Johnson Homestead

DeSoto County

Florida Forever Project Evaluation Report

Prepared by:
Division of State Lands
Office of Environmental Services

Submitted to the Acquisition and Restoration Council
April 8, 2022

Acquisition Type: Less-than-Fee
Acres: 700
Just Value: $2,556,841
Application Date: October 31, 2021
Project Sponsor: National Wildlife Refuge Association

Executive Summary

The Johnson Homestead Florida Forever project contains six parcels of land totaling approximately 700 acres. The project is located in DeSoto county and is bordered to the east by the Peace River. The nearest city is Arcadia. According to the property tax appraiser, the project has a total tax assessed value of $2,556,841. The Johnson Homestead project is proposed as a less-than-fee acquisition.

The project contains nearly 1.5 miles of shoreline along the Peace River and almost 60% of the property is within the historical floodplain of the Peace River. Johnson Homestead is a working cattle ranch with approximately 100 head of cattle. The landscape is heavily influenced by river's broad floodplain and is primarily woodland pasture and mesic hammock that contains pockets of basin swamp, depression marsh, floodplain swamp, floodplain marsh and upland remnants of mesic pine flatwoods.

Rare species documented or reported within the proposed project area include Florida butterfly orchid (*Encyclia tampensis*), common wild-pine (*Tillandsia fasciculata*), bald eagle (*Haliaeetus leucocephalus*), and gopher tortoise (*Gopherus polyphemus*). The property also contains ideal habitat for rare species like the eastern indigo snake (*Drymarchon couperi*), wood stork (*Mycteria americana*), and manatee (*Trichechus manatus latirostris*). The property is classified as a Priority 3 linkage by the Florida Ecological Greenways Network (FEGN). According to the Division of Historical Resources (DHR), no cultural resources have been recorded or known to exist within the project boundary.

If approved for addition to the 2023 Florida Forever Priority List, the 700 acres of Johnson Homestead should be considered as an amendment to the Peace River Refuge Florida Forever project boundary. All 700 acres proposed for acquisition are considered essential due to the resources documented on the property (see Appendix C). An interagency team conducted a site visit to the project on February 3, 2022. Information included in this project evaluation report is a result of this site visit.

PURPOSE FOR ACQUISITION

If acquired, the Johnson Homestead project will contribute to the protection of a working rural landscape situated within the historical Peace River floodplain. The project improves the landscape and habitat connectivity between the Myakka and Peace Rivers that is vital to the long-term persistence of wildlife in this region and for maintaining the water quality and hydrologic flow into Charlotte Harbor estuary.

Acquisition of this project would serve to:

- Conserve and protect a portion of Florida's rural landscape in order to provide and enhance wildlife corridors for rare and imperiled species.
- Protect, restore, and maintain the quality and natural functions of land, water and wetland systems of the state.
- Provide surface and groundwater protection and protect natural floodplain functions.

LOCATION AND PROXIMITY TO OTHER MANAGED AREAS

The Johnson Homestead proposal comprises 700 acres (703 GIS acres) in central-western DeSoto County on the west bank of the Peace River, approximately six miles southwest of Arcadia. Its eastern boundary borders the Peace River for 1.5 miles. Across the river, for the full length of the proposal boundary, is the Peace River Preserve conservation easement monitored by the Florida Department of Environmental Protection (DEP) and a disjunct small piece of the Peace River State Forest that borders the southern boundary of the Easement property. The large expanse of Peace River State Forest lies about a third of a mile to the west of the proposal with natural habitat occurring between them. The complex of properties that comprise the Myakka Ranchlands Florida Forever project is roughly two miles west of the property.

RESOURCE DESCRIPTION

Florida Natural Areas Inventory (FNAI)

This evaluation is based in part on information gathered from the proposal application, Florida Natural Areas Inventory (FNAI) database, aerial photography from 1940 to 2020, U.S. Geologic Survey (USGS) 7.5' topographic maps, and Cooperative Land Cover data (FNAI, Florida Cooperative Land Cover Map, version 3.4). A field survey was conducted on February 3, 2022, by FNAI staff Dan Hipes and Katy NeSmith, along with the Acquisition and Restoration Council (ARC) liaison staff and the landowners.

Almost 60% of Johnson Homestead is within the historical floodplain of the Peace River. Elevations range from 5 feet along the river to 45 feet above mean sea level in the northernmost part of the property. Woodland pasture (identified as floodplain swamp in the application, much of it subject to flooding) is the most widespread and dominant landcover, making up 45% (ca. 313 acres) of the proposal. This community wraps around Johnson Lake, an old manmade logging access cut, in the eastern center of the proposal. These areas include a canopy of live oak (*Quercus virginiana*), swamp laurel oak (*Quercus laurifolia*), slash pine (*Pinus elliotii*), cabbage palm (*Sabal palmetto*), and, in wetter areas, red maple (*Acer rubrum*). The understory is typically sparse and comprised of younger canopy species. Much of this area is less than 10 feet above mean sea level. The shady ground is affected by frequent flooding and less diverse and sparser than might be expected. One area viewed was dominated by a cover of greenbriar (*Smilax sp.*) over sandy soil and other areas by hardy pasture grasses. Live oaks especially can have a heavy epiphytic cover of Spanish moss (*Tillandsia usneoides*), resurrection fern (*Pleopeltis polypodioides var. michauxiana*), Bartram's air-plant (*Tillandsia bartramii*), and southern needleleaf (*T. setacea*). Woodland pasture also makes up the northernmost square block of the proposal, which lies at 45 feet above mean sea level, the highest on the site. This area was not accessed during the site visit but appears to have been in citrus (1940 aerial photography) prior to pasture and oaks.

Improved pasture and semi-improved pasture make up about 22% of the property and occur in the northern and western parts of Johnson Homestead. The western improved pasture was formerly mesic flatwoods; part has been recently chopped and cleared of saw palmetto (*Serenoa repens*) and other shrubs resulting in an open scattered canopy of cabbage palm and longleaf pine (*Pinus palustris*), and patchy sand blackberry (*Rubus cuneifolius*) in the shrub layer. Carpetgrass (*Axonopus furcatus*) appears to be the dominant groundcover in this area and in the small rectangle of semi-improved pasture that borders the westernmost boundary. Although the semi-improved pasture has a ground layer of pasture grass, mature longleaf pine forms a varied canopy over a dense understory of overgrown oaks and shrub species. These include laurel oak (*Quercus hemisphaerica*), southern bayberry (*Morella cerifera*), cabbage palm, 5-6 foot saw palmetto, and sand blackberry. Interestingly, the northern improved pasture has rather large patches of skyblue lupine (*Lupinus diffusus*) indicative of dry soil and signifying that this area, including the northern woodland pasture, may have been a dry pineland or sandhill community historically. The eastern pastures are small and associated with the old access cuts from the Peace River. Bermudagrass (*Cynodon dactylon*) is dominant along the river and west side of Johnson Lake. Similarly, improved pasture occurs in the northeastern corner of the property on the river, where a historically disturbed streambed drains from Bee Gum Lake, located just off the property to the north. Para grass (*Urochloa mutica*; FISC Category I) and limpograss (*Hemarthria altissima*; FISC Category II) occur in a shallow swale in the floodplain while bahiagrass *(Paspalum notatum*) occupies higher ground.

Approximately 33% of Johnson Homestead consists of natural communities that have a good compliment of native species although vary in degrees of disturbance. Mesic hammock occupies about 21% (ca. 151 acres) of the property and occurs as scattered irregularly shaped patches that occur between basin swamp and pasture areas, within the woodland pasture, and adjacent to the river on higher ground. The closed canopy typically includes live oak, swamp laurel oak, and cabbage palm. Citrus (*Citrus sp.*), and smaller canopy species make up the sparse midstory. Saw palmetto is common

in the shrub layer with an occasional young cabbage palm. The sparse herbaceous cover includes flatsedge (*Cyperus sp.*), witchgrass (*Dichanthelium sp.*), lovegrass (*Eragrostis sp.*), Caesar's weed (*Urena lobata*; FISC Category I), and one sighting of cogongrass (*Imperata cylindrica*; FLEPCC Category I) along a fence line. Besides Spanish moss draped oaks, other common epiphytes include resurrection fern, Bartram's air-plant, and southern needleleaf. Common wild-pine (*T. fasciculata*) and Florida butterfly orchid (*Encyclia tampensis*) are uncommon. Vines such as yellow jessamine (*Gelsemium sempervirens*), earleaf greenbrier (*Smilax auriculata*), and muscadine (*Vitis rotundifolia*) are occasional.

Basin swamps (ca. 7% of the proposal) dominated by bald cypress (*Taxodium distichum*) occur as small, forested wetland pockets scattered throughout the center of the site. The more open understory includes red maple, Carolina ash (*Fraxinus caroliniana*), water locust (*Gleditsia aquatica*), and swamp laurel oak. Shrubs are made up of water locust, sweetbay (*Magnolia virginiana*), southern bayberry (*Morella cerifera*), cabbage palm, American elm (*Ulmus americana*), and Virginia willow (*Itea virginica*). Herbaceous cover varies depending on water level and light penetration and includes alligator weed (*Alternanthera philoxeroides*; FISC Category II), witchgrass, iris (*Iris sp.*), creeping primrosewillow (*Ludwigia repens*), lizard's tail (*Saururus cernuus*), wetland nightshade (*Solanum tampicense*; FISC Category I), toothed midsorus fern (*Telmatoblechnum serrulatum*), and southern shield fern (*Thelypteris kunthii*). Occasional epiphytes include southern needleleaf and Spanish moss. Vines are sparse but when present include muscadine (*Vitis rotundifolia*).

A small baygall occurs just south of the northern block of woodland hammock where elevations begin to drop considerably. This demarcation clearly runs off site to the northeast. Young swamp bay (*Persea palustris*), red maple, and southern bayberry dominate the canopy and understory. Herbs are mainly the ferns wild Boston fern (*Nephrolepis exaltata*), southern shield fern, and netted chain fern (*Woodwardia areolata*). Less common are spots of old world climbing fern (*Lygodium microphyllum*; FISC Category I). Lizard's tail is also present. Epiphytes Spanish moss and southern needleleaf are occasional and the vine earleaf greenbrier is common. Caesar's weed occurs around the edge of the baygall.

There is one area in the eastern portion of the property that we classified as floodplain swamp. It occupies a low swale of the floodplain (3% of the property (ca. 19 acres) at the northern end of Johnson Lake. Canopy species include bald cypress and water hickory (*Carya aquatica*). The edge is disturbed by a fence line and road in the adjacent hammock, in front of an abrupt drop to the floodplain. Earleaf greenbrier is abundant as are large swaths of partially frozen wetland nightshade. Beyond that, sandy rivulets are visible running through the swamp.

Small depression marshes (ca. 5 acres) occur mainly in the western former flatwoods area. One, in the southwest corner is actually part of a large depression marsh that is on the adjacent property. Peelbark St. John's wort (*Hypericum fasciculatum*) made up the outer shrub layer. Herbaceous components include blue maidencane (*Amphicarpum muehlenbergianum*), spikerush (*Eleocharis sp.*), marshpennywort (*Hydrocotyle sp.*), southern watergrass (*Luziola fluitans*), panic grass (*Panicum sp.*), rosy camphorweed (*Pluchea baccharis*), pickerelweed (*Pontederia cordata*), beaksedge (*Rhynchospora sp.*), and bulltongue arrowhead (*Sagittaria lancifolia*).

Small pockets of floodplain marsh, ca. 3 acres total, occur on the west side of Johnson lake and in the floodplain swamp community. These were not accessed during the site visit however the applicant indicates these are dominated by invasive wetland plants and open water. Apparently permanent standing water is evident on aerial photography and a couple of these marshes may be more appropriately classified as river floodplain lakes.

The wetland invasive exotic plants are the most prevalent. Wetland nightshade is abundant in the swamps. Para grass, limpograss, alligator weed, and old world climbing fern are present, but a more comprehensive field inspection would be necessary to determine the extent of spread. Cogongrass was

seen along a fence line in the northeast and as a larger patch in the south. Caesar's weed is occasional in hammock.

The property has been managed for cattle according to the application (ca. 100 head). Mowing is used to enhance grazing over parts of the proposal. Invasive exotic plants, especially wetland species, are abundant to occasional. Three block buildings and 2 sheds are present on the property in the northwestern section. Several gravel roads are present that access the buildings. Table 1 provides an approximation of landcover types and their relative representation within the proposal.

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

Community or Landcover	Acres	Percent of Proposal
mesic hammock	151	21%
basin swamp	50	7%
floodplain swamp	19	3%
baygall	6	1%
depression marsh	5	1%
floodplain marsh	3	<1%
woodland pasture	313	45%
improved pasture	141	20%
semi-improved pasture	15	2%
Totals	**703**	**100%**

Florida Fish and Wildlife Conservation Commission (FWC)

Johnson Homestead is a working cattle ranch located within a complex of conservation lands. The project fills an important gap in the landscape in this area by improving connectivity between the Myakka and Peace Rivers. The eastern boundary is located across the Peace River from the Peace River Refuge Florida Forever project and is approximately 1/3 miles northwest of the Peace River State Forest. The location of the property along 1.5 miles of the Peace River provides protection for maintaining water quality and hydrologic flow into Charlotte Harbor.

Approximately 477 acres are floodplain swamp (68%). Improved pasture (80 acres), prairies and bogs (26 acres), freshwater forested wetlands (16 acres), and marshes (15 acres) comprise 11%, 4%, 2%, and 2% of the landcover, respectively. Rural and mesic flatwoods each comprise approximately 39 acres of the landcover (5%). The remaining landcover types (natural rivers and streams, transportation, floodplain swamp, isolated freshwater swamp) each comprise less than 1% of the property.

Johnson Homestead is located on the western bank of the Peace River, and the eastern majority of the property is floodplain swamp, with a few marshes, prairies and bogs interspersed throughout. The mesic flatwoods are contiguous and located on the western boundary of the property. Rural (unimproved/woodland pasture) landcover type is on the north boundary, and the northeast portion of the property is comprised of improved pasture bisected by a small portion of floodplain swamp.

Prescribed fire has occasionally been a management tool, as evidenced by the presence of fire scars on trees. The dominant native communities in the area are not typically considered fire-dependent, but the mesic flatwoods and pockets of native habitat in pastures would benefit from more frequent prescribed fire. Pastures areas are relatively open, with snags and trees to provide perching and roosting habitat for wildlife. Invasive non-native plant species do not appear to be a widespread issue, aside from the non-native pasture grasses. Small patches of cogongrass were observed within the pastures during the site assessment. Overall, the native communities would benefit from an increase in the application of prescribed fire. However, the dominant community type on JH is not typically maintained with fire and is in overall good condition.

Wildlife species observed during the tour included Florida sandhill crane [State-designed Threatened (*Antigone canadensis*)], eastern meadowlark (*Sturnella magna*), red-shouldered hawk (*Buteo lineatus*), American kestrel (*Falco sparverius*), southern bald eagle, and many other species. Feral hogs (*Sus scrofa*) and their sign were observed. The landowner also reports that the gopher tortoise [Federal-designated Threatened], southern fox squirrel (*Sciurus niger niger*) and Florida panther [Federal-designated Endangered (*Felis concolor coryi*)] have been observed on-site. Florida panthers and Florida black bears (*Ursus americanus floridanus*) are known to occur in this area and protection of the property in the long-term would be very beneficial to these wide-ranging imperiled species.

The pastures on JH are suitable for use by listed wildlife such as the northern crested caracara [Federal-designated Threatened (*Caracara cheriway*)] and southeastern American kestrel [State-designated Threatened]. These species were not observed during the field tour but are known to occur in the surrounding landscape.

Johnson Homestead is a well-kept property that is located within a larger landscape of lands critical to the long-range conservation of wildlife and natural communities. Its proximity to the Peace River and role in protecting the Peace River from existing intensive land uses and future development is vital. As noted previously, the area also improves connectivity between existing conservation lands east of the Peace River and those in the Myakka River area.

The Florida Fish and Wildlife Conservation Commission's (FWC) Florida Landscape Assessment Model (FLAM) is a GIS model that determines the landscape value based on natural resources and fish and wildlife habitat. The FLAM ranks habitat from a 0-10; a rank of 10 being of greatest value. The mean FLAM score for this property is 7.3. Approximately 89% is identified as Priority 1 or 2 (of 5) for the Critical Lands and Waters Identification Project. Most of the area is within Priority 3 (of 5) of the FEGN. Approximately 52% of the project lies within a designated FWC Strategic Habitat Conservation Area (SHCA) for species including the Cooper's hawk (*Accipiter cooperii*) and swallow-tailed kite (*Elanoides forficatus*). The National Wetlands Inventory data shows 65% classified as wetlands. The FWC GIS Environmental Resources Analysis containing more detailed information concerning the FWC's FLAM analysis, focal species data, SHCA data, wildlife observation data, etc. is provided as an addendum to this assessment.

Establishment of a conservation easement at Johnson Homestead would increase the amount of protected area and connectivity between established conservation lands in the greater landscape. A habitat management program that incorporates routine prescribed fire, particularly within native habitats, will improve and maintain conditions in native habitat and benefit many imperiled wildlife species. Johnson Homestead lies within a landscape that is increasingly under pressure from expansion of nearby phosphate mine operations, cities, and developments. Long-term protection of intact private lands such as Johnson Homestead is vital to the long-term persistence of wildlife in this region.

GOALS, MEASURES AND CRITERIA

GOAL A:

ENHANCE THE COORDINATION AND COMPLETION OF LAND ACQUISITION PROJECTS

Measure A1:

The number of acres acquired through the state's land acquisition programs that contribute to the enhancement of essential natural resources, ecosystem service parcels, and connecting linkage corridors as identified and developed by the best available scientific data.

If interest is acquired, 700 acres would contribute to the enhancement of essential natural resources, ecosystem service parcels, and connecting linkage corridors.

Measure A2:

The number of acres protected through the use of alternatives to fee simple acquisition.

If interest is acquired, 699.64 acres would be protected through the use of alternatives to fee simple acquisition**.**

GOAL B:
INCREASE THE PROTECTION OF FLORIDA'S BIODIVERSITY AT THE SPECIES, NATURAL COMMUNITY, AND LANDSCAPE LEVELS

Measure B1:

The number of acres acquired of significant Strategic Habitat Conservation Areas.

The SHCA Florida Forever Conservation Needs layer identifies important remaining habitat conservation needs for 33 terrestrial vertebrates on private lands. Priority 1 and 2 represent habitat for species considered imperiled or critically imperiled in Florida. The Florida Forever Measure Evaluation (FFME) table (Appendix A) reports the site contains approximately 570 acres (81% of site) of Strategic Habitat Conservation Areas. This is mostly within Priority 5 (75% of site) with the remainder in Priority 3 (6%).

Measure B2:

The number of acres acquired of highest priority conservation areas for Florida's rarest species.

An analysis of priority conservation areas based on Florida Forever Conservation Needs Assessment data may be found in the FFME. Habitat conservation priorities for 281 of Florida's rarest species were mapped and divided into six priority classes. The FFME shows the acres for each priority class found on the Johnson Homestead proposal. Overall, the site contains approximately 640 acres (91% of site) of rare species habitat. The habitat is mostly divided between Priority 3 (63% of the site), Priority 5 (26%), with the remainder in Priorities 2 and 4 (both <1% of the site).

Table 2 lists the acres of habitat for each species that may be found on the site, based on the FNAI Habitat Conservation Priorities. Please note that habitats for these species overlap, so that the sum total of habitat for all species is more than the total acreage of the priority conservation areas. Acreage for aquatic species includes a terrestrial buffer.

*Table 2. Rare species habitat based on FNAI Habitat Conservation Priorities**

Scientific Name	Common Name	Global Rank	Acres
Drymarchon couperi	eastern indigo snake	G3	634
Mycteria americana	wood stork	G4	9
Trichechus manatus latirostris	manatee	G2	454

**For 281 species with the greatest conservation need.*

Measure B3:

The number of acres acquired of significant landscapes, landscape linkages, and conservation corridors, giving priority to completing linkages.

The FFME reports approximately 705 acres (100%) of the proposed project contributes to protection of ecological greenways with all the acreage falling within Priority 3 areas. Prioritization is based on such factors as importance for wide-ranging species like Florida panther and Florida black bear, importance for maintaining a connected reserve network, and riparian corridors.

Measure B4:

The number of acres acquired of under-represented native ecosystems.

The Florida Forever natural community analysis includes only those communities that are under-represented on existing conservation lands. This analysis provides a conservative estimate of the extent of these communities, because it identifies only relatively undisturbed portions of these communities that occur within their historic range. The FFME lists the acreages of under-represented natural communities found on the site. Based on this analysis, the Johnson Homestead proposal does not contain any under-represented natural communities.

Measure B5:

The number of landscape-sized protection areas of at least 50,000 acres that exhibit a mosaic of predominantly intact or restorable natural communities established through new acquisition projects, or augmentations to previous projects.

The Johnson Homestead proposal would not contribute to a contiguous landscape-sized protection area of >50,000 acres. However, it is adjacent to the Peace River Preserve Conservation Easement, which is held and monitored by the DEP. The Peace River State Forest, which is managed by the Florida Forest Service (FFS), is in the general vicinity, but mostly disjunct from the proposal.

Measure B6:

The percentage increase in the number of occurrences of imperiled species on publicly managed conservation areas.

An adult bald eagle was seen flying low near a depression marsh in the western pasture although no nest was visible. The FNAI database contains 1 record for a bald eagle nest on the edge of a hammock to the north and east of the marsh. The last active year was recorded as 2004 (FWC eagle nest locator). Two sandhill cranes were seen flying out of the same marsh as the eagle; the time of year precludes identifying them as the Florida subspecies, A. c. pratensis. The Florida black bear (G5T4/S4, N, N) is considered occasional regionally by the FWC 2018 range estimate. The application notes gopher tortoise as being confirmed on site (see table below). Wood stork (G4/S2, T, FT) and other wading birds are also likely to forage along the river and other wetlands on the site.

The FNAI database contains no documentation of rare plants in the project area, but lowland loosestrife (*Lythrum flagellare*, G2/S2, N, E) is known from the region and inhabits moist sandy riverbanks as well as depression margins and more disturbed moist edges and roadsides. A state-endangered bromeliad and a commercially exploited orchid were observed during the site visit (see table below). Additional survey effort could possibly find more rare plant species.

The FFME lists the number of Element Occurrences by Global Rank (G-rank) that are found on the proposal. Note that the number of occurrences does not necessarily match the number of species in the following table because a) some species may have more than one occurrence on the proposal site, or b) some species observed on site do not meet the criteria for addition to the FNAI database at this time. Table 3 contains species falling into any of these observational categories, as well as species gleaned from other sources (e.g., Florida Breeding Bird Atlas) with different degrees of locational precision. Rarity rankings are listed in the following order: FNAI global (G, T) and state (S) ranks, federal status, state status. Species ranks and conservation status are described in Appendix D.

Table 3. Rare plants and animals documented or reported to occur within the proposed project

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status
Rare plants documented on site					
Encyclia tampensis	Florida butterfly orchid	G4	SNR	N	CE
Tillandsia fasciculata	common wild-pine	G5	SNR	N	E
Additional rare plants reported on site by applicant					
none					
Rare animals documented on site					
Haliaeetus leucocephalus	bald eagle	G5	S3	N	N
Additional rare animals reported on site by applicant					
Gopherus polyphemus	gopher tortoise	G3	S3	C	ST

GOAL C:

PROTECT, RESTORE AND MAINTAIN THE QUALITY OF NATURAL FUNCTIONS OF LAND, WATER, AND WETLAND SYSTEMS OF THE STATE

Measure C1:

The number of acres of publicly-owned land identified as needing restoration; enhancement, and management, acres undergoing restoration or enhancement; acres with restoration activities completed, and acres managed to maintain such restored or enhanced conditions; the number of acres which represent actual or potential imperiled species habitat; the number of acres which are available pursuant to a management plan to restore, enhance, repopulate, and manage imperiled species habitat; and the number of acres of imperiled species habitat managed, restored, and enhanced, repopulated, or acquired.

Johnson Homestead has approximately 28 acres of former mesic flatwoods that would benefit from the reintroduction of fire, especially the western 15 acres. This area would be the easiest to restore to a more natural state although it appears to be slated for continued clearing for pasture. The property is 67% pasture of varying degrees of improvement. Woodland pasture, with the largest acreage (ca. 350 acres) is primarily wet except for the dryer northern block of approximately 40 acres. Where the groundcover of this community is largely pasture grasses, restoration may outside the scope of the commitment expected for a cattle ranch.

Based on the field assessment, the most problematic invasive plants on the proposal area were wetland nightshade and the invasive grasses para grass and limpograss. Caesar's weed and old world climbing fern seem occasional but could be more pervasive in the hammocks and swamps than what was seen. The climbing fern should be treated aggressively. Cogongrass infestations observed along a fence line and as a patch in the south should be a priority for control to limit its spread. A baseline assessment to determine the full extent of invasive plant infestations is warranted if an easement is to be acquired.

Measure C4:

The number of acres acquired that protect natural floodplain functions.

The FFME reports approximately 549 acres (78%) of the proposed project may contribute to the protection of natural floodplain function. This area is mostly divided between Priority 1 (59% of site), Priority 2 (12% of site), and Priority 3 (4% of site), with the remainder in Priority 4 (2% of site). Priority 1 areas are the most natural with the lowest intensity land uses.

Measure C5:

The number of acres acquired that protect surface waters of the State.

The FFME reports approximately 700 acres (99%) of the proposed project could provide protection for those surface waters of the State that currently remain in good condition. This area is divided between Priority 4 (71% of site), Priority 5 (18% of site), and Priority 2 (10% of site). These areas represent acreage that contributes to the protection of state-designated Outstanding Florida Waters, springs, rare fish habitat, or other surface waters.

Measure C8:

The number of acres of functional wetland systems protected.

The FFME reports approximately 539 acres (77%) of the proposed project would provide protection for functional wetland systems. This area is divided between Priority 1 (59% of site), Priority 2 (13% of site), and Priority 3 (3% of site), with the remainder in Priority 4 (2% of site).

Measure C11:

The number of acres of public conservation lands in which upland invasive, exotic plants are under maintenance control.

No portion of the project is under maintenance control and there are no current plans to treat invasive plant species on the property.

There were several nonnative invasive plant species spotted on the tour such as cogongrass, Caesar's weed, and tropical soda apple. There was also a small amount of Lygodium spotted on the tour. Overall, there was not a large number of invasive plants.

GOAL D:

ENSURE THAT SUFFICIENT QUANTITIES OF WATER ARE AVAILABLE TO MEET THE CURRENT AND FUTURE NEEDS OF NATURAL SYSTEMS AND THE CITIZENS OF THE STATE

Measure D1:

The number of acres acquired which provide retention and storage of surface water in naturally occurring storage areas, such as lakes and wetlands, consistent with the maintenance of water resources or water supplies and consistent with district water supply plans.

Measure D2:

The quantity of water made available through the water resource development component of a district water supply plan for which a water management district is responsible.

The Johnson Homestead Florida Forever project is located within SWFWMD's Southern Planning Region. The District prioritizes improving water bodies by planning and implementing projects for water quality improvement and natural systems restoration (as stated in SWFMD's 2022-2026 Strategic Plan).

The project directly abuts the Peace River, one of three major rivers that contribute to the Charlotte Harbor estuary (a major improvement priority for the District). Naturally-occurring storage areas within the project would directly benefit the District's goals due to the project's proximity to district-identified priority water bodies and the acquisition of natural lands would improve the quantity of water available in the region.

Measure D3:

The number of acres acquired of groundwater recharge areas critical to springs, sinks, aquifers, other natural systems, or water supply.

The property is not in a restoration plan area, but the property would provide surface and ground water protection.

Table 4. Spatial Analysis for Potential Water Quality Benefits of Johnson Homestead

Categories	Scoring Criteria	Project Score
DEP High Profile Springs (In 1,2,3 or > spring sheds)	12, 24, 36	0
DEP Select Agricultural Land Use (0-30%, >30-65%, >65%)	4,8,12	4
DEP Florida Aquifer Vulnerability (FAVA)	4,7,10	4
DEP Special Nutrient Impaired WBIDs	9	0
DEP Distance to Major Lakes (100, 500, 1000 meters)	8,7,6	0
DEP Springsheds or within 5 miles	10, 7	0
DEP BMAPs	10	0
DEP Distance to Major Rivers (100, 500, 1000 meters)	6,5,4	6
Total Possible	**101**	**14**

GIS Evaluation score is converted to a 1 to 5 value (low to high)

FINAL DEAR SCORE = 2 – Medium low water quality protection benefits.

GOAL E:

INCREASE NATURAL RESOURCE-BASED PUBLIC RECREATIONAL AND EDUCATIONAL OPPORTUNITIES

Measures E1-E3

The Johnson Homestead project is proposed for less-than-fee acquisition with no public access.

GOAL F:

PRESERVE SIGNIFICANT ARCHAEOLOGICAL OR HISTORIC SITES

Measure F1:

The increase in the number of and percentage of historic and archaeological properties listed in the Florida Master Site File or National Register of Historic Places which are protected or preserved for public use.

The Johnson Homestead Florida Forever project would not meet Measure F1 as the project contains no archaeological sites recorded or known to exist.

Measure F2:

The increase in the number and percentage of historic and archaeological properties that are in state ownership.

The Johnson Homestead Florida Forever project would not meet Measure F2 as the project contains no archaeological sites recorded or known to exist.

CULTURAL RESOURCES:

There are no cultural resources recorded or known to exist on this Florida Forever project. To date, no portion of this property has been professionally surveyed for archaeological and/or historical sites. The site file shows 120 historic structures, 17 archaeological sites, and 2 resource groups as being located within a five-mile radius of this property.

FIELD OBSERVATIONS:

There were no archaeological or historical resources observed on the project and the landowners are unaware of any unrecorded resources known to exist on the Johnson Homestead Florida Forever project. There is potential for sites to exist given its frontage on the Peace River, and based upon our field observation of land management practices on the project, it would appear that any unknown and

unrecorded sites that may exist would be preserved in relatively good condition. Should this project be acquired as less-than-fee, it is recommended that conservation easement landowners to be made aware of their responsibility to not willingly disturb or destroy any existing or newly discovered resources protected on their property. Should any artifacts be discovered on the project in the future, DHR recommends leaving them in place and contacting one of DHR's archaeologists.

GOAL G:

INCREASE THE AMOUNT OF FORESTLAND AVAILABLE FOR SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES

Measure G1:

The number of acres acquired that are available for sustainable forest management.

The FFME reports approximately 161 acres (23% of site) could be available for sustainable forest management, divided between Priority 5 (121 acres) and Priority 3 (40 acres). Prioritization is based on 4 criteria set by the FFS: whether trees are natural or planted, size of tract, distance to market, and hydrology. Priority 5 areas are considered "potential" pinelands; agricultural areas that could be restored to pineland.

The goals of sustainable forest management can be addressed on the property through conservation of the oak hammocks and cypress domes in order to maintain the health of the Peace River a critical water source for the Charlotte Harbor Estuary. An invasive plant species control plan and a proper burn regime will emulate natural fire should be implemented. There is little potential for sustainable pine management on the property.

There was only a small 39-acre proportion of pine flatwoods. Although longleaf pine is a profitable timber production tree, the small acreage and site index for pine on the property is not promising when it comes to timber production. In addition, the timber market for the area is minimal and it would take much larger acreage to attract a logger for management thinning.

Measure G4:

The percentage and number of acres identified for restoration actually restored by reforestation.

There is a low potential for restoration by reforestation. Most of the property is in its natural state with the exception of the pastures. The 39 acres of mesic flatwoods could use some help to regenerate, as the mature pines in the stand are not producing a second age class.

FLORIDA FOREVER CRITERIA

The proposed project meets the following Florida Forever criteria (section 259.105, F.S.)

- the project has a significant portion of its land area in imminent danger of development, in imminent danger of losing its significant natural attributes or recreational open space, or in imminent danger of subdivision which would result in multiple ownership and make acquisition of the project costly or less likely to be accomplished.
- the project may be acquired, in whole or in part, using alternatives to fee simple, including but not limited to, tax incentives, mitigation funds, or other revenues, the purchase of development rights, hunting rights, agricultural or silvicultural rights, or mineral rights or obtaining conservation easements or flowage easements.

The Acquisition and Restoration Council shall give increased priority to:

- Projects that can be acquired in less than fee ownership, such as a permanent conservation easement.
- Projects that contribute to improving the quality and quantity of surface water and groundwater.

MANAGEMENT

If acquired as a perpetual conservation easement, primary management responsibility would remain with the landowner. Periodic monitoring of the site's management would occur to confirm continued compliance with the conditions of the easement. Monitoring would be coordinated by DEP, Division of State Lands (DSL), Office of Environmental Services (OES).

FUNDING SOURCES

Florida Forever.

OWNERSHIP PATTERN AND ACQUISITION PLANNING

Title and Legal Access Issues

Fee ownership is currently held by one single owner. This would be a less than fee acquisition. Legal access from a public right of way is from Johnson Avenue and from Addison Avenue, both located along the northwest boundary and connected to County Road 760.

Jurisdictional and Sovereignty Lands Issues

The eastern boundary abuts the Peace River, a sovereign water body. An internal water body is called Johnson Lake, but the application identifies this as a manmade logging cut. Additional research may be required to determine whether the state has any title interest.

Of the 700-acre project, 416 acres are identified as functional wetlands. The extent and limits would be determined during the appraisal mapping by an environmental scientist.

Known Encumbrances (easement, long-term leases, restrictive covenants, etc.)

The easements and encumbrances of record would be determined during the appraisal mapping. A current title insurance commitment would be obtained, or the owner's title insurance policy would be reviewed if the policy is available. The easements and encumbrances would be depicted or noted on the appraisal map.

Description and location of hazardous waste sites, dumps, borrow pits

There are no apparent contamination sites within the project based on the application form.

Estimated Cost of Appraisal and Mapping

DEP Bureau of Appraisal estimates $10,000 to $20,000 in appraisal fees.

Acquisition Phases

Subject to funding, the Johnson Homestead Florida Forever project will be phased based upon price.

GOVERNMENT PLANNING and DEVELOPMENT

Contribution to Recreation and Open Space Needs

The proposed 702-acre project has a medium to high potential for contributing to Florida's recreation and open space. The applicant proposes a less-than-fee acquisition and no public uses would be allowed on the property. However, preservation of the critical link would create significant external benefits for wildlife viewing, hunting and fishing and related outdoor recreational activities. Such activities provide substantial revenue to the region and the State of Florida at large. Protection of the site is consistent with the purpose of the 2021 Florida Wildlife Corridor Act (section 259.1055(3)(e), F.S.).

Potential for Losing Significant Natural Attributes or Recreational Open Spaces

Medium to High Potential: The applicant reports that approximately 68% of the property is composed of a floodplain swamp vegetative community. This significant natural attribute supports aquifer recharge, downstream water quality and wildlife habitat. The potential for loss of significant natural attributes is medium to high due to the site's proximity to the City of Arcadia and DeSoto County's phosphate mining industry. Although well established in nearby Hardee and Polk counties, phosphate mining is new to DeSoto County. DeSoto County only allows phosphate mining within the County's designated Phosphate Mining Overlay, which begins in the NW corner of the county and extends due South and East. The Johnson Homestead property is located approximately four miles southeast of the mining overlay.

Potential for Being Subdivided

Low Potential: DeSoto County's comprehensive plan provides considerable protections for sites designated as Rural/Agriculture future land use. These protections for rezoning Agriculture-10 districts (A-10) are implemented through the DeSoto County Land Development Code which requires a minimum of 80-acres and buffers from agricultural and residential uses. Rezoning of an A-10 district is only permitted after public hearing reviews and approval by the DeSoto County Board of County Commissioners.

The application reports that the eastern boundary of the Johnson Homestead property fronts over 1.5 nautical miles of the Peace River. Hydric soils associated with the river's floodplains are undesirable for residential development. The DeSoto County Comprehensive Plan's Conservation Element, Objective 1.6 and supporting policies require the long-range protection and restoration of functions of its remaining floodplains. Currently, phosphate mining is prohibited within the 100-year floodplain of the Peace River. The property's dryer upland areas are more suitable to residential and agricultural uses.

Zoning and Densities within the Project Boundaries

The property is zoned Agriculture-10 (A-10) with a residential density standard of 1 du/10- acres. Permitted uses within the A-10 zoning district are primarily agricultural, pastoral, the extraction or processing of non-phosphate minerals, and low-density residential development. Solar energy generation facilities are a permitted use within A-10. Special exception uses include agriculturally related processing operations, agricultural support housing, aviation facilities, communication facilities, golf courses, racetracks, sanitary landfills, and oil and gas extraction, production and processing. The site's proximity to the Peace River and function as a floodplain would likely prohibit the unrestricted impervious lot coverage permitted within A-10 zoning districts.

Existing Land Uses and Future Land Use Designations

The existing use for the property's 702.8 acres is agriculture. The entire site is designated Rural/Agriculture on DeSoto County's Comprehensive Plan Future Land Use Map. This same designation is reflected in the adjacent and surrounding land uses. The primary function of DeSoto County's Rural/Agriculture land use is to protect and encourage agricultural activities, protect native habitats and maintain open space while providing for rural residential uses at a gross density of one dwelling unit per 10 acres. Acquisition as a Florida Forever project for conservation purposes would be consistent with the site's existing use and adopted future land use category.

Development Potential

Low Potential: The potential for being developed is projected to be low due to the limited roadway frontage and the County's relatively low rate of residential growth. There are restrictions for subdivision of the property as well as prohibitions for mine locations that further limit development potential.

Transportation Planning Issues

The proposed project is located in the Florida Department of Transportation's (FDOT) District 1 (DeSoto County). FDOT finds no adverse impacts from this proposal.

FOOTNOTES/REFERENCES

Southwest Florida Water Management District. (2022, February 22). 2022–2026 Strategic Plan. Brooksville.

ACKNOWLEDGEMENTS

Staff in DEP DSL and FNAI determined the final project recommendations. Sine Murray and Hannah Turbiville in DSL's OES were responsible for the overall coordination of this report, with contributions from the following:

- Florida Department of State, Division of Historical Resources – Joshua Goodwin
- Florida Forest Service – Cat Ingram & Eric Strickland
- Department of Economic Opportunity – Barbara Powell
- DEP Division of State Lands, Bureau of Appraisal – Jay Scott & Amy Phillips
- Florida Fish and Wildlife Conservation Commission – Larame Ferry & Jennifer Myers
- Florida Natural Areas Inventory – Dan Hipes, Katy NeSmith & Nathan Pasco
- DEP Division of Environmental Assessment and Restoration – Kevin Coyne
- Florida Department of Transportation – Jennifer Carver
- Southwest Florida Water Management District – Steven Blaschka

APPENDICES

Appendix A:

Final FF measures table: Report requirement 259.105 (15)d, prepared by Florida Natural Areas Inventory

Johnson Homestead: Florida Forever Measure Evaluation 20220221

GIS ACRES = 703

MEASURES	Resource Acres[a]	% of project
B1: Strategic Habitat Conservation Areas		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	45	6%
Priority 4	0	0%
Priority 5	525	75%
Total Acres	570	81%
B2: FNAI Habitat Conservation Priorities		
Priority 1	0	0%
Priority 2	5	< 1%
Priority 3	445	63%
Priority 4	6	< 1%
Priority 5	184	26%
Priority 6	0	0%
Total Acres	640	91%
B3: Ecological Greenways		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	705	100%
Priority 4	0	0%
Priority 5	0	0%
Total Acres	705	100%
B4: Under-represented Natural Communities		
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%
B6: Occurrences of FNAI Tracked Species		
G1	0	
G2	0	
G3	0	
G4	0	
G5	1	
Total	1	
C4: Natural Floodplain Function		
Priority 1	417	59%
Priority 2	85	12%
Priority 3	30	4%
Priority 4	17	2%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	549	78%

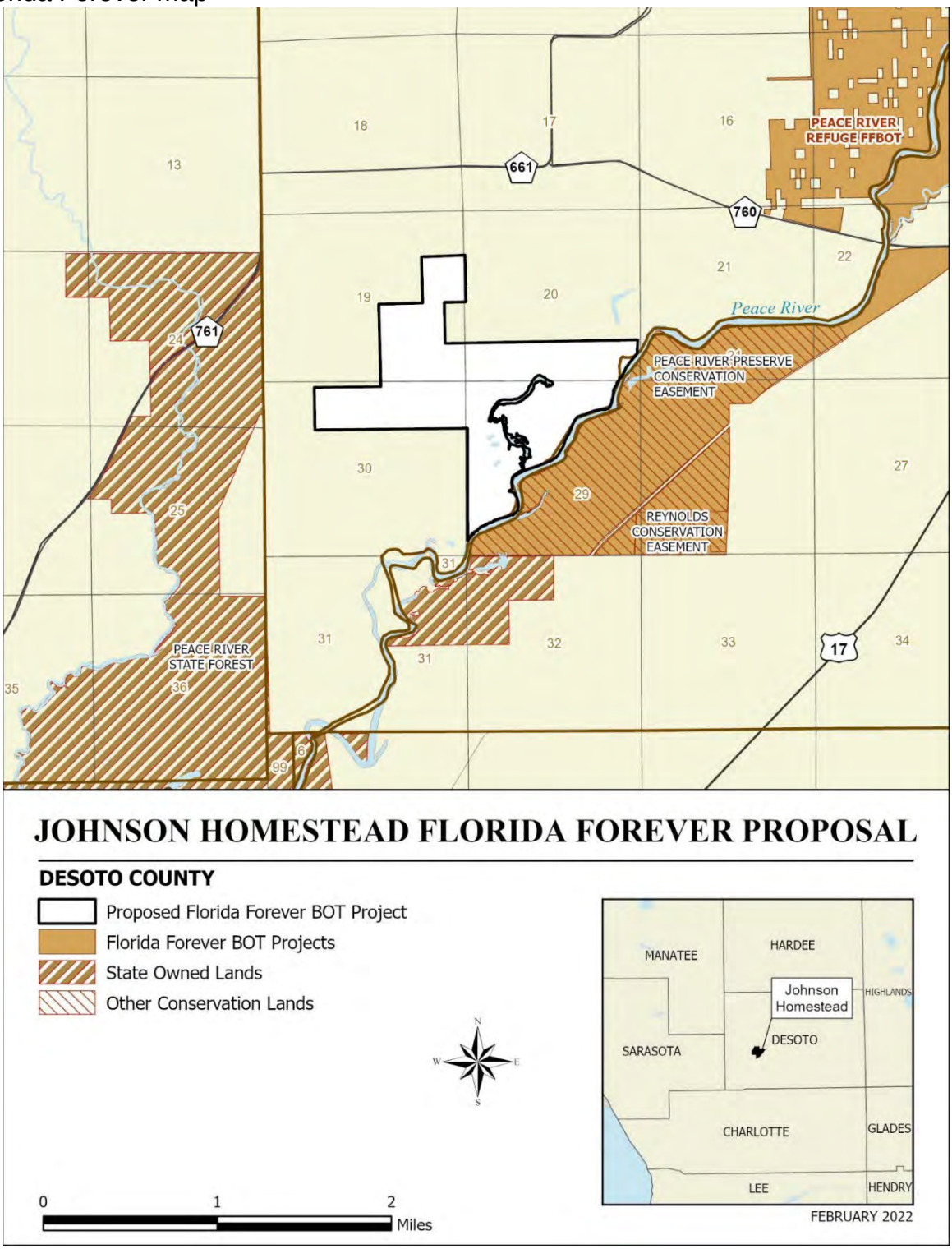
MEASURES (continued)	Resource Acres[a]	% of project
C5: Surface Water Protection		
Priority 1	0	0%
Priority 2	68	10%
Priority 3	0	0%
Priority 4	503	71%
Priority 5	130	18%
Priority 6	0	0%
Priority 7	0	0%
Total Acres	700	99%
C7: Fragile Coastal Resources		
Fragile Coastal Uplands	0	0%
Imperiled Coastal Lakes	0	0%
Coastal Wetlands	0	0%
Total Acres	0	0%
C8: Functional Wetlands		
Priority 1	416	59%
Priority 2	90	13%
Priority 3	22	3%
Priority 4	12	2%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	539	77%
D3: Aquifer Recharge		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	13	2%
Priority 4	87	12%
Priority 5	518	74%
Priority 6	33	5%
Total Acres	652	93%
E2: Recreational Trails (miles)		
(prioritized trail opportunities from Office of Greenways and Trails & Live Florida)		
Land Trail Priorities	0.0	
Land Trail Opportunities	1.5	
Total Miles	1.5	
F2: Arch. & Historical Sites (number)	0 sites	
G1: Sustainable Forestry		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	40	6%
Priority 4	0	0%
Priority 5 - Potential Pinelands	121	17%
Total Acres	161	23%
G3: Forestland for Recharge	11	2%

[a]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.

Appendix B:

Final FF proposal boundary maps: Report requirement 259.105 (15)k, prepared by Florida Natural Areas Inventory

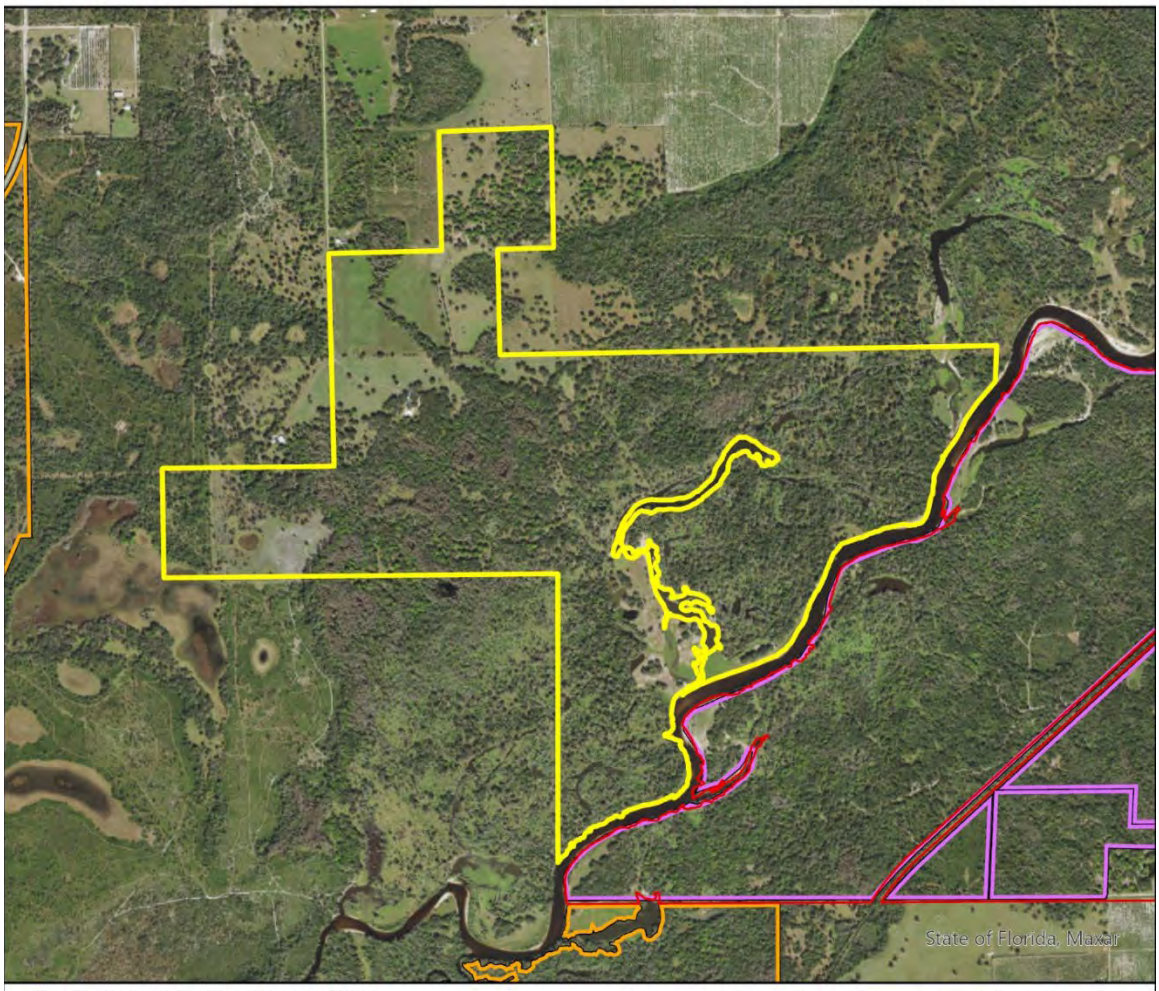
B1: Florida Forever map



B2: Aerial map

Johnson Homestead Florida Forever Proposal

FLORIDA FOREVER BOARD OF TRUSTEES PROPOSED PROJECT BOUNDARY AS OF FEBRUARY 2022



Map Produced by: N. Pasco, February 2022

Background: World Imagery Resolution = 0.3 meter

FLORIDA Natural Areas INVENTORY

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Tallahassee, Florida 32303
850-224-8207
fax 850-681-9364
www.fnai.org

N W E S

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

0 0.25 0.5 1 Miles

Appendix C:

PROPERTY ID #'S FOR FINAL RECOMMENDED BOUNDARY

DESOTO COUNTY

COUNTY	PARCEL ID	OWNER	ACRES PER TAX CARD	JUST VALUE	ASSESSED VALUE	PARCEL DESIGNATION
DeSoto	19-38-24-0000-0032-0000	JOHNSON HOMESTEAD LLC	9.93	$64,545.00	$1,846.00	Essential
DeSoto	19-38-24-0000-0034-0000	JOHNSON HOMESTEAD LLC	108.71	$442,256.00	$20,677.00	Essential
DeSoto	30-38-24-0000-0030-0000	JOHNSON HOMESTEAD LLC	120	$360,000.00	$4,800.00	Essential
DeSoto	19-38-24-0000-0050-0000	JOHNSON HOMESTEAD LLC	60	$240,000.00	$14,012.00	Essential
DeSoto	20-38-24-0000-0011-0000	JOHNSON HOMESTEAD LLC	155	$465,000.00	$7,750.00	Essential
DeSoto	29-38-24-0000-0012-0000	JOHNSON HOMESTEAD LLC	246	$985,040.00	$9,850.00	Essential
TOTALS			**699.64**	**$2,556,841.00**		

Appendix D:

Imperiled Species FNAI Ranking Definitions

FNAI
Definitions of imperiled species ranks and conservation status

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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

FNAI
Definitions of imperiled species ranks and conservation status

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 = Partial status: some but not all of the species' infraspecific taxa have federal
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.

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 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: <http://www.doacs.state.fl.us/pi/>.

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

Appendix E:

Site Visit Photos

1. Floodplain swamp

2. Basin swamp

3. Woodland pasture

4. Peace River and floodplain

5. Mesic hammock

6. Floodplain marsh