

Florida Forever Project Evaluation Report

Natural Bridge Timberlands

Leon and Jefferson Counties



Acquisition Type: Fee-Simple

Acres: 5,454

Just Value: \$8,939,776

Application Date: April 30, 2022

Project Sponsor: Florida Conservation Group

Prepared By:

Division of State Lands

Office of Environmental Services



Submitted to the Acquisition and Restoration Council

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Executive Summary

The proposed Natural Bridge Timberlands Florida Forever project contains 17 parcels, totaling 5,454 acres in Leon and Jefferson Counties. The project is located east of Old Plank Road and primarily follows Natural Bridge Road along its southern border. The project area abuts Natural Bridge Battlefield Historic State Park to the west, Plank Road State Forest to the north and the 46,000-acre Aucilla Wildlife Management Area lies just to the east. The closest cities are Woodville and Tallahassee. The project is proposed as a fee simple acquisition to be managed by the Florida Forest Service (FFS) as part of Plank Road State Forest. The project has a total tax assessed value of \$8,939,776.

The property primarily consists of pine plantation on former mesic/wet flatwoods. Basin and dome swamps account for more than one third of the project area. The property drains towards the upper reaches of the St. Marks River that flows within a mile of the northern and western project boundary. Rare species documented on the property include small Coastal Plain spreading pogonia (*Cleisteslopsis bifaria*), gopher tortoise (*Gopherus polyphemus*), and Florida black bear (*Ursus americanus floridanus*). The entire project is located within Priority 2 of the Florida Ecological Greenways Network (FEGN). The project is also within the recently designated Northwest Florida Sentinel Landscape a component of the Department of Defense's Readiness and Environmental Protection Integration Program.

The project sits in one of the most archaeologically rich areas of Florida and the project lies in close proximity to the Natural Bridge archaeological site (LE188), which contains evidence of occupations spanning the entirety of Florida history, including most notably the Civil War Natural Bridge Battlefield. No archaeological or cultural resources are currently recorded on-site. However, Division of Historical Resources (DHR) staff noted several areas with a high likelihood of intact archaeological deposits during field review.

If approved for acquisition, the Natural Bridge Timberlands project is recommended as a new project to be placed in the Critical Natural Lands category. All 5,454 acres proposed for acquisition are considered essential due to the resources documented on the property (see Appendix C). An interagency team conducted a site visit to the project site on July 14, 2022. Information included in this project evaluation report is a result of this site visit.

PURPOSE FOR ACQUISITION

The Natural Bridge Timberlands project will contribute to the completion of an expansive corridor of public conservation lands that promote ecological connectivity, conserve valuable habitat for rare wildlife and native plant species and protect sensitive cultural resources. The project will protect the water quality and quantity of the St. Mark's River and the associated natural springs and karst features found within the Upper St. Mark's River Basin. The project will allow for the expansion of public resource-based recreational opportunities and support the continuation of sustainably managed silviculture practices.

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
- increase natural resource-based public recreation or educational opportunities
- preserve significant archaeological or historic sites
- provide and enhance wildlife corridors and valuable habitat for rare and imperiled species
- provide surface and groundwater protection and protect natural floodplain functions
- protect, restore, and maintain the quality and natural functions of land, water and wetland systems

- increase the amount of forestland available for sustainable management of natural resources

LOCATION AND PROXIMITY TO OTHER MANAGED AREAS

The Natural Bridge Timberlands proposal contains 5,441.8 acres (calculated through GIS; 5,454 as reported in application) located in southeastern Leon County and adjacent southwestern Jefferson County, within a few miles of the southeastern city limits of Tallahassee. It is bordered on its west and north by Natural Bridge Battlefield Historic State Park and Plank Road State Forest, which together flank the St. Marks River. The 46,000-acre Aucilla Wildlife Management Area lies about 0.6 miles to the east. Two small tracts of the Florida's First Magnitude Springs (St. Marks Springs) Florida Forever project are nearby. The property has more than 4 miles of frontage along Natural Bridge Road, which essentially forms the southern border of the property. There is a network of well-maintained roads that provide access to all portions of the property.

RESOURCE DESCRIPTION

Florida Natural Areas Inventory (FNAI)

This evaluation is based on information gathered from the proposal, 2018 and 2019 aerial imagery, The Florida Cooperative Landcover Map, and information in the FNAI database. A field survey was conducted on July 14, 2022, by FNAI staff Katy NeSmith and Dan Hipes, along with the Acquisition and Restoration Council liaison staff and the landowners.

Natural Bridge Timberlands is situated in the northwestern portion of the Big Bend Karst Physiographic Province (Brooks 1981), an erosional limestone plain overlain by sand supporting primarily flatwoods and swamps. There are no named creeks or lakes on the property. The upper reaches of the St. Marks River flow within a mile of the northern and western boundary toward which most of the property drains. A small area in the southeastern portion of the property drains to the Gum Swamp-Pinhook Swamp Frontal watershed. Landcover of the property is primarily pine plantation on former mesic and wet flatwoods and basin/dome swamps.

Basin and dome swamps on Natural Bridge Timberlands are similar in both structure and composition and their combined acreage accounts for more than one third of the area of the property. There is generally a sparse canopy of swamp tupelo (*Nyssa biflora*), slash pine (*Pinus elliottii*), and pond cypress (*Taxodium ascendens*). The sub-canopy is also generally sparse and includes red maple (*Acer rubrum*), titi (*Cyrilla racemiflora*), slash pine, and swamp laurel oak (*Quercus laurifolia*). The tall shrub layer is typically dense titi, along with areas of black titi (*Cliftonia monophylla*), and large gallberry (*Ilex coriacea*). The short shrub layer is also dense, dominated by titi and fetterbush (*Lyonia lucida*). Common buttonbush (*Cephalanthus occidentalis*) and sweet pepperbush (*Clethra alnifolia*). The herbaceous layer is sparse to absent but includes patches of clustered sedge (*Carex glaucescens*), Carolina redroot (*Lachnanthes carolina*), royal fern (*Osmunda regalis* var. *spectabilis*), beaksedge (*Rhynchospora* sp.), sphagnum moss (*Sphagnum* sp.), maiden fern (*Thelypteris* sp.), and Virginia chain fern (*Woodwardia virginica*). Woody vines are common, represented primarily by laurel greenbrier (*Smilax laurifolia*) but also includes crossvine (*Bignonia capreolata*). Recent timber harvest is evident in a few of the swamps. Past harvest likely explains the sparse cypress canopy in swamps throughout most of the property. Despite this, there was no evidence of rutting or ditching observed during the field visit. A small blackwater stream was observed flowing within one of the basin swamps into a small swamp lake with no apparent outlet, presumably into the surficial aquifer and likely connecting to the St. Marks River downstream.

Wet flatwoods remain along edges of basin swamps and in a few isolated islands within the swamps. One edge of a wet flatwoods was visited during the field assessment. There is a sparse canopy of a

few remnant mature slash pines and a very dense tall shrub layer of titi, large gallberry, and black titi. There is also a dense short shrub layer of fetterbush. No herbs are present.

Although most of the areas of former sandhill were converted to pine plantation, a couple of larger "hills" were not replanted after harvest and support remnant sandhill vegetation. There is a sparse to moderate canopy that includes southern red oak (*Quercus falcata*), turkey oak (*Quercus laevis*), and live oak (*Quercus virginiana*). There is a moderate to dense sub-canopy of laurel oak (*Quercus hemisphaerica*) and water oak (*Quercus nigra*). The moderately dense tall shrub layer primarily includes sparkleberry (*Vaccinium arboreum*), turkey oak, and olive (*Cartrema americanum*). The short shrub layer is mostly sparse and primarily represented by blue huckleberry (*Gaylussacia frondosa var. tomentosa*), laurel oak, saw palmetto (*Serenoa repens*), shiny blueberry (*Vaccinium myrsinites*), and paw paw (*Asimina spatulata*). Herbaceous cover is sparse to absent and includes broomsedge bluestem (*Andropogon virginicus*), and occasional patches of wiregrass (*Aristida stricta*). Woody vines include earleaf greenbrier (*Smilax auriculata*) and muscadine (*Vitis rotundifolia*).

Pine plantation covers a little more than half of the property and nearly all the upland acreage. There is generally a moderately dense canopy of slash pine and most of the younger-mature to mature stands have been thinned recently. In many of the stands there is a moderately dense tall shrub layer of titi, southern bayberry (*Morella cerifera*), and laurel oak. There is also a dense short shrub layer dominated by titi, gallberry (*Ilex glabra*), saw palmetto, and yaupon (*Ilex vomitoria*). Other common shrubs include fetterbush, sweet pepperbush, large gallberry, red bay (*Persea borbonia*), and shiny blueberry. The herbaceous layer is generally sparse, represented primarily by patches of broomsedge bluestem and bracken fern (*Pteridium aquilinum*). Woody vines are common and include yellow jessamine (*Gelsemium sempervirens*), muscadine, and earleaf greenbrier. Pine plantation on former sandhill had a sub-canopy of turkey oak and laurel oak, and a shrub layer dominated by sparkleberry. Wiregrass was observed at a couple of locations but is generally absent. The owners and land manager stated that they planned to use prescribed fire in the plantations to control woody vegetation and improve the habitat for wildlife.

Successional hardwood forest occurs on most of the former small sandhills and mesic uplands that are not in pine plantation. The canopy is variable usually dominated by one or more oaks including laurel oak and water oak. Slash pine is occasionally present. Sand live oak (*Quercus geminata*) is infrequent. The sub-canopy layer of the successional hardwood forest community is often dense and includes water oak, laurel oak, sweetgum (*Liquidambar styraciflua*), American holly (*Ilex opaca*), southern red oak, and turkey oak. The tall shrub layer is also often dense and includes those same species along with yaupon and sparkleberry. The short shrub layer is variably dense depending on the overhanging shrubs. Common species include sparkleberry, saw palmetto, blackberry (*Rubus sp.*), paw paw, winged sumac (*Rhus copallinum*), common persimmon (*Diospyros virginiana*), shiny blueberry, and deerberry (*Vaccinium stamineum*). Herbaceous vegetation is sparse, represented primarily by broomsedge bluestem, witchgrass (*Dichantheium sp.*), dog fennel (*Eupatorium compositifolium*), blazing star (*Liatris sp.*), panic grass (*Panicum sp.*), narrowleaf silkgrass (*Pityopsis graminifolia*), and bracken fern. Woody vines are infrequent and include yellow jessamine, earleaf greenbrier, and saw greenbrier (*Smilax bona-nox*).

One small structure (home/hunt camp) was observed during the field visit. It lies near a small (< 1acre) artificial pond and within a 2-acre cleared area/lawn. Several small storage buildings are present near the main structure. No other development was observed on the property. Natural communities and landcover types within Florida Forever proposal

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

Community or Landcover	Acres	Percent of Proposal
basin swamp	1830	34%
dome swamp	185	3%
wet flatwoods	151	3%
sandhill	126	2%
pine plantation	2899	53%
successional hardwood forest	218	4%
road	30	1%
developed	2	<1%
artificial pond	<1	<1%
Totals	5,441	100%

Florida Fish and Wildlife Conservation Commission (FWC)

This assessment provides a summary of the general importance of Natural Bridge Timberlands (NBT) for the conservation of fish and wildlife resources. It is based on the results of the GIS analysis [FWC; FNAI], the Florida Forever application for this property, and field observations from the site visit on July 14, 2022.

A variety of upland and wetland communities occur on the property and provide diverse habitat for wildlife, including mesic and wet flatwoods, sandhill, floodplain swamp, basin swamp, and freshwater forested wetlands. Species of Greatest Conservation Need (SGCN) observed and associated with these habitats include swallow-tail kite (*Elanoides forficatus*) and Florida black bear. There are also historical occurrences of the rare ironcolor shiner (*Notropis chalybaeus*) and eastern indigo snake (*Drymarchon couperi*). Most of the property (83%) has been identified by the environmental resource analysis as imperiled waters for the ironcolor shiner.

Some non-listed species observed in the field include cricket frog (*Pseudacris crucifer*), pinewoods tree frog (*Hyla femoralis*), and little grass frog (*Pseudacris ocularis*). Potentially suitable habitat also exists for wood stork (*Mycteria americana*), striped newt (*Notophthalmus perstriatus*), southeastern fox squirrel (*Sciurus niger niger*), Florida pine snake (*Pituophis melanoleucus*), Bachman’s sparrow (*Peucaea aestivalis*), gopher frog (*Lithobates capito*), and frosted flatwoods salamander (*Ambystoma cingulatum*). One of the land managers mentioned recently seeing several eastern diamondback rattlesnakes (*Crotalus adamanteus*) on the property. The application also mentions documented occurrences of American alligator (*Alligator mississippiensis*), gopher tortoise and bald eagle (*Haliaeetus leucocephalus*).

The property is predominantly situated in the Upper St. Marks River drainage basin and plays an important role related to surface water dynamics and floodplain and wetland functionality. As a result, this site may be important for SGCN wildlife species including river cooter (*Pseudomys spp.*), alligator snapping turtle (*Macrolemys temminckii*), one-toed amphiuma (*Amphiuma pholeter*), and Florida longbeak crayfish (*Procambarus youngi*). Not only would conservation of this particular property be beneficial for these species but widening the buffer around the St. Marks River will also serve to prevent erosion and pollution due to surface water runoff that could negatively affect fish and wildlife resources downstream of the site.

The FWC GIS analysis of the Cooperative Land Cover v3.5 indicates that NBT comprises a mixture of many different community types including tree plantations (53%), freshwater forested wetlands (15%), cypress (11%), and prairies and bogs (3%). Approximately 52% of the property is classified as wetland based on the National Wetlands Inventory and 39% has been identified as priority 1 and 2 for the Critical Lands and Waters Identification Project category. The FNAI database identified 100% of NBT

as potential habitat for the Florida black bear, 87% for eastern indigo snake, 23% for wood stork, and 6% for frosted flatwoods salamanders.

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. NBT is at a value of 6.9 within the FLAM ranking system. The entire property is within priority 2 of the FEGN. Additionally, the entire property is classified as frequent Florida black bear range, and 85% of the property shows a species richness for 3-8 imperiled species. The FWC Strategic Habitat Conservation Areas (SHCA) identified 73% of NBT for the American swallow-tailed kite, Florida black bear, and striped newt.

This property would also be a desirable addition to an emerging conservation corridor via expansion toward St. Marks National Wildlife Refuge (NWR) to the south and connection to the larger Big Bend region via Plank Road State Forest and Aucilla WMA to the north and east. Florida black bears could benefit significantly through increased habitat connectivity and availability, especially as it could improve access between adjacent regional bear populations. The property also has potential as a future corridor for red-cockaded woodpeckers (*Picoides borealis*) via connectivity directly to Plank Road State Forest and indirectly to Aucilla WMA and St. Marks NWR.

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, all 5,454 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.

The entirety of the project (5,454 acres) is proposed for fee-simple acquisition and will not contribute to fee-simple acquisition alternatives.

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.

No funding partners have been identified for this project.

GOAL B:

INCREASE THE PROTECTION OF FLORIDA’S BIODIVERSITY AT THE SPECIES, NATURAL COMMUNITY, AND LANDSCAPE LEVELS

Measure B1:

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

The SHCA Florida Forever Conservation Needs layer identifies important remaining habitat conservation needs for 33 terrestrial vertebrates on private lands. Priority 1 and 2 represent habitat for species considered imperiled or critically imperiled in Florida. The Florida Forever Measure Evaluation (FFME) table (Appendix B) reports the site contains approximately 5,177 acres (95% of site) of Strategic Habitat Conservation Areas. This is primarily within Priority 3 (83% of site) and Priority 5 (12%) with the remainder in Priority 2 (<1%).

Measure B2:

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

Habitat conservation priorities for 633 of Florida’s rarest species were mapped and divided into six priority classes. The FFME reports the proposed project contains approximately 1,743 acres (32% of site) of rare species habitat. The habitat is divided between Priority 6 (19% of site), Priority 2 (4%), Priority 4 (4%), Priority 5 (3%), and Priority 3 (2%).

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. Acreage for aquatic species includes a terrestrial buffer.

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

Scientific Name	Common Name	Global Rank	Acres
<i>Cambarellus schmitti</i>	fontal dwarf crayfish	G2G3	348
<i>Procambarus youngi</i>	Florida longbeak crayfish	G1G2	348
<i>Ambystoma cingulatum</i>	frosted flatwoods salamander	G2	372
<i>Macrochelys temminckii</i>	alligator snapping turtle	G3	348
<i>Mycteria americana</i>	wood stork	G4	1,304

Measure B3:

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

The FFME reports approximately 5,441 acres (100%) of the proposed project contributes to protection of ecological greenways with 99.8% of the acreage falling within Priority 2 areas, and 0.2% in Priority 1. 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 table lists the acreages of under-

represented natural communities found on the site. Based on this analysis, the Natural Bridge Timberlands proposal contains 151 acres of wet flatwoods (3% of site) and 126 acres of sandhill (2% 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 Natural Bridge Timberlands proposal, along with adjacent conservation lands that include Plank Road State Forest, Natural Bridge Battlefield Historic State Park, Aucilla WMA, St. Marks National Wildlife Refuge, Econfina River State Park, and Big Bend WMA, would contribute to a contiguous landscape-sized protection area of >176,000 acres

Measure B6:

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

Several active gopher tortoise burrows were observed in dryer pockets of pine plantation and successional hardwood forest during the site visit. The property is within a region where the FWC considers Florida black bear use to be frequent.

A few species reported from the property but not seen during the site assessment are listed in the table below. One species, pine snake, was observed recently by the land manager. Older records of eastern indigo snake (G3, S2?, T, FT) and southeastern weasel (*Mustela frenata olivacea*; G5T4, S3?, N, N) are documented near the site in the FNAI database. The rare plant corkwood (*Leitneria floridana*; G3, S3, N, T) is known from several sites on the nearby Aucilla WMA. More extensive surveys may reveal the occurrence of additional species of rare plants and animals.

The FFME table 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. The table 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. Rarity rankings listed are 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 E.

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					
none					
Additional rare plants reported on site by applicant					
<i>Cleistesiospis oricamporum</i> (FL lists as <i>C. bifaria</i>)	small Coastal Plain spreading pogonia	G4	S3	N	E
Rare animals documented on site					
<i>Gopherus polyphemus</i>	gopher tortoise	G3	S3	C	ST
<i>Ursus americanus floridanus</i>	Florida black bear	G5T4	S4	N	N

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status
Additional rare animals reported on site by applicant					
<i>Alligator mississippiensis</i>	American alligator	G5	S4	SAT	FT(S/A)
<i>Pituophis melanoleucus</i>	pine snake	G4	S3	N	ST
<i>Haliaeetus leucocephalus</i>	bald eagle	G5	S3	N	N

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.

Approximately 2,900 project acres are pine plantation and approximately 200 project acres are successional hardwood forest. These areas would benefit from silvicultural thinning, prescribed fire, and replanting of longleaf pines where appropriate.

The small acreage of sandhill would benefit from hardwood reduction as well as reintroduction of longleaf pine. Prescribed fire would be needed to control hardwoods and enhance habitat for a variety of plants and animals.

Few invasive exotic plant species were observed on the property. Proposed management will likely control any infestations. Spot treatment of likely candidates, including Japanese climbing fern (*Lygodium japonicum*; Florida Invasive Species Council [FISC] Category I), cogongrass (*Imperata cylindrica*; FISC Category 1), and Chinese tallowtree (*Triadica sebifera*; FISC Category I), may be required to keep invasive plants in check.

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.

The project area is within the St Marks River and Apalachee Bay watershed as identified in the St. Marks River and Apalachee Bay Surface Water Improvement and Management (SWIM) Plan. The SWIM plan does not identify specific capital improvements for the watershed; thus, the measure value is not applicable. The Natural Bridge Timberlands project is, however, consistent with the “Strategic Land Conservation” project identified in the plan. The project does not address capital improvements identified in regional stormwater plans or other restoration plans.

Measure C4:

The number of acres acquired that protect natural floodplain functions.

The FFME reports approximately 3,561 acres (65%) of the proposed project may contribute to the protection of natural floodplain function. This area is mostly divided between Priority 3 (36% of site), Priority 4 (24% of site), and Priority 2 (5% of site), with the remainder in Priority 1 (<1% 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 5,411 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 5 (36% of site), Priority 6 (29%), Priority 3 (24%), and Priority 4 (10%), with the remainder in Priority 2 (<1%). 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 2,533 acres (47%) of the proposed project would provide protection for functional wetland systems. This area is divided between Priority 3 (28% of site), Priority 4 (13%), Priority 2 (5%), and Priority 1 (<1% of site). Priority 1 areas are the most natural with the lowest intensity land uses.

Measure C11:

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

Approximately 3,400 acres (60%) are considered to be upland type sites and share the risk of encroachment of non-native, invasive plant species; therefore, it is recommended to monitor for any new occurrences of non-native, invasive species. During the site visit, observations of non-native, invasive plants were minimal, but management should continue to monitor for and treat non-native, invasive plants as needed. Common non-native, invasive species found nearby in similar forest types are Japanese climbing fern, mimosa or silk tree (*Albizia julibrissin*), and Chinese tallow.

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 project would protect approximately 2,031 acres of wetlands (FLUCCS). These provide a number of functions, including water storage and recharge, water quality protection, nutrient cycling, flood protection, and fish and wildlife habitat. The Northwest Florida Water Management District (NFWFMD) has not developed a regional or district water supply plan for the water supply planning region encompassing Leon County. The project is, however, protective of water resources as outlined in the districtwide Water Supply Assessment and the St Marks River and Apalachee Bay watershed as identified in the St Marks River and Apalachee Bay Surface Water Improvement and Management (SWIM) Plan.

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.

NFWFMD has not developed a regional or district water supply plan for the water supply planning region encompassing Leon County.

Measure D3:

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

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

Table 4. Spatial Analysis for Potential Water Quality Benefits of Natural Bridge Timberlands

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	0
DEP Florida Aquifer Vulnerability (FAVA)	4,7,10	10
DEP Special Nutrient Impaired WBIDs	9	9
DEP Distance to Major Lakes (100, 500, 1000 meters)	8,7,6	8
DEP Springsheds or within 5 miles	10, 7	10
DEP BMAPs	10	0
DEP Distance to Major Rivers (100, 500, 1000 meters)	6,5,4	4
Total Possible	101	41

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.

Upland areas of the project could be utilized for the expansion public outdoor recreation opportunities currently available within Plank Road State Forest. Activities such as hiking, biking, fishing, camping, and nature study are all compatible with the resources identified in the project.

Measure E3:

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

Observed onsite was an old hunting camp area that has an existing wooden structure. This building does not appear to be maintained and would not serve as a beneficial facility for recreation or other public land use.

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.

As a Less-Than-Fee project, the Natural Bridge Timberlands Florida Forever project would not increase the number or percentage of historic and archaeological properties listed in the Florida Master Site File or National Register of Historic Places which are preserved for public use. However, through a conservation easement agreement that stipulates cultural resource protection, the Natural Bridge

Timberlands Florida Forever project would protect historic and archaeological sites that are listed in the Florida Master Site File.

Measure F2:

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

As a Less-Than-Fee project, Natural Bridge Timberlands would not meet Measure F2, as the number and percentage of historic and archaeological properties on the project would remain privately owned.

CULTURAL RESOURCES:

According to DHR's Florida Master Site File, there are currently seven archaeological sites located within or intersecting the boundary of the Natural Bridge Timberlands Florida Forever project. The assemblage of sites found throughout the project collectively contain evidence of a variety of pre-Columbian occupations encompassing over 10,000 years of Florida history.

The Natural Bridge Timberlands Florida Forever Project sits in one of the most archaeologically rich areas of Florida. Of particular note is the proximity of Natural Bridge Timberlands to the Natural Bridge archaeological site (LE188), which contains evidence of occupations spanning the entirety of Florida history, including most notably the Civil War Natural Bridge Battlefield. Considering that no portion of the Natural Bridge Timberlands Florida Forever project has been subject to a professional archaeological survey, there is a high likelihood of as-yet-recorded archaeological sites within the project area.

FIELD OBSERVATIONS:

While no cultural materials were directly observed during the field review, DHR staff noted several areas with a high likelihood of intact archaeological deposits. Moreover, DHR would like to express our utmost appreciation to the property owners, who were incredibly helpful during the field review in providing anecdotal knowledge of unrecorded archaeological sites on the property. Specifically, we applaud the property owners for rejecting the efforts of previous land users to gain access to the property for the purpose of artifact collecting. Should any artifacts be discovered on the project in the future, DHR recommends leaving them in place and contacting DHR's Public Lands Archaeology program.

GOAL G:**INCREASE THE AMOUNT OF FORESTLAND AVAILABLE FOR SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES**

There is approximately 160 acres of the property listed as rural open land cover that could be considered for stand improvements or reforestation in pine. This would increase the sustainable pine plantation acreage from 53% to 56% of the total property, while leaving almost half the property perpetually forested for wildlife.

Measure G1:

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

The FFME reports approximately 3,350 acres (62% of site) could be available for sustainable forest management, divided between Priority 1 (428 acres) and Priority 3 (60 acres). Prioritization is based on 4 criteria set by 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.

Measure G2:

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

Currently there are 3,053 acres of the property that are established as pine plantation, accounting for just over 50% of the property land cover. Slash, loblolly, and spruce pines were observed onsite.

Measure G3:

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

The FFME reports approximately 2,822 acres (52%) would provide forestland to maintain natural groundwater recharge functions.

Measure G4:

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

Approximately 250 acres were identified by the manager onsite to be replanted to longleaf pine and existing pine plantation areas are to be converted to longleaf.

FLORIDA FOREVER CRITERIA

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

- the project meets multiple goals
- the project enhances or facilitates management of properties already under public ownership
- the project has a significant portion of its land area in imminent danger of development, in imminent danger of losing its significant natural attributes or recreational open space, or in imminent danger of subdivision which would result in multiple ownership and make acquisition of the project costly or less likely to be accomplished.

MANAGEMENT

The FFS is the proposed manager for the Natural Bridge Timberlands project. Please see Appendix D for the Management Prospectus.

FUNDING SOURCES

Florida Forever would be the funding source.

OWNERSHIP PATTERN AND ACQUISITION PLANNING

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

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 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 encumbrances would be depicted or noted on the appraisal map.

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

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

Estimated Cost of Appraisal and Mapping

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

Acquisition Phases

Subject to funding, the Natural Bridge Timberlands Florida Forever project will be phased based upon price.

GOVERNMENT PLANNING AND DEVELOPMENT

Contribution to Recreation and Open Space Needs

Moderate Potential: The property will serve as an important link between public lands in the vicinity of the project by providing an important wildlife corridor. The site is proposed for less than fee simple use and the application identifies that there will be no public uses allowed on the property for recreational purposes.

Potential for Losing Significant Natural Attributes or Recreational Open Spaces

High Potential: The potential for losing significant natural attributes located on the property due to development pressure is high. The Natural Bridge Timberlands property serves as a valuable habitat including wetland and working timberlands. The property is located within an important wildlife corridor. These lands provide habitat for the Eastern Indigo Snake, the Red- cockaded Woodpecker, the Frosted Flatlands Flatwoods salamander, and the Wood Stork. The Gopher Tortoise, American Alligator, and the Bald Eagle also likely use the property. The Fragrant Pogonia has also been observed on-site. The project's entire northern and western boundary borders on conservation lands along the St. Marks River. Basin swamps in the northern and eastern portions of the property connect directly to the St. Marks River watershed. The project would also help to buffer and protect several sinks and springs in the vicinity of the site.

Potential for Being Subdivided

High to Moderate Potential: The property is located less than 5 miles from the City of Tallahassee. It is generally surrounded by other agricultural uses. However, there are other more urbanized uses as close as 2 miles away. The 2020 estimate of the population for Leon County is 299,484. By 2045, the population is projected to reach 344,579, an increase of 45,095 residents, or an increase of more than 15 percent. The largest population center in the County is the City of Tallahassee which has a 2022 population estimate of 199,127. The city is experiencing a significant growth rate of 0.75 percent annually. The closest community to the site is Woodville which currently has a population of 4,321 residents and is experiencing an even more rapid rate of growth of 2.66 percent annually. The property is located between the Natural Bridge Battlefield and the Plank Road State Forest. According to the application developers have purchased several nearby parcels to develop the sties.

Development Potential

Based on current future land use designation on the site, the property can be developed at 1 unit/10 acres.

Existing Land Uses and Future Land Use Designations

Existing Land Uses: According to the Leon County Property appraiser's office, the property is currently listed as Timberlands.

Future Land Uses: Most of the property on the Leon County side is designated as Rural/Agriculture 1 unit/10 acres. The intent of this land use category is to maintain and promote agriculture, silviculture, and natural resource-based activities. Most of the property on the Jefferson County side is designated as Agriculture 5 which allows residential use at 1 unit/5 acres. This land use allows crop land, pasture, orchards and groves, forestry, and other agriculture related activities.

Transportation Planning Issues

The proposed project falls within Florida Department of Transportation (FDOT) District 3 and is located a quarter mile west of a designated evacuation route. FDOT finds no adverse impacts from the proposed project.

Ongoing Governmental Efforts

The project is consistent with St Marks River and Apalachee Bay watershed as identified in the St Marks River and Apalachee Bay Surface Water Improvement and Management (SWIM) Plan.

REFERENCES CITED

Brooks. 1981. *Guide to the physiographic divisions of Florida*. Florida Cooperative Extension Service, Institute of Food and Agriculture Sciences, University of Florida.

ACKNOWLEDGEMENTS

Staff in the Department of Environmental Protection's (DEP) 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 Natural Areas Inventory – Dan Hipes & Katy NeSmith
- Florida Fish and Wildlife Conservation Commission – Laramie Ferry, Josh Hendricks & Diana Pepe
- Florida Forest Service – Catherine Ingram & Colin Bogert
- Florida Department of State, Division of Historical Resources – Jason O'Donoghue & Brandon Ackermann
- Northwest Florida Water Management District – Linda Chaisson
- Florida Department of Transportation – Ben Naselius
- Florida Department of Economic Opportunity – Barbara Powell
- DEP, Division of Environmental Assessment and Restoration – Kevin Coyne
- DEP DSL, Bureau of Appraisal

APPENDICES

Appendix A:

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

Natural Bridge Timberlands: Florida Forever Measure Evaluation 20220802

GIS ACRES = 5,441

MEASURES	Resource Acres ^a	% of project
B1: Strategic Habitat Conservation Areas		
Priority 1	0	0%
Priority 2	1	< 1%
Priority 3	4,528	83%
Priority 4	0	0%
Priority 5	649	12%
Total Acres	5,177	95%
B2: FNAI Habitat Conservation Priorities		
Priority 1	0	0%
Priority 2	234	4%
Priority 3	112	2%
Priority 4	196	4%
Priority 5	176	3%
Priority 6	1,025	19%
Total Acres	1,743	32%
B3: Ecological Greenways		
Priority 1	11	< 1%
Priority 2	5,431	100%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	0	0%
Total Acres	5,441	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)	126	2%
Sandhill Upland Lake (G3)	0	0%
Upland Pine (G3)	0	0%
Mesic/Wet Flatwoods (G4)	151	3%
Upland Hardwood Forest (G5)	0	0%
Total Acres	277	5%
B6: Occurrences of FNAI Tracked Species		
G1	0	
G2	0	
G3	1	
G4	1	
G5	0	
Total	2	
C4: Natural Floodplain Function		
Priority 1	2	< 1%
Priority 2	262	5%
Priority 3	1,965	36%
Priority 4	1,332	24%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	3,561	65%

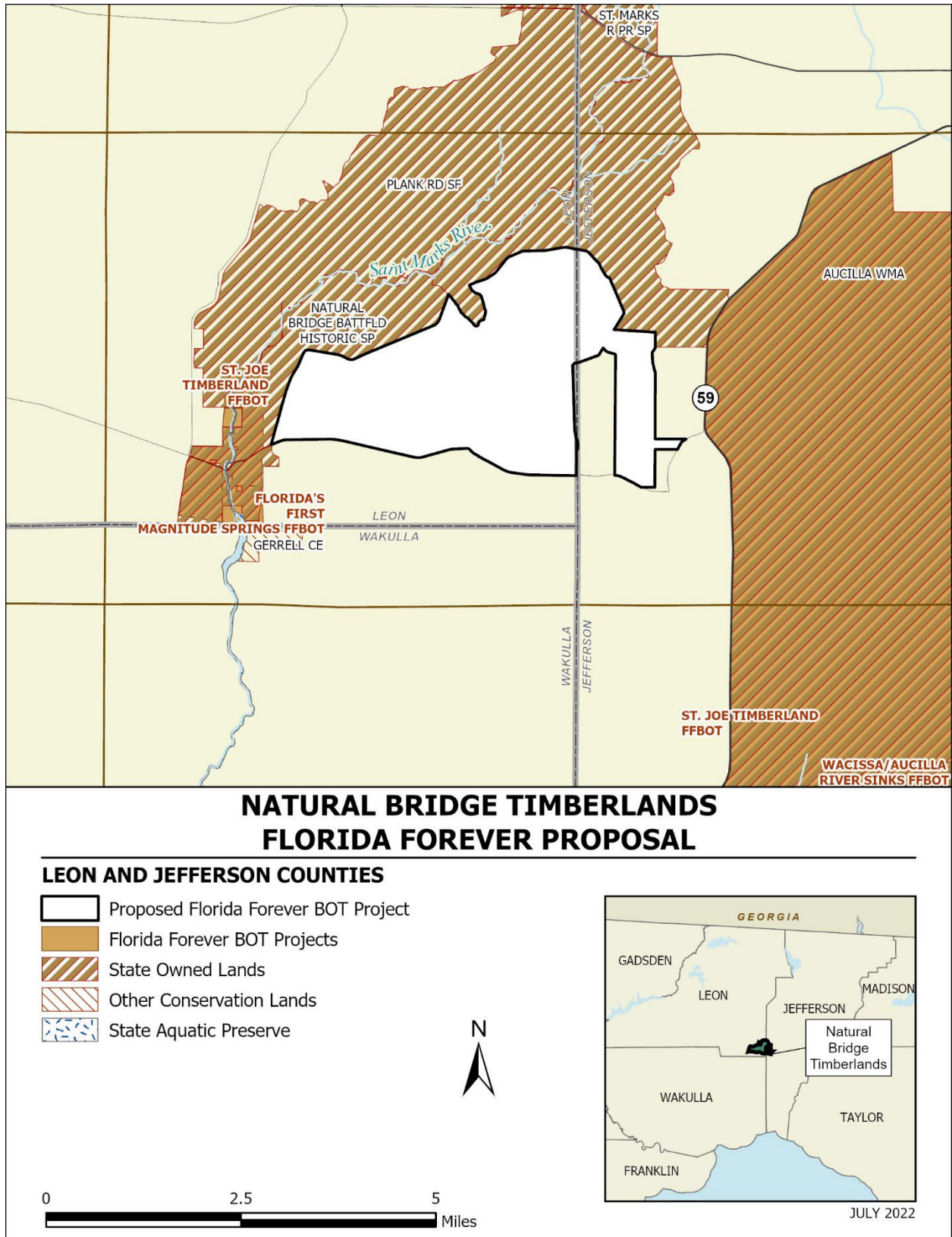
MEASURES (continued)	Resource Acres ^a	% of project
C5: Surface Water Protection		
Priority 1	0	0%
Priority 2	17	< 1%
Priority 3	1,309	24%
Priority 4	520	10%
Priority 5	1,964	36%
Priority 6	1,602	29%
Priority 7	0	0%
Total Acres	5,411	99%
C7: Fragile Coastal Resources		
Fragile Coastal Uplands	0	0%
Imperiled Coastal Lakes	0	0%
Coastal Wetlands	0	0%
Total Acres	0	0%
C8: Functional Wetlands		
Priority 1	2	< 1%
Priority 2	259	5%
Priority 3	1,539	28%
Priority 4	733	13%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	2,533	47%
D3: Aquifer Recharge		
Priority 1	416	8%
Priority 2	2,910	53%
Priority 3	1,263	23%
Priority 4	807	15%
Priority 5	45	< 1%
Priority 6	0	0%
Total Acres	5,441	100%
E2: Recreational Trails (miles)		
<small>(prioritized trail opportunities from Office of Greenways and Trails & Univ. Florida)</small>		
Land Trail Priorities	0.0	
Land Trail Opportunities	0.0	
Total Miles	0.0	
F2: Arch. & Historical Sites (number)		
		6 sites
G1: Sustainable Forestry		
Priority 1	2,192	40%
Priority 2	805	15%
Priority 3	192	4%
Priority 4	0	0%
Priority 5 - Potential Pinelands	161	3%
Total Acres	3,350	62%
G3: Forestland for Recharge		
	2,822	52%

^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

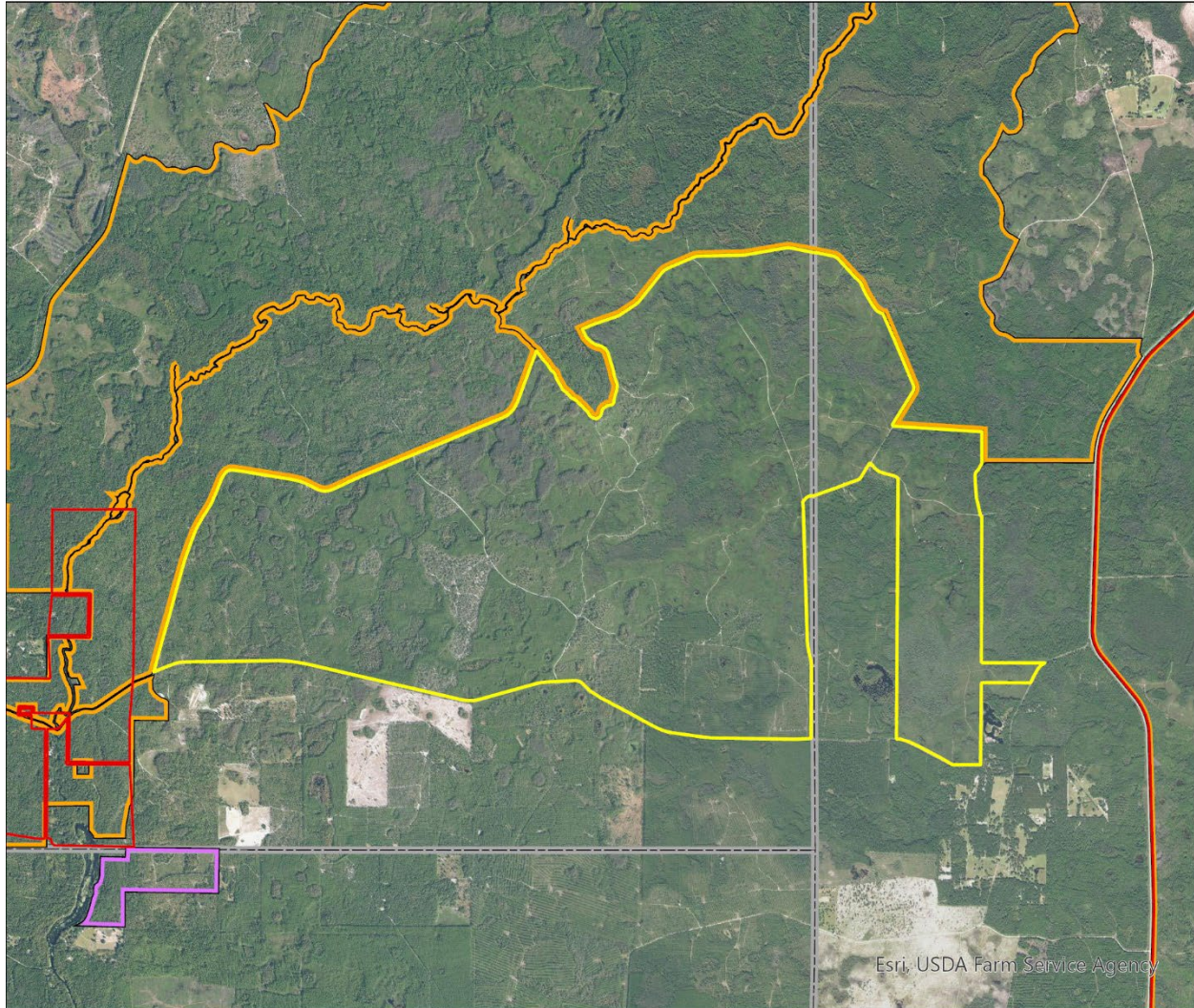
B1: Florida Forever map



B2: Aerial map

Natural Bridge Timberlands Florida Forever Proposal

FLORIDA FOREVER BOARD OF TRUSTEES PROJECT PROPOSAL BOUNDARY AS OF JULY 2022

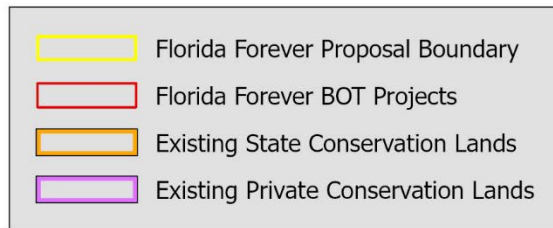


Map Produced by: N. Pasco, July 2022

Background: USA NAIP Imagery Resolution = 1.0 meter



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Appendix C:

PROPERTY ID #'S FOR FINAL RECOMMENDED BOUNDARY

LEON COUNTY

COUNTY	PARCEL ID	OWNER	ACRES PER TAX CARD	JUST VALUE	ASSESSED VALUE	PARCEL DESIGNATION
Leon	3412200500000	AMERICAN LAND AND AG HOLDINGS LLC	326	\$586,800	\$44,937	Essential
Leon	3413200500000	AMERICAN LAND AND AG HOLDINGS LLC	643.02	\$1,157,436	\$104,189	Essential
Leon	3414200600000	AMERICAN LAND AND AG HOLDINGS LLC	515.47	\$927,846	\$79,742	Essential
Leon	3421200020000	AMERICAN LAND AND AG HOLDINGS LLC	510.16	\$918,284	\$111,868	Essential
Leon	3422200020000	AMERICAN LAND AND AG HOLDINGS LLC	817.57	\$1,471,626	\$127,734	Essential
Leon	3423200020000	AMERICAN LAND AND AG HOLDINGS LLC	606.77	\$1,092,186	\$97,194	Essential
Leon	3423204620000	AMERICAN LAND AND AG HOLDINGS LLC	21.54	\$38,772	\$6,850	Essential
Leon	3423204630000	AMERICAN LAND AND AG HOLDINGS LLC	127.25	\$229,050	\$40,466	Essential
Leon	3424206010000	AMERICAN LAND AND AG HOLDINGS LLC	589.05	\$1,060,290	\$105,006	Essential
Leon	3425202040000	AMERICAN LAND AND AG HOLDINGS LLC	171.65	\$308,968	\$29,909	Essential
Leon	3426202200001	AMERICAN LAND AND AG HOLDINGS LLC	27.83	\$50,094	\$4,118	Essential
Leon	3427204210001	AMERICAN LAND AND AG HOLDINGS LLC	28.86	\$51,948	\$4,604	Essential
		Totals	4385.17	\$7,893,300	\$756,617	

JEFFERSON COUNTY

COUNTY	PARCEL ID	OWNER	ACRES PER TAX CARD	JUST VALUE	ASSESSED VALUE	PARCEL DESIGNATION
Jefferson	07-2S-3E-0000-0012-0000	HACKLCO LLC	107.77	\$161,655	\$17,293	Essential
Jefferson	18-2S-3E-0000-0010-0000	HACKLCO LLC	424.19	\$169,676	\$53,285	Essential
Jefferson	19-2S-3E-0000-0010-0000	HACKLCO LLC	328.67	\$328,670	\$34,016	Essential
Jefferson	20-2S-3E-0000-0010-0000	HACKLCO LLC	47.76	\$85,830	\$8,367	Essential
Jefferson	30-2S-3E-0000-0010-0000	HACKLCO LLC	160.43	\$300,645	\$25,563	Essential
		Totals	1068.82	\$1,046,476	\$138,524	

Appendix D:

Management Prospectus for Natural Bridge Timberlands, a fee simple proposal.

The Natural Bridge Timberlands property is a 5,746-acre project located in southeastern Leon and western Jefferson Counties, less than three miles southeast of the city limits of Tallahassee Florida. Natural Bridge Historic Battlefield State Park and Plank Road State Forest (PRSF), both important natural buffers for protecting the St. Marks River, border the property along its entire western and northern boundary. Its eastern border is within approximately 1,500 feet of the 46,000-acre Aucilla Wildlife Management Area. Natural Bridge Road forms the southern boundary of the property. The purpose of this Management Prospectus is to provide a brief outline of management activities suitable for the property.

Administration

Due to the property's location, the property will be managed as a tract of Plank Road State Forest, adjacent to the north. Including this project within the management plan of Plank Road State Forest would allow for the project's management goals and objectives to be adopted into an amended Plank Road State Forest land management plan. The Plank Road State Forest staff will provide on the ground management with support from the Recreation Coordinator, and Forestry Operations Administrator. As with all FFS-managed properties, volunteers will be utilized as appropriate.

Management Goals and Objectives

The forest will be managed under the multiple-use concept. Management activities will include restoration, maintenance, and protection of all native ecosystems (prescribed burning, silvicultural management, wildlife management, soil, and water resources protection, etc.); integration of compatible human uses (recreation management); and ensuring long-term viability of populations and species considered endangered, threatened, or of special concern. The level of intensity and related management costs are expected to be initially moderate so FFS may obtain the necessary information and resources to manage and restore this site. Once this information is obtained and the resources are available, long term management costs are expected to be low to maintain this area as part of Plank Road State Forest.

Specific management goals may include:

- Protection of surface and groundwater resources.
- Reintroduction of prescribed fire to gradually reduce accumulated fuel load.
- Improvement of habitat for rare, threatened, and endangered wildlife species.
- Provide opportunities for recreation activities.
- Protection of cultural resources.

Soil and Water Protection

Management activities will be executed in a manner to minimize soil erosion and impacts to both surface and groundwater. All silvicultural activities will be conducted in compliance with the most recent edition of the Silviculture Best Management Practices (BMPs) Manual.

Fire Management

Ideally, prescribed fire will be the primary tool utilized for resource management on Natural Bridge Timberlands. The long-term goal of prescribed burning will be healthy forest ecosystem development which will include both dormant and growing season burns. Natural fire frequencies will be implemented when possible for each community once in maintenance status. Areas with particularly heavy fuel loads may require mechanical treatment, such as mowing or roller chopping, prior to the reintroduction of fire.

Silvicultural Operations

Natural Bridge Timberlands will be managed to promote and improve overall forest health. Timber is a valuable economic resource, and timber harvesting for the purposes of biological restoration and forest health improvement, are recognized silvicultural objectives. Proposed silvicultural activities include both commercial timber harvests and timber stand improvement activities. Timber stand improvement projects may include both mechanical and chemical control of unwanted vegetation to promote healthy forests and habitat.

Wildlife Management

FFS anticipates partnering with FWC in the establishment of a Wildlife Management Area over the property, as suitable.

Non-Native Invasive Species

Prevention should be the focus of non-native invasive species management. When such species are discovered, an eradication plan will be developed and implemented based upon the severity of the infestation and the availability of personnel and funding. At present, the only observed non-native species onsite are a few scattered seedling-sized camphor trees.

Recreation

Natural Bridge Timberlands will provide opportunities for nature-based recreation. Potential recreational activities may include hiking, wildlife viewing, nature study, camping, hunting in cooperation with FWC, or in regard to an Operation Outdoor Freedom event. Moreover, a variety of public educational and interpretational opportunities may be considered once inventory of onsite cultural, historical, and archaeological resources are established.

Cultural Resources

Efforts should be made to locate and document historical and archaeological resources on Natural Bridge Timberlands. Once historic resources have been located, care should be taken to ensure their protection. Known cultural resources will be visited annually to ensure protection.

Proposed Management Timeline

Year 1

- Mark boundaries to FFS standards.
- Install firelines as needed.
- Evaluate site for recreation potential.
- Compose five-year silviculture, recreation, prescribed fire, ecology, boundary marking, and road plans.
- Review cultural resource survey from Division of Historical Resources.

Year 2

- Conduct timber harvest as appropriate.
- Conduct mechanical fuel reduction treatments as appropriate.
- Begin gradual reintroduction of prescribed fire.
- Install recreation infrastructure (trails, interpretive signs) as outlined in the five-year recreation plan; open to the public.
- Monitor known ecological resources.
- Monitor known cultural, historical, and archaeological resources.

Year 3

- Initiate habitat restoration.
- Continue fuel reduction and prescribed fire as appropriate.
- Maintain recreation infrastructure.
- Monitor known ecological resources.
- Monitor known cultural, historical, and archaeological resources.

Year 4

- Continue fuel reduction and prescribed fire as appropriate.
- Maintain recreation infrastructure.
- Monitor known ecological resources.
- Monitor known cultural, historical, and archaeological resources.

Year 5

- Continue fuel reduction and prescribed fire as appropriate.
- Maintain recreation infrastructure.
- Monitor known ecological resources.
- Monitor known cultural, historical, and archaeological resources.

Management Costs and Sources of Revenue

It is anticipated that management funding will come from the Land Acquisition Trust Fund. Estimated budget needs for interim management are as follows:

Salary (1-OPS Park Ranger)	\$45,000
Expense	\$50,000
OCO	\$250,000
Outsourcing	\$20,000
Total	\$365,000

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

2019-04-19

Page 2

FNAI
Definitions of imperiled species ranks and conservation status

populations and that federal status may differ elsewhere.

- C** = Candidate species for which federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.
- E** = Endangered: species in danger of extinction throughout all or a significant portion of its range.
- E, T** = Species currently listed endangered in a portion of its range but only listed as threatened in other areas
- E, PDL** = Species currently listed endangered but has been proposed for delisting.
- E, PT** = Species currently listed endangered but has been proposed for listing as threatened.
- E, XN** = Species currently listed endangered but tracked population is a non-essential experimental population.
- T** = Threatened: species likely to become Endangered within the foreseeable future throughout all or a significant portion of its range.
- PE** = Species proposed for listing as endangered
- PS** = Partial status: some but not all of the species' infraspecific taxa have federal
- PT** = Species proposed for listing as threatened
- SAT** = Treated as threatened due to similarity of appearance to a species which is federally listed such that enforcement personnel have difficulty in attempting to differentiate between the listed and unlisted species.
- SC** = Not currently listed, but considered a "species of concern" to USFWS.

STATE LEGAL STATUS

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

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

- C** = Candidate for listing at the Federal level by the U. S. Fish and Wildlife Service
- FE** = Listed as Endangered Species at the Federal level by the U. S. Fish and Wildlife Service
- FT** = Listed as Threatened Species at the Federal level by the U. S. Fish and Wildlife Service
- FXN** = Federal listed as an experimental population in Florida
- FT(S/A)** = Federal Threatened due to similarity of appearance
- ST** = State population listed as Threatened by the FFWCC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future.
- SSC** = Listed as Species of Special Concern by the FFWCC. Defined as a population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species. (SSC* for *Pandion haliaetus* (Osprey) indicates that this status applies in Monroe county only.)
- N** = Not currently listed, nor currently being considered for listing.

Plants: Definitions derived from Sections 581.011 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of Florida Act, 5B-40.001. FNAI does not track all state-regulated plant species; for a complete list of state-regulated plant species, call Florida Division of Plant Industry, 352-372-3505 or see: <<http://www.doacs.state.fl.us/pi/>>.

- E** = Endangered: species of plants native to Florida that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue; includes all species determined to be endangered or threatened pursuant to the U.S. Endangered Species Act.
- T** = Threatened: species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in number as to cause them to be Endangered.
- N** = Not currently listed, nor currently being considered for listing.

Appendix F:

Site Visit Photos



1. Pine plantation dominates the upland areas



2. Remnant sandhill ridge

October 14, 2022



3. Dome swamp



4. Basin Swamp