

River Property
Highlands County

Florida Forever Project Evaluation Report

Prepared by:
Division of State Lands
Office of Environmental Services

Submitted to the Acquisition and Restoration Council
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Acquisition Type: Less-than-fee
Acres: 2,976
Just Value: \$1,801,502
Application Date: October 31, 2021
Project Sponsor: National Wildlife Refuge Association

Executive Summary

The proposed River Property Florida Forever project contains eight parcels totaling approximately 2,976 acres. The project is located in Highlands County, north of State Road 70 (SR 70) and south of U.S. 98. The project is in the Lake Okeechobee watershed and contains more than a mile of the western bank along the channelized section of the Kissimmee River. The project is within the Everglades Headwaters National Wildlife Refuge Conservation Partnership Area and the Avon Park Air Force Range Sentinel Landscape. Cities nearby include Sebring, Basinger and Okeechobee. According to the property tax appraiser's evaluations, the properties have a total tax assessed value of \$1,801,502. The River Property project is proposed as a less-than-fee acquisition.

The River Property is a working cattle ranch and the project is composed of improved pasture interspersed with ditches, disturbed wetlands and scattered disturbed remnants of mesic hammock. The property provides a critical link in the landscape for long-ranging species such as the Florida panther (*Puma concolor coryi*) and is part of a potential focal area for panther population expansion through the Fisheating Creek watershed to the Kissimmee River valley. The property is classified as a Priority 1 (Critical Linkage) by the Florida Ecological Greenways Network (FEGN).

Rare animals documented or reported within the proposed project area include Florida black bear (*Ursus americanus floridanus*), eastern diamondback rattlesnake (*Crotalus adamanteus*), and American alligator (*Alligator mississippiensis*). The project area also contains habitat suitable for species like the eastern indigo snake (*Drymarchon couperi*) and wood stork (*Mycteria americana*). No known archaeological or historical artifacts/structures have been found onsite. However, the project is located within a five-mile radius of five historic structures, 30 archeological sites and five resource groups.

The River Property has been identified for potential land acquisition as part of the Lake Okeechobee Watershed Restoration Project (LOWRP), a component of the Comprehensive Everglades Restoration Plan (CERP). The goal of one of the proposed wetland restoration features within the LOWRP, the Kissimmee River Center, is to restore approximately 1,200 acres of riverine and floodplain wetlands including 760 acres of the River Property. Completing this restoration project would require fee simple interest in the property, creating a potential conflict with less-than-fee acquisition through the Florida Forever or other acquisition programs.

If approved for addition to the 2023 Florida Forever Priority List, 2,044 acres of the River Property are considered essential and 932 acres are considered nonessential due to potential conflict with proposed activities within the LOWRP (see Appendix C). An interagency team conducted a site visit to the site on February 2, 2022. Information included in this project evaluation report is a result of this site visit.

PURPOSE FOR ACQUISITION

If acquired, the River Property project would conserve a working agricultural landscape and contribute to the creation of a wildlife corridor that will protect habitat for Florida's rare wildlife species.

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.

LOCATION AND PROXIMITY TO OTHER MANAGED AREAS

The River Property proposal comprises 2,976 acres in eastern Highlands County along a channelized section of the Kissimmee River approximately 10 miles west of the City of Okeechobee 1.5 miles north of SR 70. The proposed property is adjacent to a west bank sliver of Kissimmee River Water Management Area managed by South Florida Water Management District, which extends northward encompassing a large portion of the former river floodplain corridor up to Lake Kissimmee. Several

USDA wetland reserve program easements help fill the gaps in conservation lands along the river in the vicinity of the River Property. The River Property would add to this assemblage, but additional lands would need to be added to complete the corridor south to Lake Okeechobee.

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 1995 to 2021, 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 2, 2022, by FNAI staff Dan Hipes and Katy NeSmith, along with the Acquisition and Restoration Council (ARC) liaison staff the landowner, and the land manager.

Approximately 91% of the River Property is improved pasture. Another two percent is semi-improved and woodland pasture. A few remnant, somewhat natural areas include depression marsh, mesic hammock, and a small (1.4 acres) remnant mesic flatwoods; these total approximately five percent of the area and are all encroached or otherwise impacted by the surrounding pasture. Descriptions of the dominant landcover follow starting with the natural areas.

Many depression marshes are scattered throughout the River Property. Most of these are within the improved pasture and are generally used as watering holes for cattle. As a result, none of the marshes observed (or as evident on aerial photography) are in natural condition. Dominant vegetation in the marshes is soft rush (*Juncus effusus* ssp. *solutus*), which is common in wet areas used by cattle. Other common species are marshpennywort (*Hydrocotyle* sp.), and smartweed (*Persicaria* sp.).

Two 20-acre mesic hammocks are present on the property. Despite altered groundcover from cattle and possibly pig disturbance these large hammocks are essentially the only natural vegetation on the property. A few small mesic hammock remnants are also mapped within the property. The closed canopy is composed primarily of live oak (*Quercus virginiana*) and cabbage palm (*Sabal palmetto*). There is a moderately dense to sparse tall shrub layer of cabbage palm and Brazilian pepper (*Schinus terebinthifolia*; FISC Category I). There is a sparse short shrub layer composed primarily of American beautyberry (*Callicarpa americana*), and cabbage palm. There is a moderately dense herbaceous layer that included witchgrass (*Dichanthelium* sp.), crowngrass (*Paspalum* sp.), tropical soda apple (*Solanum viarum*; FISC Category I), small-leaf spiderwort (*Tradescantia fluminensis*; FISC Category I), spiderwort (*Tradescantia* sp.), and Caesar's weed (*Urena lobata*; FISC Category I). Epiphytes were abundant and included golden polypody (*Phlebodium aureum*), resurrection fern (*Pleopeltis michauxiana*), Bartram's air-plant (*Tillandsia bartramii*), southern needleleaf (*Tillandsia setacea*), and Spanish moss (*Tillandsia usneoides*).

There is a small (1.4 acres) remnant patch of mesic flatwoods. There is a moderately dense canopy of slash pine (*Pinus elliottii*), and cabbage palm. There is a dense tall shrub layer of Brazilian pepper, southern bayberry (*Morella cerifera*), and cabbage palm. There is a dense short shrub layer of saw palmetto (*Serenoa repens*). Herbaceous cover is patchy and atypical of mesic flatwoods; species observed were southern umbrellasedge (*Fuirena scirpoidea*), old world climbing fern (*Lygodium microphyllum*; FISC Category I), toothed midsorus fern (*Telmatoblechnum serrulatum*), and Guinea grass (*Urochloa maxima*; FISC Category II).

As stated above the dominant altered landcover type is improved pasture, which covers more than ninety percent of the River Property. The dominant grass is bahia grass, which is desirable of cattle forage. Other less desirable grasses include smutgrass (*Sporobolus indicus*), and West Indian dropseed (or giant smutgrass; *Sporobolus jacquemontii*). Weedy forb including thoroughwort (*Eupatorium* sp.) are occasional.

There is a network of ditches of varying size that drain the property to the south and east toward the Kissimmee River. Nearly all of the wetlands on the property are connected via the ditch/canal system. The land manager also noted that the ditches help fill watering holes when the river is up. The edges of the ditches support occasional cabbage palms. No other woody vegetation was observed. Witchgrass, thoroughwort, and bluestem grass (*Andropogon sp.*) was common on the ditch banks and drier portions of the ditches. Moist soil portions supported marshpennywort soft rush, southern watergrass (*Luziola fluitans*), watersprite (*Ceratopteris thalictroides*), and smartweed. Open water areas supported water lettuce (*Pistia stratiotes*), water hyacinth (*Eichhornia crassipes*). The invasive exotic West Indian marsh grass (*Hymenachne amplexicaulis*; FISC category I) was occasionally present in the ditches and dominant where it occurred.

There is one large area (42 acres) of woodland pasture along with several scattered patches. Tree were left in these areas to provide shade for cattle. Few other species characteristic of the former natural community (mesic flatwoods/dry prairie) remain. There is a sparse canopy layer of slash, longleaf pine (*Pinus palustris*), live oak, and cabbage palm. There is a sparse and patchy tall shrub layer that included live oak and Brazilian pepper. The short shrub layer is also patchy and included sand blackberry (*Rubus cuneifolius*), and cabbage palm. Herebaceous cover is primarily pasture grasses dominated by Bahia grass (*Paspalum notatum*). Other common species are yankeeweed (*Eupatorium compositifolium*), marshpennywort (*Hydrocotyle sp.*), and tropical soda apple (FISC Category I).

Approximately 15 acres is mapped as invasive plant monoculture. The area was fallow and is now dominated by Brazilian pepper and Guinea grass. Many artificial ponds are present across the property. They are generally less than a quarter acre in size, with a combined total acreage of approximately 4.4 acres. There is one house on the property with an adjacent shop/pole barn. There is also a large pole barn/equipment building in one of the improved pastures. No other improvements are evident. Table 1 provides a list of the landcover types identified on the proposal and their approximate acreages.

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

Community or Landcover	Acres	Percent of Proposal
depression marsh	65	2%
mesic hammock	60	2%
mesic flatwoods	1	<1%
improved pasture	2788	91%
ditch/canal	77	3%
woodland pasture	46	2%
invasive plant monoculture	15	<1%
semi-improved pasture	10	<1%
artificial pond	4	<1%
developed	2	<1%
road	1	<1%
Totals	3068	100%

Florida Fish and Wildlife Conservation Commission (FWC)

The River Property is located within the Lake Okeechobee watershed, containing more than a mile of the western bank of the Kissimmee River. Along the eastern boundary, the property connects to existing conservation lands, including those managed by the South Florida Water Management District (SFWMD) and several Natural Resources Conservation Service (NRCS) Wetland Reserve Easements. Several Rural and Family Lands Protection projects are on the southeast corner. The property is also located within the Everglades Headwaters National Wildlife Refuge Conservation Partnership Area and Avon Park Air Force Range Sentinel Landscape.

The River Property is a working cattle ranch. The dominant landcover type is improved pasture (2,794 acres; 91%). Isolated freshwater marsh (96 acres), rural (63 acres), and mesic hammock (39 acres) comprise approximately 3%, 2%, and 1% of the property, respectively. The remaining landcover types (cultural-riverine, riverine, cultural lacustrine, transportation, cropland/pasture, prairies and bogs, rural structures, cypress, and freshwater non-forested wetlands) each comprise less than 1% of that property. Historically, the property would have supported south Florida flatwoods, dry prairie, and wetland natural communities. The eastern quarter of the property has been drained by ditches into the former Kissimmee River channel by Dougherty cutoff into the C38 canal and south/southeast into Long Cypress Slash Slough.

Pasture areas are relatively open, with occasional pockets of trees or snags 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 (*Imperata cylindrica*) were observed within the pastures during the site assessment, as well as frequent observations of tropical soda apple. Several disturbed areas that have become infested with Brazilian peppertree were also observed. The small pockets of native communities are accessible to cattle, which keeps the groundcover and mid-story low. These areas would also benefit from an increase in the application of prescribed fire. The property has several cattle pens and other infrastructure for cows.

Many wildlife species were observed during the tour including eastern meadowlark (*Sturnella magna*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), killdeer (*Charadrius vociferus*), bald eagle (*Haliaeetus leucocephalus*), and many other species. The FNAI Element occurrence database contains records of northern crested caracara (*Caracara cheriway*) on RIVER PROPERTY and the landowner also reports that the Southeastern American kestrel (*Falco sparverius paulus*) has been documented on-site.

During the field tour, listed wildlife species observed included Florida sandhill crane (*Antigone canadensis pratensis*), wood stork, and little blue heron (*Egretta caerulea*). At least one gopher tortoise (*Gopherus polyphemus*) burrow was located in one native area. The property provides a critical link in the landscape for long-ranging species such as the Florida panther (*Puma concolor coryi*) and is part of a potential focal area for panther population expansion through the Fisheating Creek watershed to the Kissimmee River valley.

The River Property is located within a larger landscape of lands critical to the long-range conservation of wildlife and natural communities. Its proximity to existing conservation lands and those protected under easement provides a vital link connecting protected lands along the Kissimmee River.

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 6.5. Approximately 93% is identified as Priority 1 or 2 (of 5) for the Critical Lands and Waters Identification Project. All the area is within Priority 1 (of 5) of the FEGN. The National Wetlands Inventory data shows 5% classified as wetlands.

Approximately 84.3% of RIVER PROPERTY lies within a designated FWC Strategic Habitat Conservation Area (SHCA) for species including the Cooper's hawk (*Accipiter cooperii*), swallow-tailed kite (*Elanoides forficatus*), Florida burrowing owl (*Athene cunicularia*), Florida scrub-jay (*Aphelocoma coerulescens*), and Florida snail kite (*Rostrhamus sociabilis*). 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.

In summary, establishment of a conservation easement on the RIVER PROPERTY 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 on RIVER PROPERTY, will improve and maintain conditions in native habitat and benefit many imperiled wildlife species. The River Property lies within a landscape that is increasingly under pressure from expansion of nearby cities and developments. Long-term protection of intact private lands such as RIVER PROPERTY 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, 2,976 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, 2,976 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) (Appendix A) reports the site contains approximately 2,987 acres (97% of site) of Strategic Habitat Conservation Areas. This is primarily within Priority 3 (83% of site) with the remainder in Priority 1 (12%), Priority 5 (2%), and Priority 2 (<1%).

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 River Property proposal. Overall, the site contains approximately 2,974 acres (97% of site) of rare species habitat. The majority of the habitat is Priority 5 (93% of the site), with the remainder in Priorities 2 (3% of the site) and 3 (< 1% of the site).

The following table 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.

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

Scientific Name	Common Name	Global Rank	Acres
<i>Caracara cheriway</i>	crested caracara	G5	2,962
<i>Eumops floridanus</i>	Florida bonneted bat	G1	102

*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 3,065 acres (100%) of the proposed project contributes to protection of ecological greenways, all of which is within Priority 1 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 River Property proposal contains 1.4 acres of mesic flatwoods (< 1% of the site).

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 River Property proposal, along with adjacent conservation lands that include Wetlands Reserve Program Easement #163, Kissimmee River Unspecified Water Management Land, Kissimmee Prairie Preserve State Park, and Avon Park Air Force Range, would contribute to a contiguous landscape-sized protection area of >50,000 acres.

Measure B6:

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

Prior to the field assessment the FNAI database contained no rare species records for the River Property. During the field assessment the team observed an active nest used by a bald eagle (*Haliaeetus leucocephalus*; G5, S3, N, N), and a burrow used by a Florida burrowing owl (*Athene cunicularia floridana*; G4T3, S3, N, ST). Several other species that were reported by the landowner or in the proposal are listed in Table 3. 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 or reported on site					
none					
Rare animals documented on site					
<i>Athene cunicularia floridana</i>	Florida burrowing owl	G4T3	S3	N	ST
<i>Haliaeetus leucocephalus</i>	bald eagle	G5	S3	N	N
Additional rare animals reported on site by applicant					
<i>Alligator mississippiensis</i>	American alligator	G5	S4	SAT	FT(S/A)
<i>Antigone canadensis pratensis</i>	Florida sandhill crane	G5T2	S2	N	ST
<i>Caracara cheriway</i>	Crested caracara	G5	S2	T	FT
<i>Egretta caerulea</i>	little blue heron	G5	S4	N	ST
<i>Egretta thula</i>	snowy egret	G5	S3	N	N
<i>Falco sparverius paulus</i>	southeastern American kestrel	G5T4	S3	N	ST
<i>Mycteria americana</i>	wood stork	G4	S2	T	FT

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.

River Property is situated in an area of high conservation importance. The site is integral to further restoration of the Kissimmee River and to a planned ecological corridor through the heartland of Florida.

Measure C3:

The percentage completion of targeted capital improvements in surface water improvement and management plans created under s. 373.453 (2), regional or master stormwater management system plans, or other adopted restoration plans.

A portion of the project has been identified for potential land acquisition as part of the LOWRP within the CERP. The purpose of acquisition is to implement one of two proposed wetland restoration features within the LOWRP known as Kissimmee River Center. This project would potentially restore approximately 1,200 acres of riverine and floodplain wetlands including approximately 760 acres of the River Property.

Measure C4:

The number of acres acquired that protect natural floodplain functions.

The FFME reports approximately 2,386 acres (78%) of the proposed project may contribute to the protection of natural floodplain function. This area is mostly divided between Priority 6 (39% of site) and Priority 5 (35% of site), with the remainder in Priority 4 (4% 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 3,027 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 (41% of site), Priority 6 (38% of site), and Priority 2 (19% 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 C7:

The number of acres acquired that protect fragile coastal resources.

The FFME reports no fragile coastal resources would be protected by this proposal.

Measure C8:

The number of acres of functional wetland systems protected.

The FFME reports approximately 118 acres (4%) of the proposed project would provide protection for functional wetland systems. This area is divided between Priority 5 (2% of site) and Priority 6 (1% of site), with the remainder in Priority 4 (< 1% of site).

Measure C11:

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

There are invasive species scattered onsite (Brazilian pepper, tropical soda apple, Cogongrass, Caesar's weed) that should be controlled/treated.

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.

Most water resource development activities in the SFWMD support and enhance water supply development but do not directly yield specific quantities of water. Instead, these projects are intended to assess the availability of an adequate water supply for existing and future uses, including restoring and maintaining the functions of natural systems.

The U.S. Army Corps of Engineers (USACE) and SFWMD reinitiated planning efforts for the LOWRP, which aims to:

1. Improve quantity, timing, and distribution of flows into Lake Okeechobee to maintain ecologically desired lake stage ranges more often.

2. Reduce large freshwater releases from Lake Okeechobee to improve the salinity regime and the quality of habitats for oyster, submerged aquatic vegetation, and other estuarine communities in the northern estuaries.
3. Increase the spatial extent and functionality of aquatic and wildlife habitat within Lake Okeechobee and the surrounding watershed.
4. Increase availability of water supply to existing legal users of Lake Okeechobee commensurate with improving Lake Okeechobee ecology.

The LOWRP covers a large portion of the Lake Okeechobee watershed north of the lake and within the Lower Kissimmee Basin Planning Area. LOWRP's revised Recommended Plan includes two wetland restoration features: Paradise Run and Kissimmee River Center. The Paradise Run site will restore approximately 4,700 acres of historic Kissimmee River channel and floodplain, restore natural flow to a portion of the river, and restore more natural hydroperiod to the floodplain wetlands. The Kissimmee River Center site will restore approximately 1,200 acres of riverine and floodplain wetlands. Approximately 2,061 acres in the Paradise Run wetland and 1,187 acres in the Kissimmee River Center wetland feature are privately owned and will require land acquisition. It is important to note that the Kissimmee River Center wetland footprint encompasses approximately 760 acres of the River Property lands, and the remaining property lands are in close proximity or adjacent to the wetlands. Conservation lands adjacent to a CERP wetland project provide spatial connectivity to improve the core habitat. The increased space can provide more and varied undisturbed habitat, improve water quality and native vegetation, and provide a larger range for territorial or migratory species.

Wetlands restored/created by the LOWRP will work in conjunction with the ongoing Kissimmee River Restoration (KRR) Project, which restores large portions of river-floodplain ecosystem. The Kissimmee Basin forms the headwaters of Lake Okeechobee and the Everglades; together they comprise the Kissimmee-Okeechobee-Everglades system. The LOWRP and KRR project will perform together to improve habitat and increase the overall connectivity within the system.

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.

Regional water supply plans must include reservations of water for the planning area, which are defined and adopted by rule [section 373.709, F.S.]. A Water Reservation sets aside a volume of water for the protection of fish and wildlife or public health and safety. Water Reservations are developed based on existing water availability or in consideration of future water supplies made available by water resource development projects. Reserved volumes of water are unavailable for allocation to consumptive uses [section 373.223, F.S.]. Additionally, Water Reservations may be a component of an MFL recovery or prevention strategy.

The Water Resources Development Act of 2000 and section 373.470, F.S., require the SFWMD to protect CERP project water before executing a cost-share agreement with the USACE to construct such projects [section 373.407(3)(c), F.S.]. A Water Reservation is one tool that can be used for this protection. Any water made available by a CERP project in excess of that needed for natural system restoration may be certified as available and allocated to consumptive uses to meet the CERP goal of water made available for other water related uses.

Adopted Water Reservations in the SFWMD are contained in Chapter 40E-10, Florida Administrative Code (F.A.C.). This F.A.C. chapter defines the quantity, location, and timing of waters reserved from allocation for the protection of fish and wildlife or public health and safety for all reservation water bodies in the SFWMD, pursuant to section 373.223(4), F.S. SFWMD has completed Water Reservations for the Kissimmee River and Chain of Lakes for the protection of fish and wildlife.

The LOWRP model results evaluated for effects to agricultural or urban water supply are the volume and/or frequency of cutbacks, which is applicable to the Lake Okeechobee Service Area (LOSA) and the Seminole Tribe of Florida’s (STOFs) Brighton and Big Cypress reservations. The volume of demand not met for the existing legal users in LOSA during the eight years with the largest water shortage cutbacks is improved when comparing the Recommended Plan (55 Aquifer Storage and Recovery wells, Paradise Run Wetland, and Kissimmee River Center Wetland) to the Future Without Condition (FWO). The severity, duration, and magnitude of water supply shortages (i.e., cutbacks) for existing legal users decrease with the project.

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 in a restoration plan area (Lake Okeechobee Basin Management Action Plan [BMAP]), and the property would provide surface and ground water protection.

Table 4. Spatial Analysis for Potential Water Quality Benefits of River Property

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	12
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	8
DEP Springsheds or within 5 miles	10, 7	0
DEP BMAPs	10	10
DEP Distance to Major Rivers (100, 500, 1000 meters)	6,5,4	6
Total Possible	101	40

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

FINAL DEAR SCORE = 3 – Medium water quality protection benefits.

GOAL E:

INCREASE NATURAL RESOURCE-BASED PUBLIC RECREATIONAL AND EDUCATIONAL OPPORTUNITIES

Measures E1-E3

The River Property 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 River Property 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 River Property 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 Florida Master Site File shows five historic structures, 30 archaeological sites, and five resource groups as being located within a five-mile radius of this property.

FIELD OBSERVATIONS:

The Division of Historical Resources (DHR) was unable to attend the field review for the River Property Florida Forever project. The dangers to all archaeological resources on the project come in the form of ground disturbance from agricultural or silvicultural practices and artifact collecting. Should this project be acquired as less-than-fee, it is recommended that all known unrecorded cultural resources are recorded in the Florida Master Site File noting their current condition and for conservation easement land owners 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 DHRs 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 1,651 acres (54% of site) could be available for sustainable forest management, all of which is in Priority 5. Prioritization is based on four criteria set by the Florida Forest Service (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.

Historically, this part of Highlands County was covered by wet and dry prairies (communities where forest trees are almost non-present). Forestry is not a primary or secondary goal for landowners.

FLORIDA FOREVER CRITERIA

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

- 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.

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 the Florida Department of Environmental Protection (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

This would be a less-than-fee acquisition. The legal access from a public right of way is by County Road 721 along the western boundary and Larson Dairy Road along the northern boundary. Physical access along the east end of the north boundary and the south boundary is by private unimproved woods and agricultural roads. The majority of the eastern boundary is along the Kissimmee River and its associated sloughs.

Jurisdictional and Sovereignty Lands Issues

Of the 3,100+/- ac. within this project, approximately 2,800 ac. is improved pasture. The remaining acreage is in isolated wetlands, located primarily in the southeast quadrant of the project. The extent and limits of these wetlands would be determined during the appraisal mapping by an environmental scientist. It appears there are no sovereignty lands within the project area.

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 information provided.

Estimated Cost of Appraisal and Mapping

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

Acquisition Phases

Subject to funding, the River Property Florida Forever project will be phased based upon price.

GOVERNMENT PLANNING and DEVELOPMENT

Contribution to Recreation and Open Space Needs

Medium to High Potential: The proposed 2,976-acre River Property project has a medium to high potential for contributing to Florida's recreation and open space. The application indicates the greater half of the eastern boundary of the project follows the Kissimmee River and the SFWMD Kissimmee conservation lands. Additionally, the lesser half of the eastern boundary is across the river from several NRCS Wetland Reserve Easements. The southeastern corner of the property abuts Rural and Family Lands Protection Projects. Collectively, the property is within the Everglades Headwaters National Wildlife Refuge Conservation Partnership Area and the Avon Park Air Force Range (APAFR) Sentinel Landscape. Protection of the 2,976-acre site as a Florida Forever property would expand the protected wildlife network to enable connectivity and protection of the watershed and the greater everglades ecosystem. The applicant proposes a less-than-fee acquisition and no public uses allowed on the property. However, preservation of such a large critical link would create significant external benefits for the region's outdoor recreational activities such as wildlife viewing, hunting and fishing. Such activities provide substantial revenue to the State of Florida at large.

Potential for Losing Significant Natural Attributes or Recreational Open Spaces

Medium Potential: The application states that the area is threatened by intensifying agricultural operations. Removal of the site's habitat would be a significant loss for imperiled bird species and the regionwide system of corridors for wide-ranging terrestrial species that require large tracts of open space to survive such as the Florida Panther.

Potential for Being Subdivided

Low-Medium Potential: Not all of the site's eight parcels meet the standards for residential development due to wetlands and floodplains which make them unsuitable for septic systems. The Highlands County Land Development Regulations (LDR) require a minimum of 100 feet of roadway frontage for residential development. The northern boundaries of parcels C-08-37-33- A00-0020-0000 (642.07-acres) and C-10-37-33-A00-0030-0000 (168.35-acres) are adjacent to Larson Dairy Road and greatly exceed the minimum 100-foot requirement. Application of a 1 du/5-acres limitation on the approximately 810.42-acres would allow 162 residential dwelling units. Additionally, the two parcels (nos. C-08-37-33-A00-0020-0000 and C-10-37-33-A00-0030- 0000) along with parcel C-10-37-33-A00-0020-0000 (310.21-acres) are south and adjacent to a platted five- and ten-acre lot development (Great Oaks Estates). The site's proximity to the existing "ranchette" type platted subdivision where services have already been extended creates the potential for a similar development pattern.

Zoning and Densities within the Project Boundaries

The site is zoned Agriculture District (AU) which is primarily intended to support agricultural production, low-density residential, and supporting services. The AU zoning district is Highlands County's predominant land use and allows agriculture, schools, churches, golf course, and private outdoor recreation clubs as permitted uses. Permissible special exception uses include cemeteries, non-commercial racetracks for animals or vehicles, airports or airfields with grass runways, mining operations such as sand gravel rock or stone pit quarries, oil wells and oil drilling, central wastewater and water treatment facilities serving more than one development, landfills exclusive to natural vegetative material, and public utilities including solar energy systems. The myriad of allowable and special exception uses creates a medium to high threat for potential development.

Existing Land Uses and Future Land Use Designations

The existing use is agriculture. The property is designated as agriculture (AG) on the Highlands County Comprehensive Plan Future Land Use Map. Residential development standards within AG range from: 1 du/5-acres, 1 du/acre on receiving parcel with a density transfer of development rights (TDR) or clustering, and 1 du/2-acres on the receiving parcel when TDR or clustering is required onsite to protect natural resources on sending parcels within the Conservation Overlay Map areas. Parcels less than 5 acres must have a minimum lot size of one acre with at least one-half acre upland that is consistent with Natural Resource Element protection policies of Objective 3. A subdivision that creates more than 20 lots is required to cluster.

Highlands County has established a Conservation Overlay Map which identifies protected areas for its endemic cutthroat grass communities, wetlands and xeric uplands. The County's interactive map of these selected natural resources indicates the site contains Wetlands and Xeric Uplands. Highlands County's comprehensive guidance recognizes the need for wetland and upland protection through development controls and standards which are established in its LDRs. The adopted comprehensive plan and LDRs provide considerable development requirements for protection of environmentally sensitive lands including seven options for mitigation. Designation as a Florida Forever site for preservation purposes would be consistent with the currently adopted land use and Highlands County adopted environmental stewardship guidance.

Development Potential

Medium to High Potential: The supporting documentation notes the increasing pressure of intensive agriculture development. However, from a land use perspective, the AU zoning which enables a myriad of allowable and special exception uses intensifies the site's development potential (see zoning) beyond agricultural use. Highland County's GIS map identifies considerable floodplain and wetlands onsite. The presence of these resources would limit the residential uses and densities at the permitting stage. For the purpose of calculating the residential development potential for the 2,976-acre site, the AG density standard of 1 du/5 ac would allow approximately 559 residential units. Highland's acceptance of utility uses and particularly solar energy within AG/AU districts presents an additional development potential which is currently trending in Florida's rural areas.

Transportation Planning Issues

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

Ongoing Governmental Efforts

SFWMD began implementation of the Paradise Run and Kissimmee River Center wetland restoration components in 2021 by initiating land acquisition necessary to begin restoration work. Ownership research of parcels within the footprints was prepared by the SFWMD to determine the status of the privately owned lands to assist in accurate mapping, appraisal, environmental and cultural resource assessments. The SFWMD has met with local landowners throughout the development of the wetland restoration component to develop the project footprint and will continue to engage local landowners and other stakeholders through the land acquisition process. The SFWMD is currently conducting appraisals of the privately owned lands within the respective wetland footprints. In addition, the SFWMD is conducting the necessary environmental assessments to support restoration permitting and review of cultural resources (if necessary). The completion of the restoration project would require fee simple interest in the property creating a potential conflict with less-than-fee acquisition through the Florida Forever program. DSL will coordinate with DEPs Office of Ecosystem Restoration prior to the commencement of any real estate negotiations concerning a potential conservation easement over the portions of the property identified within the Kissimmee River Center wetland restoration project.

This property is listed as a Tier Two Project within the Rural and Family Lands Protection Program coordinated by FFS.

ACKNOWLEDGEMENTS

Staff in DEP's 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 & Calin Ionita
- Department of Economic Opportunity – Barbara Powell
- DEP Division of State Lands, Bureau of Appraisal – Jay Scott & Amy Phillips
- Florida Fish and Wildlife Conservation Commission – Laramie 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
- South Florida Water Management District – Elizabeth Caneja & Steve Coughlin

APPENDICES

Appendix A:

Final FF measures table: Report requirement 259.105 (15)d, prepared by FNAI

River Property: Florida Forever Measure Evaluation 20220223

GIS ACRES = 3,068

MEASURES	Resource Acres ^a	% of project
B1: Strategic Habitat Conservation Areas		
Priority 1	375	12%
Priority 2	5	< 1%
Priority 3	2,544	83%
Priority 4	0	0%
Priority 5	63	2%
Total Acres	2,987	97%
B2: FNAI Habitat Conservation Priorities		
Priority 1	0	0%
Priority 2	96	3%
Priority 3	10	< 1%
Priority 4	0	0%
Priority 5	2,868	93%
Priority 6	0	0%
Total Acres	2,974	97%
B3: Ecological Greenways		
Priority 1	3,065	100%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	0	0%
Total Acres	3,065	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)	1	< 1%
Upland Hardwood Forest (G5)	0	0%
Total Acres	1	< 1%
B6: Occurrences of FNAI Tracked Species		
G1	0	
G2	0	
G3	0	
G4	0	
G5	0	
Total	0	
C4: Natural Floodplain Function		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	115	4%
Priority 5	1,088	35%
Priority 6	1,184	38%
Total Acres	2,386	78%

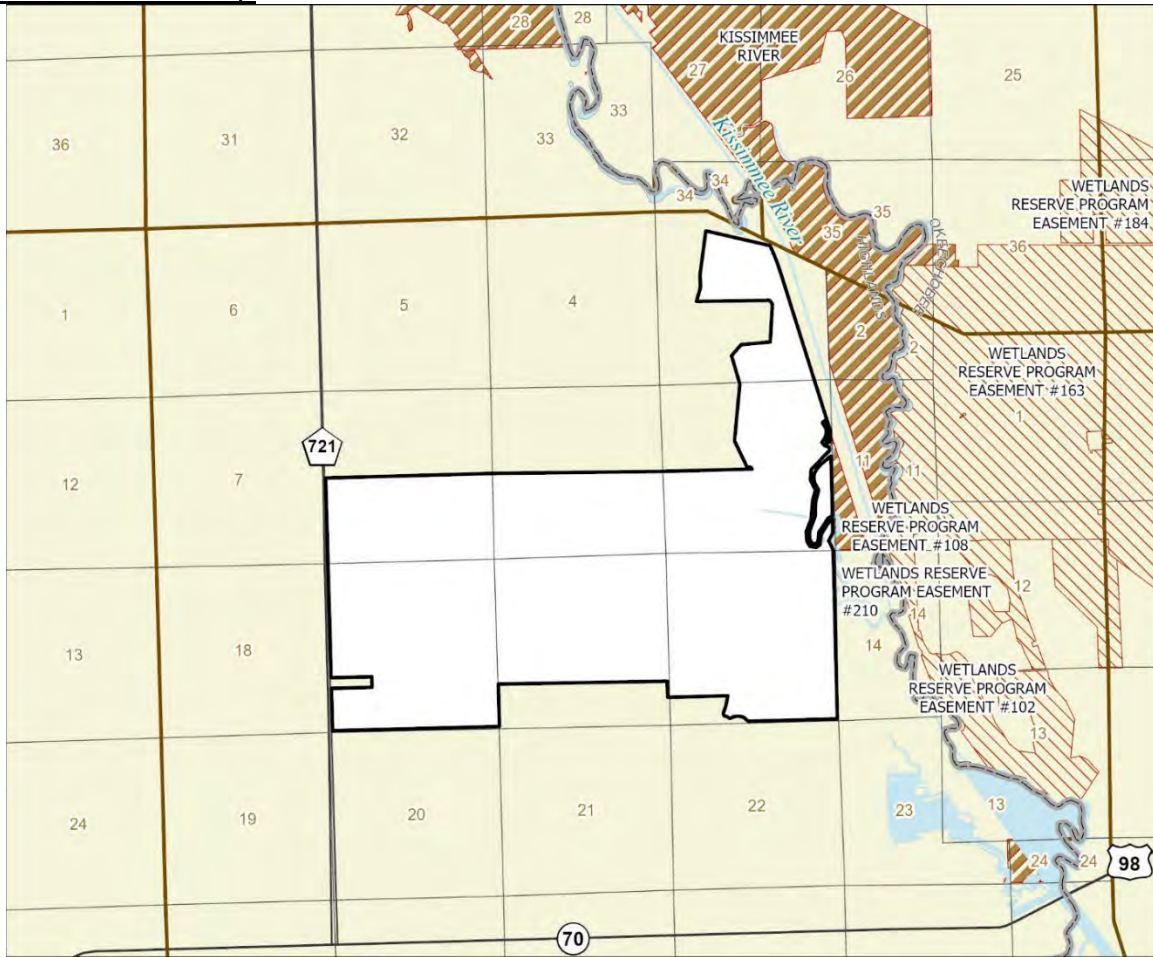
MEASURES (continued)	Resource Acres ^a	% of project
C5: Surface Water Protection		
Priority 1	0	0%
Priority 2	594	19%
Priority 3	0	0%
Priority 4	1,255	41%
Priority 5	0	0%
Priority 6	1,178	38%
Priority 7	0	0%
Total Acres	3,027	99%
C7: Fragile Coastal Resources		
Fragile Coastal Uplands	0	0%
Imperiled Coastal Lakes	0	0%
Coastal Wetlands	0	0%
Total Acres	0	0%
C8: Functional Wetlands		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	5	< 1%
Priority 5	67	2%
Priority 6	46	1%
Total Acres	118	4%
D3: Aquifer Recharge		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	111	4%
Priority 4	991	32%
Priority 5	1,082	35%
Priority 6	884	29%
Total Acres	3,068	100%
E2: Recreational Trails (miles)		
<small>(prioritized trail opportunities from Office of Greenways and Trails & UFG, Florida)</small>		
Land Trail Priorities	0.0	
Land Trail Opportunities	0.0	
Total Miles	0.0	
F2: Arch. & Historical Sites (number)		
0 sites		
G1: Sustainable Forestry		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	0	0%
Priority 5 - Potential Pinelands	1,651	54%
Total Acres	1,651	54%
G3: Forestland for Recharge		
	0	0%

^aAcres 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 FNAI

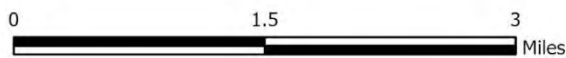
B1: Florida Forever map



RIVER PROPERTY FLORIDA FOREVER PROPOSAL

HIGHLANDS COUNTY

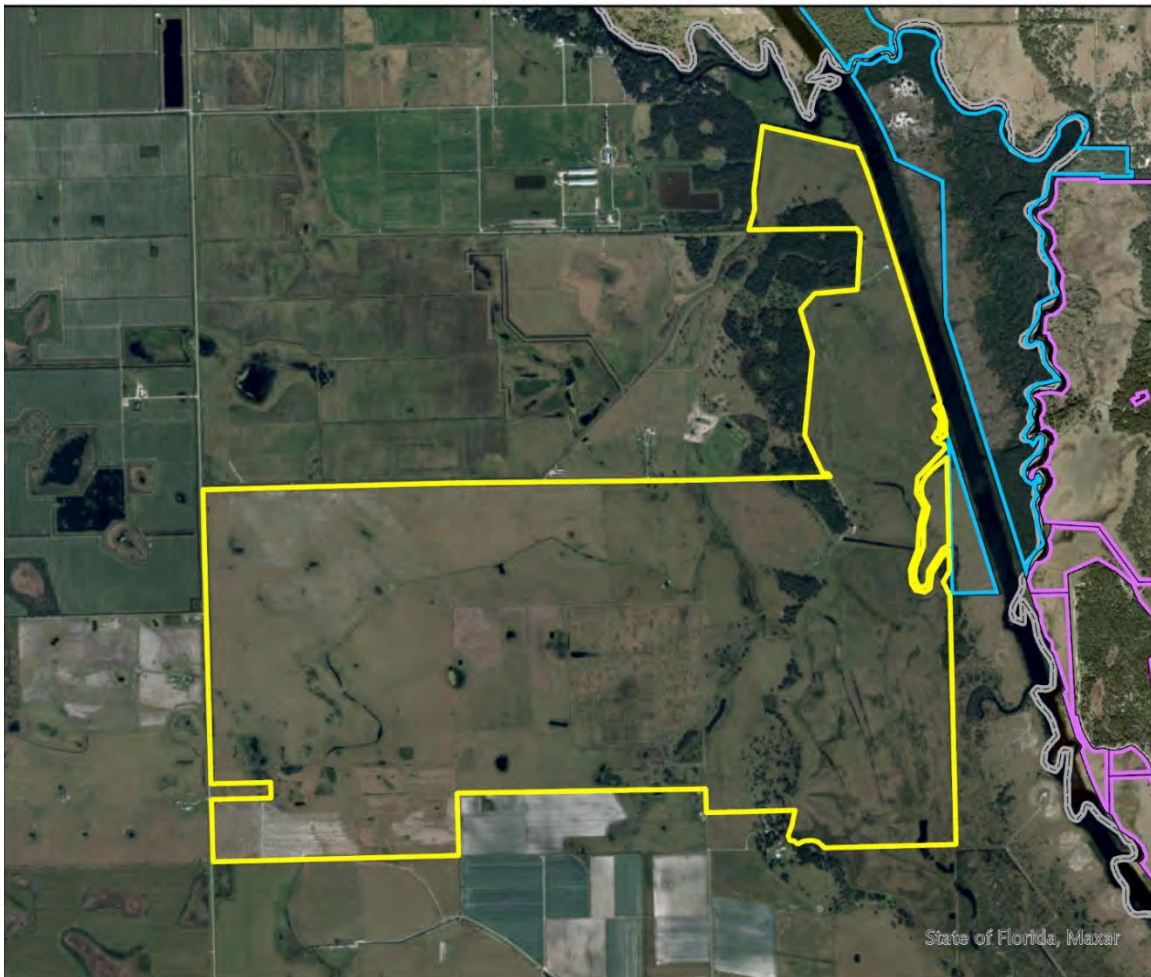
-  Proposed Florida Forever BOT Project
-  State Owned Lands
-  Other Conservation Lands



B2: Aerial map

River Property Florida Forever Proposal




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



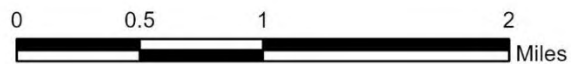
Map Produced by: N. Pasco, February 2022

Background: World Imagery Resolution = 0.3 meter



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

1018 Thomasville Road
Suite 200-C
Tallahassee, Florida 32303
850-224-8207
fax 850-681-9364
www.fnai.org



Appendix C:

PROPERTY ID #'S FOR FINAL RECOMMENDED BOUNDARY

HIGHLANDS COUNTY

COUNTY	PARCEL ID	OWNER	ACRES PER TAX CARD	JUST VALUE	ASSESSED VALUE	PARCEL DESIGNATION
Highlands	C103733A0000300000	CARLTON DOYLE E III LLC	168.35	\$74,584.00	\$32,428.00	Essential
Highlands	C103733A0000200000*	CARLTON DOYLE E III LLC	310.21	\$187,412.00	\$155,545.00	nonessential
Highlands	C163733A0000100000	CARLTON DOYLE E III LLC	490.44	\$261,630.00	\$113,752.00	Essential
Highlands	C153733A0000100000	CARLTON DOYLE E III LLC	197.06	\$89,606.00	\$38,959.00	Essential
Highlands	C17373301000100000	CARLTON DOYLE E III LLC	546.01	\$354,874.00	\$154,293.00	Essential
Highlands	C153733A0000300000	CARLTON DOYLE E III LLC	419.41	\$206,156.00	\$89,633.00	nonessential
Highlands	C033733A0000300000	CARLTON DOYLE E III LLC	202.4	\$258,778.00	\$198,950.00	nonessential
Highlands	C083733A0000200000	CARLTON DOYLE E III LLC	642.07	\$368,462	\$160,200	Essential
TOTALS			2975.95	\$1,801,502.00		

*Parcel contains buildings/structures per tax card.

Appendix D:*Imperiled Species FNAI Ranking Definitions***FNAI****Definitions of imperiled species ranks and conservation 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

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(SIA) = 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. *Remnant mesic hammock*



2. *Improved pasture*



3. Kissimmee River



4. Improved pasture with canal/ditch



5. Depression marsh (altered)