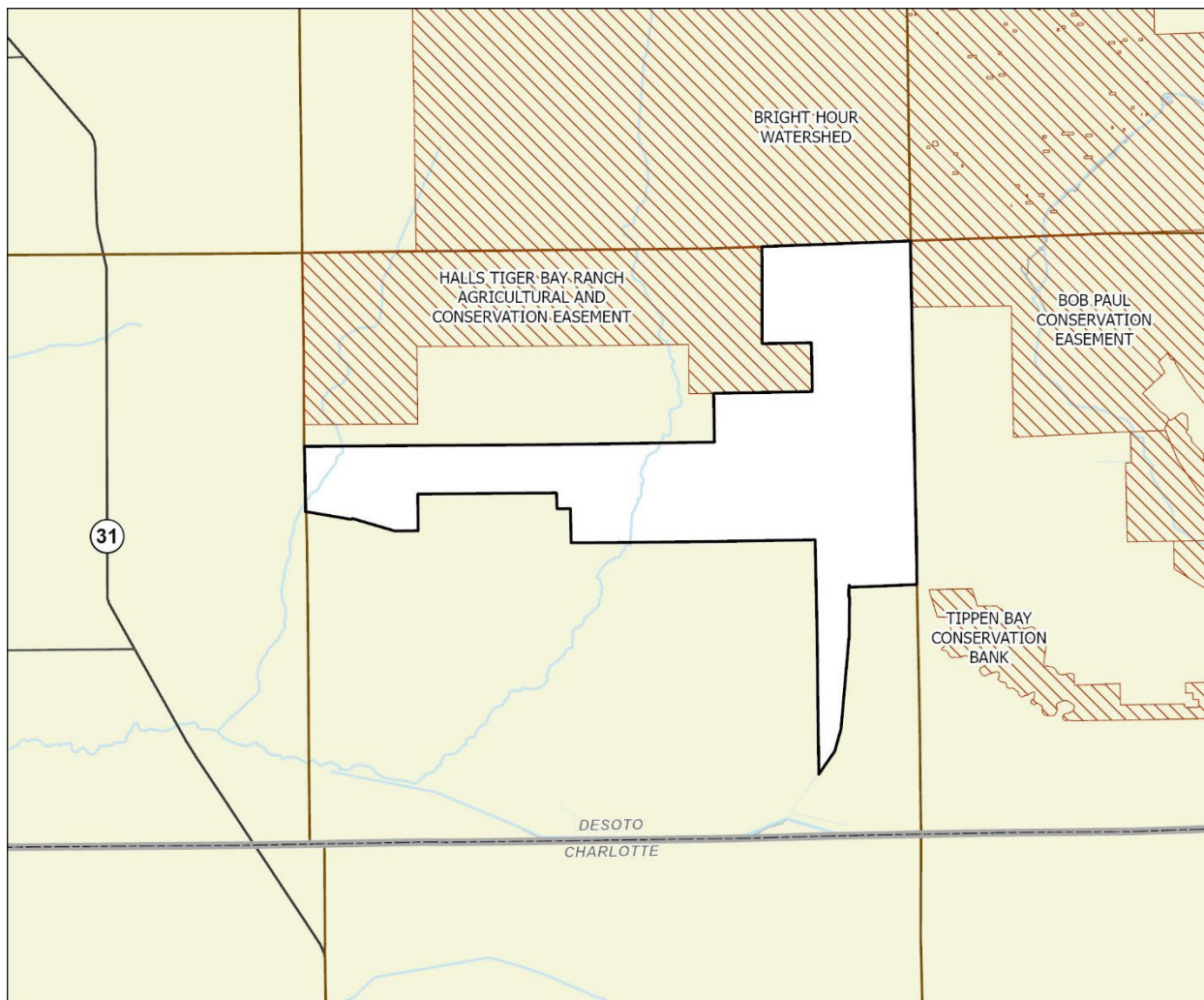
**Deer Creek Ranch: Florida Forever Measures Evaluation 20230510**

GIS ACRES = 5,934

MEASURES	Resource Acres <sup>a</sup>	% of project
<b>B1: Strategic Habitat Conservation Areas</b>		
Priority 1	3,088	52%
Priority 2	2,742	46%
Priority 3	19	< 1%
Priority 4	0	0%
Priority 5	16	< 1%
Total Acres	5,865	99%
<b>B2: FNAI Habitat Conservation Priorities</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	290	5%
Priority 4	1,805	30%
Priority 5	3,498	59%
Priority 6	314	5%
Total Acres	5,907	100%
<b>B3: Ecological Greenways</b>		
Priority 1	3,245	55%
Priority 2	0	0%
Priority 3	2,686	45%
Priority 4	0	0%
Priority 5	0	< 1%
Total Acres	5,932	100%
<b>B4: Under-represented Natural Communities</b>		
Upland Glade (G1)	0	0%
Pine Rockland (G1)	0	0%
Scrub and Scrubby Flatwoods (G2)	43	< 1%
Rockland Hammock (G2)	0	0%
Dry Prairie (G2)	521	9%
Seepage Slope (G2)	0	0%
Sandhill (G3)	0	0%
Sandhill Upland Lake (G3)	0	0%
Upland Pine (G3)	0	0%
Mesic/Wet Flatwoods (G4)	774	13%
Upland Hardwood Forest (G5)	0	0%
Total Acres	1,338	23%
<b>B6: Occurrences of FNAI Tracked Species</b>		
G1	0	
G2	0	
G3	0	
G4	0	
G5	0	
Total	0	
<b>C4: Natural Floodplain Function</b>		
Priority 1	163	3%
Priority 2	313	5%
Priority 3	383	6%
Priority 4	235	4%
Priority 5	185	3%
Priority 6	13	< 1%
Total Acres	1,291	22%

MEASURES (continued)	Resource Acres <sup>a</sup>	% of project
<b>C5: Surface Water Protection</b>		
Priority 1	1,157	19%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	4,747	80%
Priority 5	0	0%
Priority 6	0	0%
Priority 7	0	0%
Total Acres	5,903	99%
<b>C7: Fragile Coastal Resources</b>		
Fragile Coastal Uplands	0	0%
Imperiled Coastal Lakes	0	0%
Coastal Wetlands	0	0%
Total Acres	0	0%
<b>C8: Functional Wetlands</b>		
Priority 1	110	2%
Priority 2	315	5%
Priority 3	494	8%
Priority 4	147	2%
Priority 5	73	1%
Priority 6	2	< 1%
Total Acres	1,142	19%
<b>D3: Aquifer Recharge</b>		
Priority 1	0	0%
Priority 2	448	8%
Priority 3	942	16%
Priority 4	3,986	67%
Priority 5	550	9%
Priority 6	8	< 1%
Total Acres	5,934	100%
<b>E2: Recreational Trails (miles)</b>		
(prioritized trail opportunities from Office of Greenways and Trails & Univ. Florida)		
Land Trail Priorities	0.0	
Land Trail Opportunities	0.0	
Total Miles	0.0	
<b>F2: Arch. &amp; Historical Sites (number)</b>		
	0 sites	
<b>G1: Sustainable Forestry</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	725	12%
Priority 4	0	0%
Priority 5 - Potential Pinelands	0	0%
Total Acres	725	12%
<b>G3: Forestland for Recharge</b>		
	218	4%

<sup>a</sup>Acres of each resource in the project and percentage of project represented by each resource are listed except where noted. This analysis converts site boundary into pixels, which causes slight differences from GIS acres; this effect is most noticeable on small sites.



## DEER CREEK RANCH FLORIDA FOREVER PROPOSAL

### DESOTO COUNTY

-  Florida Forever Proposed Project
-  State Owned Lands
-  Other Conservation Lands



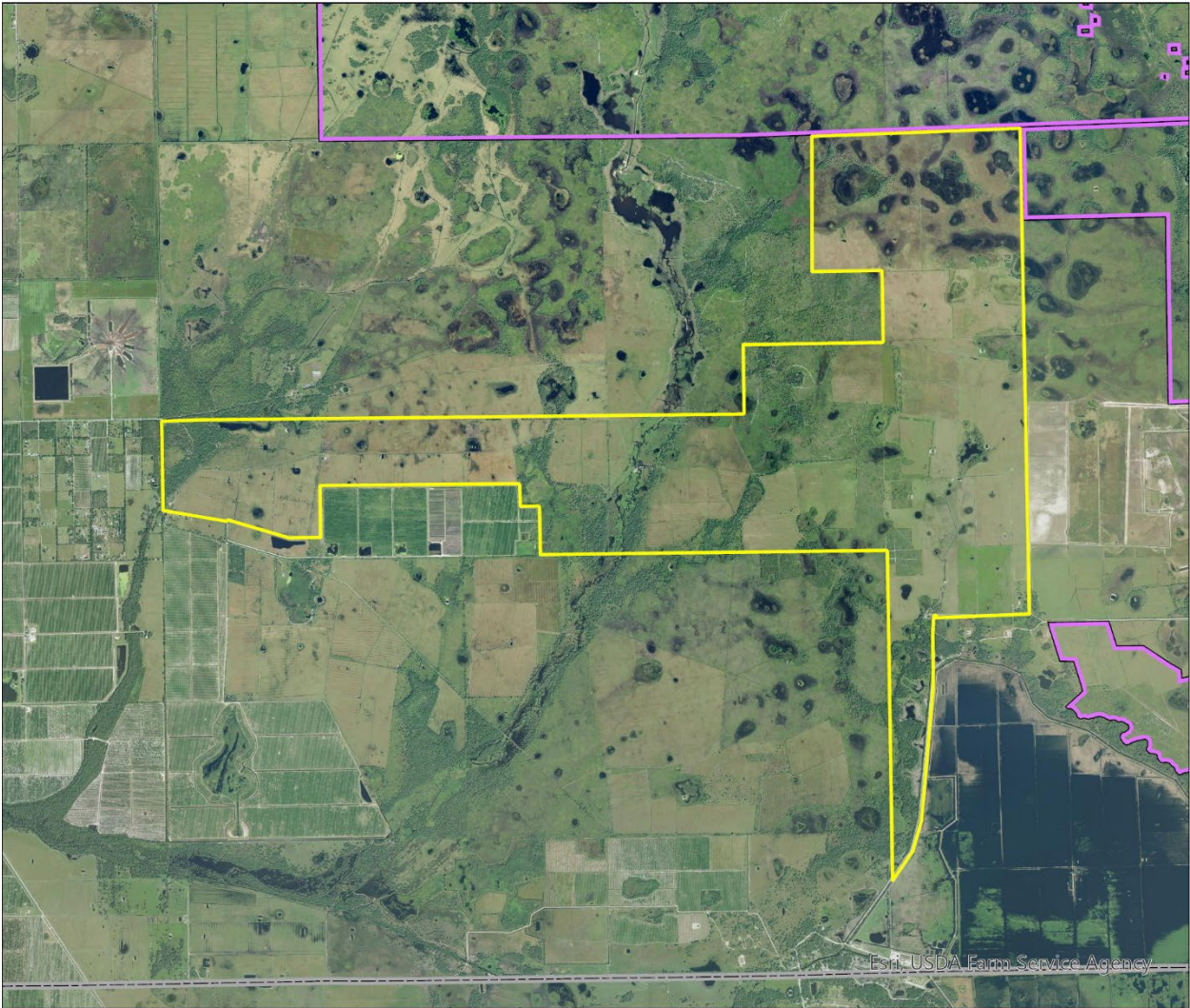
0 2.5 5 Miles



MAP BY FL NATURAL AREAS INVENTORY MAY 2023

# Deer Creek Ranch Florida Forever Proposal

FLORIDA FOREVER BOARD OF TRUSTEES PROJECT PROPOSAL BOUNDARY AS OF MAY 2023



Map Produced by: FL Natural Areas Inventory, N. Pasco, May 2023

Background: USDA NAIP Imagery Resolution = 1.0 meter



-  Florida Forever Proposal Boundary
-  Existing Private Conservation Lands





# ENGLISH FOREST PRESERVE (LEON COUNTY)

Fee Simple

## Preliminary Evaluation

**Natural Resources Description:** The English Forest Preserve Florida Forever proposal comprises a roughly contiguous, single-owner tract of ca. 285 acres (per application; 310 GIS acres) in southeastern Tallahassee in central Leon County. The irregularly shaped site generally extends southward from Orange Avenue to Tram Road; the northern portion lies between Blair Stone Road on the east and Rickards High School on the west. The nearest significant conservation land is Apalachicola National Forest, about 2 miles to the southwest. However, surrounding neighborhoods include green spaces and conservation easements that help to form an urban nature corridor locally. Current ownership is considering development options but is open to reviewing fee simple offers from agencies wishing to protect the site, which is only a portion of an approved planned urban development.

This evaluation is based on information gathered from the proposal application, aerial photography, U.S. Geological Survey (USGS) 7.5' topographic maps, Cooperative Land Cover data (Florida Natural Areas Inventory [FNAI], Florida Cooperative Land Cover Map, version 3.6), and the FNAI database.

The proposed project area is bisected east to west by the Cody Scarp, an ancient shoreline in the vicinity of terrain south of Paul Russell Road. Typically, lands north of the scarp are higher in elevation, have clayey soils, and often are dissected by waterways, while those to the south are relatively low and flat with sandier soils that can support sandhill. According to the application, land in the proposal north of the scarp is forested and has a steep, north-south ravine with a spring head and run. The flatter land south of the scarp is also mostly forested. Although not readily discerned from aerial photography, the application notes the occurrence of wetlands, sinkholes, springs, and streams within the property, all of which reflect the area's karst nature. Remote analysis identified at least one lake as a sandhill upland lake, though it may also be a sinkhole lake; onsite inspection could confirm this. Hydrologically, water percolating and draining throughout the site may reach Wakulla Springs south of Tallahassee.

At least some of the forest on site, roughly a third of the acreage, is characteristic of upland hardwood; a nearly equivalent coverage appears to be successional hardwood forest, which represents a more disturbed category (e.g., hardwood development in fire-suppressed former sandhill). Both of these may have pine in the canopy. Areas currently dominated by slash and loblolly pine canopy with mixed hardwoods below presumably reflect historic silvicultural use of the property, and some remains in condition characterized as pine plantation. Lower and downslope sites support wetland forest species but not to the extent of delineating forested wetland communities.

Table 1. Natural communities and landcover types within the English Forest Preserve Florida Forever proposal.

Community or Landcover	Acres	Percent of Proposal
upland hardwood forest	115	37
sandhill upland lake	43	14
depression marsh	3	<1
successional hardwood forest	106	34
pine plantation	44	14
clearing	1	<1
<i>Total</i>	<b>310</b>	<b>100.0</b>

Table 2 lists rare plant and animal species known or reported to occur onsite. Because the tract is within a general region where the Florida black bear is considered to be frequent by the Florida Fish and Wildlife Conservation Commission, it is included in Table 2; however, use of this particular property by bears is probably infrequent given that is surrounded on three sides by development. The FNAI database contains no other records of rare species on the proposal, although there has been a lack of biological surveys, so this is expected.

Table 2. Rare plants and animals documented or reported to occur within the English Forest Preserve Florida Forever proposal.

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status
<b>Rare plants documented on site</b>					
none					
<b>Additional rare plants reported on site by applicant</b>					
none					
<b>Rare animals documented on site</b>					
<i>Ursus americanus floridanus</i>	Florida black bear	G5T4*	S4	N	N
<b>Additional rare animals reported on site by applicant</b>					
none					

\*Status and rank explanations attached.

The Florida Forever Measures Evaluation (FFME) at the end of this memo is based on the Florida Forever Conservation Needs Assessment developed by FNAI. The data used in that analysis represent a standardized, statewide perspective of natural community distributions based primarily on the Florida Cooperative Land Cover Map, which explains differences in natural community acreages between Table 1 and the FFME. The entirety (99-100%) of the proposal contributes to Strategic Habitat Conservation Areas, Surface Water Protection and Aquifer Recharge. Lesser contributions (20–30% of total acreage) are made to Natural Floodplain Function, Functional Wetlands, and Sustainable Forestry.

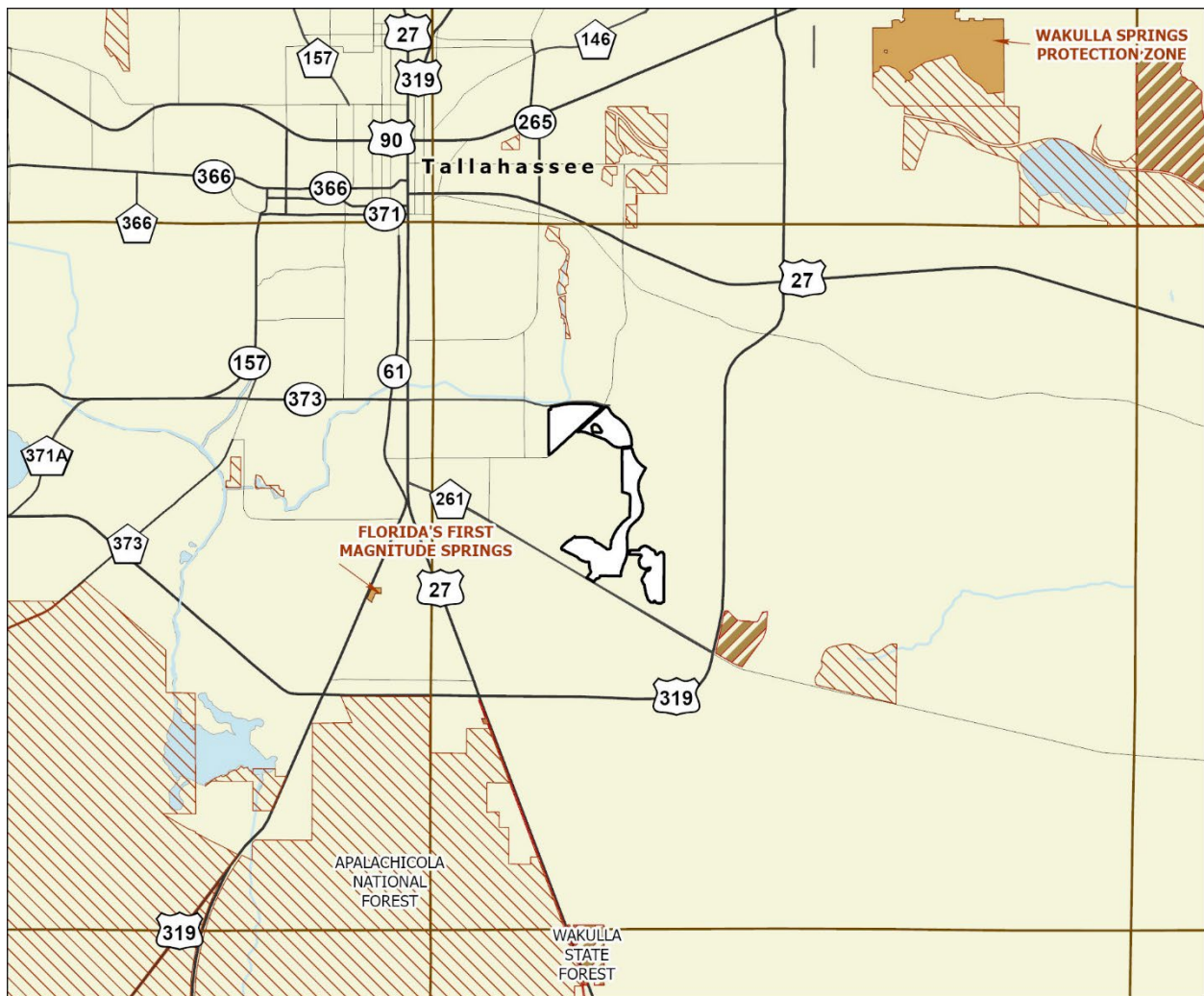
English Forest Preserve: Florida Forever Measures Evaluation 20230510

GIS ACRES = 310

MEASURES	Resource Acres <sup>a</sup>	% of project
<b>B1: Strategic Habitat Conservation Areas</b>		
Priority 1	0	0%
Priority 2	28	9%
Priority 3	260	84%
Priority 4	0	0%
Priority 5	17	6%
Total Acres	306	99%
<b>B2: FNAI Habitat Conservation Priorities</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	0	0%
Priority 6	67	22%
Total Acres	67	22%
<b>B3: Ecological Greenways</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	0	0%
Total Acres	0	0%
<b>B4: Under-represented Natural Communities</b>		
Upland Glade (G1)	0	0%
Pine Rockland (G1)	0	0%
Scrub and Scrubby Flatwoods (G2)	0	0%
Rockland Hammock (G2)	0	0%
Dry Prairie (G2)	0	0%
Seepage Slope (G2)	0	0%
Sandhill (G3)	0	0%
Sandhill Upland Lake (G3)	3	1%
Upland Pine (G3)	0	0%
Mesic/Wet Flatwoods (G4)	0	0%
Upland Hardwood Forest (G5)	5	1%
Total Acres	8	3%
<b>B6: Occurrences of FNAI Tracked Species</b>		
G1	0	
G2	0	
G3	0	
G4	1	
G5	0	
Total	1	
<b>C4: Natural Floodplain Function</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	72	23%
Priority 5	1	< 1%
Priority 6	0	0%
Total Acres	73	23%

MEASURES (continued)	Resource Acres <sup>a</sup>	% of project
<b>C5: Surface Water Protection</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	31	10%
Priority 5	86	28%
Priority 6	192	62%
Priority 7	0	0%
Total Acres	309	100%
<b>C7: Fragile Coastal Resources</b>		
Fragile Coastal Uplands	0	0%
Imperiled Coastal Lakes	0	0%
Coastal Wetlands	0	0%
Total Acres	0	0%
<b>C8: Functional Wetlands</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	2	< 1%
Priority 4	75	24%
Priority 5	8	3%
Priority 6	0	0%
Total Acres	86	28%
<b>D3: Aquifer Recharge</b>		
Priority 1	0	0%
Priority 2	119	38%
Priority 3	61	20%
Priority 4	0	0%
Priority 5	130	42%
Priority 6	0	0%
Total Acres	310	100%
<b>E2: Recreational Trails (miles)</b>		
(prioritized trail opportunities from Office of Greenways and Trails & Univ. Florida)		
Land Trail Priorities	0.0	
Land Trail Opportunities	0.0	
Total Miles	0.0	
<b>F2: Arch. &amp; Historical Sites (number)</b>		5 sites
<b>G1: Sustainable Forestry</b>		
Priority 1	15	5%
Priority 2	3	< 1%
Priority 3	69	22%
Priority 4	0	0%
Priority 5 - Potential Pinelands	0	0%
Total Acres	86	28%
<b>G3: Forestland for Recharge</b>		43 14%

<sup>a</sup>Acres of each resource in the project and percentage of project represented by each resource are listed except where noted. This analysis converts site boundary into pixels, which causes slight differences from GIS acres; this effect is most noticeable on small sites.



## ENGLISH FOREST PRESERVE FLORIDA FOREVER PROPOSAL

### LEON COUNTY

-  Florida Forever Proposed Project
-  Florida Forever BOT Projects
-  State Owned Lands
-  Other Conservation Lands



0 2 4 Miles

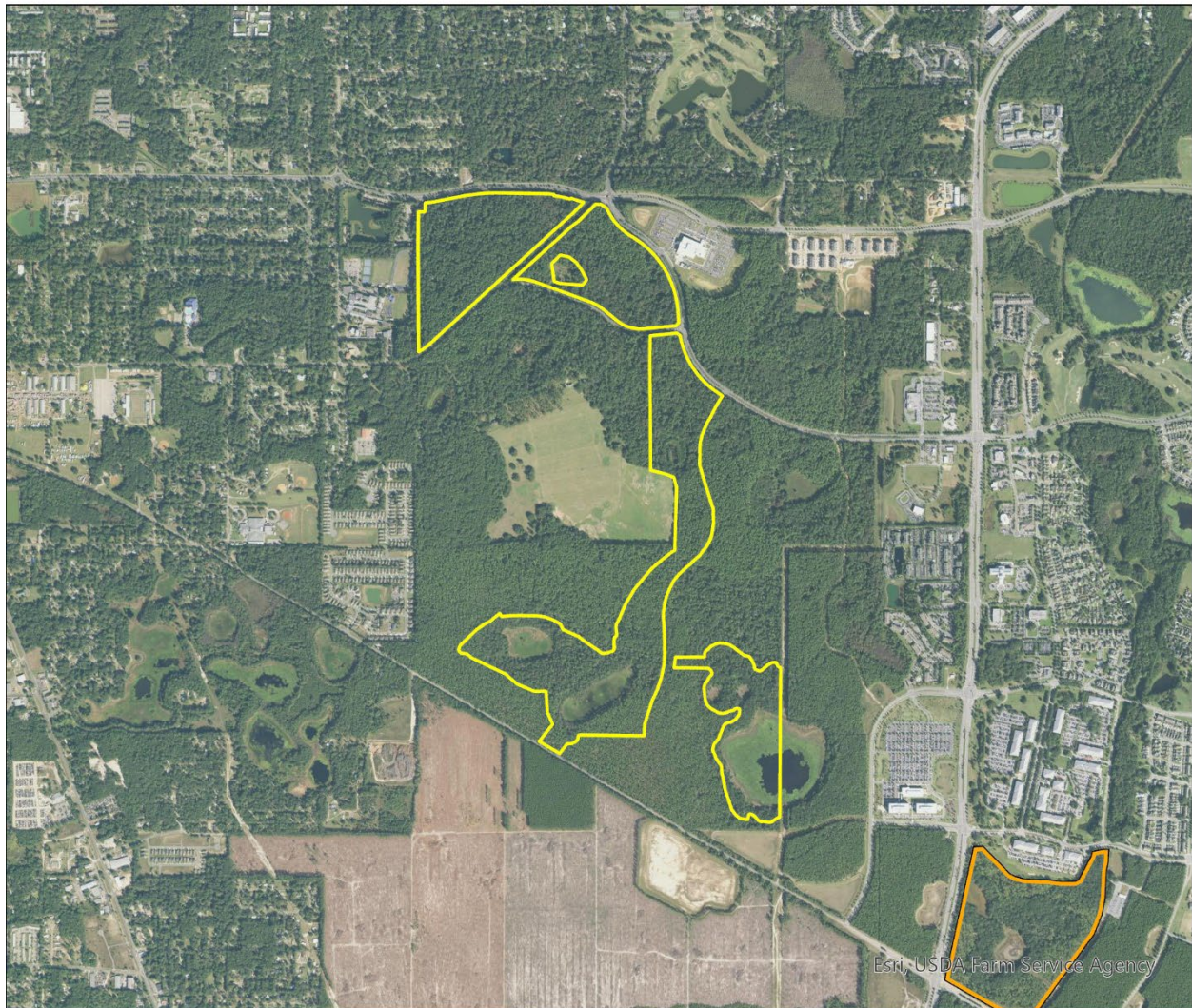


MAP BY FL NATURAL AREAS INVENTORY MAY 2023



# English Forest Preserve Florida Forever Proposal

FLORIDA FOREVER BOARD OF TRUSTEES PROJECT PROPOSAL BOUNDARY AS OF MAY 2023



Map Produced by: FL Natural Areas Inventory, N. Pasco, May 2023

Background: USDA NAIP Imagery Resolution = 1.0 meter



-  Florida Forever Proposal Boundary
-  Existing State Conservation Lands



## FORD MARSH (VOLUSIA COUNTY)

Fee Simple

### Preliminary Evaluation

The Ford Marsh Florida Forever proposal comprises a contiguous but irregularly shaped tract (with a small interior outparcel) of 1,198 acres (1,199 GIS acres) in northernmost coastal Volusia County, between the Halifax River (Intracoastal Waterway) and the mainland. Much of the proposal is bordered by existing conservation lands, chiefly Bulow Creek State Park on the north, west, and south (there may be possible overlap of the proposal and state park boundaries to resolve); this in turn abuts Flagler County Blueway Florida Forever BOT project on the north and Tomoka State Park on the south. Also proximate are North Peninsula State Park and Tomoka Marshes Aquatic Preserve. The proposal is submitted for fee simple protection.

This evaluation is based on information gathered from the proposal application, aerial photography, U.S. Geological Survey (USGS) 7.5' topographic maps, Cooperative Land Cover data (Florida Fish and Wildlife Conservation Commission [FWC] and Florida Natural Areas Inventory [FNAI], Florida Cooperative Land Cover Map, version 3.6), and the FNAI database.

**Natural Resources Description:** This is essentially a coastal wetlands proposal with a small upland component. The application summarizes the site as 85% estuarine salt marsh, 5% impoundment, and 10% hydric and xeric hammock, although remote analysis (Table 1 below) modifies these estimates slightly and suggests that some maritime hammock is present as well. Canals and berms indicative of major disturbance are visible throughout the site's wetlands on aerial photographs; most of these are associated with mosquito control efforts decades earlier. If acquired by the state, management (potentially as part of Bulow Creek State Park) may focus on restoration of impoundments to salt marsh as well as addressing the extensive infestation of invasive plants noted in the application. Table 1 provides an approximation of landcover types and their relative representation within the proposal.

Table 1. Natural communities and landcover types within the Ford Marsh Florida Forever proposal.

Community or Landcover	Acres	Percent of Proposal
Salt Marsh	726	61
Estuarine	381	32
Hydric Hammock	26	2
Maritime Hammock	18	2
Wet Flatwoods	13	1
Xeric Hammock	12	1
Spoil Area	11	1
Road	8	1
<i>Total</i>	1,195	100

Table 2 lists rare plant and animal species known or reported to occur onsite. The site is within a general region where the Florida black bear is considered to be frequent by FWC, although this species' use of the proposed site may be low because of limited upland habitat. The FNAI database contains no other records of rare species on the proposal, but at least some wading and coastal birds are likely.

Table 2. Rare plants and animals documented or reported to occur within the Ford Marsh Florida Forever proposal.

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status
<b>Rare plants documented on site</b>					
none					
<b>Additional rare plants reported on site by applicant</b>					
none					
<b>Rare animals documented on site</b>					
<i>Ursus americanus floridanus</i>	Florida black bear	G5T4	S4	N	N*
<b>Additional rare animals reported on site by applicant</b>					
none					

\*Rank and status explanations attached

The Florida Forever Measures Evaluation (FFME) at the end of this memo is based on the Florida Forever Conservation Needs Assessment developed by FNAI. The data used in that analysis represent a standardized, statewide perspective of natural community distributions based primarily on the Florida Cooperative Land Cover Map, which explains differences in natural community acreages between Table 1 and the FFME. According to the FFME, the entire proposal contributes to Ecological Greenways. The majority (60–65%) of the proposal also contributes to Aquifer Recharge, Surface Water Protection, Natural Floodplain Function, Functional Wetlands, and Fragile Coastal Resources (primarily coastal wetlands).

**Ford Marsh: Florida Forever Measures Evaluation 20230510**

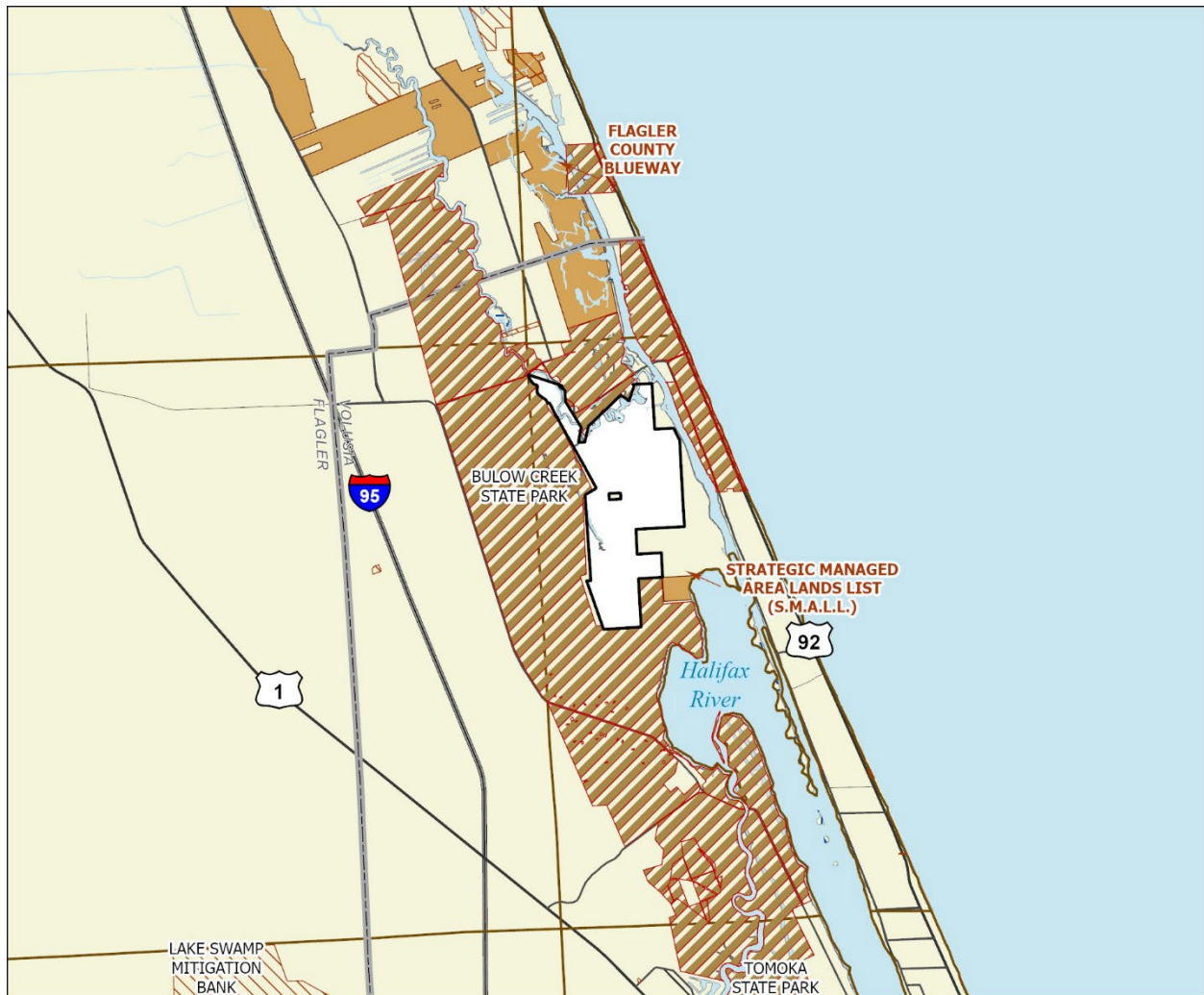
GIS ACRES = 1,199

MEASURES	Resource Acres <sup>a</sup>	% of project
<b>B1: Strategic Habitat Conservation Areas</b>		
Priority 1	0	0%
Priority 2	1	< 1%
Priority 3	121	10%
Priority 4	8	< 1%
Priority 5	17	1%
Total Acres	147	12%
<b>B2: FNAI Habitat Conservation Priorities</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	0	0%
Priority 6	1	< 1%
Total Acres	1	< 1%
<b>B3: Ecological Greenways</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	1,199	100%
Total Acres	1,199	100%
<b>B4: Under-represented Natural Communities</b>		
Upland Glade (G1)	0	0%
Pine Rockland (G1)	0	0%
Scrub and Scrubby Flatwoods (G2)	15	1%
Rockland Hammock (G2)	0	0%
Dry Prairie (G2)	0	0%
Seepage Slope (G2)	0	0%
Sandhill (G3)	0	0%
Sandhill Upland Lake (G3)	0	0%
Upland Pine (G3)	0	0%
Mesic/Wet Flatwoods (G4)	1	< 1%
Upland Hardwood Forest (G5)	0	0%
Total Acres	16	1%
<b>B6: Occurrences of FNAI Tracked Species</b>		
G1	0	
G2	0	
G3	0	
G4	1	
G5	0	
Total	1	
<b>C4: Natural Floodplain Function</b>		
Priority 1	602	50%
Priority 2	131	11%
Priority 3	15	1%
Priority 4	0	0%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	748	62%

MEASURES (continued)	Resource Acres <sup>a</sup>	% of project
<b>C5: Surface Water Protection</b>		
Priority 1	756	63%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	0	0%
Priority 6	0	0%
Priority 7	0	0%
Total Acres	756	63%
<b>C7: Fragile Coastal Resources</b>		
Fragile Coastal Uplands	18	2%
Imperiled Coastal Lakes	0	0%
Coastal Wetlands	735	61%
Total Acres	753	63%
<b>C8: Functional Wetlands</b>		
Priority 1	564	47%
Priority 2	181	15%
Priority 3	23	2%
Priority 4	0	0%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	768	64%
<b>D3: Aquifer Recharge</b>		
Priority 1	0	0%
Priority 2	3	< 1%
Priority 3	0	0%
Priority 4	105	9%
Priority 5	460	38%
Priority 6	167	14%
Total Acres	734	61%
<b>E2: Recreational Trails (miles)</b>		
(prioritized trail opportunities from Office of Greenways and Trails & Univ. Florida)		
Land Trail Priorities	0.0	
Land Trail Opportunities	0.0	
Total Miles	0.0	
<b>F2: Arch. &amp; Historical Sites (number)</b>		3 sites
<b>G1: Sustainable Forestry</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	0	0%
Priority 5 - Potential Pinelands	0	0%
Total Acres	0	0%
<b>G3: Forestland for Recharge</b>		0 0%

<sup>a</sup>Acres of each resource in the project and percentage of project represented by each resource are listed except where noted. This analysis converts site boundary into pixels, which causes slight differences from GIS acres; this effect is most noticeable on small sites.





## FORD MARSH FLORIDA FOREVER PROPOSAL

### VOLUSIA COUNTY

-  Florida Forever Proposed Project
-  Florida Forever BOT Projects
-  State Owned Lands
-  Other Conservation Lands
-  State Aquatic Preserve



0 2.5 5 Miles



MAP BY FL NATURAL AREAS INVENTORY MAY 2023

# Ford Marsh Florida Forever Proposal

FLORIDA FOREVER BOARD OF TRUSTEES PROJECT PROPOSAL BOUNDARY AS OF MAY 2023



Map Produced by: FL Natural Areas Inventory, N. Pasco, May 2023

Background: USDA NAIP Imagery Resolution = 1.0 meter



-  Florida Forever Proposal Boundary
-  Florida Forever BOT Projects
-  Existing State Conservation Lands
-  Existing Private Conservation Lands



## *LAKE POWELL NORTH* (BAY COUNTY)

Fee Simple

### Preliminary Evaluation

The Lake Powell North proposal includes 103 acres on the western edge of Bay County, approximately 1 mile east of Rosemary Beach. The tract is a checkerboard of 3 semi-connected blocks of land under a single ownership on the north shore of Lake Powell; it has no frontage on public roads. The property is offered as a fee-simple acquisition and would be managed as an addition to Camp Helen State Park. Protection of this tract would buffer a rare coastal dune lake by protecting ca. 1.8 miles of shoreline habitat and associated uplands and increase public recreational opportunities by expanding Camp Helen State Park.

This evaluation is based on information gathered from the proposal, aerial photography, U.S. Geological Survey (USGS) 7.5' topographic maps, Cooperative Land Cover data (Florida Fish and Wildlife Conservation Commission [FWC] and Florida Natural Areas Inventory [FNAI], Florida Cooperative Land Cover Map, version 3.6), and the FNAI database. The property lies on the north shore of Lake Powell, the largest freshwater coastal dune lake in the panhandle and an Outstanding Florida Water. Camp Helen State Park lies directly across Lake Powell to the south. Other managed areas in the region include Inlet Beach Park about 0.7 mile to the south, Panama City Beach Conservation Park about 2.5 miles east, Deer Lake State Park 3 miles west (connecting in turn to Point Washington State Forest), and Devils Swamp Mitigation Bank 3 miles to the north, connecting to Choctawhatchee River Water Management Area. Relatively few unacquired FFBOT projects lie nearby; other proposed additions to Camp Helen State Park (part of the SMALL FF BOT project) are located just over ½ mile to the south,

**Natural Resources Description:** The site consists mainly of sand pine scrub (about 83% of the property), with much of the rest described as scrubby flatwoods, although some mesic flatwoods may be present as well. A few roads or ATV trails are evident through the property, but aerial photos show no recent evidence of forestry, development, or other disturbances to the site.

The most notable hydrologic feature of the property is Lake Powell, a coastal dune lake. The margin of the lake on the property is variable; along much of the shoreline, the upland vegetation appears to extend essentially to the water, while in others there is a fringe of saltmarsh vegetation that varies in width. Salt marsh on the property total perhaps 2 acres, or 2% of the tract, and may not be a stable feature of the site, as an essential characteristic of coastal dune lakes is fluctuation in salinity due intermittent connection to the ocean. A few isolated wetlands that are mapped as depression marshes occur sporadically on the property. These appear to be shrub-dominated, likely due to lack of fire; one similar basin is sufficiently dominated by woody plants that it has been mapped as a dome swamp. In addition to the isolated wetlands, there appears to be one elongate wet area on the west side of the property (mapped as a basin swamp) that may have an outflow to the lake.



Table 1. Natural communities and landcover types within Lake Powell North Florida Forever proposal.

Community or Landcover	Acres	Percent of Proposal
Scrub	85	83
Mesic/scrubby flatwoods	11	11
Salt marsh	2	2
Depression marsh	2	2
Dome swamp	1	1
Basin swamp	1	1
Estuarine Unconsolidated Substrate	<1	<1
Utility corridor	<1	<1
<b>Total</b>	<b>103</b>	<b>100</b>

The proposal lies in a region of the state where the Florida black bear is considered frequent; otherwise, no other rare species have been documented on the site (Table 2). However, biotic surveys have not been conducted, and additional rare species are likely. Several rare plants have been noted in the general vicinity, and two in particular (large-leaved jointweed, *Polygonella macrophylla*, G3, S3, N, T\*, and Gulf coast lupine, *Lupinus westianus*, G3, S3, N, T) were formerly widespread in the surrounding area and could be expected on the site. Multiple rare birds--wading birds, shorebirds, and beach-nesting species--may use the lake and lakeshore foraging and roosting.

\* Rarity rankings in the following order: FNAI (global and state ranks), federal status, state status. Rank and status explanations attached.

Table 2. Rare plants and animals documented or reported to occur within Lake Powell North Florida Forever proposal.

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status
<b>Rare plants documented on site</b>					
none					
<b>Additional rare plants reported on site by applicant</b>					
none					
<b>Rare animals documented on site</b>					
none					
<b>Additional rare animals reported on site by applicant</b>					
<i>Ursus americanus floridanus</i>	Florida black bear	G5T4	S4	N	N

The Florida Forever Measures Evaluation (FFME) at the end of this memo is based on the Florida Forever Conservation Needs Assessment developed by FNAI. The data used in that analysis represent a standardized, statewide perspective of natural community distributions based primarily on the Cooperative Land Cover data (FL FWCC and FNAI, Florida Cooperative Land Cover Map, version 3.6), which explains any differences in natural community acreages between Table 1 and the FFME. Nearly all of the proposal (>82%) would contribute to the following measures: Strategic Habitat Areas, FNAI



Habitat Conservation Priorities, Ecological Greenways, Under-represented Natural Communities (scrub and scrubby flatwoods), Surface Water Protection, and Aquifer Protection.

**Lake Powell North: Florida Forever Measures Evaluation 20230516**

GIS ACRES = 103

MEASURES	Resource Acres	% of project
<b>B1: Strategic Habitat Conservation Areas</b>		
Priority 1	0	0%
Priority 2	1	1%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	97	94%
Total Acres	98	95%
<b>B2: FNAI Habitat Conservation Priorities</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	0	0%
Priority 6	89	86%
Total Acres	89	86%
<b>B3: Ecological Greenways</b>		
Priority 1	0	0%
Priority 2	103	100%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	0	0%
Total Acres	103	100%
<b>B4: Under-represented Natural Communities</b>		
Upland Glade (G1)	0	0%
Pine Rockland (G1)	0	0%
Scrub and Scrubby Flatwoods (G2)	84	82%
Rockland Hammock (G2)	0	0%
Dry Prairie (G2)	0	0%
Seepage Slope (G2)	0	0%
Sandhill (G3)	0	0%
Sandhill Upland Lake (G3)	0	0%
Upland Pine (G3)	0	0%
Mesic/Wet Flatwoods (G4)	0	0%
Upland Hardwood Forest (G5)	0	0%
Total Acres	84	82%
<b>B6: Occurrences of FNAI Tracked Species</b>		
G1	0	
G2	0	
G3	0	
G4	1	
G5	0	
Total	1	
<b>C4: Natural Floodplain Function</b>		
Priority 1	0	0%
Priority 2	11	10%
Priority 3	5	4%
Priority 4	0	0%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	15	15%

MEASURES (continued)	Resource Acres	% of project
<b>C5: Surface Water Protection</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	101	98%
Priority 5	0	0%
Priority 6	0	0%
Priority 7	0	0%
Total Acres	101	98%
<b>C7: Fragile Coastal Resources</b>		
Fragile Coastal Uplands	0	0%
Imperiled Coastal Lakes	1	1%
Coastal Wetlands	1	1%
Total Acres	2	2%
<b>C8: Functional Wetlands</b>		
Priority 1	0	0%
Priority 2	8	8%
Priority 3	8	8%
Priority 4	0	0%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	16	16%
<b>D3: Aquifer Recharge</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	12	11%
Priority 4	50	49%
Priority 5	35	34%
Priority 6	0	0%
Total Acres	96	94%
<b>E2: Recreational Trails (miles)</b>		
(prioritized trail opportunities from Office of Greenways and Trails & Univ. Florida)		
Land Trail Priorities	0.0	
Land Trail Opportunities	0.0	
Total Miles	0.0	
<b>F2: Arch. &amp; Historical Sites (numb</b>		
	0 sites	
<b>G1: Sustainable Forestry</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	0	0%
Priority 5 - Potential Pinelands	0	0%
Total Acres	0	0%
<b>G3: Forestland for Recharge</b>		
	0	0%

<sup>a</sup>Acres of each resource in the project and percentage of project represented by each resource are listed except where noted. This analysis converts site boundary into pixels, which causes slight differences from GIS acres; this effect is most noticeable on small sites.



## LAKE POWELL NORTH FLORIDA FOREVER PROPOSAL

### BAY COUNTY

-  Florida Forever Proposed Project
-  Florida Forever BOT Projects
-  State Owned Lands
-  Other Conservation Lands



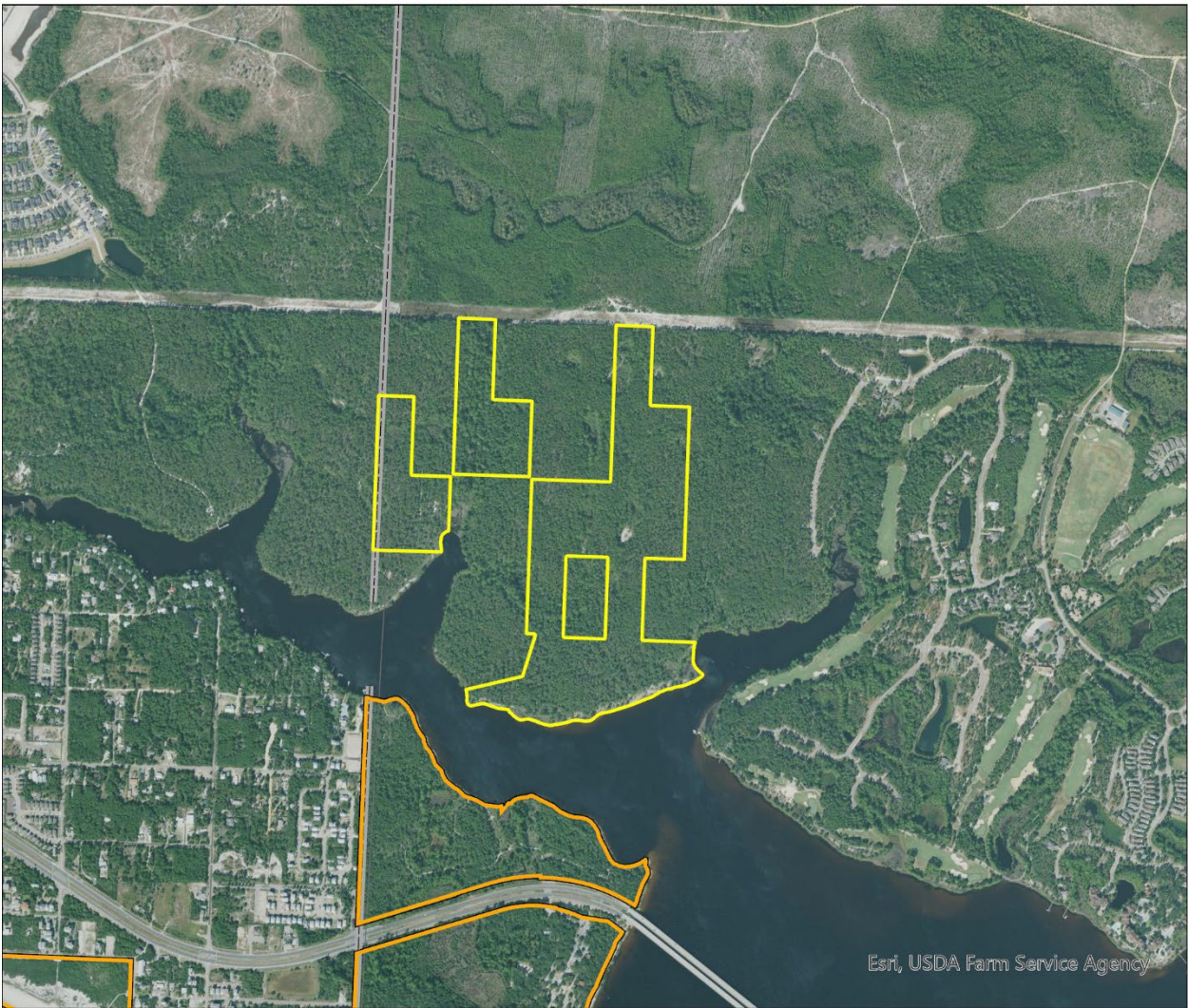
0 2.5 5 Miles



MAP BY FL NATURAL AREAS INVENTORY MAY 2023

# Lake Powell North Florida Forever Proposal

FLORIDA FOREVER BOARD OF TRUSTEES PROJECT PROPOSAL BOUNDARY AS OF MAY 2023

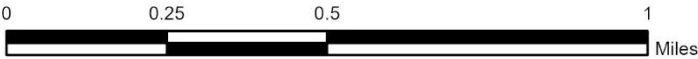


Map Produced by: FL Natural Areas Inventory, N. Pasco, May 2023

Background: USDA NAIP Imagery Resolution = 1.0 meter



-  Florida Forever Proposal Boundary
-  Existing State Conservation Lands





# LITTLE PINE RANCH (LEVY COUNTY)

Less-Than-Fee Simple

## Preliminary Evaluation

**Natural Resources Description:** The Little Pine Ranch Florida Forever proposal comprises a contiguous tract of 930.1 acres (per application; 930 GIS acres) in east-central Levy County, ca. 5 miles southwest of Bronson, on the eastern side of SR-24, which separates it from the concurrent Trailhead Blue Springs proposal. The site lies ca. 2 miles east of Devil's Hammock and less than 1 mile east of Upper Waccasassa Conservation Area. It is within a potential corridor that would connect the upper Waccasassa River to Goethe State Forest, the northern end of which lies 3 miles to the east-southeast. The proposal is submitted for less-than-fee simple protection.

This evaluation is based on information gathered from the proposal application, aerial photography, U.S. Geological Survey (USGS) 7.5' topographic maps, Cooperative Land Cover data (Florida Natural Areas Inventory [FNAI], Florida Cooperative Land Cover Map, version 3.6), and the FNAI database.

The proposal lies within the Waccasassa River watershed. Landcover is chiefly a mosaic of young slash pine (*Pinus elliottii*) plantation and wetlands, both marshes and swamps (hardwoods, shrubs, and cypress). The plantations, most of which suffer from fire exclusion, likely once supported mesic to wet flatwoods growing on poorly drained soils. Nearly all of the swamps show evidence of either recent cutting or past logging of cypress. Bahiagrass dominates improved pastures on-site, and there are small patches of cogon grass (*Imperata cylindrica*). The 23 acres of improved pasture occur around the living quarters near the center of the site and on the eastern property boundary. Miles of unimproved roads provide access throughout the property. Table 1 provides an approximation of landcover types and their relative representation within the proposal.

Table 1. Natural communities and landcover types within the Little Pine Ranch Florida Forever proposal.

Community or Landcover	Acres	Percent of Proposal
basin swamp	383	41
dome swamp	24	3
depression marsh	4	<1
pine plantation	468	50
pasture - improved	25	3
road	23	3
developed	3	<1
artificial pond	1	<1
<i>Total</i>	<b>930</b>	<b>100</b>

Table 2 lists rare plant and animal species known or reported to occur onsite. Besides species listed in the table, the applicant notes that the landowner has also reported observing gopher tortoise. The FNAI database contains no additional records of rare species on the proposal, but this is likely due to a lack of surveys, as older records exist in the general area.

Table 2. Rare plants and animals documented or reported to occur within the Little Pine Ranch Florida Forever proposal.

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status
<b>Rare plants documented on site</b>					
none					
<b>Additional rare plants reported on site by applicant</b>					
none					
<b>Rare animals documented on site</b>					
none					
<b>Additional rare animals reported on site by applicant</b>					
<i>Egretta caerulea</i>	little blue heron	G5*	S4	N	ST
<i>Elanoides forficatus</i>	swallow-tailed kite	G5	S2	N	N
<i>Haliaeetus leucocephalus</i>	bald eagle	G5	S3	N	N
<i>Sciurus niger niger</i>	southeastern fox squirrel	G5T5	S3	N	N
<i>Ursus americanus floridanus</i>	Florida black bear	G5T4	S4	N	N

\*Rank and status explanations attached.

The Florida Forever Measures Evaluation (FFME) at the end of this memo is based on the Florida Forever Conservation Needs Assessment developed by FNAI. The data used in that analysis represent a standardized, statewide perspective of natural community distributions based primarily on the Florida Cooperative Land Cover Map, which explains differences in natural community acreages between Table 1 and the FFME. This proposal contributes most notably (98–100% of acreage) to Ecological Greenways and Surface Water Protection, but also substantially (45–70%) to Natural Floodplain Function (70%), Strategic Habitat Conservation Priorities (60%), FNAI Habitat Conservation Priorities (60%), Aquifer Recharge (45%), Functional Wetlands (46%), and Sustainable Forestry (56%).

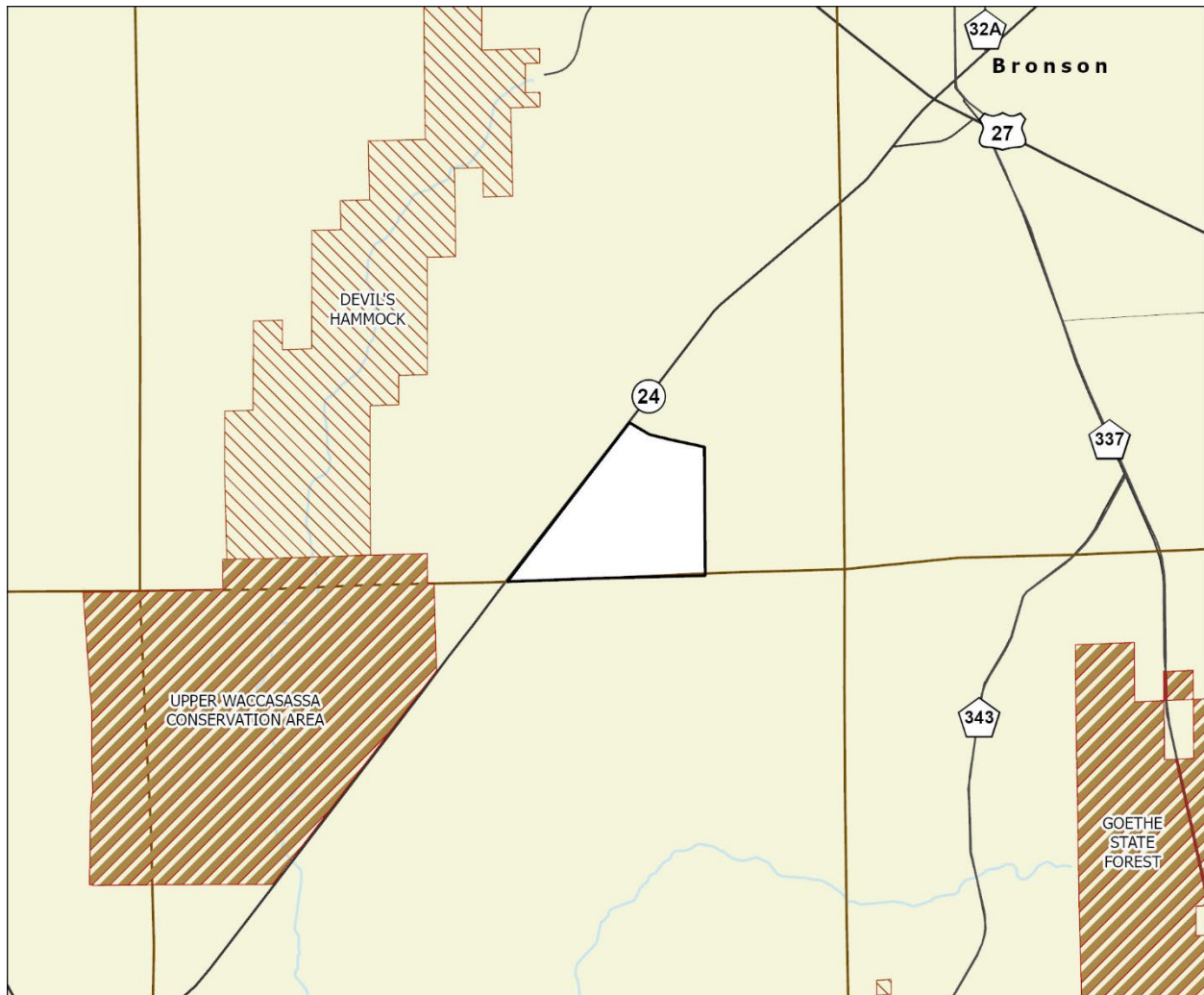
Little Pine Ranch: Florida Forever Measures Evaluation 20230510

GIS ACRES = 930

MEASURES	Resource Acres <sup>a</sup>	% of project
<b>B1: Strategic Habitat Conservation Areas</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	520	56%
Priority 4	0	0%
Priority 5	40	4%
Total Acres	559	60%
<b>B2: FNAI Habitat Conservation Priorities</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	178	19%
Priority 6	378	41%
Total Acres	556	60%
<b>B3: Ecological Greenways</b>		
Priority 1	0	0%
Priority 2	930	100%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	0	0%
Total Acres	930	100%
<b>B4: Under-represented Natural Communities</b>		
Upland Glade (G1)	0	0%
Pine Rockland (G1)	0	0%
Scrub and Scrubby Flatwoods (G2)	0	0%
Rockland Hammock (G2)	0	0%
Dry Prairie (G2)	0	0%
Seepage Slope (G2)	0	0%
Sandhill (G3)	0	0%
Sandhill Upland Lake (G3)	0	0%
Upland Pine (G3)	0	0%
Mesic/Wet Flatwoods (G4)	5	< 1%
Upland Hardwood Forest (G5)	0	0%
Total Acres	5	< 1%
<b>B6: Occurrences of FNAI Tracked Species</b>		
G1	0	
G2	0	
G3	0	
G4	0	
G5	0	
Total	0	
<b>C4: Natural Floodplain Function</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	650	70%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	650	70%

MEASURES (continued)	Resource Acres <sup>a</sup>	% of project
<b>C5: Surface Water Protection</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	231	25%
Priority 5	0	0%
Priority 6	677	73%
Priority 7	0	0%
Total Acres	908	98%
<b>C7: Fragile Coastal Resources</b>		
Fragile Coastal Uplands	0	0%
Imperiled Coastal Lakes	0	0%
Coastal Wetlands	0	0%
Total Acres	0	0%
<b>C8: Functional Wetlands</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	432	46%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	432	46%
<b>D3: Aquifer Recharge</b>		
Priority 1	0	0%
Priority 2	190	20%
Priority 3	233	25%
Priority 4	0	0%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	423	45%
<b>E2: Recreational Trails (miles)</b>		
(prioritized trail opportunities from Office of Greenways and Trails & Univ. Florida)		
Land Trail Priorities	0.0	
Land Trail Opportunities	2.2	
Total Miles	2.2	
<b>F2: Arch. &amp; Historical Sites (number)</b>		0 sites
<b>G1: Sustainable Forestry</b>		
Priority 1	375	40%
Priority 2	45	5%
Priority 3	58	6%
Priority 4	0	0%
Priority 5 - Potential Pinelands	44	5%
Total Acres	522	56%
<b>G3: Forestland for Recharge</b>		256 28%

<sup>a</sup>Acres of each resource in the project and percentage of project represented by each resource are listed except where noted. This analysis converts site boundary into pixels, which causes slight differences from GIS acres; this effect is most noticeable on small sites.



## LITTLE PINE RANCH FLORIDA FOREVER PROPOSAL

### LEVY COUNTY

-  Florida Forever Proposed Project
-  State Owned Lands
-  Other Conservation Lands



0 2 4 Miles

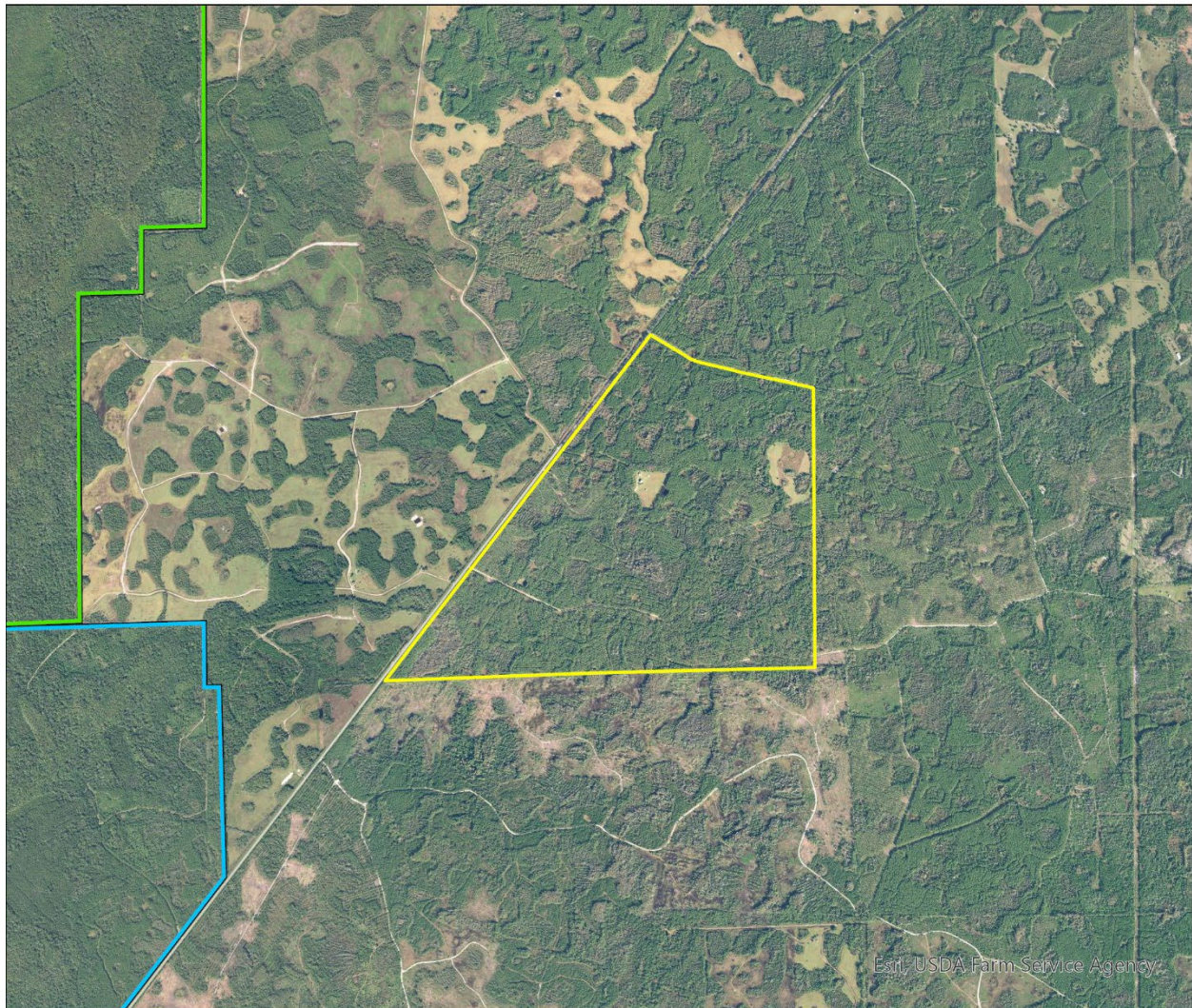


MAP BY FL NATURAL AREAS INVENTORY MAY 2023



# Little Pine Ranch Florida Forever Proposal




FLORIDA FOREVER BOARD OF TRUSTEES PROJECT PROPOSAL BOUNDARY AS OF MAY 2023



Map Produced by: FL Natural Areas Inventory, N. Pasco, May 2023

Background: USDA NAIP Imagery Resolution = 1.0 meter



-  Florida Forever Proposal Boundary
-  Existing Water Management District Conservation Lands
-  Existing Local Conservation Lands



## *MYAKKA RANCH* (MANATEE COUNTY)

Less-Than-Fee-Simple

### Preliminary Evaluation

The Myakka Ranch proposal includes 977 acres (per proposal; 976 as determined in GIS) in eastern Manatee County at the boundary of Hardee County. It is a single contiguous property that is rectangular in shape, with a narrow extension running east west from the northwest corner. The property is proposed by the owners for less-than-fee acquisition.

The property lies along the transition between the Myakka River and Peace River watersheds, with the bulk of the property lying in the Owen Creek watershed in the Myakka River basin; the eastern edge of the property lies in the Middle Horse Creek watershed, which is part of the Peace River basin. The nearest managed area is the Flatford Swamp unit of the Upper Myakka River Water Management Area, which lies about 3 miles west of the property's western tail, or about 5.5 miles west of the tract proper. A series of other public and private managed areas lie to the west within 10 miles. This complex of managed lands in the Myakka basin includes Manatee County's Duette Preserve, Beker-Wingate State Park, and additional water management areas, and numerous conservation easements. Although there are few managed areas near the property, several FFBOT projects are nearby: unacquired portions of the Myakka Ranchlands FFBOT project adjoin the proposal to the east, and additional tracts lie about 9 miles to the southwest. The Horse Creek Ranch FFBOT project is about 8 miles east. This property provides an opportunity to protect natural areas and water quality along Owen Creek and help ensure continued connectivity between the Myakka and Peace River.

**Natural Resources Description:** This evaluation is based on information gathered from the proposal, aerial photography, U.S. Geological Survey (USGS) 7.5' topographic maps, Cooperative Land Cover data (Florida Fish and Wildlife Conservation Commission [FWC] and Florida Natural Areas Inventory [FNAI], Florida Cooperative Land Cover Map, version 3.6), and the FNAI database.

Owen Creek, which originates off the property to the east, crosses the proposal for about  $\frac{3}{4}$  mile, exiting at the middle of the southern boundary. The easternmost portion of the creek on the property may be channelized, but topographic data suggests that the remainder of the creek's path through the tract may follow its natural channel. The property is gently rolling, with areas along the creek and extending northwest lying at about 75 feet above Mean Sea Level (MSL), with much of the western half of the property made up of a hill rising to above 90 ft MSL.

The property appears to consist of predominantly (ca. 87%) natural landcover ranging from scrub and scrubby flatwoods on dry soils at high elevations to wetlands in lower areas, particularly around Owen Creek. The most dominant natural community appears to be mesic flatwoods, making up nearly half of the proposal. Notably, scrub and scrubby flatwoods make up a substantial portion as well on the western uplands as well as a rise at the northeast corner. Aerial photos show evidence that both mesic and scrubby flatwoods have been managed with controlled burns. Lower areas likely consist of wet flatwoods and hydric hammock. A marsh lake of approximately 11 acres lies southwest of the center of the property, and depression marshes are scattered throughout, mostly on the northern half of the property.

The most abundant altered landcover type is pine plantation, making up about 8% of the property in 4 disjunct areas in a north-south band just east of the property's center. Other altered areas include a homestead near the center of the property and an electrical transmission line corridor that crosses the proposal from the northwest to southeast. Small areas of agriculture and apparent successional forest fringe the road in the narrow tail of the property.

Table 1. Natural communities and landcover types within Myakka Ranch Florida Forever proposal.

Community or Landcover	Acres	Percent of Proposal
mesic flatwoods	472	48
scrub	129	13
scrubby flatwoods	70	7
hydric hammock	58	6
wet flatwoods	48	5
depression marsh	44	5
marsh lake	11	1
xeric hammock	10	1
wet prairie	9	1
pine plantation	76	8
road	19	2
utility corridor	10	1
successional hydric forest	5	<1
agriculture	5	<1
canal/ditch	4	<1
developed	4	<1
artificial pond	1	<1
<b>Total</b>	<b>977</b>	<b>100</b>

The FNAI database has no records of rare plants or animals on the proposal area (Table 2), although biotic surveys have not been conducted. The proposal reports gopher tortoises and lists several other species as "reported by the landowner or likely to occur". Given the site's location and habitats, there are numerous possible rare species. Nodding pinweed (*Lechea cernua*, G3, S3, N, T\*), Florida sandhill crane (*Antigone canadensis pratensis*, G5T2, S2, N, T), Bachman's sparrow (*Peucaea aestivalis*, G3, S3, N, N), and tricolored heron (*Egretta tricolor*, G5, S4, N, T) were recently documented at the adjacent Quail Creek Ranch property. Several other species, including Florida bonamia (*Bonamia grandiflora*, G3, S3, T, E), Manasota pawpaw (*Asimina manasota*; G1, S1, N, N), and longbristle beaksedge (*Rhynchospora megaplumosa*, G2, S2, N, E) have also been documented nearby in recent years.

\* Rarity rankings in the following order: FNAI (global and state ranks), federal status, state status. Rank explanations attached.

Table 2. Rare plants and animals documented or reported to occur within Myakka Ranch Florida Forever proposal.

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status
<b>Rare plants documented on site</b>					
none					
<b>Additional rare plants reported on site by applicant</b>					
none					
<b>Rare animals documented on site</b>					
none					
<b>Additional rare animals reported on site by applicant</b>					
<i>Gopherus polyphemus</i>	gopher tortoise	G3	S3	N	LT

The Florida Forever Measures Evaluation (FFME) at the end of this memo is based on the Florida Forever Conservation Needs Assessment developed by FNAI. The data used in that analysis represents a standardized, statewide perspective of natural community distributions based primarily on the Cooperative Land Cover data (FL FWCC and FNAI, Florida Cooperative Land Cover Map, version 3.6), which explains differences in natural community acreages between Table 1 and the FFME. Nearly all the property (85-100% of the proposal) contributes to the following measures: Strategic Habitat Conservation Areas, FNAI Habitat Conservation Priorities, Ecological Greenways, Under-represented Natural Communities (Scrub/scrubby flatwoods and mesic/wet flatwoods), Surface Water Protection, and Aquifer Protection. To a lesser extent, the property also contributes to Natural Floodplain Function, Functional Wetlands, Sustainable Forestry, and Forestland for Recharge.

**Myakka Ranch: Florida Forever Measures Evaluation 20230510**

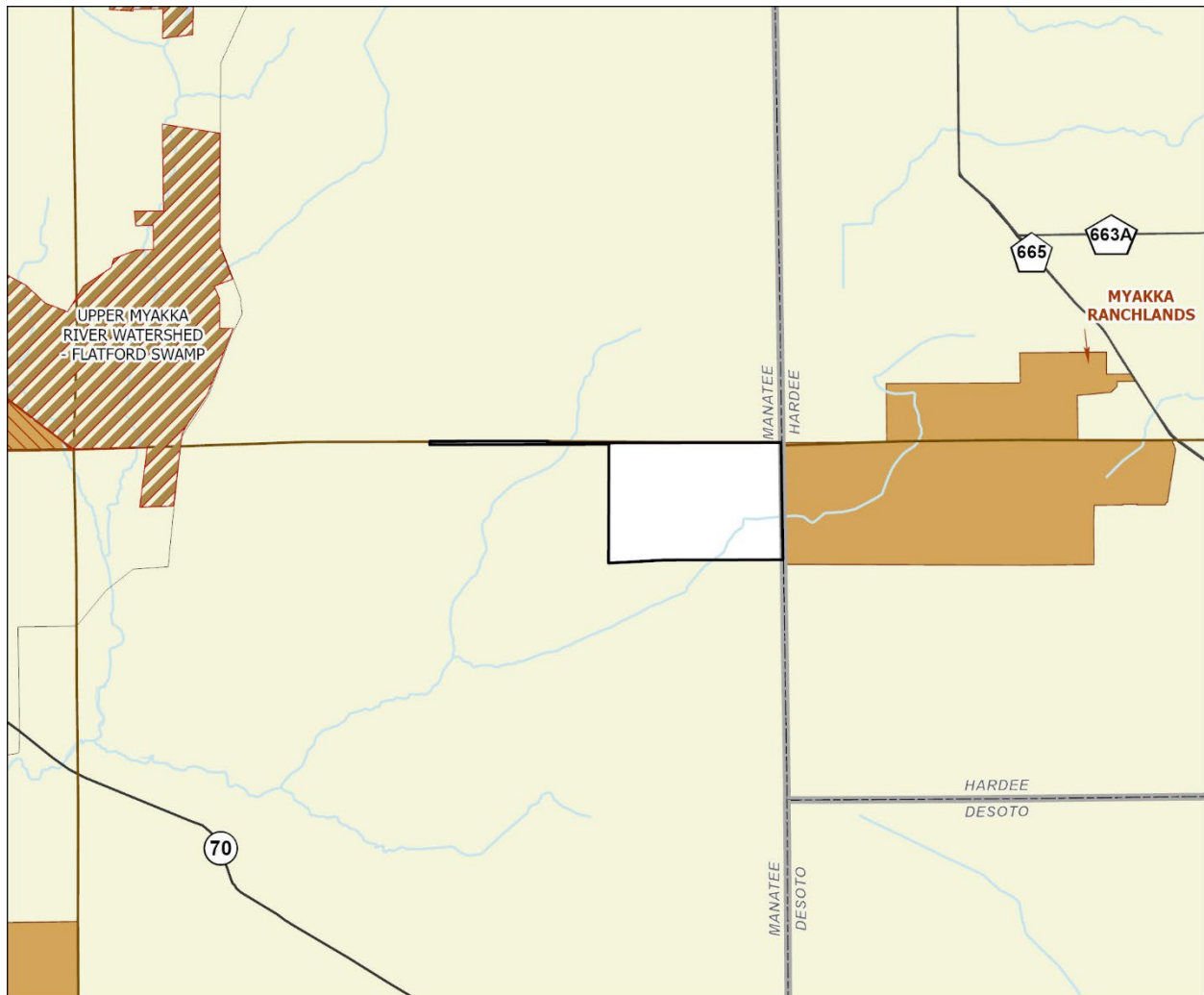
GIS ACRES = 976

MEASURES	Resource Acres <sup>a</sup>	% of project
<b>B1: Strategic Habitat Conservation Areas</b>		
Priority 1	0	0%
Priority 2	2	< 1%
Priority 3	823	84%
Priority 4	0	0%
Priority 5	125	13%
Total Acres	950	97%
<b>B2: FNAI Habitat Conservation Priorities</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	395	40%
Priority 5	230	24%
Priority 6	333	34%
Total Acres	958	98%
<b>B3: Ecological Greenways</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	976	100%
Priority 4	0	0%
Priority 5	0	0%
Total Acres	976	100%
<b>B4: Under-represented Natural Communities</b>		
Upland Glade (G1)	0	0%
Pine Rockland (G1)	0	0%
Scrub and Scrubby Flatwoods (G2)	181	19%
Rockland Hammock (G2)	0	0%
Dry Prairie (G2)	0	0%
Seepage Slope (G2)	0	0%
Sandhill (G3)	0	0%
Sandhill Upland Lake (G3)	11	1%
Upland Pine (G3)	0	0%
Mesic/Wet Flatwoods (G4)	634	65%
Upland Hardwood Forest (G5)	0	0%
Total Acres	827	85%
<b>B6: Occurrences of FNAI Tracked Species</b>		
G1	0	
G2	0	
G3	0	
G4	0	
G5	0	
Total	0	
<b>C4: Natural Floodplain Function</b>		
Priority 1	27	3%
Priority 2	169	17%
Priority 3	17	2%
Priority 4	0	< 1%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	214	22%

MEASURES (continued)	Resource Acres <sup>a</sup>	% of project
<b>C5: Surface Water Protection</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	209	21%
Priority 4	3	< 1%
Priority 5	709	73%
Priority 6	48	5%
Priority 7	0	0%
Total Acres	969	99%
<b>C7: Fragile Coastal Resources</b>		
Fragile Coastal Uplands	0	0%
Imperiled Coastal Lakes	0	0%
Coastal Wetlands	0	0%
Total Acres	0	0%
<b>C8: Functional Wetlands</b>		
Priority 1	17	2%
Priority 2	97	10%
Priority 3	10	1%
Priority 4	0	0%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	123	13%
<b>D3: Aquifer Recharge</b>		
Priority 1	0	0%
Priority 2	83	8%
Priority 3	130	13%
Priority 4	349	36%
Priority 5	414	42%
Priority 6	0	0%
Total Acres	976	100%
<b>E2: Recreational Trails (miles)</b>		
(prioritized trail opportunities from Office of Greenways and Trails & Univ. Florida)		
Land Trail Priorities	0.0	
Land Trail Opportunities	0.0	
Total Miles	0.0	
<b>F2: Arch. &amp; Historical Sites (number)</b>		0 sites
<b>G1: Sustainable Forestry</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	624	64%
Priority 4	0	0%
Priority 5 - Potential Pinelands	50	5%
Total Acres	674	69%
<b>G3: Forestland for Recharge</b>		134 14%

<sup>a</sup>Acres of each resource in the project and percentage of project represented by each resource are listed except where noted. This analysis converts site boundary into pixels, which causes slight differences from GIS acres; this effect is most noticeable on small sites.





## MYAKKA RANCH FLORIDA FOREVER PROPOSAL

### MANATEE COUNTY

-  Florida Forever Proposed Project
-  Florida Forever BOT Projects
-  State Owned Lands
-  Other Conservation Lands



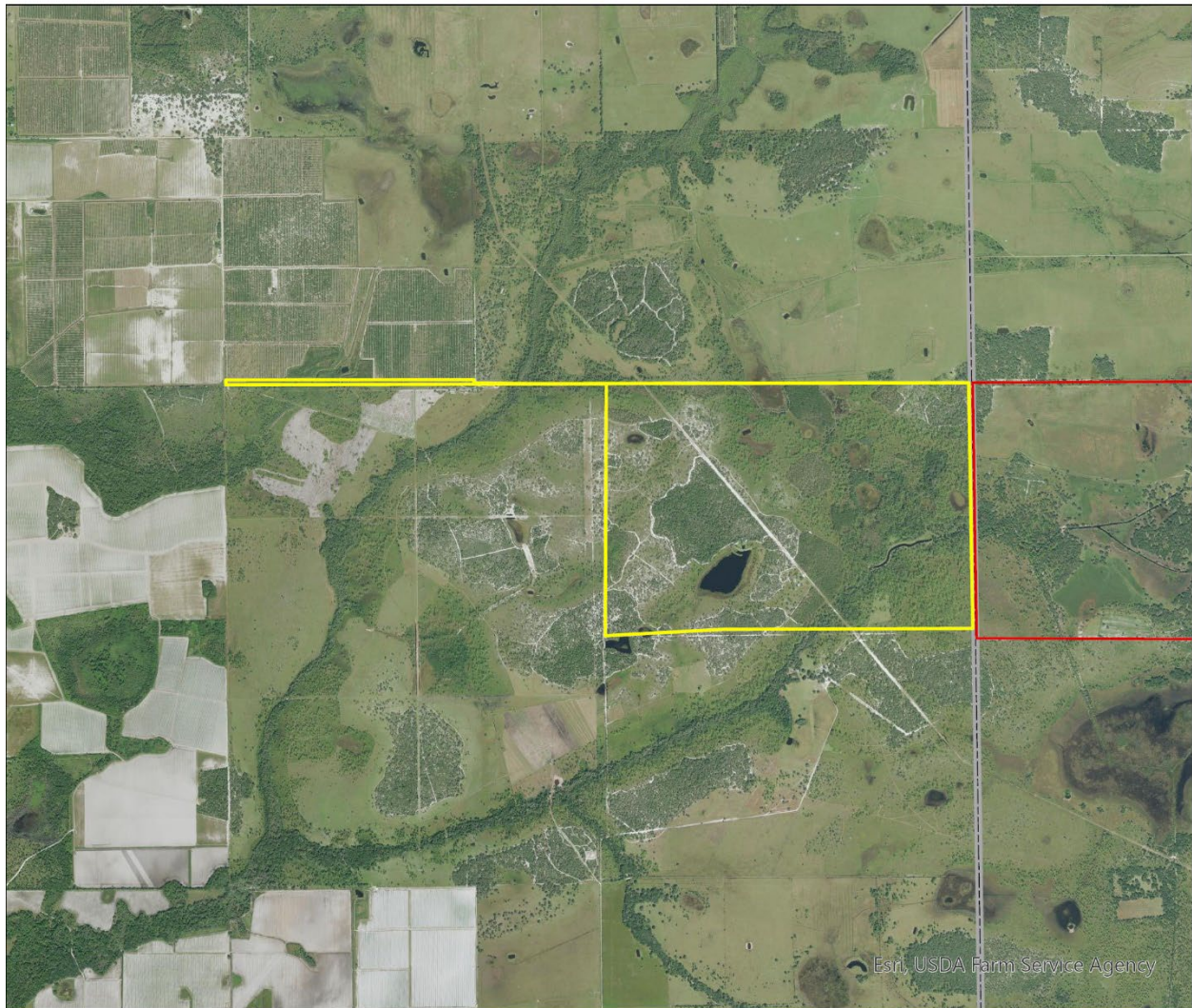
0 2 4 Miles



MAP BY FL NATURAL AREAS INVENTORY MAY 2023

# Myakka Ranch Florida Forever Proposal

FLORIDA FOREVER BOARD OF TRUSTEES PROJECT PROPOSAL BOUNDARY AS OF MAY 2023



Map Produced by: FL Natural Areas Inventory, N. Pasco, May 2023

Background: USDA NAIP Imagery Resolution = 1.0 meter



-  Florida Forever Proposal Boundary
-  Florida Forever BOT Projects



# TRAILHEAD BLUE SPRINGS (LEVY COUNTY)

Less-Than-Fee Simple

## Preliminary Evaluation

The Trailhead Blue Springs Florida Forever proposal comprises a contiguous, irregularly shaped tract of ca. 12,000 acres west of Bronson in north-central Levy County. It is bordered on the north by US-27A and is situated on the northwest side of SR-24, which separates it from the concurrent Little Pine Ranch proposal. Adjacent conservation lands include Upper Waccasassa Conservation Area (at the southern end of the proposal) and Devil's Hammock (projecting along the Waccasassa River into the proposal). Per the application, Devil's Hammock shares 14 miles of border with the proposal. The northern end of Goethe State Forest lies just over 4 miles to the southeast. The site has at least 10 miles of state and federal highway frontage. The proposal is submitted for less-than-fee simple protection.

This evaluation is based on information gathered from the proposal application, aerial photography, U.S. Geological Survey (USGS) 7.5' topographic maps, Cooperative Land Cover data (Florida Fish and Wildlife Conservation Commission [FWC] and Florida Natural Areas Inventory [FNAI], Florida Cooperative Land Cover Map, version 3.6), and the FNAI Natural Heritage Database.

**Natural Resources Description:** The site is a working ranch that is fenced and cross-fenced and contains pens and barns but no dwellings or other structures. The ranch focuses on a cow/calf operation as well as timber management. The large tract, which lies in the Waccasassa River watershed, encompasses a diversity of landcover types, most of which are disturbed, including pasture, pine plantation, cypress swamps (substantially logged), and river bottom. About 1.5 miles of the upper Waccasassa River flow through the middle of the northern end of the site. Although uplands have been heavily disturbed, river bottom vegetation remains more natural. The site includes many miles of roads, including more than a dozen that are identified by name on maps. Table 1 provides an approximation of landcover types and their relative representation within the proposal.

Table 1. Natural communities and landcover types within the Trailhead Blue Springs Florida Forever proposal.

Community or Landcover	Acres	Percent of Proposal
basin swamp	3,068	26
floodplain swamp	977	8
dome swamp	973	8
hydric hammock	186	2
depression marsh	43	1
wet flatwoods	32	<1
basin marsh	20	<1
bottomland forest	1	<1

wet prairie	1	<1
pasture - improved	3,774	31
pine plantation	2,500	21
road	369	3
utility corridor	43	<1
artificial pond	6	<1
developed	6	<1
<b>Total</b>	<b>12,000</b>	<b>100</b>

Table 2 lists rare plant and animal species known or reported to occur onsite. The FNAI database contains relatively few records of rare species on the proposal, but this may reflect lack of surveys.

Table 2. Rare plants and animals documented or reported to occur within the Trailhead Blue Springs Florida Forever proposal.

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status
<b>Rare plants documented on site</b>					
<i>Arnoglossum diversifolium</i>	variable-leaved Indian-plantain	G3	S3	N	T*
<i>Hasteola robertiorum</i>	Florida hasteola	G1	S1	N	E
<b>Additional rare plants reported on site by applicant</b>					
none					
<b>Rare animals documented on site</b>					
<i>Alligator mississippiensis</i>	American alligator	G5	S4	SAT	FT(S/A)
<i>Gopherus polyphemus</i>	gopher tortoise	G3	S3	N	ST
<i>Aramus guarauna</i>	limpkin	G5	S3	N	N
<b>Additional rare animals reported on site by applicant</b>					
none					

\*rank explanations attached.

The Florida Forever Measures Evaluation (FFME) at the end of this memo is based on the Florida Forever Conservation Needs Assessment developed by FNAI. The data used in that analysis represents a standardized, statewide perspective of natural community distributions based primarily on the Florida Cooperative Land Cover Map, which explains differences in natural community acreages between Table 1 and the FFME. This proposal contributes most notably (97–100% of acreage) to Ecological Greenways and Surface Water Protection, but also substantially (> 30%) to Aquifer Recharge (66%), Natural Floodplain Function (62%), Functional Wetlands (46%), and Sustainable Forestry (34%).

# Trailhead Blue Springs: Florida Forever Measures Evaluation 20230510

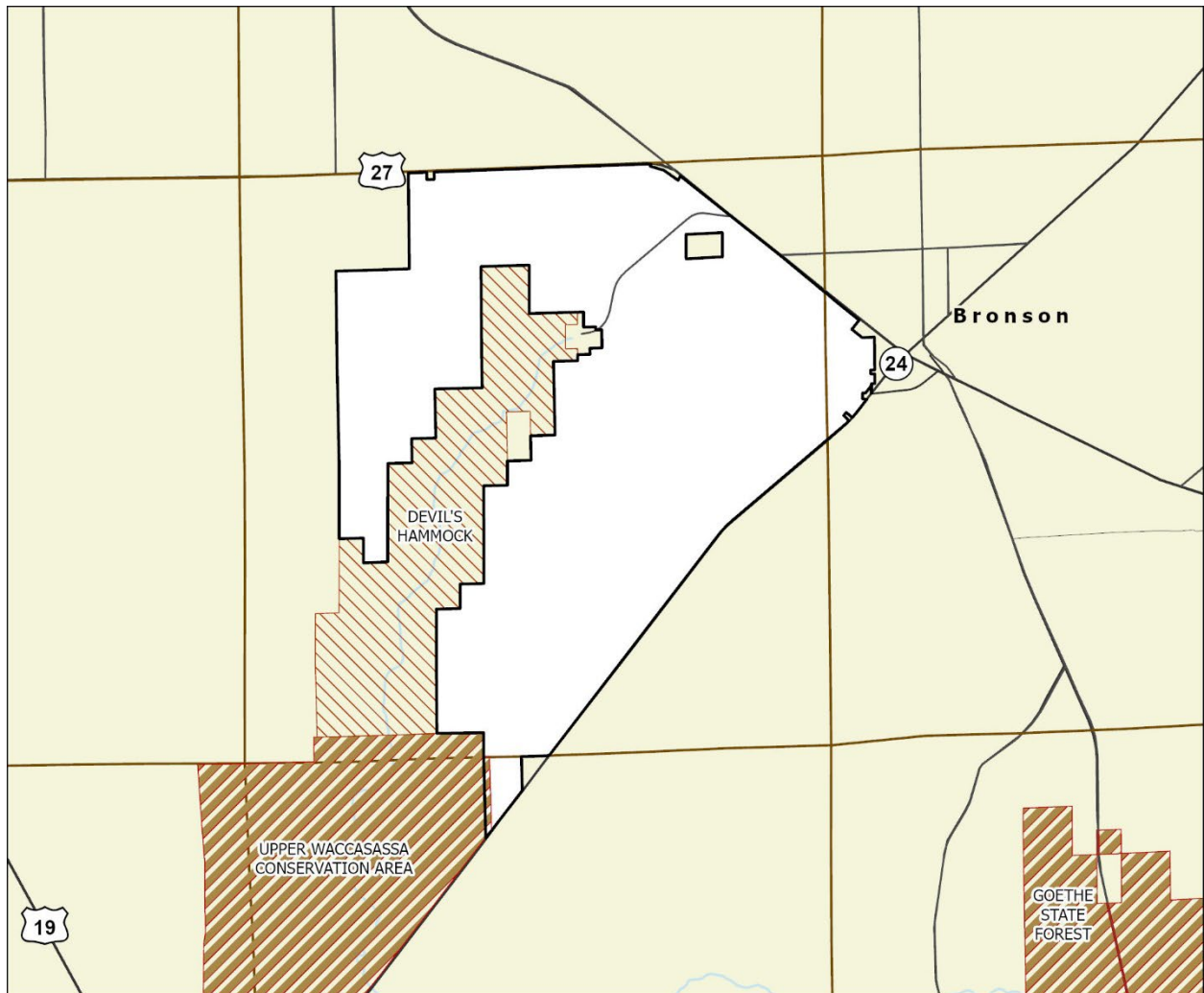
GIS ACRES = 12,000

MEASURES	Resource Acres <sup>a</sup>	% of project
<b>B1: Strategic Habitat Conservation Areas</b>		
Priority 1	0	0%
Priority 2	2	< 1%
Priority 3	8,332	69%
Priority 4	0	0%
Priority 5	967	8%
Total Acres	9,302	78%
<b>B2: FNAI Habitat Conservation Priorities</b>		
Priority 1	0	0%
Priority 2	314	3%
Priority 3	135	1%
Priority 4	299	2%
Priority 5	547	5%
Priority 6	5,539	46%
Total Acres	6,834	57%
<b>B3: Ecological Greenways</b>		
Priority 1	0	0%
Priority 2	11,518	96%
Priority 3	0	0%
Priority 4	473	4%
Priority 5	0	0%
Total Acres	11,990	100%
<b>B4: Under-represented Natural Communities</b>		
Upland Glade (G1)	0	0%
Pine Rockland (G1)	0	0%
Scrub and Scrubby Flatwoods (G2)	0	0%
Rockland Hammock (G2)	0	0%
Dry Prairie (G2)	0	0%
Seepage Slope (G2)	0	0%
Sandhill (G3)	0	0%
Sandhill Upland Lake (G3)	0	0%
Upland Pine (G3)	0	0%
Mesic/Wet Flatwoods (G4)	287	2%
Upland Hardwood Forest (G5)	0	0%
Total Acres	287	2%
<b>B6: Occurrences of FNAI Tracked Species</b>		
G1	0	
G2	0	
G3	2	
G4	0	
G5	1	
Total	3	
<b>C4: Natural Floodplain Function</b>		
Priority 1	28	< 1%
Priority 2	864	7%
Priority 3	1,792	15%
Priority 4	4,714	39%
Priority 5	7	< 1%
Priority 6	0	0%
Total Acres	7,405	62%

MEASURES (continued)	Resource Acres <sup>a</sup>	% of project
<b>C5: Surface Water Protection</b>		
Priority 1	279	2%
Priority 2	38	< 1%
Priority 3	300	2%
Priority 4	4,627	39%
Priority 5	856	7%
Priority 6	4,917	41%
Priority 7	593	5%
Total Acres	11,609	97%
<b>C7: Fragile Coastal Resources</b>		
Fragile Coastal Uplands	0	0%
Imperiled Coastal Lakes	0	0%
Coastal Wetlands	0	0%
Total Acres	0	0%
<b>C8: Functional Wetlands</b>		
Priority 1	28	< 1%
Priority 2	794	7%
Priority 3	1,418	12%
Priority 4	3,277	27%
Priority 5	3	< 1%
Priority 6	0	0%
Total Acres	5,520	46%
<b>D3: Aquifer Recharge</b>		
Priority 1	0	0%
Priority 2	5,277	44%
Priority 3	1,685	14%
Priority 4	940	8%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	7,902	66%
<b>E2: Recreational Trails (miles)</b>		
(prioritized trail opportunities from Office of Greenways and Trails & Univ. Florida)		
Land Trail Priorities	0.0	
Land Trail Opportunities	1.5	
Total Miles	1.5	
<b>F2: Arch. &amp; Historical Sites (number)</b>		6 sites
<b>G1: Sustainable Forestry</b>		
Priority 1	5,285	44%
Priority 2	499	4%
Priority 3	993	8%
Priority 4	0	0%
Priority 5 - Potential Pinelands	12	< 1%
Total Acres	6,790	57%
<b>G3: Forestland for Recharge</b>		
	4,105	34%

<sup>a</sup>Acres of each resource in the project and percentage of project represented by each resource are listed except where noted. This analysis converts site boundary into pixels, which causes slight differences from GIS acres; this effect is most noticeable on small sites.





## TRAILHEAD BLUE SPRINGS FLORIDA FOREVER PROPOSAL

### LEVY COUNTY

-  Florida Forever Proposed Project
-  State Owned Lands
-  Other Conservation Lands



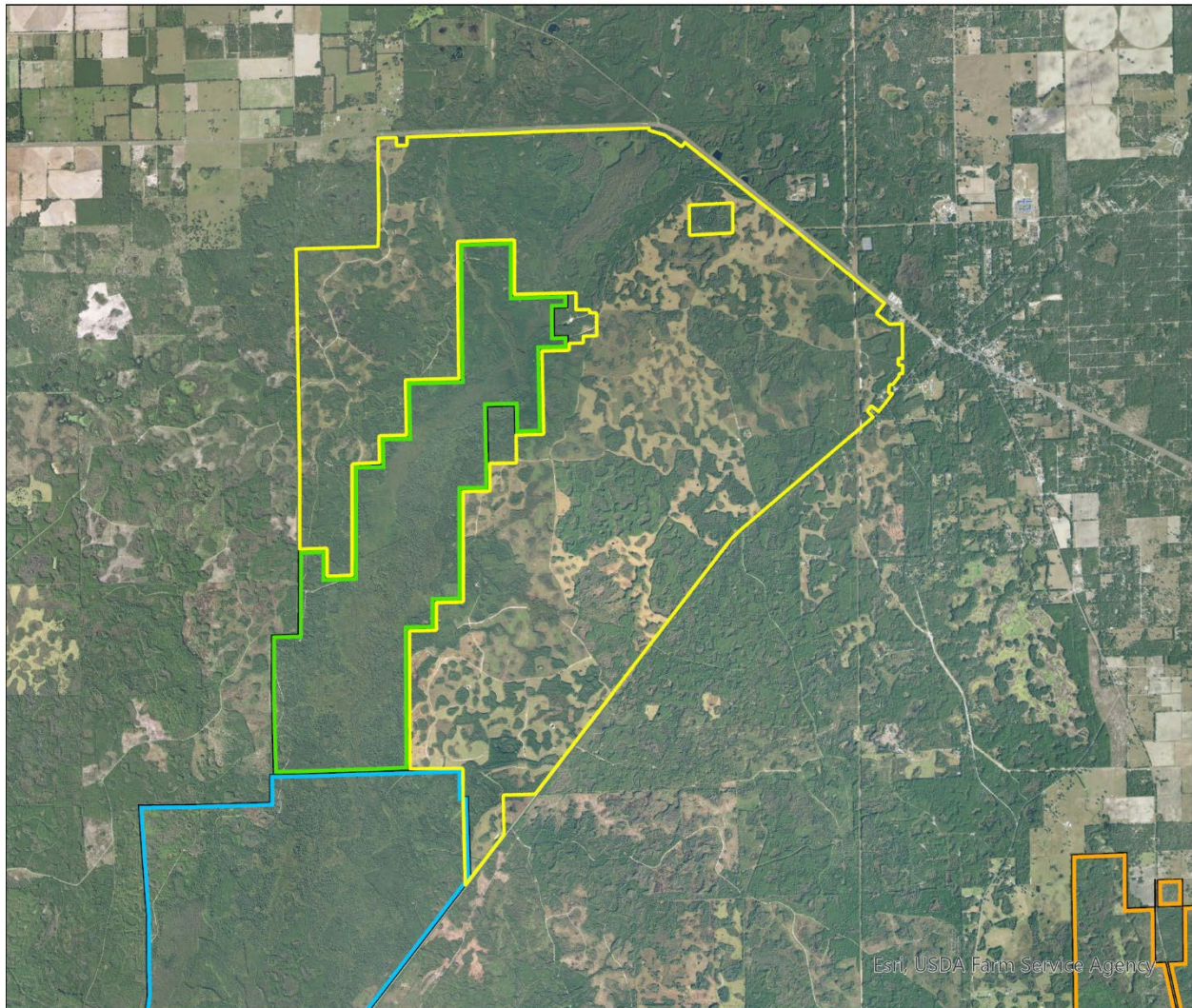
0 2.5 5 Miles



MAP BY FL NATURAL AREAS INVENTORY MAY 2023

# Trailhead Blue Springs Florida Forever Proposal

FLORIDA FOREVER BOARD OF TRUSTEES PROJECT PROPOSAL BOUNDARY AS OF MAY 2023



Map Produced by: FL Natural Areas Inventory, N. Pasco, May 2023

Background: USDA NAIP Imagery Resolution = 1.0 meter



- Florida Forever Proposal Boundary
- Existing State Conservation Lands
- Existing Water Management District Conservation Lands
- Existing Local Conservation Lands



## *VENUS PROJECT* (HIGHLANDS COUNTY)

Less-Than-Fee-Simple

### Preliminary Evaluation

**Natural Resources Description:** The Venus Project proposal includes 1,040 acres (per proposal; 1,054.5 as determined in GIS) approximately 15 miles south of Lake Placid in southern Highlands County. The entire north boundary of the property fronts County Road 731, and has 1 mile of frontage on Quarters Road, 0.3 miles of frontage on W. Flagler St., and 0.3 miles of frontage on Detjens Dairy Road. The boundary of the easternmost section of the tract is fragmented by a few inholdings as well as platted roads or easements. A small portion of the property lies across Detjens Dairy Rd. from the bulk of the proposal and extends east to a railway corridor belonging to the South Central Florida Railroad. The property consists of 15 mostly contiguous parcels under ownership of members of a single family, and is proposed by the owners for acquisition of a conservation easement.

This evaluation is based on information gathered from the proposal, aerial photography, U.S. Geological Survey (USGS) 7.5' topographic maps, Cooperative Land Cover data (Florida Fish and Wildlife Conservation Commission [FWC] and Florida Natural Areas Inventory [FNAI], Florida Cooperative Land Cover Map, version 3.6), and the FNAI Natural Heritage Database. The property is located in the lower Fisheating Creek Watershed, southwest of the southern tip of the Lake Wales Ridge. The Platt Branch Wildlife and Environmental Area adjoins the proposal along much of its southern boundary, and connects to the Fisheating Creek Wildlife Management Area and several other public and private managed areas to provide a continuous corridor from the proposal tract to Lake Okeechobee. A half-mile to the north is a complex of nearly continuous connected managed lands that includes Archbold Biological Station, Lake Wales Ridge Wildlife and Environmental Area, and numerous other public lands and private easements. Unacquired portions of 3 different Florida Forever Board of Trustees (FFBOT) Projects—the Lake Wales Ridge Ecosystem, the Blue Head Ranch project, and the Fisheating Creek Ecosystem project—all lie approximately 1.5 miles from the site.

The property is operated as a cattle ranch and consists of a matrix of improved and unimproved pasture with areas of more natural vegetation interspersed (Table 1). Overall, an estimated 30% of the property is occupied by natural communities. Topography of the site is gently rolling; the highest elevations are found near and across Detjens Dairy Rd. where the property approaches the trail ridge. These higher areas appear to support some areas of scrub, scrubby flatwoods, and xeric hammock, while baygall occurs on the lower slopes. The tract's lowest elevations are in the Platt Branch drainage, which along much of its path is surrounded by forests that likely are a combination of hydric hammock and mesic hammock. North of Platt Branch is generally level pasture punctuated by a few isolated depressional wetlands.

The main hydrologic feature of the property is Platt Branch, which enters the property to the north and follows a J-shaped path across the tract, exiting the west boundary near the south end of the property. Isolated dome swamps and depression marshes are occasional throughout the property.

The application notes that occasional prescribed burns have been conducted at the site. The application also mentions that the landowners are considering replanting cypress in swamps that were logged in the early 20<sup>th</sup> Century.

Table 1. Natural communities and landcover types within the Venus Project Florida Forever proposal.

<b>Community or Landcover</b>	<b>Acres</b>	<b>Percent of Proposal</b>
hydric hammock	120	11
baygall	50	5
mesic hammock	44	4
dome swamp	23	2
mesic flatwoods	20	2
basin swamp	20	2
depression marsh	17	2
scrubby flatwoods	12	1
scrub	6	<1
wet flatwoods	4	<1
xeric hammock	1	<1
pasture--improved	524	50
pasture—semi-improved	212	20
road	2	<1
artificial pond	<1	<1
<i>Total</i>	1054	<b>100</b>

FNAI has documentation of two rare animals on the proposal area (Table 2), and the applicant reports 8 additional rare or imperiled animal species from the site. Several species occur nearby and could also be found on the site, including several wading birds, Florida sandhill crane, and Florida pine snake, among others. Based on the FNAI database and the application, no rare plants are known to occur in the proposal area. This is likely due to a lack of surveys. With additional effort, there is the possibility for rare plants to be documented, particularly in scrub and scrubby flatwoods.

Table 2. Rare plants and animals documented or reported to occur within the Venus Project Florida Forever proposal.

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status
<b>Rare plants documented on site</b>					
None					
<b>Additional rare plants reported on site by applicant</b>					
None					
<b>Rare animals documented on site</b>					
<i>Stelis ater</i>	southwest Florida Stelis bee	G2	S2	N	N*
<i>Caracara plancus</i>	crested caracara	G5	S2	T	FT
<b>Additional rare animals reported on site by applicant</b>					
<i>Crotalus adamanteus</i>	eastern diamondback rattlesnake	G3	S3	UR	N
<i>Drymarchon couperi</i>	eastern indigo snake	G3	S2?	T	FT
<i>Gopherus polyphemus</i>	gopher tortoise	G3	S3	N	ST
<i>Elanoides forficatus</i>	swallow-tailed kite	G5	S2	N	N
<i>Haliaeetus leucocephalus</i>	bald eagle	G5	S3	N	N
<i>Mycteria americana</i>	wood stork	G4	S2	DL	FT
<i>Sciurus niger niger</i>	southeastern fox squirrel	G5T5	S3	N	N

\*Rank and status explanations attached.

The Florida Forever Measures Evaluation (FFME) at the end of this memo is based on the Florida Forever Conservation Needs Assessment developed by FNAI. The data used in that analysis represents a standardized, statewide perspective of natural community distributions based primarily on Cooperative Land Cover data (FL FWCC and FNAI, Florida Cooperative Land Cover Map, version 3.6), which explains any differences in natural community acreages between Table 1 and the FFME. The entirety of the site contributes to FNAI Habitat Conservation Priorities, Ecological Greenways, Surface Water Protection, and Aquifer Recharge. Between 60 and 80% of the site contribute to Strategic Habitat Conservation Areas and Natural Floodplain Function, and small areas (<25%) also contribute to Under-represented Natural Communities (mostly mesic/wet flatwoods) and Functional Wetlands.



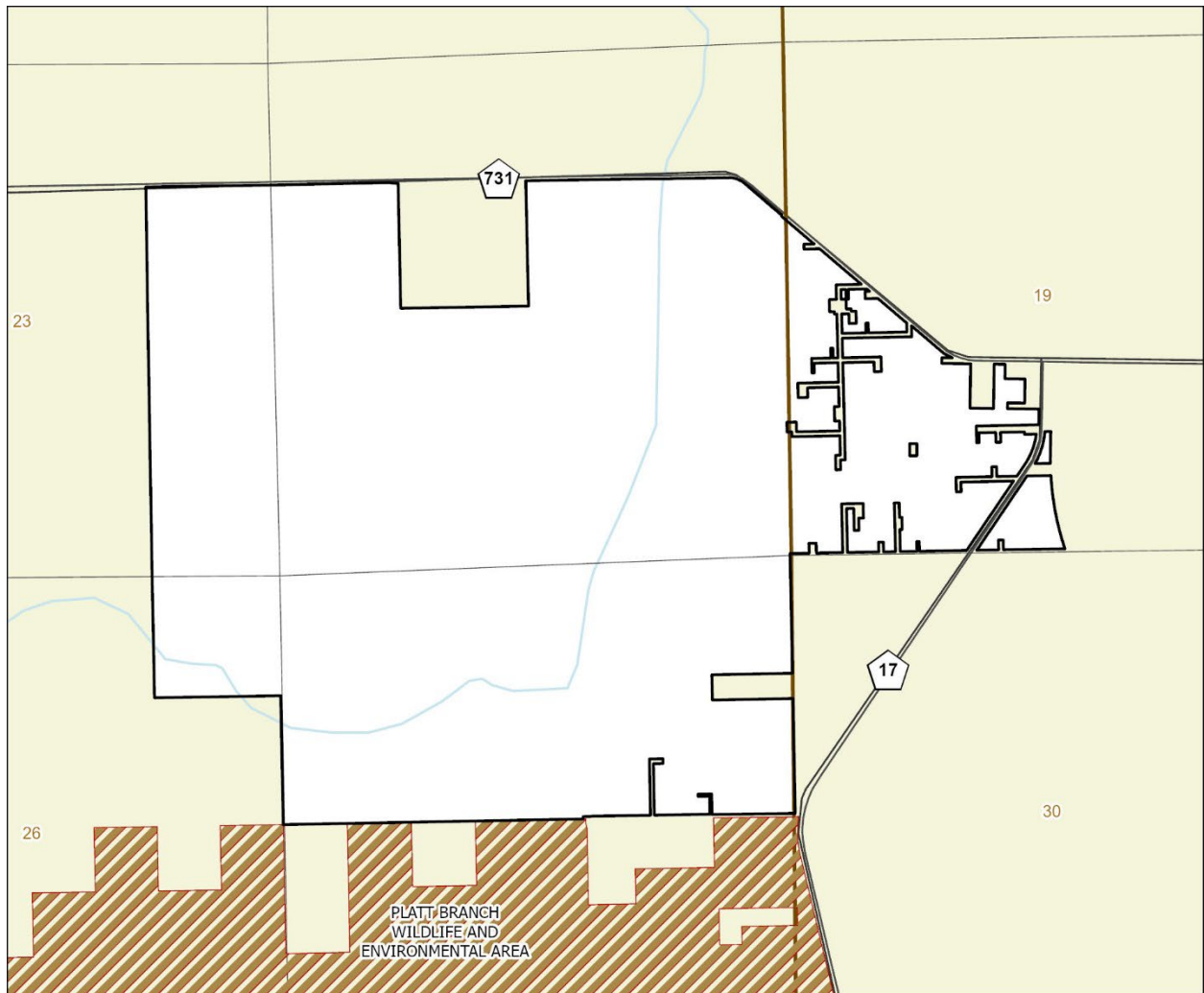
**Venus: Florida Forever Measures Evaluation 20230510**

GIS ACRES = 1,054

MEASURES	Resource Acres <sup>a</sup>	% of project
<b>B1: Strategic Habitat Conservation Areas</b>		
Priority 1	620	59%
Priority 2	221	21%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	6	< 1%
Total Acres	847	80%
<b>B2: FNAI Habitat Conservation Priorities</b>		
Priority 1	118	11%
Priority 2	240	23%
Priority 3	96	9%
Priority 4	395	38%
Priority 5	200	19%
Priority 6	4	< 1%
Total Acres	1,053	100%
<b>B3: Ecological Greenways</b>		
Priority 1	1,054	100%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	0	0%
Total Acres	1,054	100%
<b>B4: Under-represented Natural Communities</b>		
Upland Glade (G1)	0	0%
Pine Rockland (G1)	0	0%
Scrub and Scrubby Flatwoods (G2)	1	< 1%
Rockland Hammock (G2)	0	0%
Dry Prairie (G2)	0	0%
Seepage Slope (G2)	0	0%
Sandhill (G3)	0	0%
Sandhill Upland Lake (G3)	0	0%
Upland Pine (G3)	0	0%
Mesic/Wet Flatwoods (G4)	222	21%
Upland Hardwood Forest (G5)	0	0%
Total Acres	223	21%
<b>B6: Occurrences of FNAI Tracked Species</b>		
G1	1	
G2	0	
G3	0	
G4	1	
G5	1	
Total	3	
<b>C4: Natural Floodplain Function</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	44	4%
Priority 4	261	25%
Priority 5	110	10%
Priority 6	213	20%
Total Acres	629	60%

MEASURES (continued)	Resource Acres <sup>a</sup>	% of project
<b>C5: Surface Water Protection</b>		
Priority 1	0	0%
Priority 2	417	40%
Priority 3	0	0%
Priority 4	635	60%
Priority 5	0	0%
Priority 6	0	0%
Priority 7	0	0%
Total Acres	1,052	100%
<b>C7: Fragile Coastal Resources</b>		
Fragile Coastal Uplands	0	0%
Imperiled Coastal Lakes	0	0%
Coastal Wetlands	0	0%
Total Acres	0	0%
<b>C8: Functional Wetlands</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	45	4%
Priority 4	199	19%
Priority 5	8	< 1%
Priority 6	3	< 1%
Total Acres	255	24%
<b>D3: Aquifer Recharge</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	451	43%
Priority 4	477	45%
Priority 5	126	12%
Priority 6	0	0%
Total Acres	1,054	100%
<b>E2: Recreational Trails (miles)</b>		
(prioritized trail opportunities from Office of Greenways and Trails & Univ. Florida)		
Land Trail Priorities	0.5	
Land Trail Opportunities	0.0	
Total Miles	0.5	
<b>F2: Arch. &amp; Historical Sites (number)</b>		
	0 sites	
<b>G1: Sustainable Forestry</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	13	1%
Priority 4	0	0%
Priority 5 - Potential Pinelands	799	76%
Total Acres	812	77%
<b>G3: Forestland for Recharge</b>		
	7	< 1%

<sup>a</sup>Acres of each resource in the project and percentage of project represented by each resource are listed except where noted. This analysis converts site boundary into pixels, which causes slight differences from GIS acres; this effect is most noticeable on small sites.



## VENUS FLORIDA FOREVER PROPOSAL

### HIGHLANDS COUNTY

-  Florida Forever Proposed Project
-  State Owned Lands
-  Other Conservation Lands



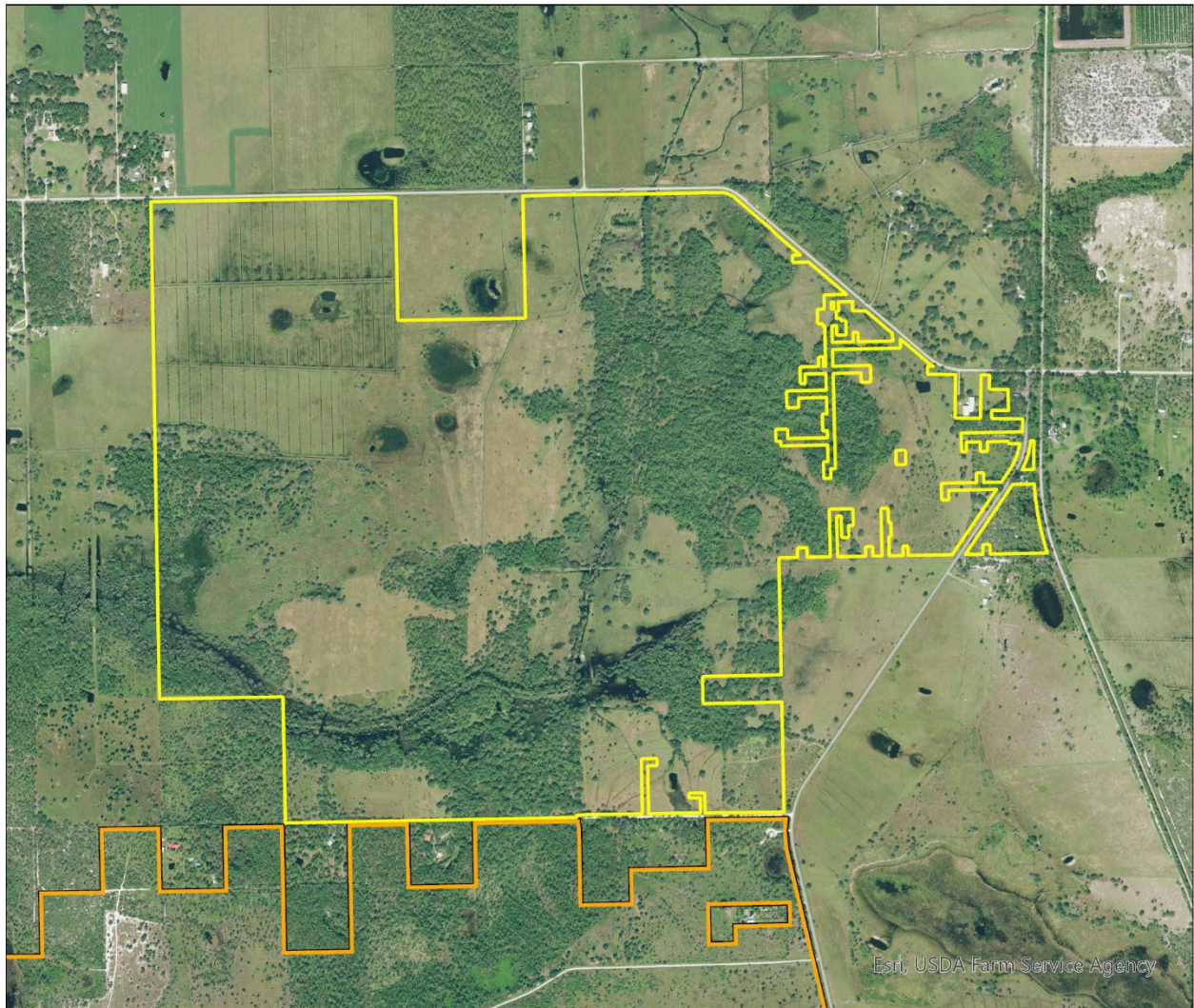
0 0.5 1 Miles



MAP BY FL NATURAL AREAS INVENTORY MAY 2023

# Venus Florida Forever Proposal

FLORIDA FOREVER BOARD OF TRUSTEES PROJECT PROPOSAL BOUNDARY AS OF MAY 2023

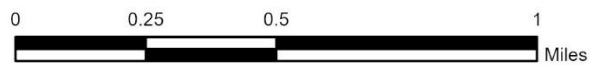


Map Produced by: FL Natural Areas Inventory, N. Pasco, May 2023

Background: USDA NAIP Imagery Resolution = 1.0 meter



-  Florida Forever Proposal Boundary
-  Existing State Conservation Lands



# WACCASASSA BAY HEADWATERS (LEVY COUNTY)

Less-Than-Fee Simple

## Preliminary Evaluation

**Natural Resources Description:** The Waccasassa Bay Headwaters Florida Forever proposal comprises a contiguous, multi-owner tract of 4,795.27 (or 4,815.4) acres (both per application; 4,817 GIS acres) in west-central Levy County, 3 miles northeast of Rosewood, 4 miles west of Otter Creek, and 6 miles from the Gulf of Mexico. The site lies between highways SR-24 and CR-345 (which it fronts) just north of their junction. NATC Suwannee Swamp Conservation Easement and McEnany Conservation Easement lie within 1 mile to the west and south, respectively, and several other conservation lands lie within 6 miles. The proposal is submitted for less-than-fee simple protection with no public access.

This evaluation is based on information gathered from the proposal application, aerial photography, U.S. Geological Survey (USGS) 7.5' topographic maps, Cooperative Land Cover data (Florida Natural Areas Inventory [FNAI], Florida Cooperative Land Cover Map, version 3.6), and the FNAI database.

The relatively flat site lies within the Gulf Coastal Lowlands. The proposal encompasses a substantial area of the watersheds of four estuarine streams (chiefly Kelly Creek and Rocky Run but also Rocky Creek and Black Point Swamp) that flow into Waccasassa Bay and the Gulf. The site is chiefly composed of a mosaic of forested wetlands, including cypress swamps that were logged in the past, and moderate-intensity pine plantations with patches of improved pasture. Historically, lands now in silviculture would have supported mesic to wet flatwoods intermingled with mesic to hydric hammock. Several more open and presumably deeper wetlands occur in the northeastern corner of the property. Cleared areas lie mostly in the southwestern portion of the property near CR-345 and include a residential area. Miles of unimproved roads provide access throughout much of the site. Table 1 provides an approximation of landcover types and their relative representation within the proposal.

Table 1. Natural communities and landcover types within the Waccasassa Bay Headwaters Florida Forever proposal.

Community or Landcover	Acres	Percent of Proposal
hydric hammock/swamp forested wetlands	1285	27
dome swamp	206	4
basin swamp	199	4
hydric hammock	113	2
depression marsh	54	1
basin marsh	7	<1
wet flatwoods	1	<1
pine plantation	2659	55
road	154	3
pasture - improved	124	3

developed	11	<1
artificial pond	3	<1
<i>Total</i>	4815	100

There are no listed or rare species of plants or animals documented from the site in the FNAI database, and none are reported in the application. However, lack of documented rare species onsite may be due to a lack of surveys, as several species of rare animals—including one-toed amphiuma (*Amphiuma pholeter*; G3, S3, N, N\*), gulf salt marsh mink (*Neovison vison halilimnetes*; G5T2, S2, N, N), weasel (*Mustela freneta olivacea*; G5T4, S3?, N, N), and Florida black bear (*Ursus americanus floridanus*; G5T4, S4, N, N)—as well as rare plants have been documented from within a mile, chiefly along SR-24.

\* Rarity rankings in the following order: FNAI (global and state ranks), federal status, state status. Rank explanations attached.

Table 2. Rare plants and animals documented or reported to occur within the Waccasassa Bay Headwaters Florida Forever proposal.

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status
<b>Rare plants documented on site</b>					
none					
<b>Additional rare plants reported on site by applicant</b>					
none					
<b>Rare animals documented on site</b>					
none					
<b>Additional rare animals reported on site by applicant</b>					
none					

The Florida Forever Measures Evaluation (FFME) at the end of this memo is based on the Florida Forever Conservation Needs Assessment developed by FNAI. The data used in that analysis represent a standardized, statewide perspective of natural community distributions based primarily on the Florida Cooperative Land Cover Map, which explains differences in natural community acreages between Table 1 and the FFME. This proposal contributes most notably (95–100% of acreage) to Strategic Habitat Conservation Areas, Ecological Greenways, Surface Water Protection, and Aquifer Recharge, but also substantially (> 45%) to Natural Floodplain Function (71%), Functional Wetlands (47%), and Sustainable Forestry (61%).



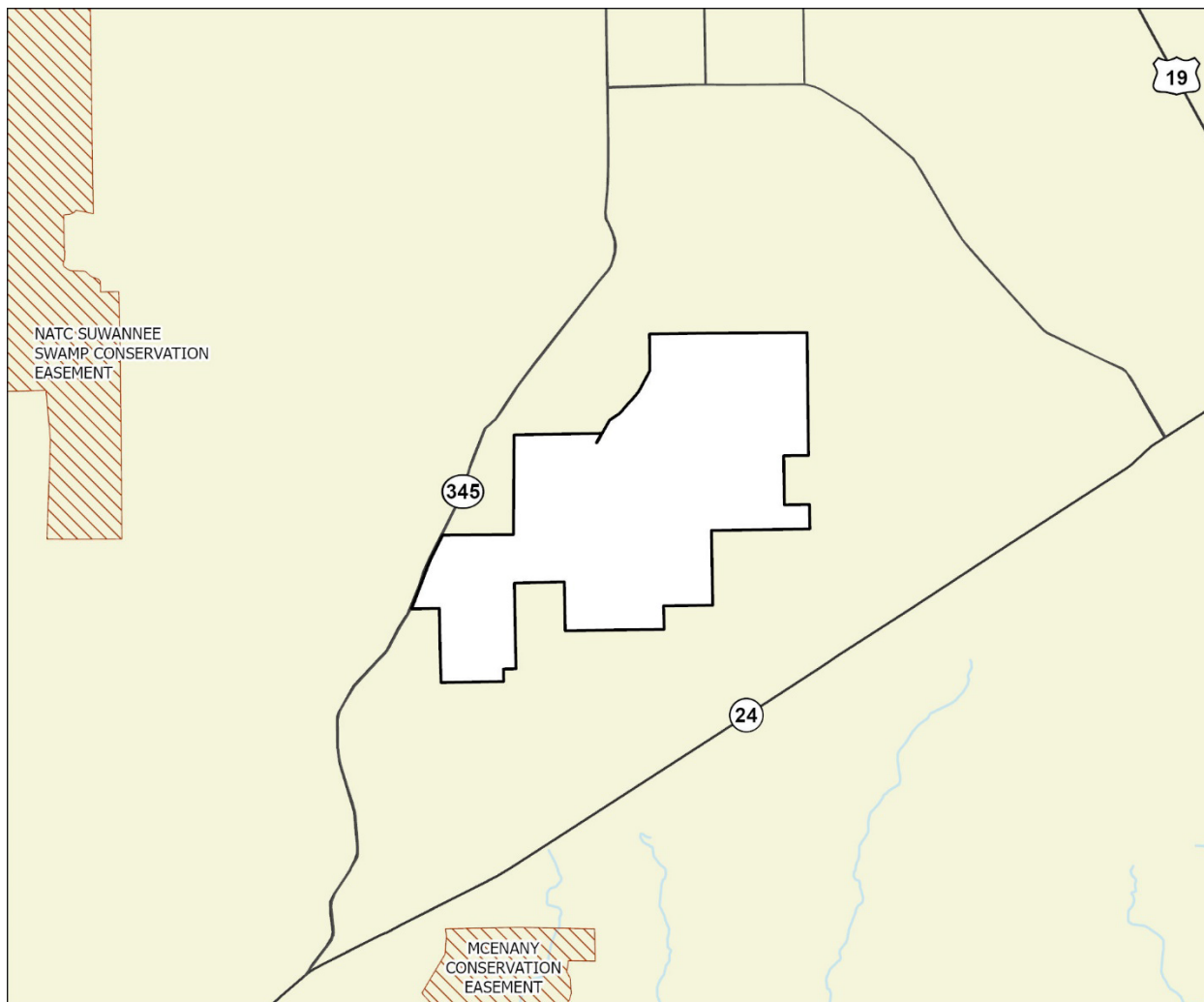
**Waccasassa Bay Headwaters: Florida Forever Measures Evaluation 20230510**

GIS ACRES = 4,815

MEASURES	Resource Acres <sup>a</sup>	% of project
<b>B1: Strategic Habitat Conservation Areas</b>		
Priority 1	0	0%
Priority 2	1,190	25%
Priority 3	2,938	61%
Priority 4	0	0%
Priority 5	472	10%
Total Acres	4,600	95%
<b>B2: FNAI Habitat Conservation Priorities</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	743	15%
Priority 5	10	< 1%
Priority 6	989	21%
Total Acres	1,742	36%
<b>B3: Ecological Greenways</b>		
Priority 1	1,563	32%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	3,253	68%
Total Acres	4,817	100%
<b>B4: Under-represented Natural Communities</b>		
Upland Glade (G1)	0	0%
Pine Rockland (G1)	0	0%
Scrub and Scrubby Flatwoods (G2)	0	0%
Rockland Hammock (G2)	0	0%
Dry Prairie (G2)	0	0%
Seepage Slope (G2)	0	0%
Sandhill (G3)	0	0%
Sandhill Upland Lake (G3)	0	0%
Upland Pine (G3)	0	0%
Mesic/Wet Flatwoods (G4)	0	0%
Upland Hardwood Forest (G5)	0	0%
Total Acres	0	0%
<b>B6: Occurrences of FNAI Tracked Species</b>		
G1	0	
G2	0	
G3	0	
G4	0	
G5	0	
Total	0	
<b>C4: Natural Floodplain Function</b>		
Priority 1	43	< 1%
Priority 2	725	15%
Priority 3	360	7%
Priority 4	2,314	48%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	3,441	71%

MEASURES (continued)	Resource Acres <sup>a</sup>	% of project
<b>C5: Surface Water Protection</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	732	15%
Priority 5	0	0%
Priority 6	3,927	82%
Priority 7	0	0%
Total Acres	4,659	97%
<b>C7: Fragile Coastal Resources</b>		
Fragile Coastal Uplands	0	0%
Imperiled Coastal Lakes	0	0%
Coastal Wetlands	0	0%
Total Acres	0	0%
<b>C8: Functional Wetlands</b>		
Priority 1	43	< 1%
Priority 2	722	15%
Priority 3	303	6%
Priority 4	1,201	25%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	2,268	47%
<b>D3: Aquifer Recharge</b>		
Priority 1	0	0%
Priority 2	296	6%
Priority 3	3,300	69%
Priority 4	738	15%
Priority 5	482	10%
Priority 6	0	0%
Total Acres	4,817	100%
<b>E2: Recreational Trails (miles)</b>		
(prioritized trail opportunities from Office of Greenways and Trails & Univ. Florida)		
Land Trail Priorities	0.0	
Land Trail Opportunities	0.0	
Total Miles	0.0	
<b>F2: Arch. &amp; Historical Sites (number)</b>		
	0 sites	
<b>G1: Sustainable Forestry</b>		
Priority 1	0	0%
Priority 2	1,782	37%
Priority 3	1,043	22%
Priority 4	0	0%
Priority 5 - Potential Pinelands	92	2%
Total Acres	2,918	61%
<b>G3: Forestland for Recharge</b>		
	2,359	49%

<sup>a</sup>Acres of each resource in the project and percentage of project represented by each resource are listed except where noted. This analysis converts site boundary into pixels, which causes slight differences from GIS acres; this effect is most noticeable on small sites.



## WACCASASSA BAY HEADWATERS FLORIDA FOREVER PROPOSAL

### LEVY COUNTY

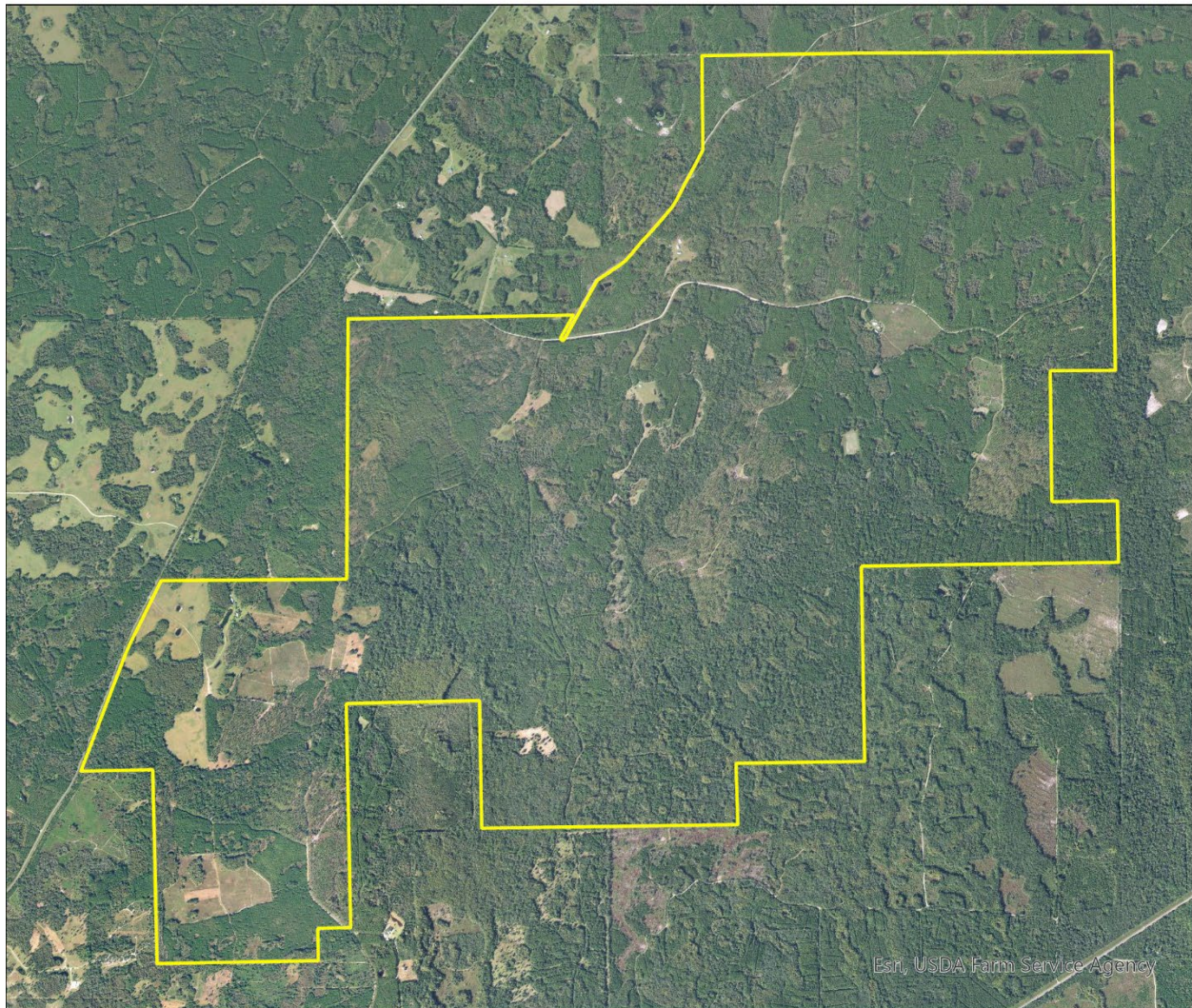
-  Florida Forever Proposed Project
-  State Owned Lands
-  Other Conservation Lands



MAP BY FL NATURAL AREAS INVENTORY MAY 2023

# Waccasassa Bay Headwaters Florida Forever Proposal


FLORIDA FOREVER BOARD OF TRUSTEES PROJECT PROPOSAL BOUNDARY AS OF MAY 2023



Map Produced by: FL Natural Areas Inventory, N. Pasco, May 2023

Background: USDA NAIP Imagery Resolution = 1.0 meter



 Florida Forever Proposal Boundary





## WELLES RANCH (CHARLOTTE COUNTY)

Less than fee

### Preliminary Evaluation

**Natural Resources Description:** The Welles Ranch proposal includes 1,190 acres (per proposal; 1,183 as determined in GIS) in eastern Charlotte County approximately 13 miles east of Punta Gorda, and 17 miles south-southeast of Arcadia. It is a generally rectangular property extending 2 miles from its south edge at Bermont Road (County Road 74) to its northern boundary, and is 1 mile in width, with .75 miles of frontage along Bermont Rd. The property appears to have been platted as a subdivision in the past; as a result, several dozen small inholdings scattered throughout the property are not included in the project. Interior platted roads, however, are included in the project, which accounts for the difference in acreage between the application and the GIS acres. The proposal is for a less-than-fee acquisition.

This evaluation is based on information gathered from the proposal, aerial photography, U.S. Geological Survey (USGS) 7.5' topographic maps, Cooperative Land Cover data (Florida Natural Areas Inventory, Florida Cooperative Land Cover Map, version 3.4), and the FNAI database.

The Welles Ranch proposal is located on the De Soto slope region, a broad, gently sloping plain dominated by flatwoods and prairies; the property is nearly level with a gentle slope to the west, with most of the property lying at about 40 feet above Mean Sea Level, with only the creek bed and a larger wetland noticeably lower at 30-35 feet. The property does not border any conservation land, but is adjacent to the Hall Ranch Florida Forever Board of Trustees (FFBOT) project along its southern and western boundary. Hall Ranch adjoins both Babcock-Webb Wildlife Management Area and Babcock Ranch Preserve, which are less than 2 miles and less than a half mile respectively from the proposed project.

The main hydrological feature of the property is Shell Creek, which originates in a large swamp east of the property, and flows east to west across the property for over a mile as a channelized stream. Swamps on the southern 1/3 of the tract are part of the headwaters of telegraph swamp, an elongate complex of swamps that flow south and eventually feed into the Caloosahatchee River. Thus, protection of this property could contribute to water quality protection of the Caloosahatchee and San Carlos Bay, as well as protecting Shell Creek, which is a major drinking water source for the City of Punta Gorda.

The property is managed as a working cattle ranch, and as such, the largest landcover types are semi-improved pasture (about 46% of the site) interspersed throughout the property, and improved pasture (about 22% of the site) in a discontinuous band running NW to SE across the southern 2/3 of the tract.

Natural landcover occupies an estimated 31% of the site. The largest natural community identified from aerial photos is mesic hammock, mostly in a band running east-west surrounding Shell Creek. One area of mesic flatwoods is evident from aerial photos, although the application refers to "large areas of mesic flatwoods" in the northern section of the proposal, so some of what is classified as semi-improved pasture may be better classified as mesic flatwoods, depending on the degree of alteration. Three large dome swamps and 2 smaller domes lie in the southern part of the property, and one dome swamp occurs near the northeastern edge as well. Two depression marshes are found in the northwestern part

of the tract. At the intergrade between dome swamps and surrounding pasture or mesic flatwoods, there are narrow fringes of wet flatwoods, hydric hammock and mesic hammock, which together account for only a small proportion of the property's acreage. Three artificial ponds occupy about 4 acres (less than 1% of the property).

Table 1. Natural communities and landcover types within the Welles Ranch Florida Forever proposal.

Community or Landcover	Acres	Percent of Proposal
mesic hammock	179	15%
dome swamp	122	10%
hydric hammock	27	2%
mesic flatwoods	20	2%
depression marsh	14	1%
wet flatwoods	13	1%
pasture, semi-improved	544	46%
pasture, improved	257	22%
artificial pond	4	<1%
<b>Total</b>		<b>100</b>

The FNAI database contains no documentation of rare species on site, though biotic surveys have not been conducted. Several imperiled and rare species are reported in the application, as listed below. A wide variety of imperiled plants and animals have been documented in the surrounding region, and these could be expected to use this property as well.

Table 2. Rare plants and animals documented or reported to occur within the Welles Ranch Florida Forever proposal.

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status
<b>Rare plants documented on site</b>					
none					
<b>Additional rare plants reported on site by applicant</b>					
none					
<b>Rare animals documented on site</b>					
none					
<b>Additional rare animals reported on site by applicant</b>					
<i>Caracara plancus</i>	crested caracara	G5*	S2	T	FT
<i>Dryobates borealis</i>	red-cockaded woodpecker	G3	S2	E	FE
<i>Sciuris niger niger</i>	southeastern fox squirrel	G5T5	S3	N	N
<i>Puma concolor coryi</i>	Florida panther	G5T1	S1	E	FE
<i>Ursus americanus floridanus</i>	Florida black bear	G5T4	S4	N	N

\*Rank and status explanations attached.

The Florida Forever Measures Evaluation (FFME) at the end of this memo is based on the Florida Forever Conservation Needs Assessment developed by FNAI. The data used in that analysis represent a standardized, statewide perspective of natural community distributions based primarily on the



Cooperative Land Cover data (Florida Natural Areas Inventory, Florida Cooperative Land Cover Map, version 3.6), which explains differences in natural community acreages between Table 1 and the FFME.

The FFME analysis indicates that 100% of the project acreage contributes to FNAI Habitat Conservation Priorities, Ecological Greenways, Surface Water Protection, and Aquifer Recharge. The project also contributes significantly to Strategic Habitat Conservation Areas and Sustainable Forestry.

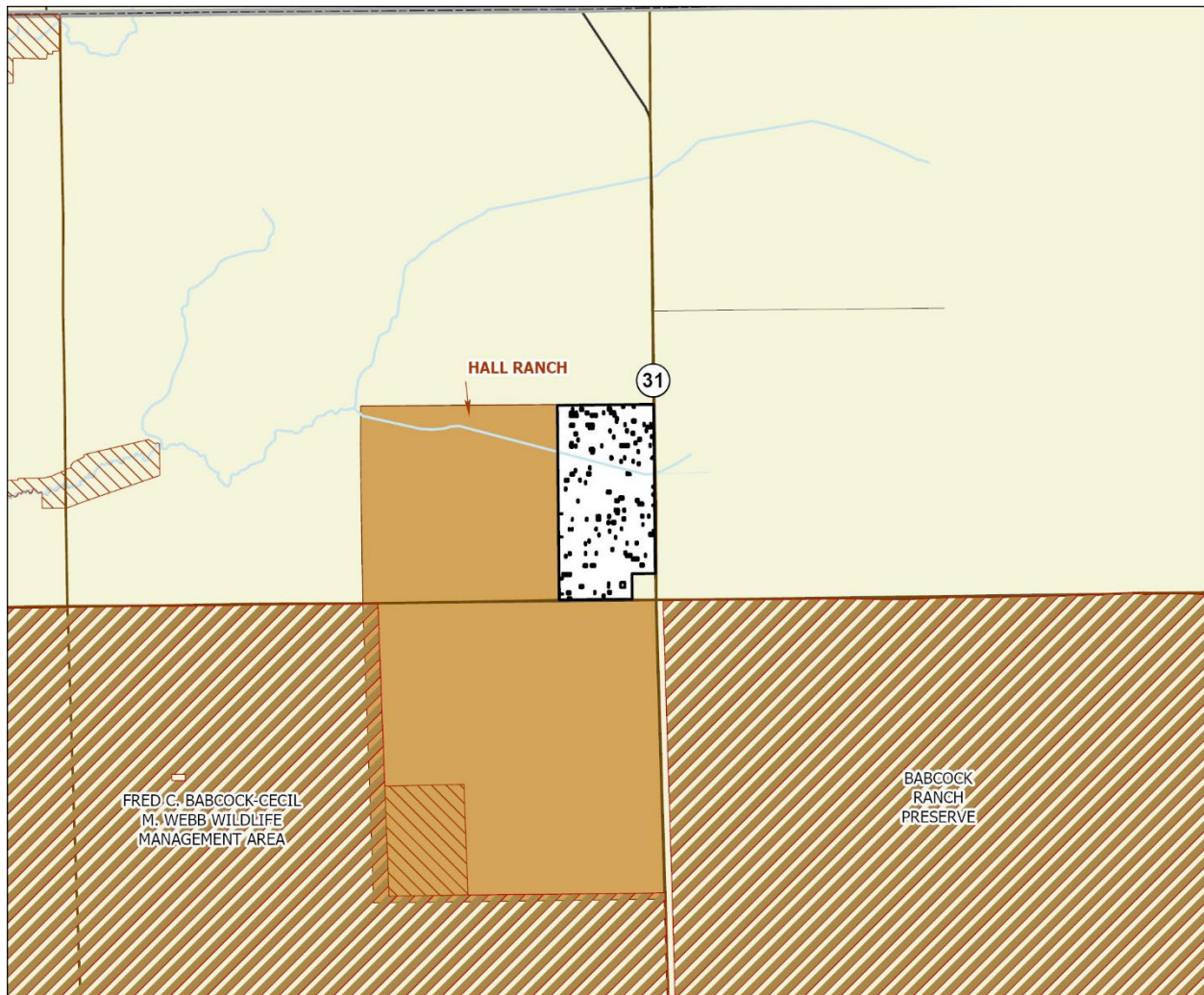
**Welles Ranch: Florida Forever Measures Evaluation 20230516**

GIS ACRES = 1,183

MEASURES	Resource Acres	% of project
<b>B1: Strategic Habitat Conservation Areas</b>		
Priority 1	1,004	85%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	41	3%
Total Acres	1,045	88%
<b>B2: FNAI Habitat Conservation Priorities</b>		
Priority 1	90	8%
Priority 2	686	58%
Priority 3	130	11%
Priority 4	112	9%
Priority 5	165	14%
Priority 6	0	0%
Total Acres	1,183	100%
<b>B3: Ecological Greenways</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	1,183	100%
Priority 4	0	0%
Priority 5	0	0%
Total Acres	1,183	100%
<b>B4: Under-represented Natural Communities</b>		
Upland Glade (G1)	0	0%
Pine Rockland (G1)	0	0%
Scrub and Scrubby Flatwoods (G2)	0	0%
Rockland Hammock (G2)	0	0%
Dry Prairie (G2)	0	0%
Seepage Slope (G2)	0	0%
Sandhill (G3)	0	0%
Sandhill Upland Lake (G3)	0	0%
Upland Pine (G3)	0	0%
Mesic/Wet Flatwoods (G4)	33	3%
Upland Hardwood Forest (G5)	0	0%
Total Acres	33	3%
<b>B6: Occurrences of FNAI Tracked Species</b>		
G1	0	
G2	0	
G3	0	
G4	0	
G5	0	
Total	0	
<b>C4: Natural Floodplain Function</b>		
Priority 1	25	2%
Priority 2	289	24%
Priority 3	117	10%
Priority 4	55	5%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	486	41%

MEASURES (continued)	Resource Acres	% of project
<b>C5: Surface Water Protection</b>		
Priority 1	104	9%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	1,079	91%
Priority 5	0	0%
Priority 6	0	0%
Priority 7	0	0%
Total Acres	1,183	100%
<b>C7: Fragile Coastal Resources</b>		
Fragile Coastal Uplands	0	0%
Imperiled Coastal Lakes	0	0%
Coastal Wetlands	0	0%
Total Acres	0	0%
<b>C8: Functional Wetlands</b>		
Priority 1	21	2%
Priority 2	72	6%
Priority 3	64	5%
Priority 4	12	< 1%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	168	14%
<b>D3: Aquifer Recharge</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	77	6%
Priority 5	671	57%
Priority 6	435	37%
Total Acres	1,183	100%
<b>E2: Recreational Trails (miles)</b>		
(prioritized trail opportunities from Office of Greenways and Trails & Univ. Florida)		
Land Trail Priorities	0.0	
Land Trail Opportunities	0.0	
Total Miles	0.0	
<b>F2: Arch. &amp; Historical Sites (numb</b>		
	0 sites	
<b>G1: Sustainable Forestry</b>		
Priority 1	253	21%
Priority 2	3	< 1%
Priority 3	84	7%
Priority 4	0	0%
Priority 5 - Potential Pinelands	455	38%
Total Acres	794	67%
<b>G3: Forestland for Recharge</b>		
	0	0%

<sup>a</sup>Acres of each resource in the project and percentage of project represented by each resource are listed except where noted. This analysis converts site boundary into pixels, which causes slight differences from GIS acres; this effect is most noticeable on small sites.



## WELLES RANCH FLORIDA FOREVER PROPOSAL

### CHARLOTTE COUNTY

-  Florida Forever Proposed Project
-  Florida Forever BOT Projects
-  State Owned Lands
-  Other Conservation Lands



0 2.5 5 Miles

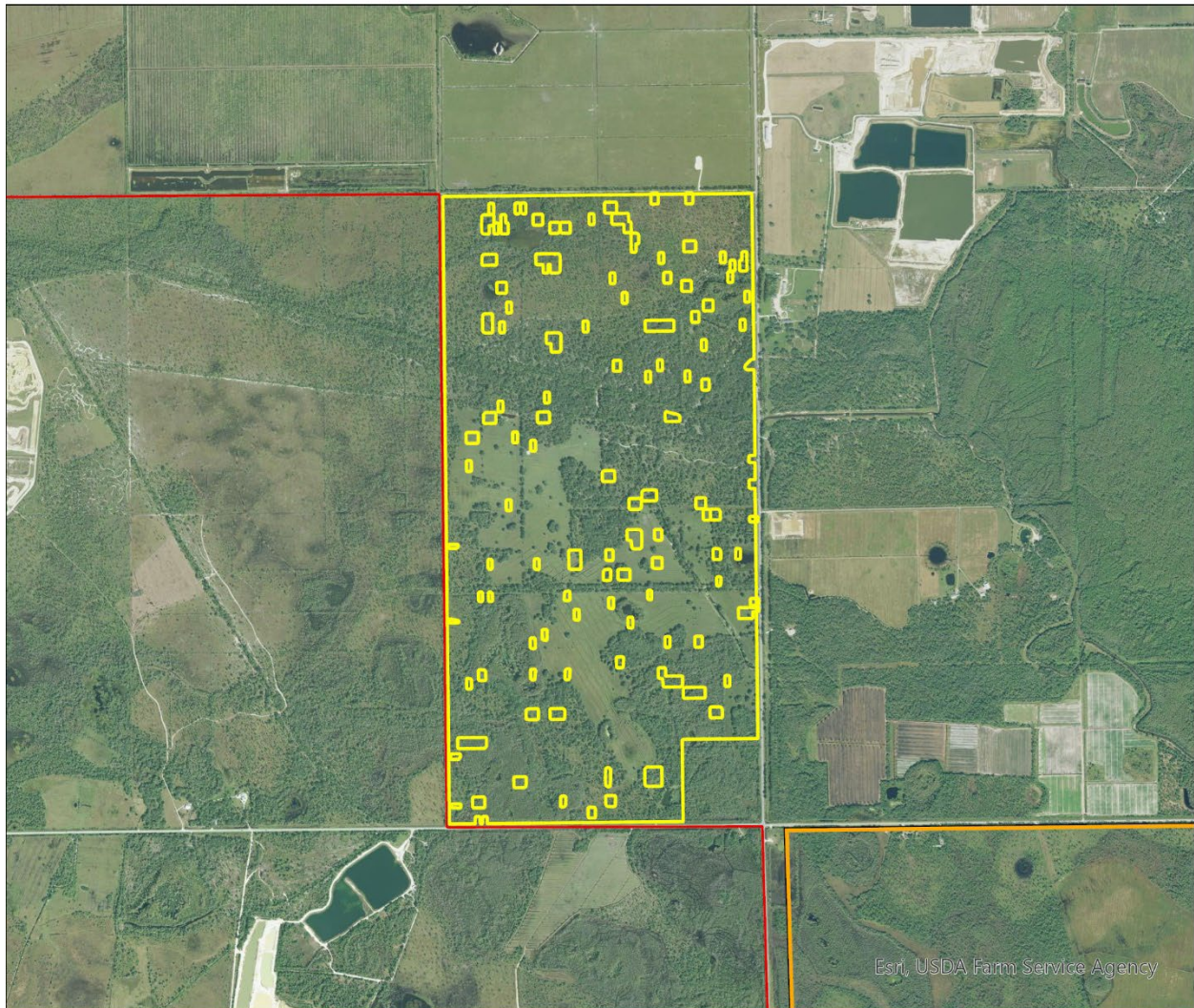


MAP BY FL NATURAL AREAS INVENTORY MAY 2023



# Welles Ranch Florida Forever Proposal

FLORIDA FOREVER BOARD OF TRUSTEES PROJECT PROPOSAL BOUNDARY AS OF MAY 2023



Map Produced by: FL Natural Areas Inventory, N. Pasco, May 2023

Background: USDA NAIP Imagery Resolution = 1.0 meter



-  Florida Forever Proposal Boundary
-  Florida Forever BOT Projects
-  Existing State Conservation Lands



## *YARBOROUGH RANCH* (SEMINOLE COUNTY)

Fee Simple

### Preliminary Evaluation

The Yarborough Ranch proposal includes 1,314 acres about 1.75 miles south of Geneva in Seminole County. The property is proposed as a fee-simple acquisition, to be owned and managed by Seminole County. The proposed project consists of a single contiguous piece of property with ¼ mile of frontage on Snow Hill Road on its west edge. This tract provides opportunities to fill in an inholding in a corridor that includes Little Big Econ State Forest and to protect and restore wetlands to benefit water quality of the Econlockhatchee River.

This evaluation is based on information gathered from the proposal, aerial photography, U.S. Geological Survey (USGS) 7.5' topographic maps, Cooperative Land Cover data (Florida Fish and Wildlife Conservation Commission [FWC] and Florida Natural Areas Inventory [FNAI], Florida Cooperative Land Cover Map, version 3.6), and the FNAI database. The property is surrounded on its western and southern side by Little Big Econ State Forest and on its east side by the Kilbee Ranch Conservation Easement. Geneva Wilderness Area is less than ½ mile to the west.

**Natural Resources Description:** This property has been a working cattle ranch for several generations, and accordingly a large proportion (ca. 60%) of the site is in improved or semi-improved pasture. However, an estimated 39% of the property consists of natural communities (Table 1). The most prevalent natural community appears to be basin swamp, a significant portion of which have been partially logged; another 12% of the property is made up of other hardwood forests, likely a mix of hydric hammock, bottomland forest, mesic hammock, and baygall. There appears to be over 50 acres of sand pine scrub on the site. Another 5% of the property is made up of flatwoods.

The northwest corner of the property contains a small amount of the slope on the flank of Snow Hill, but otherwise the property is mostly relatively level, occupying part of the broad low basin surrounding the Econlockhatchee River. A system of ditches has been constructed to drain the pastures on the property. These feed into a drainage canal which runs north to south and is routed through most of the major wetland areas on the site, likely affecting the hydrology of the surrounding natural communities. A handful of dome swamps are scattered throughout the pasture. A few marsh areas also occur embedded in some of the swamps.

Other than the pasture, the only significant area of altered landcover is 57 acres of more intensive agricultural use on a small rise on the southern part of the property. A small amount of developed acreage includes a residence and pole barn.



Table 1. Natural communities and landcover types within Yarborough Ranch Florida Forever proposal.

Community or Landcover	Acres	Percent of Proposal
Basin swamp	197	15
Mesic hammock	89	7
Bottomland forest/Hydric hammock	56	4
Scrub	52	4
Mesic flatwoods	35	3
Wet flatwoods	29	2
Dome swamp	26	2
Basin marsh	15	1
Baygall	14	1
Depression Marsh	13	<1
Shrub bog	<1	<1
Pasture--improved	720	55
Agriculture	57	4
Pasture—Semi-improved	5	<1
Artificial Pond	4	<1
Developed	2	<1
Impoundment	<1	<1
Canal/Ditch	<1	<1
<b>Total</b>	<b>1,314</b>	<b>100</b>

The site lies in a region where Florida black bear is classified as frequent by FWC. No additional rare species are documented on the property in the FNAI database, although the application notes that active gopher tortoise burrows and a threatened shrub (*Garberia*) were found onsite during preparation of the proposal. Other rare species occur nearby, and it's possible that any of several imperiled species could be documented onsite with additional effort.

Table 2. Rare plants and animals documented or reported to occur within the Yarborough Ranch Florida Forever proposal.

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status
<b>Rare plants documented on site</b>					
none					
<b>Additional rare plants reported on site by applicant</b>					
<i>Garberia heterophylla</i>	Garberia			N*	T
<b>Rare animals documented on site</b>					
<i>Ursus americanus floridanus</i>	Florida black bear	G5T4	S4	N	N
<b>Additional rare animals reported on site by applicant</b>					
<i>Gopherus polyphemus</i>	gopher tortoise	G3	S3	N	LT

\*Rank and status explanations attached.

The Florida Forever Measures Evaluation (FFME) at the end of this memo is based on the Florida Forever Conservation Needs Assessment developed by FNAI. The data used in that analysis represent a standardized, statewide perspective of natural community distributions based primarily on the Cooperative Land Cover data (FL FWCC and FNAI, Florida Cooperative Land Cover Map, version 3.6), which explains any differences in natural community acreages between Table 1 and the FFME. According to the FFME, a large proportion (66-100%) of the acreage in this proposal contributes to the following Florida Forever measures: Strategic Habitat Conservation Areas, FNAI Habitat Conservation Priorities, Ecological Greenways, Surface Water Protection, Aquifer Recharge, and Sustainable Forestry. 29% of the property contributes to protection of functional wetlands.

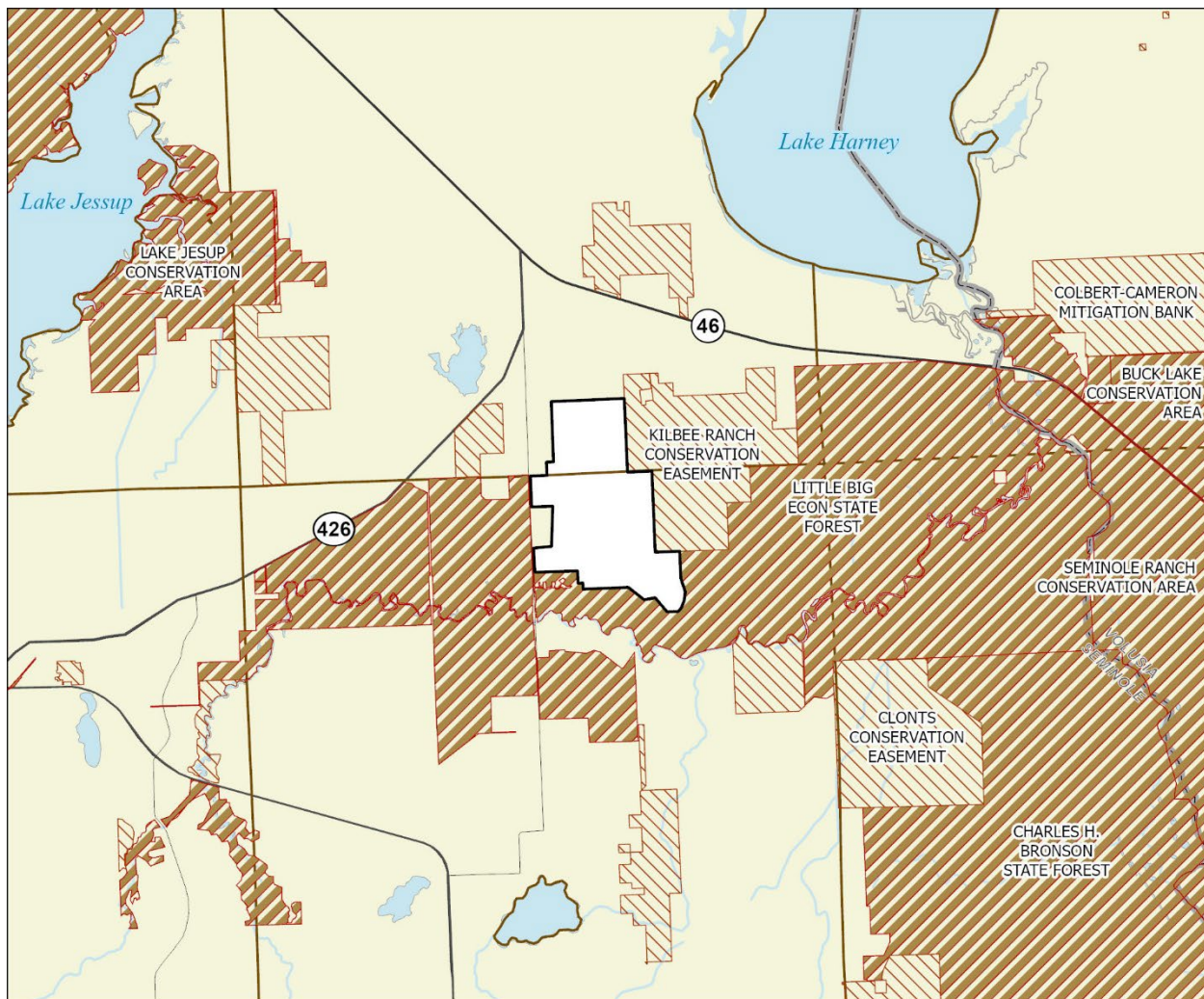
**Yarborough Ranch: Florida Forever Measures Evaluation 20230515**

GIS ACRES = 1,314

<b>MEASURES</b>	<b>Resource Acres<sup>a</sup></b>	<b>% of project</b>
<b>B1: Strategic Habitat Conservation Areas</b>		
Priority 1	0	0%
Priority 2	20	2%
Priority 3	442	34%
Priority 4	0	0%
Priority 5	410	31%
Total Acres	871	66%
<b>B2: FNAI Habitat Conservation Priorities</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	10	< 1%
Priority 5	659	50%
Priority 6	635	48%
Total Acres	1,303	99%
<b>B3: Ecological Greenways</b>		
Priority 1	1,272	97%
Priority 2	0	0%
Priority 3	39	3%
Priority 4	0	0%
Priority 5	0	0%
Total Acres	1,311	100%
<b>B4: Under-represented Natural Communities</b>		
Upland Glade (G1)	0	0%
Pine Rockland (G1)	0	0%
Scrub and Scrubby Flatwoods (G2)	52	4%
Rockland Hammock (G2)	0	0%
Dry Prairie (G2)	0	0%
Seepage Slope (G2)	0	0%
Sandhill (G3)	0	0%
Sandhill Upland Lake (G3)	0	0%
Upland Pine (G3)	0	0%
Mesic/Wet Flatwoods (G4)	20	2%
Upland Hardwood Forest (G5)	0	0%
Total Acres	73	6%
<b>B6: Occurrences of FNAI Tracked Species</b>		
G1	0	
G2	0	
G3	0	
G4	1	
G5	0	
Total	1	
<b>C4: Natural Floodplain Function</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	37	3%
Priority 4	26	2%
Priority 5	9	< 1%
Priority 6	0	0%
Total Acres	72	5%

<b>MEASURES (continued)</b>	<b>Resource Acres<sup>a</sup></b>	<b>% of project</b>
<b>C5: Surface Water Protection</b>		
Priority 1	0	0%
Priority 2	723	55%
Priority 3	0	0%
Priority 4	591	45%
Priority 5	0	0%
Priority 6	0	0%
Priority 7	0	0%
Total Acres	1,314	100%
<b>C7: Fragile Coastal Resources</b>		
Fragile Coastal Uplands	0	0%
Imperiled Coastal Lakes	0	0%
Coastal Wetlands	0	0%
Total Acres	0	0%
<b>C8: Functional Wetlands</b>		
Priority 1	0	0%
Priority 2	0	< 1%
Priority 3	326	25%
Priority 4	49	4%
Priority 5	5	< 1%
Priority 6	0	0%
Total Acres	380	29%
<b>D3: Aquifer Recharge</b>		
Priority 1	10	< 1%
Priority 2	200	15%
Priority 3	664	51%
Priority 4	440	33%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	1,314	100%
<b>E2: Recreational Trails (miles)</b>		
(prioritized trail opportunities from Office of Greenways and Trails & Univ. Florida)		
Land Trail Priorities	0.0	
Land Trail Opportunities	0.0	
Total Miles	0.0	
<b>F2: Arch. &amp; Historical Sites (number)</b>		
	0 sites	
<b>G1: Sustainable Forestry</b>		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	18	1%
Priority 4	0	0%
Priority 5 - Potential Pinelands	784	60%
Total Acres	802	61%
<b>G3: Forestland for Recharge</b>		
	16	1%

<sup>a</sup>Acres of each resource in the project and percentage of project represented by each resource are listed except where noted. This analysis converts site boundary into pixels, which causes slight differences from GIS acres; this effect is most noticeable on small sites.



## YARBOROUGH RANCH FLORIDA FOREVER PROPOSAL

### SEMINOLE COUNTY

-  Florida Forever Proposed Project
-  State Owned Lands
-  Other Conservation Lands



0 2.5 5 Miles

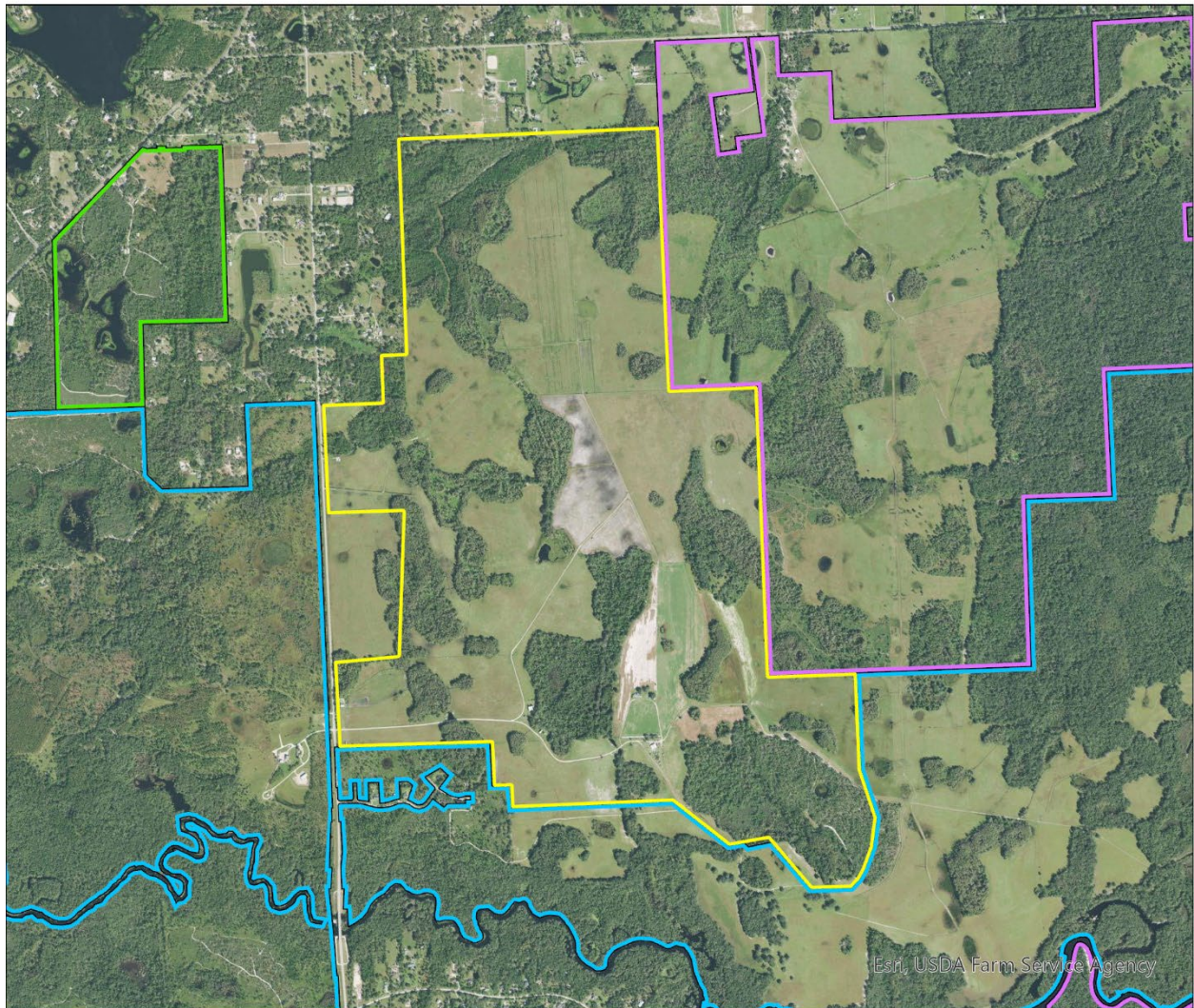


MAP BY FL NATURAL AREAS INVENTORY MAY 2023



# Yarborough Ranch Florida Forever Proposal

FLORIDA FOREVER BOARD OF TRUSTEES PROJECT PROPOSAL BOUNDARY AS OF MAY 2023



Map Produced by: FL Natural Areas Inventory, N. Pasco, May 2023

Background: USDA NAIP Imagery Resolution = 1.0 meter



- Florida Forever Proposal Boundary
- Existing Water Management District Conservation Lands
- Existing Local Conservation Lands
- Existing Private Conservation Lands





## Elements and Element Occurrences

An **element** is any exemplary or rare component of the natural environment, such as a species, natural community, bird rookery, spring, sinkhole, cave, or other ecological feature.

An **element occurrence (EO)** is an area of land and/or water in which a species or natural community is, or was, present. An EO should have practical conservation value for the Element as evidenced by potential continued (or historical) presence and/or regular recurrence at a given location.

## Element Ranking and Legal Status

Using a ranking system developed by NatureServe and the Natural Heritage Program Network, the Florida Natural Areas Inventory assigns two ranks for each element. The global rank is based on an element's worldwide status; the state rank is based on the status of the element in Florida. Element ranks are based on many factors, the most important ones being estimated number of Element Occurrences (EOs), estimated abundance (number of individuals for species; area for natural communities), geographic range, estimated number of adequately protected EOs, relative threat of destruction, and ecological fragility.

### **FNAI GLOBAL ELEMENT RANK**

- G1** = Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- G2** = Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
- G3** = Either very rare and local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
- G4** = Apparently secure globally (may be rare in parts of range).
- G5** = Demonstrably secure globally.
- GH** = Of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker).
- GX** = Believed to be extinct throughout range.
- GXC** = Extirpated from the wild but still known from captivity or cultivation.
- G#?** = Tentative rank (e.g., G2?).
- G#G#** = Range of rank; insufficient data to assign specific global rank (e.g., G2G3).
- G#T#** = Rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1).
- G#Q** = Rank of questionable species - ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q).
- G#T#Q** = Same as above, but validity as subspecies or variety is questioned.
- GU** = Unrankable; due to a lack of information no rank or range can be assigned (e.g., GUT2).
- GNA** = Ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
- GNR** = Element not yet ranked (temporary).
- GNRTNR** = Neither the element nor the taxonomic subgroup has yet been ranked.

### **FNAI STATE ELEMENT RANK**

- S1** = Critically imperiled in Florida because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- S2** = Imperiled in Florida because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
- S3** = Either very rare and local in Florida (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
- S4** = Apparently secure in Florida (may be rare in parts of range).
- S5** = Demonstrably secure in Florida.
- SH** = Of historical occurrence in Florida, possibly extirpated, but may be rediscovered (e.g., ivory-billed woodpecker).
- SX** = Believed to be extirpated throughout Florida.
- SU** = Unrankable; due to a lack of information no rank or range can be assigned.
- SNA** = State ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
- SNR** = Element not yet ranked (temporary).

## **FEDERAL LEGAL STATUS**

Legal status information provided by FNAI for information only. For official definitions and lists of protected species, consult the relevant federal agency.

Definitions derived from U.S. Endangered Species Act of 1973, Sec. 3. Note that the federal status given by FNAI refers only to Florida populations and that federal status may differ elsewhere.

**C** = Candidate species for which federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.

**E** = Endangered: species in danger of extinction throughout all or a significant portion of its range.

**E, T** = Species currently listed endangered in a portion of its range but only listed as threatened in other areas

**E, PDL** = Species currently listed endangered but has been proposed for delisting.

**E, PT** = Species currently listed endangered but has been proposed for listing as threatened.

**E, XN** = Species currently listed endangered but tracked population is a non-essential experimental population.

**T** = Threatened: species likely to become Endangered within the foreseeable future throughout all or a significant portion of its range.

**PE** = Species proposed for listing as endangered.

**PS** = - An infraspecific taxon or population has federal status but the entire species does not - status is in only a portion of the species range.

**PT** = Species proposed for listing as threatened.

**SAT** = Treated as threatened due to similarity of appearance to a species which is federally listed such that enforcement personnel have difficulty in attempting to differentiate between the listed and unlisted species.

**SC** = Not currently listed, but considered a "species of concern" to USFWS.

**DL** = Delisted.

**UR** = Under review.

## **STATE LEGAL STATUS**

Provided by FNAI for information only. For official definitions and lists of protected species, consult the relevant state agency.

**Animals:** Definitions derived from "Florida's Endangered Species and Species of Special Concern, Official Lists" published by Florida Fish and Wildlife Conservation Commission, 1 August 1997, and subsequent updates.

**C** = Candidate for listing at the Federal level by the U. S. Fish and Wildlife Service

**FE** = Listed as Endangered Species at the Federal level by the U. S. Fish and Wildlife Service

**FT** = Listed as Threatened Species at the Federal level by the U. S. Fish and Wildlife Service

**FXN** = Federal listed as an experimental population in Florida

**FT(S/A)** = Federal Threatened due to similarity of appearance

**ST** = State population listed as Threatened by the FFWCC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future.

**SSC** = Listed as Species of Special Concern by the FFWCC. Defined as a population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species. (SSC\* for *Pandion haliaetus* (Osprey) indicates that this status applies in Monroe county only.)

**N** = Not currently listed, nor currently being considered for listing.

**Plants:** Definitions derived from Sections 581.011, 581.185 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of Florida Act, 5B-40.001. FNAI does not track all state-regulated plant species; for a complete list of state-regulated plant species, call Florida Division of Plant Industry, 352-372-3505 or see: <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=5B-40>.

**E** = Endangered: species of plants native to Florida 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; includes all species determined to be endangered or threatened pursuant to the U.S. Endangered Species Act.

**T** = Threatened: species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in number as to cause them to be Endangered.

**CE** = Commercially exploited: species native to the state which are subject to being removed in significant numbers from native habitats in the state and sold or transported for sale.

**N** = Not currently listed, nor currently being considered for listing.

## Element Occurrence Ranking

FNAI ranks of quality of the element occurrence in terms of its viability (EORANK). Viability is estimated using a combination of factors that contribute to continued survival of the element at the location. Among these are the size of the EO, general condition of the EO at the site, and the conditions of the landscape surrounding the EO (e.g. an immediate threat to an EO by local development pressure could lower an EO rank).

**A** = Excellent estimated viability  
**A?** = Possibly excellent estimated viability  
**AB** = Excellent or good estimated viability  
**AC** = Excellent, good, or fair estimated viability  
**B** = Good estimated viability  
**B?** = Possibly good estimated viability  
**BC** = Good or fair estimated viability  
**BD** = Good, fair, or poor estimated viability  
**C** = Fair estimated viability  
**C?** = Possibly fair estimated viability  
**CD** = Fair or poor estimated viability  
**D** = Poor estimated viability  
**D?** = Possibly poor estimated viability  
**E** = Verified extant (viability not assessed)  
**F** = Failed to find  
**H** = Historical  
**NR** = Not ranked, a placeholder when an EO is not (yet) ranked.  
**U** = Unrankable  
**X** = Extirpated

\*For additional detail on the above ranks see: <http://www.natureserve.org/explorer/eorankguide.htm>

FNAI also uses the following EO ranks:

**H?** = Possibly historical  
**F?** = Possibly failed to find  
**X?** = Possibly extirpated

The following offers further explanation of the H and X ranks as they are used by FNAI:

The rank of H is used when there is a lack of recent field information verifying the continued existence of an EO, such as (a) when an EO is based only on historical collections data; or (b) when an EO was ranked A, B, C, D, or E at one time and is later, without field survey work, considered to be possibly extirpated due to general habitat loss or degradation of the environment in the area. This definition of the H rank is dependent on an interpretation of what constitutes "recent" field information. Generally, if there is no known survey of an EO within the last 20 to 40 years, it should be assigned an H rank. While these time frames represent suggested maximum limits, the actual time period for historical EOs may vary according to the biology of the element and the specific landscape context of each occurrence (including anthropogenic alteration of the environment). Thus, an H rank may be assigned to an EO before the maximum time frames have lapsed. Occurrences that have not been surveyed for periods exceeding these time frames should not be ranked A, B, C, or D. The higher maximum limit for plants and communities (i.e., ranging from 20 to 40 years) is based upon the assumption that occurrences of these elements generally have the potential to persist at a given location for longer periods of time. This greater potential is a reflection of plant biology and community dynamics. However, landscape factors must also be considered. Thus, areas with more anthropogenic impacts on the environment (e.g., development) will be at the lower end of the range, and less-impacted areas will be at the higher end.

The rank of X is assigned to EOs for which there is documented destruction of habitat or environment, or persuasive evidence of eradication based on adequate survey (i.e., thorough or repeated survey efforts by one or more experienced observers at times and under conditions appropriate for the Element at that location).