Bar-B Ranch Martin County

Florida Forever Project Evaluation Report

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Executive Summary

The proposed Bar-B Ranch Florida Forever project contains 4 parcels totaling approximately 1,899 acres in central Martin County. The project is located west of Interstate 95 (I-95) and is directly adjacent to the C-44 Stormwater Treatment Area (STA) and Allapattah Flats Wildlife Management Area (WMA) to the east. Cities nearby include Indiantown and Palm City. Bar-B Ranch lies in the Allapattah flats, and is part of the hydrologic connection between the St. John's River and the Everglades watershed. According to the property tax appraiser, the project area has a total tax assessed value of \$12,415,640. The Bar-B Ranch project is proposed as a fee simple acquisition.

The property is primarily a ridge and slough complex of mesic and hydric pine flatwoods with broad areas of remnant depression marsh and wet prairie. The ranch supports cattle grazing, and accordingly, improved or semi-improved pastures are the dominant land cover. These pastures were primarily created by draining the former slough marshes and prairies with a network of mostly shallow ditches. Overall, the property is in generally good to excellent condition due to the quality of current land management practices. The South Florida Water Management District (SFWMD) considers the property an important restoration area for shallow water storage in order to improve downstream water quality in the St. Lucie River Estuary and the Indian River Lagoon. The property is identified for acquisition as a component of the Indian River Lagoon-South project (IRL-S) within the Comprehensive Everglades Restoration Plan (CERP).

Bar-B Ranch is listed as Priority 2 in the Florida Ecological Greenway Network (FEGN) and is part of a greenway corridor extending from the West Palm Beach area in the south to Central Florida in the north. Rare species documented or reported within the proposed project area include the common wildpine (*Tillandsia fasciculata*), wood stork (*Mycteria americana*), little blue heron (*Egretta caerulea*), tricolored heron (*Egretta tricolor*) and roseate spoonbill (*Platalea ajaja*). Bar-B Ranch's proximity to the C-44 STA and Allapattah Flats WMA makes it a notable area for wildlife, particularly wading birds. No archaeological or historical resources have been identified at Bar-B Ranch. However, nine archaeological sites have been identified at the site's neighboring Allapattah WMA.

If approved for addition to the 2023 Florida Forever Priority List, all of the 1,899 acres proposed for acquisition are considered essential due to the resources documented on the property (see Appendix C). CERP is implemented through a federal-state partnership that includes a 50/50 cost share agreement. Acquisition of this property will increase the state's contribution to CERP and therefore require the federal government to match that spending on other Everglades restoration projects.

An interagency team conducted a site visit of the property on February 4, 2022. The information included in this report is a result of this site visit.

PURPOSE FOR ACQUISITION

The Bar-B Ranch project will protect a critical part of the hydrologic connection between the St. John's River and the Everglades watershed, provide valuable wildlife habitat and support the protection of a wildlife corridor extending from western Palm Beach County to Central Florida. The property provides a significant opportunity to restore a naturally occurring area of shallow water storage to add to downstream water quality improvement in the St. Lucie River Estuary and the Indian River Lagoon as a component of the effort to restore Lake Okeechobee and the Florida Everglades.

Acquisition of this project would serve to:

- Enhance the coordination and completion of land acquisition projects.
- Increase the protection of Florida's biodiversity at the species, natural community, and landscape levels.
- Protect, restore, and maintain the quality and natural functions of land, water and wetland systems of the state.

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- Conserve and protect a portion of Florida's rural landscape in order to provide and enhance wildlife corridors for rare and imperiled species.
- Ensure that sufficient quantities of water are available to meet the current and future needs of natural systems and the citizens of the state.

LOCATION AND PROXIMITY TO OTHER MANAGED AREAS

The Bar-B Ranch proposal comprises 1,899 acres (1,910 GIS acres) in central Martin County and is located approximately 10 miles southwest of the city of Stuart and 2 miles southwest of I-95. The proposed property is adjacent to the northeast boundary of the C-44 Stormwater Treatment Area which is owned and managed by the SFWMD. The Bar-B Ranch proposal is a parcel of interest to SFWMD as a component of the CERP. Allapattah Flats, also owned by SFWMD, is just to the northwest of the proposal, and if acquired, the parcel would be added to that conservation area. Hawk's Hammock (Martin County) is 1.5 miles to the northeast. The nearest Florida Forever projects are the Pal-Mar projects, about 4 miles to the south, and the Atlantic Ridge Ecosystem, about 6 miles to the east.

RESOURCE DESCRIPTION

Florida Natural Areas Inventory (FNAI)

This evaluation is based in part on information gathered from the proposal application, information in the Florida Natural Areas Inventory (FNAI) database, aerial photography from 1995 to 2021, U.S. Geologic Survey (USGS) 7.5' topographic maps, Cooperative Land Cover data (FNAI, Florida Cooperative Land Cover Map, version 3.4). A field survey was conducted on February 4, 2022, by FNAI staff Kim Alexander, along with the Acquisition and Restoration Council (ARC) liaison staff and representatives for the landowner and the SFWMD.

The Bar-B Ranch lies in the Allapattah Flats, a shallow basin historically characterized by northwest/southeast oriented marshes that provided a hydrologic connection between the St. John's River and the Everglades Watershed. The property has been identified by the SFWMD as an important area for shallow water storage that will add to downstream water quality improvement in the St. Lucie River Estuary and the Indian River Lagoon. The land is nearly level, just under 30 feet above mean sea level. Soils are mostly Oldsmar fine sand and Wabasso sand in the current and former flatwoods areas. Intact marshes and former sloughs are underlain by sands, mostly in the Winder, Floridana, and Riviera series.

The ranch supports cattle grazing, and accordingly, improved or semi-improved pastures are the dominant land cover, together making up 59% of the project area. Although there was some loss of the historic upland habitats, pastureland on the property was primarily created by draining the former slough marshes and prairies with a network of ditches, then converting them to bahiagrass (*Paspalum notatum*). According to the application, this conversion began in the 1950s. The larger ditch structures as well as some of the artificial ponds in the center of the property are apparent on 1960 aerial photography. In addition to bahiagrass, the pastures contain abundant smutgrass (*Sporobolis indicus*). South Florida slash pine (*Pinus elliottii var. densa*), and cabbage palm (*Sabal palmetto*). A few clumps of saw palmetto (*Serenoa repens*) are scattered in the open pastures that occupy former flatwoods, but several large blocks of pasture have frequent islands of remnant vegetation. These areas of semi-improved pasture, which can appear similar in structure to pine flatwoods, still have bahiagrass dominant in the groundcover. South Florida slash pines throughout the pastures and flatwoods range from young, regenerating trees, to very large individuals.

About 40% of the Bar-B Ranch proposal consists of natural vegetation. Remnant blocks of mesic flatwoods are common and are mostly in fair to good condition. The landowner manages these woods with prescribed fire, and although some areas are certainly fire suppressed, much of the flatwoods has a good, fairly low structure and remaining herbaceous and runner oak components. Cattle graze and

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traverse these areas, so trails are common. This community consists of a sparse canopy of young to mature South Florida slash pine along with a few scattered cabbage palms. It generally lacks a midstory and has a low shrub layer of saw palmetto, gallberry (*Ilex glabra*), coastalplain staggerbush (*Lyonia fruticosa*), dwarf bayberry (*Morella pumila*), and dwarf live oak (*Quercus minima*). Although saw palmettos are dense in some areas, much of the flatwoods have a low, open shrub layer with swaths of dwarf shrubs mixed with a diversity of herbs. Although wiregrass (*Aristida stricta*) is a common component, these flatwoods are dominated by Florida threeawn grass (*Aristida rhizomophora*). Other common herbs include bluestem (*Andropogon sp.*), bottlebrush threeawn (*Aristida spiciformis*), toothache grass (*Ctenium aromaticum*), witchgrass (*Dichanthelium sp.*), Baldwin's spikerush (*Eleocharis baldwinii*), clustered mille graines (*Oldenlandia uniflora*), thin paspalum (*Paspalum setaceum*), beaksedge (*Rhynchospora sp.*), lopsided indiangrass (*Sorghastrum secundum*), and yellow hatpins (*Syngonanthus flavidulus*).

Although most historic marshes in the project area were drained and converted to improved pasture decades ago, isolated depression marshes in natural condition are still common within the flatwoods and semi-improved pasture areas, making up about 8% of proposal. For the most part, these were observed to be in good condition with native vegetation, although edges often show signs of cattle disturbance and hog damage. They display the zonation typical for isolated, shallow marshes. The deepest central portions contain maidencane (Panicum hemitomon), pickerelweed (Pontederia cordata), and sometimes clumps of coastalplain willow (Salix caroliniana). A deeper marsh observed on the property that appeared to be more disturbed contained alligatorflag (*Thalia geniculata*), and broadleaf cattail (Typha latifolia). The shallow edges are dominated by a mix of herbaceous species including blue maidencane (Amphicarpum muehlenbergianum), bluestem, longleaf threeawn (Aristida palustris), spikerush (Eleocharis sp.), flattened pipewort (Eriocaulon compressum), tenangle pipewort (Eriocaulon decangulare), Tracy's beaksedge (Rhynchospora tracyi), and water toothleaf (Stillingia aquatica), sometimes mixed with peelbark St. John's wort (Hypericum fasciculatum) and scattered southern bayberry (Morella cerifera). Although not common on the property, a small amount of old world climbing fern (Lygodium microphyllum; FISC Category I) was observed climbing in vegetation around the edge of one depression marsh.

Many of the shallow depression marshes on the property have wet prairie-like edges, but this community only seems to be well-developed in a few small areas intermediate between marsh and flatwoods. These communities mostly lack a tree canopy and are dominated by blue maidencane and wiregrass, with a wide variety of other graminoids and herbs, including such species as pineland daisy (*Chaptalia tomentosa*), pink sundew (*Drosera capillaris*), lovegrass (*Eragrostis sp.*), pineland heliotrope (*Euploca polyphylla*), slender flattop goldenrod (*Euthamia caroliniana*), yellow hatpins, bog white violet (*Viola lanceolata*), savannah yellow-eyed grass (*Xyris flabelliformis*), and yellow-eyed grass (*Xyris sp.*). Peelbark St. John's wort and roundpod St. John's wort (*Hypericum cistifolium*) are occasional shrubs. The wet prairie observed during the site visit was in good condition, but appeared to be quite dry. Hydrology restoration on the property would likely benefit this community by restoring a more natural hydroperiod.

The property may have historically contained pockets of oak and palm dominated mesic hammocks in natural fire shadows. Currently, there are mature hammocks located around the ranch headquarters, plus an additional hammock just south of that area. This community was observed to have a closed canopy of live oak (*Quercus virginiana*) and cabbage palm, covered in abundant epiphytes including golden polypody (*Phlebodium aureum*), resurrection fern (*Pleopeltis michauxiana*), common wild-pine (*Tillandsia fasciculata*), Spanish moss (*Tillandsia usneoides*), and shoestring fern (*Vittaria lineata*). Strangler figs (*Ficus aurea*) are common, germinating in palm crowns or as mature banyans. Herbs are infrequent in the shady understory. Non-native invasive species are occasional, but not dominant in the hammocks. These include guava (*Psidium guajava*; FISC Category I) and Brazilian pepper (*Schinus terebinthifolia*; FISC Category I).

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Totals

100%

The network of ditches installed to create pastureland on the property are in relatively good condition. Although Brazilian pepper is present along many ditch edges, it never forms large infestations or monocultures. Vegetation within the ditches appeared be mainly native marsh species, mostly spikerush. The property also has quite a few artificial ponds. These are mostly circular, small cattle ponds in pastures, but there is also an area of wider, deeper ditches encircling the ranch headquarters. These are similar to the ditches, but also contain patches of broadleaf cattail.

A cleared area and several structures under a live oak canopy in the center of the property form the ranch headquarters. In addition to the remnant mesic hammock vegetation, citrus trees (Citrus sp.) are common. Table 1 provides a list of the landcover types identified on the proposal and their approximate acreages.

Community or Landcover	Acres	Percent of Proposal
mesic flatwoods	571	30%
depression marsh	147	8%
mesic hammock	20	1%
wet prairie	8	<1%
pasture—improved	939	49%
pasture—semi-improved	192	10%
canal/ditch	22	1%
artificial pond	9	<1%
developed	3	<1%

1910

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

Florida Fish and Wildlife Conservation Commission (FWC)

Bar-B Ranch includes a mixture of natural and altered community types. Two-thirds (67%) of the property is improved (49%) and unimproved woodland pasture (18%). Other significant natural communities include mesic flatwoods (25%) and depression marsh (7%). That last 1% of the area is comprised of wet flatwoods, wet prairie, and artificial pond communities.

Fire-dependent natural communities observed during the tour included mesic and wet flatwoods, wet prairie, and depression marsh. The landowner representative mentioned that the property was acquired in the late 1940s and the landowner did not conduct any prescribed fire or mechanical treatments on the area, until recently. There had been periodic wildfires on the property with the most recent one occurring approximately two years ago. The landowner hired a ranch manager to control exotic plants on the property in the past; therefore, exotic plant species do not appear to be a major problem the property. Brazilian pepper trees and climbing fern (*Lygodium sp.*) were observed during the field visit. These exotics were seen lightly scattered along the edge of pastures abutting natural communities and slightly denser in the artificial impoundment area where most of the structures occur.

The natural communities on the property appear to be in decent condition and likely support a variety of plant and wildlife species. Some of the mesic flatwoods were overgrown with gallberry and saw palmetto in both density and height, although there were some patches of mesic flatwoods that looked to be in great condition. Pine density with the mesic flatwoods also seem to be in good shape, respectively. The depression marshes looked in good condition containing native plants like longleaf threeawn and bluestem; however, some depression marshes contained some exotic plants along the edge. The narrow strips of wet prairie were too dry leading to pine encroachment; however, there were some native wet prairie plants [sunbonnet (*Chaptalia tomentosa*)] observed. Improved pasture areas were relatively open, with adequate trees to provide perching and roosting habitat for wildlife.

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Wildlife species observed during the tour included white-tailed deer (Odocoileus virginianus), Sandhill crane (Antigone canadensis pratensis), black vulture (Coragyps atratus), turkey vulture (Cathartes aura), belted kingfisher (Megaceryle alcyon), red-shouldered hawk (Buteo lineatus), Bachman's sparrow (Aimophila aestivalis), eastern meadowlark (Sturnella magna), and American kestrel (Falco sparverius). On the way to property while driving along the border of the C-44 STA and the project, wildlife species observed included crested caracara (Caracara cheriway), sandhill cranes, white-tailed deer, snail kite (Rostrhamus sociabilis), little blue heron (Egretta caerulea), wood stork (Mycteria americana), roseate spoonbill (Ajaja ajaja), and red-shouldered hawks. Other notable sightings in the area from the Florida Fish and Wildlife Conservation Commission's (FWC) Wildlife and Habitat Management Section's SaMP Database included a southern fox squirrel (Sciurus niger niger) sighting just west of the C-44 STA in 2012, and eastern indigo snake (Drymarchon couperi) sightings on the norther part of Allapattah Flats WMA in 2012, and one dead on the road on the C-44 STA in 2020. Other wildlife species that occur on nearby public lands and may occur of THE PROPERTY include eastern black rail (Laterallus jamaicensis jamaicensis), Florida burrowing owl (Athene cunicularia floridana), swallow-tailed kites (Elanoides forficatus), bald eagles (Haliaeetus leucocephalus), Florida black bear (*Ursus americanus floridanus*), various bats, and other wading bird species.

There are several structures on the property including a house, two pole barns (one storing heavy equipment vehicles and the other to provide shade for horses), and one storage facility. Except for the pole barn used by the horses, the other structures are located within a hardwood hammock community, which is towards the middle of the property where an artificial impoundment was created to surround these structures. The property is cross fenced to divide the grazing area into separate paddocks and there is also a 500-acre area fenced off for horses. There are several cattle ponds interspersed throughout the property. Cattle grazing the property currently consists of approximately 100 cows, grazed across the entire ranch. The property is highly navigable with culverts and land bridges installed to cross ditches. Ditches were installed just after the property was acquired to increase drainage. There are several ditches that run north to south throughout the property used to keep the area dry.

The 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. Bar-B Ranch is at a value of 4.7 within the FLAM ranking system.

Acquisition of Bar-B Ranch under the Florida Forever program and with future restoration would benefit the overall conservation of Florida's wildlife, plants, and habitats, as well as provide connectivity between established conservation lands in the area and protect the area from future development. Bar-B Ranch is also an important property of interest as a component of the CERP.

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 acquired, 1,899 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.

Bar-B Ranch is proposed as a fee simple acquisition.

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Measure A3:

The number of shared acquisition projects among Florida Forever funding partners and partners with other funding sources, including local governments and the federal government.

Bar-B Ranch is located within the IRL-S an authorized component CERP. CERP is implemented through a federal-state partnership to restore, protect, and preserve the region's water resources by addressing the quantity, quality, timing, and distribution of water. This partnership includes a 50/50 cost share agreement, in which federal funding cannot outpace state funding. Acquisition of this property will increase the state's contribution to CERP and therefore require the federal government to match that spending on other Everglades restoration projects.

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 Strategic Habitat Conservation Areas Florida Forever Conservation Needs layer identifies important remaining habitat conservation needs for 33 wildlife species 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 1,134 acres (59% of site) of Strategic Habitat Conservation Areas. This is primarily within Priority 5 (55% of site) with the remainder in Priority 3 (4%).

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 Bar-B Ranch proposal. Overall, the site contains approximately 890 acres (47% of site) of rare species habitat. The majority of the habitat is Priority 5 (36% of the site), with the remainder in Priorities 6 (6% of the site) and 4 (5% 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.

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

Scientific Name	Common Name	Global Rank	Acres
Drymarchon couperi	eastern indigo snake	G3	845
Mycteria americana	wood stork	G4	146

^{*}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 1,910 acres (100%) of the proposed project contributes to protection of ecological greenways all of which is within Priority 2 areas. Prioritization is based on such factors as

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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 underrepresented 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 Bar-B Ranch proposal contains 571 acres mesic/wet flatwoods (30% of 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 Bar-B Ranch proposal would not contribute to a contiguous landscape-sized protection area of >50,000 acres. However, it is adjacent to C-44 Stormwater Treatment Area, which is located just south of Allapattah Flats and both are held by the SFWMD. Several larger conservation lands are in the general vicinity, but disjunct from the proposal.

Measure B6:

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

The FNAI database does not contain any records of rare animals or plants on the proposal. This may reflect lack of biological surveys and the absence of submission of data by others. The application lists several rare wading birds that forage in wetlands on the proposal, including woodstorks which were seen on property by the team, and roseate spoonbills which were seen flying just to the south of the property. Snail kites (*Rostrhamus sociabilis*; G4G5, S2, E, FE) have been seen by the applicant near the western edge of proposal and were also observed by the team near the Bar-B Ranch. The adjacent C-44 Stormwater Treatment Area and nearby Allapattah Flats are reported to have Florida sandhill cranes and crested caracaras. A pair of sandhill cranes were seen nesting in one of the property's depression marshes, but could not be confirmed to be the Florida subspecies. The Breeding Bird Atlas also lists burrowing owls within 10 km.

During the site visit, the state threatened common wild pine was an occasional epiphyte within the mesic hammocks. There are nearby records of scentless vanilla (Vanilla mexicana; G2G4, S1, N, E), hand fern (Ophioglossum palmatum; G4, S2, N, E), and Small's flax (Linum carteri var. smallii; G2T2, S2, N, E). Hydrology restoration on the property may improve potential habitat for these species on the proposal.

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 below 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. Species ranks and conservation status are described in Appendix E.

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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					
Tillandsia fasciculata	common wild-pine	G5	SNR	N	Ш
Additional rare plants reported on site by applicant					
none					
Rare animals documented on site					
Mycteria americana	wood stork	G4	S2	Т	FT
Additional rare animals reported on site by applicant					
Egretta caerulea	little blue heron	G5	S4	N	ST
Egretta tricolor	tricolored heron	G5	S4	N	ST
Platalea ajaja	roseate spoonbill	G5	S2	N	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.

This property is offered for fee simple acquisition. If acquired by the state, it would be added to the Allapattah Flats WMA and managed by SFWMD. Much of the 571 acres of mesic flatwoods are currently in fair to good condition, and semi-improved pastures on the property contain a good mix of native species and large South Florida slash pines. The current landowner manages the property with fire, leading to good vegetation structure and diversity in the remaining natural areas. Due to the remote location and existing perimeter barriers to fire, a frequent prescribed burn program would be quite feasible on the proposal.

Bahiagrass pastures on the property generally occupy former slough marshes and prairies. Increasing the water storage capacity of the property by plugging and backfilling the existing network of ditches would begin restoration of these systems and also benefit the remnant depressional wetlands and prairies throughout the site. These wetlands are in good condition and contain a diversity of native species that would respond well to increased water levels and longer hydroperiods, and also provide a seed source to newly restored marsh communities.

Based on the field assessment, the primary non-native invasive species on the property is Brazilian pepper. However, the landowner has achieved a fairly low concentration of plants through ongoing treatment. Continued control would be necessary, but not unusually costly. Tropical soda apple (*Solanum viarum*; FISC Category I), old world climbing fern, and Caesar's weed (*Urena lobata*; FISC Category I) were also observed during the site visit, but were uncommon. The proposal application also notes the presence of occasional melaleuca (*Melaleuca quinquenervia*; FISC Category I). A baseline assessment to determine the full extent of invasive plant infestations is warranted if the property is to be acquired.

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Measure C4:

The number of acres acquired that protect natural floodplain functions.

The FFME reports approximately 279 acres (15%) of the proposed project may contribute to the protection of natural floodplain function. This area is mostly divided between Priority 3 (6% of site), Priority 4 (6% of site), and Priority 5 (2% of site), with the remainder in Priority 2 (< 1% of site).

Measure C5:

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

The FFME reports approximately 1,910 acres (100%) 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 6 (55% of site) and Priority 4 (45% of site), with the remainder in Priority 2 (<1% 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 146 acres (8%) of the proposed project would provide protection for functional wetland systems. This area is divided between Priority 3 (4% of site) and Priority 4 (3% of site), with the remainder in Priority 2 and 5 (< 1% of site for both).

Measure C11:

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

Exotic plants including old world climbing fern, Brazilian pepper and melaleuca are present. A visible effort to eradicate them took place and results are visible. Remaining overall invasive plant coverage is relatively low.

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.

The IRL-S authorized plan, a project component under the CERP umbrella, includes the acquisition and restoration of approximately 90,000 acres of wetland and upland properties, within three Natural Water Storage and Treatment Areas (NWSTA) that are located in the C-23, C-24 and C-44 basins. The purpose of these NWSTAs is to improve or restore the hydroperiods and habitat quality of on-site wetland communities that have been altered through ditching and draining, to improve overall upland character on the properties and to increase or maintain habitat connectivity throughout the watershed.

An NWSTA of slightly more than 43,000 acres, located in the C-23 and C-44 basins, is designated as the Allapattah Complex, which includes the 1,800-acre Bar-B Ranch property. The SFWMD has already acquired nearly 22,000 acres of the Allapattah Complex. These previously acquired properties are located north and west of the Bar-B Ranch parcel that is the subject of this application. Additionally, the Bar-B Ranch parcel is strategically located adjacent to another IRL-S feature, the C-44 Reservoir and STA. The restored wetlands within these natural lands, combined with the structural features

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(reservoirs and STAs) of the IRL-S plan, will provide retention and storage to reduce damaging discharges to the St. Lucie Estuary and southern Indian River Lagoon, improving habitat for the river, the lagoon and the watershed.

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 IRL-S Plan, once complete, is expected to provide about 150,000-acre feet of storage within the primary basins that discharge to the southern Indian River Lagoon. It is expected that, with the acquisition and restoration of wetlands throughout the proposed natural areas throughout the watershed will result in approximately 1/3 of an acre-foot of storage per acre of restoration. Overall, the Allapattah Complex, at 43,000 acres, is expected to provide approximately 14,000 acre-feet of storage Historically, the Bar-B property was one of the wettest areas within the Allapattah Complex, with approximately half of the property consisting of impacted wetland communities. This property would be expected to add somewhere between 300 to 400 acre-feet of storage above the existing condition.

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 Bar-B Ranch

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	9
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	10
DEP Distance to Major Rivers (100, 500, 1000 meters)	6,5,4	0
Total Possible	101	35

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

Measure E1

The number of acres acquired that are available for natural resource-based public recreation or education.

Measure E2:

The miles of trails that are available for public recreation, giving priority to those that provide significant connections including those that will assist in completing the Florida National Scenic Trail.

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Measure E3:

The number of new resource-based recreation facilities, by type, made available on public land.

The 1,889 acres of Bar-B Ranch could provide natural resource-based public recreation or education if acquired and managed by the SFWMD. The property contains several structures including a house, two pole barns and one storage facility that could be repurposed to support land management activities. Facilities for outdoor resource-based recreation could be developed on Bar-B Ranch according to the management prospectus outlined in Appendix D.

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 Bar-B Ranch 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 Bar-B Ranch 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 16 historic structures, 14 archaeological sites, and 10 resource groups as being located within a five-mile radius of this property.

FIELD OBSERVATIONS:

The property owners themselves were not present at the field review, but according to a representative, no sites were known to exist on the property. Given the fact that Bar-B Ranch has never been subject to a professional archaeological survey, and given the identification of archaeological sites in the nearby Allapattah WMA, there is a potential for as-yet-recorded sites to exist on Bar-B Ranch. Should any artifacts be discovered on the project in the future, the Division of Historical Resources (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 1,757 acres (92% of site) could be available for sustainable forest management, entirely within Priority 5. Prioritization is based on 4 criteria set by the Florida Forest Service: 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.

A forest management plan should be included in the future general management plan of property. For best ecological results a fire regime that includes prescribed burns conducted at regular intervals

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should be initiated on the property. The pine flatwoods portions of the property are in very good condition and should improve with the institution of a regular fire regime. The pine flatwoods acreage should be maintained and managed as a forest.

Measure G2:

The number of acres of state-owned forestland managed for economic return in accordance with current best management practices.

The property may provide state-owned forestland managed for economic return as determined by a future forest management plan.

Measure G3:

The number of acres of forestland acquired that will serve to maintain natural groundwater recharge functions.

The FFME reports the proposal would not provide forestland to maintain natural groundwater recharge functions.

Measure G4:

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

Reforestation is possible across portions of the property, which should be determined by the new manager once acquired. There is acreage that can be converted to forestland. The increase of forestland acreage should be determined by the new managers and put forth within the associated future management plan for this property.

FLORIDA FOREVER CRITERIA

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

- The project meets multiple goals described in subsection (4).
- The project is part of an ongoing governmental effort to restore, protect, or develop land areas or water resources.
- The project enhances or facilitates management of properties already under public ownership.
- The project contributes to the solution of water resource problems on a regional basis.
- The project implements an element from a plan developed by an ecosystem management team.
- The project is one of the components of the Everglades restoration effort.

The Acquisition and Restoration Council shall give increased priority to:

- Projects for which matching funds are available.
- Projects that contribute to improving the quality and quantity of surface water and groundwater.

MANAGEMENT

South Florida Water Management District (SFWMD).

FUNDING SOURCES

Florida Forever. CERP is implemented through a federal-state partnership that includes a 50/50 cost share agreement. Acquisition of this property will increase the state's contribution to CERP and therefore require the federal government to match that spending on other Everglades restoration projects.

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OWNERSHIP PATTERN AND ACQUISITION PLANNING

Title and Legal Access, Jurisdictional and Sovereignty Lands, Legal Issues

The property has legal access. Record of title, a designation of jurisdictional and sovereignty lands and any other legal Issues will be determined at the time of acquisition and are not known at this time.

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

Florida Department of Environmental Protection's (DEP) Bureau of Appraisal estimates \$10,000 to \$20,000 in appraisal fees.

Acquisition Phases

Subject to funding, the Bar-B Ranch 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 inclusion of the 1,899-acre subject property in the Florida Forever program has a medium to high potential to support conservation efforts in the state. The Allapattah Flats Wildlife Management Area (WMA) is located to the northwest of the ranch and the application materials note that if it is acquired, the property would be added to the WMA. The varied environmental characteristics of the property support listed wildlife species that could benefit from the property being maintained as open space. An oak hammock area with shade trees is present on the site which could provide ideal circumstances for camping.

With a natural and partially undisturbed setting, the opportunity for recreational activities such as fishing and hiking seems high. Martin County has indicated that the subject property was identified as part of a potential Natural Water Storage and Treatment area recommended in the Indian River Lagoon South Feasibility Study. This Feasibility Study is a component of the CERP. According to the application materials, since the Bar-B Ranch was identified in the Feasibility Study, its acquisition could increase the State of Florida's contribution to the CERP. As the CERP includes a 50/50 cost share agreement, an increase in Florida's contribution could result in the federal government being required to match that investment in spending on Everglades restoration projects.

Potential for Losing Significant Natural Attributes or Recreational Open Spaces

Medium Potential: There is anticipated to be a medium potential for losing significant natural attributes or recreational open spaces should this property not be protected through the Florida Forever program. While the subject property is not located within or immediately adjacent to an urban area it is still subject to loss of remaining habitat through future residential development or agricultural practices.

The rural setting of the subject property, which is still relatively close to major transportation facilities, such as I-95, and incorporated municipalities would provide an ideal area for recreational and open space. The Bar-B Ranch's western and southern borders are adjacent to publicly owned land utilized to support wildlife management and water quality protection.

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Protecting the ranch property could increase the potential for aquifer recharge by keeping the land undeveloped and increase wildlife network connectivity by filling in a gap in the Florida Wildlife Corridor, which currently surrounds three side of the property. Portions of the wetlands on the site were previously converted to pasture through the construction of ditches that drained water away from the area. However, the application states it is anticipated these wetlands could be restored through alterations to the ditches.

According to the project's analysis of the data from FNAI, the Florida Black Bear is a rare animal that has been documented or reported to occur on the subject property. The application also reports that listed species of wading birds, such as wood stork, roseate spoonbill and little blue herons utilize the areas of the Ranch.

Archaeological sites have been documented near the subject property. As the Bar-B Ranch has had similar environmental conditions to the nearby properties with documented sites, it is highly probable that archaeological sites may be present on the Ranch as well.

Potential for Being Subdivided

Low Potential: The Bar-B Ranch currently consists of four parcels including a total of approximately 1,899 acres. Based on the allowances of the Agricultural Future Land Use Map designation and A-2 zoning district applicable to the property, it could be divided into parcels that are a minimum of 20 acres in size. In addition, the application states there is an allowed density of one dwelling unit per ten acres of land. This allowance could result in a maximum of 190.0 residential units not accounting for a potential loss of units resulting from decreased density allowances associated with wetlands. Unless the property were to be considered for higher density and/or intensity allowances through a Comprehensive Plan Amendment, it appears likely to retain its rural characteristics even if it is subdivided and developed with residential units.

Zoning and Densities within the Project Boundaries

The zoning classification assigned to the subject property by Martin County is the A-2 Agricultural District as noted in the Martin County Board of County Commissioners online Future Land Use and Zoning map. Pursuant to section 3.412 of the Martin County Land Development Regulations, uses allowable within this district include a range of agricultural related activities in addition to other usages such as residential, aviation facilities, and public infrastructure. This zoning district has a minimum required lot area of five acres. However, the applicable Future Land Use Map designation of Agricultural District, as described in further detail in the subsequent "Existing Land Uses and Future Land Use Designations" section, has a more restrictive density allowance that will supersede the zoning allowances pursuant to section 3.402 of the County's Land Development Regulations.

Existing Land Uses and Future Land Use Designations

Martin County Future Land Use Element (FLUE) Policy 4.13A.1, states subdivisions with residential dwellings at a density greater than one single-family dwelling unit per 20 gross acres shall not be allowed. The FLUE also notes a wide range of lower impact non-residential activities are allowed by the applicable zoning district.

The subject property contains pasture areas, wetlands, dry prairie, pine flatwoods, and mesic hammock areas. Topographic elevations on the site range from 24.0' to 29.0' NAVD. Approximately half of the property is undisturbed, while two single-family residences are present on the parcel in conjunction with multiple accessory structures. Application materials indicate that portions of the property were previously used for agricultural purposes.

The County has designated the site with an Agricultural Future Land Use Map designation. This designation allows for agriculture and associated uses including low density residential. Martin County Comprehensive Plan FLUE Policies 4.1D.7(4)(f) and 4.2.A.(9) state the Agricultural designation has a

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20-acre lot size minimum. Furthermore, FLUE Policy 4.13A.1 states that residential development in the Agricultural designation is restricted to one single-family residence per gross 20-acre tract. However, Martin County has stated in the Florida Forever application documents that the development allowances on the subject property are one dwelling unit per ten acres. This more intense potential density stated in the application could result in a maximum of 190.8 dwelling units.

Development Potential

Low Potential: The Bar-B Ranch property contains 1,899 acres. While portions of the property remain undisturbed, some of the wetlands have previously been drained by ditches built in 1950s and were subsequently converted into pasture. This alteration of wetland areas has resulted in a more suitable area for development on the parcel. Application materials note that some exotic vegetation is present on the site. While the Ranch is relatively close to I-95, its current development potential is limited with its Agricultural Future Land Use Map designation and A-2 zoning district. The current maximum development on site would be anticipated to be 190.8 dwelling units based on the application's stated density allowance..

Transportation Planning Issues

The proposed project is located in the Florida Department of Transportation's (FDOT) District 4 (Martin County). FDOT finds no adverse impacts from this proposal. There should be coordination with the appropriate FDOT District staff during the acquisition process to ensure that issues related to the transportation system and partnering opportunities are addressed and incorporated into the management plan as appropriate.

Ongoing Governmental Efforts

The SFWMD, along with our federal and local partners, has acquired more than 55,000 acres of property to support the IRL-S authorized plan. This includes approximately 22,000 plus acres of property necessary to construct the physical features (reservoirs and stormwater treatment areas) and nearly 33,000 acres of natural lands acquired for wetland and upland restoration and identified in the plan. Much of the Allapattah Complex has been restored through the filling of ditches, removal of culverts and construction of containment berms and SFWMD is continuing the planning and design efforts to effect restoration of the remainder of the property. As properties within the natural lands' footprints become available SFWMD will conduct appraisals and environmental assessments as necessary to support the acquisition and restoration of these properties. The Bar-B property, as one of the properties proposed for acquisition in the IRL-S plan, dovetails with this effort. Additionally, the SFWMD and the U.S. Army Corps of Engineers are continuing to implement the remainder of the IRL-S plan.

ACKNOWLEDGEMENTS

Staff in the DEP's Division of State Lands (DSL) and FNAI determined the final project recommendations. Sine Murray and Hannah Turbiville in DSL's Office of Environmental Services 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 DSL, Bureau of Appraisal Jay Scott & Amy Phillips
- Florida Fish and Wildlife Conservation Commission Larame Ferry & Eric Suarez
- Florida Natural Areas Inventory Kim Alexander & Nathan Pasco
- DEP Division of Environmental Assessment and Restoration Kevin Coyne
- Florida Department of Transportation Jennifer Carver
- South Florida Water Management District Steve Coughlin & Jeff Buck

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APPENDICES

Appendix A:

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

Bar-B Ranch: Florida Forever Measure Evaluation 20220218

	Resource	% of		Resource	% of
MEASURES	Acres ^a	project	MEASURES (continued)	Acres ^a	project
B1: Strategic Habitat Conservation	Areas	1	C5: Surface Water Protection		
Priority 1	0	0%	Priority 1	0	0%
Priority 2	0	0%	Priority 2	6	< 196
Priority 3	74	4%	Priority 3	0	0%
Priority 4	0	0%	Priority 4	858	45%
Priority 5	1,060	55%	Priority 5	0	0%
Total Acres	1,134	59%	Priority 6	1,046	55%
B2: FNAI Habitat Conservation Pri-	orities		Priority 7	0	0%
Priority 1	0	0%	Total Acres	1,910	100%
Priority 2	0	0%	C7: Fragile Coastal Resources		
Priority 3	0	096	Fragile Coastal Uplands	0	0%
Priority 4	95	5%	Imperiled Coastal Lakes	0	096
Priority 5	682	36%	Coastal Wetlands	0	0%
Priority 6	113	6%	Total Acres	0	0%
Total Acres	890	47%	C8: Functional Wetlands		
B3: Ecological Greenways	- 33		Priority 1	0	09
Priority 1	0	0%	Priority 2	7	< 19
Priority 2	1,910	100%	Priority 3	75	490
Priority 3	0	0%	Priority 4	63	3%
Priority 4	0	0%	Priority 5	1	< 19
Priority 5	0	0%	Priority 6	0	0%
Total Acres	1,910	100%	Total Acres	146	8%
B4: Under-represented Natural Co.			D3: Aquifer Recharge	- 110	
Upland Glade (G1)	0	0%	Priority 1	0	0%
Pine Rockland (G1)	0	0%	Priority 2	0	0%
Scrub and Scrubby Flatwoods (G2)	0	0%	Priority 3	0	0%
Rockland Hammock (G2)	0	0%	Priority 4	50	3%
Dry Prairie (G2)	o	0%	Priority 5	277	15%
Seepage Slope (G2)	0	0%	Priority 6	1,583	83%
Sandhill (G3)	O	0%	Total Acres	1,910	100%
Sandhili Upland Lake (G3)	0	0%	E2: Recreational Trails (miles)	1,010	1007
Upland Pine (G3)	0	0%	(phonozed frail upportunities from Othre of Green - A	and Second State	less Charmen
Mesic/Wet Flatwoods (G4)	571	30%	Land Trail Priorities	0.0	into Cionning
Upland Hardwood Forest (G5)	0	0%	Land Trail Opportunities	0.0	
Total Acres	571	30%	Total Miles	0.0	_
B6: Occurrences of FNAI Tracked		-5076	F2: Arch. & Historical Sites (number)		sites
G1	Opecies		G1: Sustainable Forestry		Siles
G2	o		Priority 1	0	0%
G3				0	0%
G4	0		Priority 2		
	0		Priority 3	0	0%
G5	0		Priority 4	0	0%
Total	0	-	Priority 5 - Potential Pinelands	1,757	92%
C4: Natural Floodplain Function		607	Total Acres	1,757	92%
Priority 1	0	0%	G3: Forestland for Recharge	0	0%
Priority 2	7	< 1%			
Priority 3	113	6%			
Priority 4	124	6%			
Priority 5	35	2%			
Priority 6	0	0%			
Total Acres	279	15%			

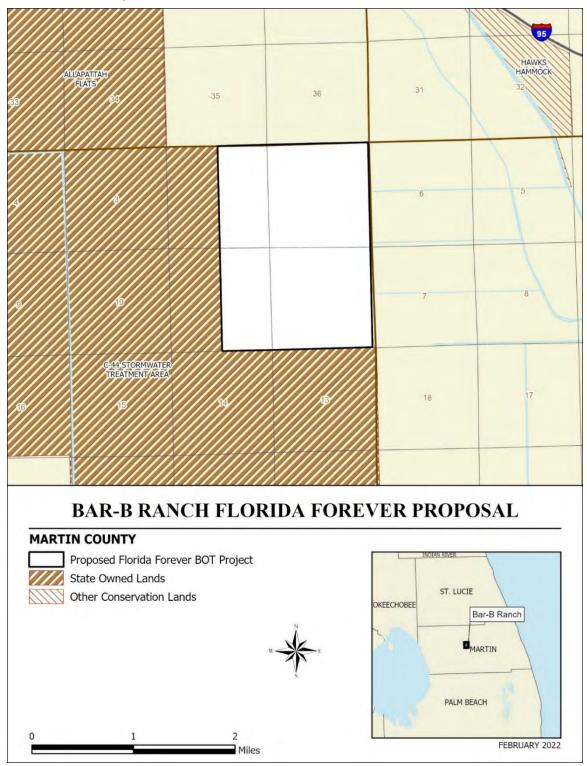
'Acres of each resource in the project and percentage of project represented by each resource are listed except where noted. This analysis converts site boundary into pixels, which causes slight differences from GIS acres; this effect is most noticeable on small sites.

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Appendix B:

Final FF proposal boundary maps: Report requirement 259.105 (15)k, prepared by FNAI

B1: Florida Forever map



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B2: Aerial map

Bar-B Ranch Florida Forever Proposal



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Appendix C:

PROPERTY ID #'S FOR FINAL RECOMMENDED BOUNDARY

MARTIN COUNTY

COUNTY	PARCEL ID*	OWNER	ACRES PER TAX CARD	JUST VALUE	ASSESSED VALUE	PARCEL DESIGNATION
Martin	02-39-39- 000-000- 00010-0*	BAR-B RANCH INC	321	\$2,192,720.00	\$215,360.00	Essential
Martin	11-39-39- 000-000- 00010-1*	BAR-B RANCH INC	321	\$2,057,720.00	\$80,360.00	Essential
Martin	01-39-39- 000-000- 00010-2*	BAR-B RANCH INC	629	\$4,146,000.00	\$260,922.00	Essential
Martin	12-39-39- 000-000- 00010-9	BAR-B RANCH INC	628	\$4,019,200.00	\$114,480.00	Essential
TOTALS			1899	\$12,415,640.00		

^{*}Parcel contains buildings/structures per tax card.

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Appendix D:

Management Prospectus for Bar-B Ranch, a fee simple proposal.

Concurrent with its adoption of the annual Conservation and Recreation Lands list of acquisition projects pursuant to s. 259.035, the board of trustees shall adopt a management prospectus for each project. The management prospectus shall delineate:

- 1. The management goals for the property.
- 2. The conditions that will affect the intensity of management.
- 3. An estimate of the revenue-generating potential of the property, if appropriate.
- 4. A timetable for implementing the various stages of management and for providing access to the public, if applicable.
- 5. A description of potential multiple-use activities as described in this section and section 253.034.
- 6. Provisions for protecting existing infrastructure and for ensuring the security of the project upon acquisition.
- 7. The anticipated costs of management and projected sources of revenue, including legislative appropriations, to fund management needs.
- 8. Recommendations as to how many employees will be needed to manage the property, and recommendations as to whether local governments, volunteer groups, the former landowner, or other interested parties can be involved in the management.

Management Goals

The Bar-B Ranch is an 1,899-acre property located in central Martin County approximately two miles west of I-95 and one mile north of Kanner highway in southeast Florida. The property is located east of the Allapattah Flats Management Area and north of the C-44 Reservoir/STA (Figure 1). The property lies within the Indian River Lagoon South (IRL-S) project area which is a component of the Central Everglades Restoration Plan (CERP). The IRL-S project contains a Natural Water Storage and Treatment Area component with a goal of acquiring and restoring 43,000 acres of natural wetlands within the Allapattah Complex which includes the Bar-B Ranch. To date, the SFWMD has acquired 22,000 acres of natural lands within the Allapattah Complex and has initiated land management activities including hydrologic restoration on these properties. Similar hydrologic and habitat restoration activities are planned for the Bar-B Ranch provided the project is acquired in fee and management responsibility is assigned to the District.

The District will manage the Bar-B Ranch with the goals of restoring the hydrologic function and ecological values of the property and providing public recreational opportunities consistent with the resource. The management goals for the property support the IRL-S CERP goal of enhancing natural water storage and treatment functions within the Allapattah Complex and support the management objectives for State-owned lands as described in section 253.034, Florida Statutes.

Past land management practices that have altered the hydrologic and ecological function of the property included the installation of interior ditches to remove surface water and increase off-site drainage. These drainage features were installed to increase forage production for cattle grazing purposes and have altered the hydrology of wetland systems on the property. Preliminary assessments of the property have also indicated that much of the property has not been actively prescribed burned resulting in reduced plant species diversity and relatively high fuel loads in upland areas dominated by fire dependent plant communities.

One of the primary land management goals for the property is to restore the hydrologic function and health of wetland systems and wildlife habitat on the property. This goal will be achieved by filling or plugging interior drainage ditches and reducing off-site drainage that has impacted area wetlands and native plant communities. The application of a consistent prescribed fire program will also be used to maintain and enhance wildlife habitat and plant diversity while managing fuels loads to protect the pine flatwoods and oak hammock plant communities from catastrophic wildfire. These land management activities, in addition to implementing an aggressive exotic plant control program to control exotic and

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invasive vegetation, will be utilized to maintain the integrity of native plant communities and meet the overall management objectives of the property.

Conditions that Affect the Intensity of Management

Historically, the Bar-B Ranch was part of the Allapattah Flats drainage basin composed of large areas of wet prairie and depressional wetlands interspersed with mesic and hydric pine flatwoods. A series of drainage diches were constructed beginning in the 1950's to provide additional drainage for agricultural purposes. These ditches and drainage features have impacted the spatial extent and quality of wetlands on the property. The successful restoration of impacted wetlands will be dependent on the selective filling or plugging of drainage ditches. The filling or plugging of interior ditches will be necessary to restore a more natural hydrologic regime to wetland plant communities and will reduce the amount of water discharged through the existing surface water drainage system into exterior flood control canals during the rainy season. The District has demonstrated success in restoring or improving ecological conditions on these types of altered habitats on portions of the neighboring Allapattah Flats Management area.

Herbaceous plant cover and species diversity within the wet prairie and pine flatwoods plant communities have also been affected by the infrequent application of prescribed fire on portions of the property. The health and function of these plant communities will be enhanced through the application of a consistently applied prescribed burn program. Prior to the application of prescribed fire as a resource management tool, mechanical vegetation control activities will need to be conducted to address high fuel load conditions and reduce the potential for excessive tree mortality while bringing the property under a proper burn regime.

Revenue Generating Potential of the Property

The Bar-B Ranch is currently an active cattle ranch that supports approximately 100 animal units (AU) as part of their on-going cow/calf operation. Cattle grazing will be considered as an interim land management tool prior to securing permits and initiating construction activities associated with the hydrologic restoration of the property. At the current market rate of approximately \$125.00 per AU, the continued use of the property for cattle grazing as an interim land management tool will generate approximately \$12,500 in revenue on an annual basis. Since the District does not charge user fees to utilize public lands for recreational purposes, no other sources of revenue are expected to be generated from the property.

<u>Timetable for Implementing Management and Providing Public Access</u>

Once the property is acquired and the District is designated as lead manager, priority land management activities including the mapping and treatment of exotic and invasive vegetation, posting of signage for site security and resource protection purposes, and the reduction of fuel loads to minimize the occurrence of damaging wildfires will be initiated. Concurrent with these land management activities, District staff will begin developing a hydrologic restoration plan for the property with the goal of implementing the plan within a 5-year period. The use of prescribed fire as a land management tool will be initiated within 6-12 months following acquisition of the property on areas where fuel load reduction activities are not required as a prerequisite to assuring environmentally successful burns.

The property contains several disturbed sites that will be utilized as vehicle parking areas for the public and a network of unimproved roads and trails that will be opened for public recreation including hiking, biking, wildlife viewing, and equestrian use. These public use activities and facilities will be opened as soon as appropriate rule, informational, and location signage is installed which would be expected to occur within 3-6 months from the date of acquisition. Additional resource monitoring and recreational planning activities will be conducted within 12 months of acquisition to determine the potential for other public use activities including environmental education programs, guided tours, and hunting. The

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District's Recreation Forum meetings, which are held on a quarterly basis, will be used to solicit public input into the development of recreational facilities and public use programs on the property.

Land management activities and the implementation of public use programs will be performed by the District's Land Stewardship Section. Specific land management functions that require additional labor forces or specialized equipment such as exotic plant control and fuel load reductions activities will be contracted out and performed by private vendors.

Potential Multiple Use-Activities and Public Use

The Bar-B Ranch will be managed under a multiple use concept to enhance the ecological and public recreational value of the property in the same manner as lands held in title by the District are managed. Land acquired by the District are managed in accordance with Florida State Statute 373.1391 which directs that such lands "...shall be managed and maintained, to the extent practicable, in such a way as to ensure a balance between public access, general public recreational purposes, and restoration and protection of their natural state and condition". If acquired by the State of Florida, the District would manage the Bar-B Ranch under the same guidance as provided in section 373.1391, Florida Statutes and in accordance with section 253.034, Florida Statutes.

Management activities on the Bar-B Ranch will be focused to provide both environmental and resource based recreational benefits. Wetland restoration activities planned for the property will reduce undesirable wet season discharges into area canals and estuaries while improving wildlife habitat and maintaining wildlife corridors within the CERP project area. Public use activities that will be incorporated into the management strategy for the property and are consistent with management and resource protection needs include hiking, biking, wildlife viewing, fishing, equestrian use, and environmental education programs. Additional activities that would be considered after further review and planning include camping, hunting, and guided wildlife tours.

Provisions for Protection and Security

The District will provide site security and resource protection measures through the use of existing infrastructure, posting of signage, and active law enforcement patrols. Public access to the Bar-B ranch is through a gated secondary road that connects to SW Citrus Boulevard. The road was acquired in fee by the District which allows the District to regulate vehicular access to the Bar-B Ranch. Once acquired by the State, appropriate signage will be installed for resource protection and law enforcement purposes and the management of public use will be regulated though the application of the District's Public Use Rule 40E-7, Florida Administrative Code. The enforcement of area rules and regulations as well as state statues will be provided by the FWC's Division of Law Enforcement through an existing law enforcement services contract that provides funding for law enforcement patrols on District managed properties.

Anticipated Costs of Management, Sources of Revenue, and Personnel

The Bar-B Ranch will be managed as part of the District's East Coast Management Region utilizing shared equipment and additional support staff assigned to other District managed properties. It is anticipated that management funding will be provided through the Land Acquisition Trust Fund.

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Management Cost Summary

SFWMD	Startup	Recurring
Salary	\$61,689	\$61,689
Expense	\$75,000	\$75,000
OCO	\$42,020	\$0
Other	\$125,000	\$125,000
TOTAL	\$303,709	\$303,709

Source: Management Prospectus as originally submitted

Cooperating Agencies

The District will partner with Martin County and the FWC to assist in the development and operation of public use and land management programs designed to successfully manage the Bar-B Ranch for the benefit of the resource and the citizens of Florida.

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Appendix E:

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

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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 Wildife 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.

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Appendix F: Site Visit Photos



1. Improved pasture and remnant mesic flatwoods



2. Wet prairie

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3. Mesic flatwoods



3. Depression marsh

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4. Canal/Ditch and residential structures near the center of the project



5. Semi-improved pasture

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