

Florida Forever Project Evaluation Report

Carter Quail Ranch Volusia County



Acquisition Type: Fee Simple
Acres: 1,344
Just Value: \$3,765,018
Application Date: October 31, 2022
Project Sponsors: Volusia County

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 Carter Quail Ranch Florida Forever project contains 7 parcels, owned by Daryl M. Carter TR, totaling 1,344 acres in Volusia County. This property is located approximately eight miles west of New Smyrna Beach between Interstate 4 (I-4) and Interstate 95 (I-95) on State Highway 415. The project connects to the northeast corner of the Deep Creek Preserve and the existing Volusia Conservation Corridor Florida Forever project. The Carter Quail Ranch project is proposed as a fee simple acquisition and has a total tax assessed value of \$3,765,018. The property would be managed by Volusia County as an addition to Deep Creek Preserve.

The property is used for low intensity silviculture and recreational hunting. Portions of the property are currently leased for cattle grazing. The property contains, two large artificial ponds near State Highway 415 that originated as permitted borrow areas associated with road projects. According to the Division of Historical Resources (DHR), the project contains no cultural resources listed in the Florida Master Site File or National Register of Historic Places. There is potential for unrecorded sites to exist on Carter Quail Ranch, however no professional surveys have been conducted within the project boundaries.

Past silvicultural activities have allowed the diversity of the natural communities to persist in relatively natural condition. Mesic flatwoods that supports native groundcover occurs in large areas interspersed with wet flatwoods, baygall, and dome swamp. The project contains two significant basin swamps that generally run from north to south in the western portion of the property. These swamps show evidence of past disturbance and in some areas much of the cypress has been logged. The property is situated in the Deep Creek/St. Johns River watershed. Portions of the property drain into two named waterbodies, Lake Ashby and Spruce Creek Swamp.

The project would provide an eastern extension of what is known as the "Volusia Conservation Corridor;" a continuous landscape corridor of conservation lands that extends for 100 miles between the Ocala National Forest and Fort Drum Marsh to the south. Rare species documented on the property include gopher tortoise (*Gopherus polyphemus*), wood stork (*Mycteria americana*), Florida black bear (*Ursus americanus floridanus*) and southeastern fox squirrel (*Sciurus niger niger*). Due to the quality of the site, future survey may reveal the presence of the federally-listed plant species, Rugels pawpaw (*Asimina rugelii*) that is endemic to Volusia County. Nearly the entire project area is located within Priority 1 of the Florida Ecological Greenways Network (FEGN).

If approved for addition to the 2024 Florida Forever Priority List, the project should be considered as an amendment to the Volusia Conservation Corridor Florida Forever project boundary in the Partnerships and Regional Incentives category. All 1,344 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 January 19, 2023. Information included in this project evaluation report is a result of this site visit.

PURPOSE FOR ACQUISITION

The Carter Quail Ranch project will contribute to a corridor of conservation lands that will support and provide crucial habitat protection and connectivity for rare and endangered plant and animal species. The project will provide critical water quality and quantity protection for Deep Creek and the St. Johns River while expanding public access to resource-based recreational opportunities in a rapidly growing region of the state.

Acquisition of this project would serve to:

- increase the protection of Florida's biodiversity at the species, natural community, and landscape levels.
- increase natural resource-based public recreation or educational opportunities.
- provide and enhance wildlife corridors and valuable habitat for rare and imperiled species.
- provide surface and groundwater protection and protect natural floodplain functions.
- increase the amount of forestland available for sustainable management of natural resources.
- protect, restore, and maintain the quality and natural functions of land, water and wetland systems.

LOCATION AND PROXIMITY TO OTHER MANAGED AREAS

The Carter Quail Ranch proposal includes 1,344 acres (per proposal; 1,349 as determined in GIS) in central Volusia County, about 8 miles west of New Smyrna Beach, midway between I-4 and I-95. The property consists of a single block of land fronting State Highway 415, approximately 1.3 miles south of State Highway 44. The southwestern corner of the property meets the northeastern corner of the Deep Creek Preserve (Volusia County), providing a connection to Ocala National Forest to the north and west as well as a continuous network of conservation lands extending nearly 100 miles south as far as Fort Drum Marsh.

RESOURCE DESCRIPTION

Florida Natural Areas Inventory (FNAI)

This evaluation is based on information gathered from the proposal, 1999, 2004, and 2010 aerial photography, US Geological Survey (USGS) 7.5' topographic maps, Florida Cooperative Landcover Data (FL FWCC and FNAI, Florida Cooperative Land Cover Map, version 3.4), and information in the FNAI database. A field survey was conducted on January 19, 2023, by the Acquisition and Restoration Council liaison staff, including FNAI biologists Geoffrey Parks and Geena Hill.

The Carter Quail Ranch property lies near the southern edge of the Volusia Ridge Sets region, a series of ridges and terraces resulting from ancient sea level fluctuations. Topography varies only slightly on the property, with a north-south ridge at 45 feet elevation rising only slightly above the wetlands on the western and eastern edges, which both lie at about 35 feet. The property is situated in the Deep Creek/St. Johns River watershed, where surface drainage generally flows south into tributaries of the St. Johns River; drainage from the western parts of the property flows into Lake Ashby to the south, while surface flows from the northeast corner are directed via a ditch system east and south into the Spruce Creek Swamp. The southwest corner of the site meets the northeast corner of the Deep Creek Preserve; via this connection, this property would be an eastern extension of what is known as the "Volusia Conservation Corridor" which provides wildlife connectivity to Ocala National Forest to the north and west, and connects via a discontinuous network of conservation lands extending south as far as Fort Drum Marsh.

Much of the vegetation on the site (75%) is in relatively natural condition. Mesic and wet flatwoods are estimated to occupy 31% and 18% of the site, respectively. A lack of fire and some past disturbance from logging results in the species composition of these communities overlapping and intergrading somewhat; some areas of mesic flatwoods are likely included in the areas mapped as wet flatwoods and vice versa.

Mesic flatwoods on the site occur in large irregular areas on the slightly better-drained soils and higher elevations in the eastern portion of the property. The relatively open canopy generally consists of slash pine (*Pinus elliottii*), although at least one area has a canopy of mature longleaf pine (*Pinus palustris*).

A midstory is mostly lacking. Shrubs include abundant saw palmetto (*Serenoa repens*) and gallberry (*Ilex glabra*), with other shrub species varying depending on location. Loblolly bay (*Gordonia lasianthus*), myrtle oak (*Quercus myrtifolia*), southern bayberry (*Morella cerifera*), coastalplain staggerbush (*Lyonia fruticosa*), dwarf live oak (*Quercus minima*), and cabbage palm (*Sabal palmetto*) were recorded in the shrub layer. Herbaceous species were mostly lacking in some areas, but others had bluestem (*Andropogon sp.*), witchgrass (*Dichanthelium sp.*), bottlebrush threeawn (*Aristida spiciformis*), wiregrass (*Aristida stricta*), blackroot (*Pterocaulon pycnostachyum*) and beaksedge (*Rhynchospora sp.*).

Wet flatwoods are found in broad zones throughout the site, generally occurring between mesic flatwoods and swamps. These mostly have a canopy of slash pine, although pond pine (*Pinus serotina*) and longleaf pine sometimes are codominant or dominant. A sparse to moderately dense midstory of loblolly bay is common, above tall shrubs such as fetterbush (*Lyonia lucida*), swamp bay (*Persea palustris*), and regenerating slash pine. A well-developed lower shrub layer is made up of gallberry, saw palmetto, fetterbush, young loblolly bay, and cabbage palm. Herbaceous plants present include bluestem, sedge (*Carex sp.*), vanillaleaf (*Carphephorus odoratissimus*), cypress witchgrass (*Dichanthelium ensifolium*), and fourpetal St. John's wort (*Hypericum tetrapetalum*).

Significant areas of basin swamp occur in 2 distinct areas in the western half of the property, the largest of which is a band swamp near the western boundary that crosses the property from north to south. A second large area of swamp lies just south of the center of the property. These forested wetlands generally have a canopy of cypress (*Taxodium sp.*) along with red maple (*Acer rubrum*), slash pine, swamp tupelo (*Nyssa biflora*), and cabbage palm, and a subcanopy and shrub layer consisting of those species as well as sweetbay (*Magnolia virginiana*), dahoon (*Ilex cassine*), loblolly bay, and sweetgum (*Liquidambar styraciflua*). In some areas, much of the cypress has been logged, leaving a discontinuous canopy of hardwood species. Logged swamps observed during the site visit had a dense, marsh-like herbaceous layer dominated by native wetland species. Herbaceous plants seen in basin swamp on the property included cinnamon fern (*Osmunda cinnamomea*), royal fern (*Osmunda regalis var. spectabilis*), pickerelweed (*Pontederia cordata*), sedge, threeway sedge (*Dulichium arundinaceum*), soft rush (*Juncus effusus ssp. solutus*), maidencane (*Panicum hemitomon*), smartweed (*Persicaria sp.*), beaksedge, and toothed midsorus fern (*Telmatoblechnum serrulatum*). In areas with a tree canopy, vines are common, consisting mainly of coral greenbrier (*Smilax walteri*) and laurel greenbrier (*Smilax laurifolia*).

Baygall also occurs commonly on the site, interspersed with the mesic and wet flatwoods. These swamps have a canopy dominated by loblolly bay, often with emergent slash pine. Loblolly bay was also abundant in the mid- and understory, with other shrub species including saw palmetto, gallberry, highbush blueberry (*Vaccinium corymbosum*), and occasional cabbage palm. Laurel greenbrier was found climbing throughout the shrub and canopy layers. Occasional herbaceous plants included bluestem, cinnamon fern, witchgrass, and St. John's wort (*Hypericum sp.*)

A handful of dome swamps are found in various locations within the flatwoods. These have a canopy dominated by swamp tupelo and/or cypress, with varying amounts of slash pine and loblolly bay below. Shrubs are generally uncommon in the interior of these wetlands, although cabbage palm and swamp bay were found. Herbs are sparse to dense, including cinnamon fern, royal fern, flatsedge (*Cyperus sp.*), pipewort (*Eriocaulon sp.*), manyflower marshpennywort (*Hydrocotyle umbellata*), Virginia chain fern (*Woodwardia virginica*), and purple bluestem (*Andropogon glomeratus var. glaucopsis*). Eastern poison ivy (*Toxicodendron radicans*) climbs the trunks of trees and Spanish moss (*Tillandsia usneoides*) commonly grows epiphytically. Dome swamps seen in the southern part of the property appear relatively healthy, while one in the northern part of the property has some evidence of historic topographic alterations related to an adjacent ranch road. In this swamp, soil subsidence and exposed roots are evidence that the hydroperiod has been altered. Two other dome swamps straddling the same interior road may have similar issues.

Areas identified as scrubby flatwoods in the proposal area have a canopy of planted slash pine, but were generally indistinguishable from natural scrubby flatwoods; and silvicultural activities here have allowed much of the diversity of the natural community to persist. These stands have a relatively low density of canopy pines, as would be typical of a healthy site. A low, diverse shrub layer consisting of sand live oak (*Quercus geminata*), myrtle oak, rusty staggerbush (*Lyonia ferruginea*), saw palmetto, fetterbush, Chapman's oak (*Quercus chapmanii*) and occasional cabbage palm is punctuated by frequent openings with a moderate diversity of herbaceous plants. Herbs seen in the scrubby flatwoods included wiregrass, slender flatter goldenrod (*Euthamia caroliniana*), pinweeds (*Lechea sp.*), and wild pennyroyal (*Piloblephis rigida*).

A small amount of xeric hammock is present at the northeast corner of the site. This area has a canopy of sand live oak and abundant saw palmetto but was not viewed closely during the site visit.

Improved pasture makes up about 6% of the site. These were observed to be dominated by Bermuda grass (*Cynodon dactylon*) and centipede grass (*Eremochloa ophiuroides*) with few other species.

Some former swamps that have been recently logged could now be considered clearings; depending on the degree of disturbance that took place and the extent to which native tree species are regenerating. Some of these areas could possibly be undergoing recovery towards basin swamp.

Two large artificial ponds near State Highway 415 originated as permitted borrow areas associated with road projects. These appeared to be open water systems with upland species growing near to the edge, and a narrow fringe of soft rush and other rushes, torpedo grass (*Panicum repens*, FISC-I), cattail (*Typha sp.*), and a few other herbs, with sporadic southern bayberry and young red maple near the banks.

One area was apparently improved pasture at one point, and is now better described as abandoned pasture. Although bahiagrass (*Paspalum notatum*) is present, other herbaceous plants are dominant. Species present include bluestem, spadeleaf (*Centella asiatica*), turkey tangle fogfruit (*Phyla nodiflora*), smutgrass (*Sporobolus indicus*), rush (*Juncus sp.*), cutgrass (*Leersia sp.*), beaksedge, and yellow-eyed grass (*Xyris sp.*).

Planted slash pine occupies about 2% of the proposal in the southeastern quadrant of the site. This is a rather dense stand with unthinned pines with midstory of loblolly bay, dahoon, and gallberry. Herbaceous species observed included cinnamon fern, royal fern, sawtooth blackberry, and purple bluestem.

Canals/ditches occur in various locations on the property. During the site visit, loblolly bay was noted to form the tree canopy above the drainage way, with a shrub stratum of southern bayberry. Graminoids such as torpedo grass and soft rush grow on the banks. The ditches were filled with water at the time of the site visit, with duckweed (*Lemna sp.*) observed sporadically on the water's surface.

Two other altered landcover types are found on the property, each occupying less than 1% of the site. A utility corridor runs through the property's northeastern corner; this treeless zone is dominated by low-growing native species including saw palmetto, dwarf live oak, sand blackberry (*Rubus cuneifolius*), bluestem, and lovegrass (*Eragrostis sp.*). In addition, there are two small developed areas, each surrounding a house.

Invasive plants appear to be infrequent on the site. One patch of cogon grass (*Imperata cylindrica*; FISC Category I) was noted during the field visit, but this species did not appear to be widespread. A handful of other FISC-listed species were found in various habitats, but none were common.

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

Community or Landcover	Acres	Percent of Proposal
mesic flatwoods	415	31
wet flatwoods	244	18
basin swamp	233	17
baygall	135	10
dome swamp	23	2
scrubby flatwoods	13	<1
xeric hammock	6	<1
improved pasture	82	6
clearing	61	5
artificial pond	46	3
successional hardwood forest	34	3
abandoned field/pasture	26	2
pine plantation	25	2
utility corridor	4	<1
developed	2	<1

Florida Fish and Wildlife Conservation Commission (FWC)

This resource assessment of the Carter Quail Ranch Florida Forever project proposal is based on field observations during the site visit, GIS analysis results, and follow-up discussions with the landowner representative and other tour participants.

A majority of the property appears to be in natural condition, split between flatwood and swamp ecosystems, of which the freshwater forested wetlands (23%, 302 acres) is the most abundant community type. The rest of the property consists of mesic flatwoods (21%, 282 acres), tree plantations (18%, 235 acres), and improved pasture (10%, 128 acres), wet flatwoods (8%, 106 acres), and dome swamp (2%, 23 acres). A large portion of the eastern side of the property consist of two large and two smaller artificial ponds that may have been borrow pits from road construction. The rest of the property contains clearings, successional hardwood forest, a utility corridor, and is developed. Structures include two houses near the artificial ponds on the eastern side of the property and some fencing was observed throughout. There were cattle present, grazing in the old field pastures. The Volusia County representative who led the tour stated there were no notable signs of prescribed fire used on the site; however, most of the natural communities appeared to be in relatively good condition.

Despite the presence of disturbance, no nonnative invasive plants were noted nor observed during the site visit, though the utility corridor appeared to be surrounded by successional hardwood forest due to the exclusion of prescribed fire. The majority of canopy consisted of slash pine and some longleaf pine, but some areas had scrub oaks in areas of higher elevation, while cedar and cypress were found in the scattered dome and baygall swamps. The groundcover consisted mostly of saw palmetto and gallberry (*Ilex glabra*) thickets interspersed with grassy areas that contained broomsedges (*Andropogon spp.*), wiregrasses (*Aristida spp.*), and/or blackberry (*Rubus spp.*). The representative from Volusia County discussed the presence of Myakka soils on the property; a specific soil type required for Rugels pawpaw (*Asimina rugelii*) a federally endangered plant species endemic to Volusia County.

Wildlife species observed during the tour include wild turkey (*Meleagris gallopavo*), cattle egrets (*Bubulcus ibis*), common merganser (*Mergus merganser*), great blue heron (*Ardea herodias*), wood

stork, and gray catbirds (*Dumetella carolinensis*). Signs of white-tailed deer (*Odocoileus virginianus*), feral hog (*Sus scrofa*), North American river otter (*Lontra canadensis*), and gopher tortoise burrows were present, as well as calls from the red-winged blackbird (*Agelaius phoeniceus*) and brown-headed nuthatch (*Sitta pusilla*).

The application lists Florida black bear and southeastern fox squirrel as being present and based on documented occurrences within the vicinity, other listed or rare species could be expected on the property as well. The FNAI Element Occurrence database does show the occurrence of the Florida black bear and 100% of the property is listed as being within their frequent range. Carter Quail Ranch has also been identified as suitable habitat for various species including 97% for the Florida long-tailed weasel (*Mustela frenata peninsulae*), 21% for the eastern indigo snake (*Drymarchon couperi*), 20% of the property for the wood stork (*Mycteria americana*), and 10% for the Florida sandhill crane (*Antigone canadensis pratensis*).

Approximately 85% of the property lies within a designated FWC Strategic Habitat Conservation Area (SHCA) for species including Cooper's hawk (*Accipiter cooperii*), Florida black bear, American swallow-tailed kite (*Elanoides forficatus*), striped newt (*Notophthalmus perstriatus*), and the Florida scrub-jay (*Aphelocoma coerulescens*). The entire property provides water protection for several streams including Lake Ashby Creek, Lake Ashby Drain, and the Samsula Canal, which are all classified as 3F surface waters. Additionally, 77% of the property is listed as imperiled waters for the snail bullhead (*Ameiurus brunneus*). A majority of the property, 76%, is identified as Priorities 1 and 2 for the Critical Lands and Waters Identification Project.

The FWC Florida Landscape Assessment Model (FLAM) is a GIS-based assessment tool that incorporates a wide variety of land cover and wildlife species data in identifying important wildlife habitats. The FLAM model has a ranking of 0-10; a rank of 10 being of greatest value. The mean FLAM score for this property is 6.8. The Carter Quail Ranch also has approximately 89% of the total area showing a species richness for 5-7 imperiled species. The National Wetlands Inventory identifies approximately 39% of the area as wetland. In conclusion, the current natural communities are in good condition and would contribute largely to the overall conservation of Florida's wildlife, plants, and habitats. The habitats that aren't in good condition would require little work and be very feasible to convert them back to historical natural communities. This property would provide continuity of a corridor of established conservation areas within the vicinity and protect critical habitat from development that's needed for endemic and imperiled species.

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 1,344 acres would contribute to the enhancement of essential natural resources, ecosystem service parcels and connecting linkage corridors. The Carter Quail Ranch proposal connects to existing conservation lands and would contribute to a contiguous landscape-sized protection area of >1,109,000 acres.

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.

Additional support for this acquisition will be provided by Volusia County through the Volusia Forever program.

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 62 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 1,138 acres (84% of site) of SHCAs. This is primarily within Priority 3 (56% of site) with the remainder in Priority 5 (28%).

Measure B2:

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

Habitat conservation priorities for 634 of Florida’s rarest species were mapped and divided into six priority classes. The FFME reports the proposed project contains approximately 1,317 acres (98% of site) of rare species habitat. The habitat is mostly divided between Priority 6 (68% of site) and Priority 5 (24%), with the remainder in Priorities 3 and 4 (3%, each).

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>Melanoplus indicifer</i>	east coast scrub grasshopper	G1	58
<i>Drymarchon couperi</i>	eastern indigo snake	G3	278
<i>Mycteria americana</i>	wood stork	G4	271
<i>Mustela frenata peninsulae</i>	Florida long-tailed weasel	G5T3?	1,295

Measure B3:

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

The FFME reports approximately 1,349 acres (100%) of the proposed project contributes to protection of ecological greenways with nearly all of the site falling within Priority 1 areas, and < 1% in Priority 2. 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 Florida Forever Measures table lists the acreages of under-represented natural communities found on the site. Based on this analysis, the Carter Quail Ranch proposal contains 659 acres of mesic/wet flatwoods (49% of site) and 13 acres of scrub and scrubby flatwoods (1% 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 Carter Quail Ranch proposal, along with nearby conservation lands that include Ocala National Forest, Lake George State Forest, Deep Creek Preserve, and Lower Wekiva River Preserve State Park, would contribute to a contiguous landscape-sized protection area of >1,109,000 acres.

Measure B6:

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

This site supports potential habitat for many rare species of conservation concern. A wood stork was observed foraging onsite during the site visit, and the proposal lies within an area of the state where Florida black bear is classified as frequent.

No rare plants have been reported from the site, and none were recorded during the site visit. However, more extensive surveys or surveys in other seasons could document rare plants on the site. In particular, the site is within the range of the federally-endangered and globally imperiled, Rugel's pawpaw and appropriate habitat for this species is likely to occur onsite.

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

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 animals documented on site					
<i>Mycteria americana</i>	wood stork	G4*	S2	T	FT
<i>Ursus americanus floridanus</i>	Florida black bear	G5T4	S4	N	N
Additional rare animals reported on site by applicant					
<i>Sciurus niger niger</i>	southeastern fox squirrel	G5T5	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.

Volusia County has resources to implement restoration and management of the natural communities on the property. Over much of the site, prescribed fire would be the main management technique needed to improve and maintain habitat for imperiled and other native species. Much of the proposal area's wet, scrubby, and mesic flatwoods have fairly natural composition and structure that would allow for a controlled burn program to be initiated. In some areas, midstory encroachment may make controlled burns difficult, and mechanical midstory reduction may be needed prior to resuming a burn regime. The proposed managing agency already undertakes both prescribed fire and mechanical fuels management on other properties in the region, and has the trained staff and resources to actively manage and restore this property.

The pasture and old fields were likely formerly flatwoods, and would benefit from restoration of native overstory and groundcover species. This type of restoration would be consistent with the intended uses of the property should it be acquired.

There was a relatively low degree of infestation by invasive plants seen during the site visit, and the need for invasive plant control appear to be relatively minor. One patch of cogon grass was the only significant invasive infestation seen. Small amounts of caesarweed (FISC-II), torpedograss (FISC-I), and golden bamboo (*Phyllostachys aurea*, FISC-II) were also noted, but were localized. Cogon grass should be a priority to be treated aggressively, as this species can spread rapidly and could threaten the integrity of the good quality natural communities on the site. Caesarweed should be monitored closely as well. Other invasive species may be present that were not detected during the site visit; a baseline assessment to determine the full extent of invasive species is warranted if the property is to be acquired.

Measure C4:

The number of acres acquired that protect natural floodplain functions.

The FFME reports approximately 657 acres (49%) of the proposed project may contribute to the protection of natural floodplain function. This area is mostly divided between Priority 2 (22% of site) and Priority 3 (20%), with the remainder in Priority 4 (7%). 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 1,349 acres (100%) of the proposed project could provide protection for those surface waters of the State that currently remain in good condition. The majority of this area is in Priority 6 (81% of site), with the remainder in Priority 5 (19%). 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 524 acres (39%) of the proposed project would provide protection for functional wetland systems. This area is mostly divided between Priority 2 (19% of site) and Priority 3 (17%), with the remainder in Priority 4 (2%). Priority 1 areas are the most natural with the lowest intensity land uses.

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.

Wetland systems in the project area appear relatively intact with minimal disturbance aside from some artificial drainage by farm ditches and the Lake Ashby canal. Approximately 400 acres of the project could provide retention and storage of surface water within natural waterbodies and wetlands. Artificial lakes already present could be improved for water storage/water supply projects, if needed.

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 property is not contained within a current water resource development project, though past plans involved the nearby Palm Bluff Conservation Area to create a treatment wetland system for the impaired Deep Creek MSJR 303(d) list site.

Measure D3:

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

The FFME reports approximately 1,349 acres (100%) of the proposed project would provide protection for groundwater recharge areas. This area is divided between Priority 6 (82% of site) and Priority 5 (18%). Prioritization is based on features that contribute to aquifer vulnerability such as swallets, thickness of the intermediate aquifer confining unit and closed topographical depressions, as well as areas within springshed protection zones and in proximity to public water supply wells.

Table 4. Spatial Analysis for Potential Water Quality Benefits of Carter Quail 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	4
DEP Florida Aquifer Vulnerability (FAVA)	4,7,10	10
DEP Special Nutrient Impaired WBIDs	9	0
DEP Distance to Major Lakes (100, 500, 1000 meters)	8,7,6	0
DEP Springsheds or within 5 miles	10, 7	0
DEP BMAPs	10	10
DEP Distance to Major Rivers (100, 500, 1000 meters)	6,5,4	0
Total Possible	101	24

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

FINAL DEAR SCORE = 2 medium/low water quality protection benefits

GOAL E:

INCREASE NATURAL RESOURCE-BASED PUBLIC RECREATIONAL AND EDUCATIONAL OPPORTUNITIES

Measure E1:

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

There are approximately 1,344 acres in this acquisition that would be available for natural resource-based public recreation or education as managed by Volusia County. Details on potential recreational activities can be found in Appendix D. However, the resources found on the property would be compatible with camping, horseback riding, biking, hiking, picnicking, paddling, and fishing.

Measure E3:

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

The property does not contain any existing facilities that could be repurposed for public recreation. There is one former residence that could be used for administrative purposes.

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 Carter Quail Ranch Florida Forever project would not meet Measure F1 as the project contains no cultural resources listed in the Florida Master Site File or National Register of Historic Places.

Measure F2:

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

As a fee simple project, the Carter Quail Ranch would meet Measure F2. Although there are currently no recorded sites in the Florida Master Site File or National Register of Historic Places, the high potential for yet-to-be-recorded sites would likely result in an increase in the number of historic and archaeological sites that are in state ownership.

CULTURAL RESOURCES:

There are no cultural resources recorded or known to exist on this Florida Forever project. To date, this property has not been professionally surveyed for archaeological and/or historical sites. It is therefore highly likely that undocumented cultural resources exist on the property, but this cannot be determined without formal survey.

FIELD OBSERVATIONS:

During the Field Review of the Carter Quail Ranch Florida Forever project, staff did not observe any unrecorded cultural resources within the project area. However, based on an evaluation of the location and distribution of cultural resources in the surrounding area, there is potential for numerous unrecorded sites to exist on the Carter Quail Ranch property. Should any artifacts or other cultural resources be discovered on the project in the future, DHR recommends leaving them in place and contacting DHR's Public Lands Archaeology Program for further evaluation.

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 acquisition of this property would increase the amount of forest land available for sustainable forest management. This site would also be highly suitable for longleaf pine restoration and ecological restoration. The property has a great "foundation" for ecological restoration in the areas where timber stand thinning has occurred. The areas where thinning has occurred have a mature slash pine overstory. The application of prescribed fire to the property would bring back the "old Florida" environment.

The FFME reports approximately 856 acres (63% of site) could be available for sustainable forest management, divided between Priority 3 (504 acres) and Priority 5 (353 acres). Prioritization is based on 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

Measure G2:

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

Depending on management goals and objectives, approximately 750 acres are available for economic return (timber sales), this includes mesic flatwoods, wet flatwoods, and pine plantation communities. Most of the pine plantation and mesic flatwoods have been heavily thinned but could be harvested, however due to thinning, the remaining trees per acre is very low in these areas and there would not be much of an economic return. These areas should be replanted if they are harvested to provide for future timber resources and economic return. Approximately 23 acres of un-thinned pine plantation would qualify for timber sales, but due to its small size it would not have much value.

The pastures and clearings which total approximately 125 acres, would be suitable to plant longleaf pine (depending on site index and soils) or alternatively, for cattle leasing to provide some economic return.

Measure G4:

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

Depending on management goals and objectives, the pastures and clearings (approximately 125 acres) could support longleaf pine restoration. The areas that have been thinned could be restored to longleaf pine if the remaining slash pine are harvested. The pastures, clearings, pine plantations (minus the 23-acre un-thinned slash pine plantation), mesic flatwoods, and wet flatwoods, total approximately 868 acres or 64% of the property. To restore all 868 acres the remaining slash pine should be harvested and the area replanted with longleaf pine. There were very few longleaf pines seen on the site visit so natural regeneration is not a viable option.

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 funding sources that are identified and assured through at least the first 2 years of the project.
- The project is a joint acquisition, either among public agencies, nonprofit organizations, or private entities, or by a public-private partnership.

The Acquisition and Restoration Council shall give increased priority to:

- Projects for which matching funds are available.

MANAGEMENT

The Carter Quail Ranch project is proposed to be managed by Volusia County as part of Depp Creek Preserve. Please see Appendix D for the Management Prospectus.

FUNDING SOURCES

Florida Forever and Volusia Forever

OWNERSHIP PATTERN AND ACQUISITION PLANNING

Title and Legal Access Issues, 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 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. There is an existing Duke Energy utility corridor that crosses the northeastern corner of the property.

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

There are no apparent contamination sites within the project based on the application form. However, two active landfills are located across from the site on the eastern side of State Highway 415.

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 Carter Quail Ranch Florida Forever project will be phased based upon price.

GOVERNMENT PLANNING and DEVELOPMENT

Contribution to Recreation and Open Space Needs

The proposal has low to moderate potential for contributing to recreation and open space needs. The property could function as a wildlife corridor, and various recreational activities could include environmental education and interpretation, fishing, hiking/jogging, horseback riding, and wildlife observation and photography.

Potential for Losing Significant Natural Attributes or Recreational Open Spaces

Much of the subject property is low intensity silviculture. There is some pastureland, wetlands, and forested natural areas. The property's adjacency to the existing Florida Forever Volusia Conservation Corridor project area makes it an important acquisition. The acquisition would serve to create a buffer between urban areas and the corridor which could be lost if the property were to be developed.

Potential for Being Subdivided

Low Potential - As currently designated, the subject property has low potential for subdivision. Density is very low and urban services are not available or nearby.

Existing Land Uses and Future Land Use Designations

Existing Land Uses: The subject property has Forestry Resource and Rural Agricultural zoning designations. The Forestry Resource zoning designation is to preserve land that is suited for multiple use forest management. The Rural Agriculture zoning designation is to preserve and protect rural areas of the county that have some agricultural value, but which are also suitable for rural estate living.

Future Land Uses: Based on the Volusia County Comprehensive Plan future land use designation of Environmental System Corridor (1 unit per 25 acres), Agriculture (1 unit per 10 acres) and Forestry Resource (1 unit per 20 acres).

Development Potential

Current development potential is low and there are no urban services in proximity. There is a large, antiquated subdivision platted to the east of the project. The subdivision was platted without an internal road/access network and would interrupt any development pressures from the City of New Smyrna Beach.

Transportation Planning Issues

This project falls within Florida Department of Transportation (FDOT) District 5, along State Highway 415. The site is located within a 2-mile radius of two designated evacuation routes- State Highway 44 and State Highway 415. Two projects fall within the vicinity of the site, one being a resurfacing along interstate I-4 from west of Cassadaga Road to east of State Road 44. The second project is a Corridor Management Plan being conducted along State Road 44 from Samsula Drive to Myrtle Avenue. A significant amount of development is planned along this corridor, and this study is evaluating future needs and potential improvements related to access management, facility and multimodal operations, and corridor safety. There should be coordination with the appropriate FDOT District staff during the acquisition process to ensure that any issues related to the transportation facilities are addressed and incorporated into the management plan as appropriate.

ACKNOWLEDGEMENTS

Staff in DEP's Division of State Lands (DSL) and the Florida Natural Areas Inventory determined the final project recommendations. Sine Murray in DSL's Office of Environmental Services was responsible for the overall coordination of this report, with contributions from the following:

- Division of Historical Resources – Brandon Ackerman, Jason O'Donoghue
- Florida Forest Service – Cat Ingram, Samuel Kergel
- Department of Economic Opportunity – Barbara Powell
- Florida Fish and Wildlife Conservation Commission – Susie Nuttall, Justin Ellenberger, Caitlyn Crawford
- Florida Natural Areas Inventory – Geoffrey Parks, Geena Davis, Nathan Pasco
- DEP Division of Environmental Assessment and Restoration – Ken Weaver
- Florida Department of Transportation – Ben Naselius
- St. Johns River Water Management District – Christopher Winslow

APPENDICES

Appendix A:

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

Carter Quail Ranch: Florida Forever Measures Evaluation 20230322

GIS ACRES = 1,349

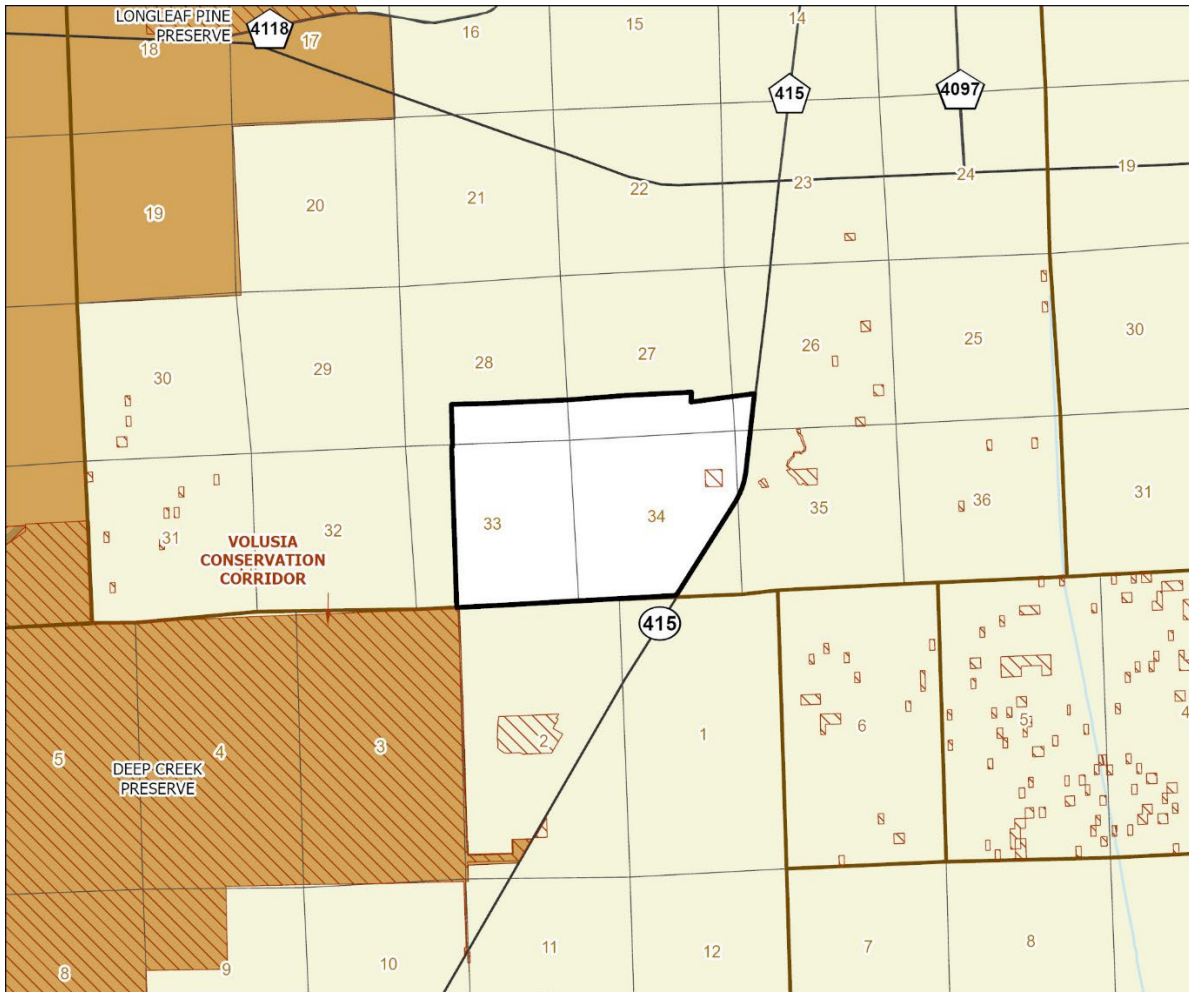
MEASURES	Resource Acres ^a	% of project
B1: Strategic Habitat Conservation Areas		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	757	56%
Priority 4	0	0%
Priority 5	381	28%
Total Acres	1,138	84%
B2: FNAI Habitat Conservation Priorities		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	37	3%
Priority 4	44	3%
Priority 5	318	24%
Priority 6	918	68%
Total Acres	1,317	98%
B3: Ecological Greenways		
Priority 1	1,347	100%
Priority 2	1	< 1%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	0	0%
Total Acres	1,348	100%
B4: Under-represented Natural Communities		
Upland Glade (G1)	0	0%
Pine Rockland (G1)	0	0%
Scrub and Scrubby Flatwoods (G2)	13	< 1%
Rockland Hammock (G2)	0	0%
Dry Prairie (G2)	0	0%
Seepage Slope (G2)	0	0%
Sandhill (G3)	0	0%
Sandhill Upland Lake (G3)	0	0%
Upland Pine (G3)	0	0%
Mesic/Wet Flatwoods (G4)	659	49%
Upland Hardwood Forest (G5)	0	0%
Total Acres	672	50%
B6: Occurrences of FNAI Tracked Species		
G1	0	
G2	0	
G3	0	
G4	2	
G5	0	
Total	2	
C4: Natural Floodplain Function		
Priority 1	0	0%
Priority 2	297	22%
Priority 3	268	20%
Priority 4	92	7%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	657	49%

MEASURES (continued)	Resource Acres ^a	% of project
C5: Surface Water Protection		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	253	19%
Priority 6	1,093	81%
Priority 7	0	0%
Total Acres	1,345	100%
C7: Fragile Coastal Resources		
Fragile Coastal Uplands	0	0%
Imperiled Coastal Lakes	0	0%
Coastal Wetlands	0	0%
Total Acres	0	0%
C8: Functional Wetlands		
Priority 1	0	0%
Priority 2	258	19%
Priority 3	234	17%
Priority 4	32	2%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	524	39%
D3: Aquifer Recharge		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	246	18%
Priority 6	1,103	82%
Total Acres	1,349	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)		
	0 sites	
G1: Sustainable Forestry		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	504	37%
Priority 4	0	0%
Priority 5 - Potential Pinelands	353	26%
Total Acres	856	63%
G3: Forestland for Recharge		
	0	0%

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

Appendix B:

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



CARTER QUAIL RANCH FLORIDA FOREVER PROPOSAL

VOLUSIA COUNTY

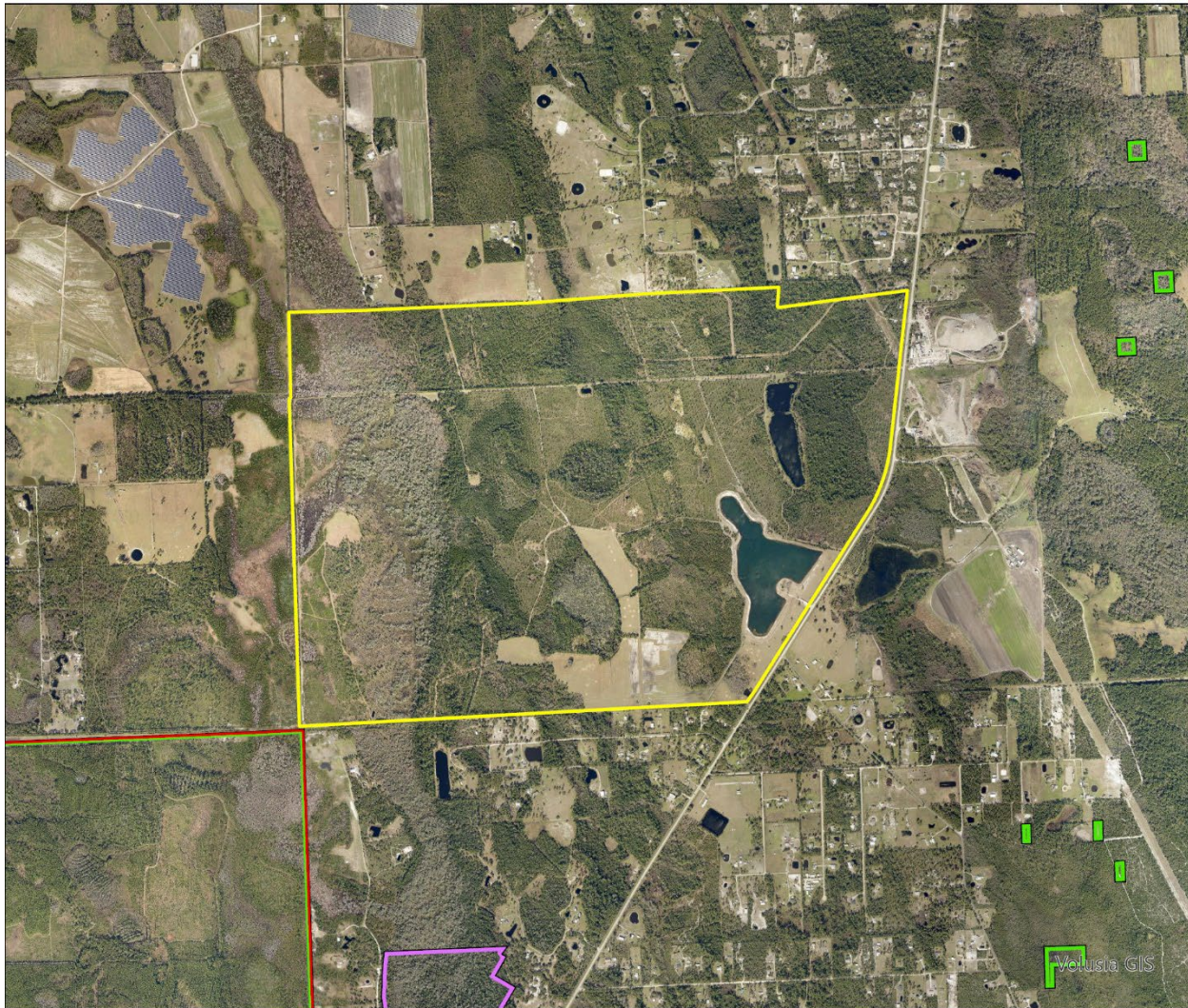
-  Florida Forever Proposal
-  Florida Forever BOT Projects
-  State Owned Lands
-  Other Conservation Lands



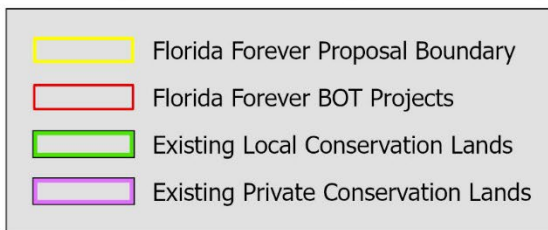
MAP BY FL NATURAL AREAS INVENTORY MARCH 2023

Carter Quail Ranch Florida Forever Proposal

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



Map Produced by: FL Natural Areas Inventory, N. Pasco, March 2022 Background: Volusia County Aerial Imagery 2021 Resolution = 0.217 feet



Appendix C:

PROPERTY ID #'S FOR FINAL RECOMMENDED BOUNDARY

COUNTY	PARCEL ID	OWNER	ACRES PER TAX CARD	JUST VALUE	ASSESSED VALUE	PARCEL DESIGNATION
Volusia	7233-00-00-0010	Carter Daryl M TR	480.00	\$1,109,375.00	\$68,100.00	Essential
Volusia	7234-00-00-0030	Carter Daryl M TR	560.00	\$1,734,152.00	\$625,297.00	Essential
Volusia	7226-01-03-0070	Carter Daryl M TR	14.00	\$78,030.00	\$19,405.00	Essential
Volusia	7228-00-00-0060	Carter Daryl M TR	120.00	\$234,888.00	\$15,300.00	Essential
Volusia	7235-01-02-0050	Carter Daryl M TR	10.03	\$157,973.00	\$2,006.00	Essential
Volusia	7227-01-03-0070	Carter Daryl M TR	142.00	\$317,100.00	\$19,480.00	Essential
Volusia	7227-01-03-0071	Carter Daryl M TR	18.30	\$133,500	\$3,210	Essential
			1,344.33	\$3,765,018.00	\$752,798.00	

Appendix D:

Management Prospectus for Carter Quail 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 s. 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; and*
- 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.*

**FLORIDA FOREVER MANAGEMENT PROSPECTUS for
Carter–Quail Ranch Potential Acquisition; County of Volusia
Office of Environmental Services - Division of State Lands**

Introduction

The Carter-Quail Ranch Property lies within eastern Volusia County, in the unincorporated area of New Smyrna Beach. Located on State Road 415, approximately 2 miles south of the intersection of State Road 44 and 415. There are 7 contiguous parcels that make up the project area, which is approximately 1,339 acres. This is a fee-simple proposal and Volusia County is requesting to be named manager of the Quail Ranch Property. The southwest corner of the Carter property abuts the northeast corner of the 8,000-acre Deep Creek Preserve (DCP), which is managed by Volusia County. DCP is within Florida Forever's Volusia Conservation Corridor project area.

Existing uses of the property include improved pasture for grazing, sod production and silviculture.

This management prospectus serves as a framework for the management plan that will be created after acquisition.

Management Goals and Objectives

The land will be managed as holistic system under the same guidelines as the County of Volusia's DCP Management Plan. This is due to the adjacency/proximity to the Carter-Quail Ranch and the similar types of habitats.

Management goals include:

- implementation of an "Objective-based Management" program in furtherance of the "Desired Future Conditions"
- reintroduce prescribed burning
- harvesting and other silvicultural activities
- maintenance and restoration of surface hydrology
- protection and enhancement of listed species
- control of non- native invasive species

Fire Management Strategies

- Prescribed fire, or an appropriate alternative, shall be used as a primary management technique. Volusia County will develop and implement a comprehensive prescribed burning plan/program on the Property
- Where appropriate, mechanical methods intended to mimic some of the beneficial effects of fire may be used in lieu of prescribed burning or to improve the effectiveness of a subsequent prescribed fire

- The timing and use of fire, or use of alternative methods, should be evaluated in the context of the overall forest management program as applied to attain and maintain the Desired Future Conditions
- Existing internal roads or other features (e.g., trails) should be used where appropriate, as fire breaks
- To the extent practical, allow prescribed fire to enter fire dependent wetland communities
- As practical, use prescribed fire to facilitate the continued health and promote regeneration of listed plant species present on the property
- Evaluate existing firelines for retention and future use
- Consider establishing, where necessary, firelines adjacent to property boundaries

Forest Management/Silviculture Strategies

- Implement appropriate silvicultural and restorative practices (such as, but not limited to, roller chopping, mulching, harvesting and artificial regeneration) as may be necessary to attain and maintain the applicable Desired Future Conditions for the communities within the property.
- Monitor for disease or insect infestations and, if necessary, implement appropriate control practices,
- Follow the applicable “Best Management Practices” (BMPs) when conducting management activities
- Implement activities to restore the pine plantations to natural conditions, consistent with the applicable Desired Future Conditions
- Where appropriate, implement procedures and practices favorable to longleaf pine, in lieu of slash pine
- Restore existing plantations to coincide with historical/natural conditions of the affected community more closely

Maintain and Restore Surface Hydrology

- Ensure that culverts are structurally sound and of functional utility
- Where appropriate, “low water crossings” or other innovative alternatives should be used in lieu of installing new or replacement culverts
- Evaluate the impact of existing internal roads and, where appropriate, remove or reconstruct in a manner which would further restoration of the natural surface water pattern
- Ditch restoration to be undertaken where applicable to restore or maintain the natural surface water pattern

Protection and Enhancement of Listed Species

- The protection of all listed flora and fauna will be done per state and/or federal guidelines and policies
- All protections and enhancements will be afforded these species

Non-Native Invasive Species

- Prevention will 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
- Currently, there is an area of bamboo on the northern border that will need treatment

Brief Description of Natural Habitat/Resources, Existing Conditions

The Ranch currently has borrow pits, ditches, screened gazebo, established interior trails, single-family residence and cattle.

Pine flatwoods, including mesic, wet and scrubby are the dominant communities on this property. Other natural communities that were identified on site include strand, basin and dome swamps. A small portion, less than 20%, of the natural habitats have been converted to pasture and borrow pit.

Low intensity silviculture operations have been practiced within the pine flatwoods. While most of the flatwoods have been replanted with slash pine, older longleaf, pond and some minor amounts of sand pine are relatively common. These older trees are good indicators as to past flatwoods conditions. The understory of the flatwoods is generally comprised of gallberry, various oaks, palmetto, fetterbush, wiregrass and numerous herbaceous species. Ecologically, the flatwoods within the property is in fair to good condition. Palmetto dominates the understory, but grasses and herbs are common.

The property contains 450 +/- acres of wetlands along the western portion that is dominated by bald and pond cypress as part of the wetland system which extends off the property. Other dominant groundcover species, which commonly occur, include maidencane, St. John's wort and yellow-eyed grass. Less abundant species include red maple, swamp laurel oak, cabbage palm, wax myrtle, royal fern and cinnamon fern.

The western property boundary is a drainage canal named "Lake Ashby Canal". This Canal, when viewing the Property Appraisers webpage, appears to be within the property boundary. The water quality of the borrow pit on the northern edge of the property appears to be good. Some small patches of cattails and maidencane are found along the shoreline. An extensive internal network of roads are found on this property. These roads

are in good condition and some of them have received an application of asphalt millings to improve the road's durability.

Conditions Affecting Intensity of Management

The conditions which may affect the intensity of management will be directly related to the goals for the site. These goals will be assessed further upon acquisition and will be incorporated into the ten-year management plan. Potential concerns include:

- Ensuring surface hydrology is not impacted by management techniques.
- Protection of wetland resources
- Maintenance of the existing internal road/trail system to ensure access throughout the Property
- Ensure management activities do not cause negative impacts to the Property's existing population of the endemic Rugel's Pawpaw

Public Access

This project will have public access. There will be a designated parking area. The recreation allowed on site will be passive and consist of the following rec types: hiking, fishing, camping, wildlife viewing, bird watching, and other compatible passive recreation. Uses and structures shall be designed and constructed to avoid or minimize impact upon natural resources, listed species and identify cultural/historical resources.

Volusia County's Environmental, Cultural, Historic, and Outdoor Recreation (ECHO) Program is another local ballot measure approved in concert with Volusia Forever in 2000 and again in 2020. If this property is acquired, ECHO could serve as the funding source to provide resource-compatible recreation opportunities, interpret the archeological or historic significance of the area, and environmental education enhancements. Recently, the Volusia County Council approved \$1.8 million to fund "Environmental Education and Recreation Plans" at selected conservation properties/Preserves in an effort to improve amenities and enhance visitor experiences. Learn more about ECHO here: <https://www.volusia.org/echo>

Provisions for Security and Infrastructure

The security provisions would mirror that of Deep Creek Preserve (DCP) which is standard operating procedure of Volusia County Land Management.

- Boundaries would be clearly marked,
- Fences and gates maintained and installed,
- Volusia County Sherriff's office will monitor the property.

Cooperators in Management Activities

Due to the proximity of both the Carter Property and Deep Creek Preserve, which the county currently manages, the County is best positioned to manage this property. Land Management in Volusia County is funded from a 15% set-aside of proceeds from the Volusia Forever ad valorem assessment. The land management team are experienced professional who currently manage 37,111 acres across the county.

Proposed Management Timeline

Year 1

- Mark boundaries and secure property to County standards.
- Develop management plan including a five-year prescribed fire, forest management/silviculture and recreation plans.
- Develop a management plan to treat/eradicate previously mentioned bamboo.
- Develop and establish recreation amenities (parking, trails, interpretive signs).
- Open to public.

Year 2

- Install and maintain firelines as needed.
- Conduct mechanical fuel reduction treatments as appropriate.
- Begin gradual reintroduction of prescribed fire.
- Monitor known cultural, historical and archeological resources.

Year 3

- Continue fuel reduction and prescribed fire as appropriate.
- Initiate upland ecological restoration through silvicultural practices.
- Maintain recreation amenities.
- Continue to monitor known cultural, historical and archeological resources.

Year 4

- Continue fuel reduction and prescribed fire as appropriate.
- Continue upland ecological restoration through silvicultural practices.
- Initiate hydrological restoration as appropriate.
- Maintain recreation amenities.

Year 5

- Continue fuel reduction and prescribed fire as appropriate.
- Continue upland ecological restoration through silvicultural practices.
- Continue hydrological restoration as appropriate.
- Maintain recreation amenities.

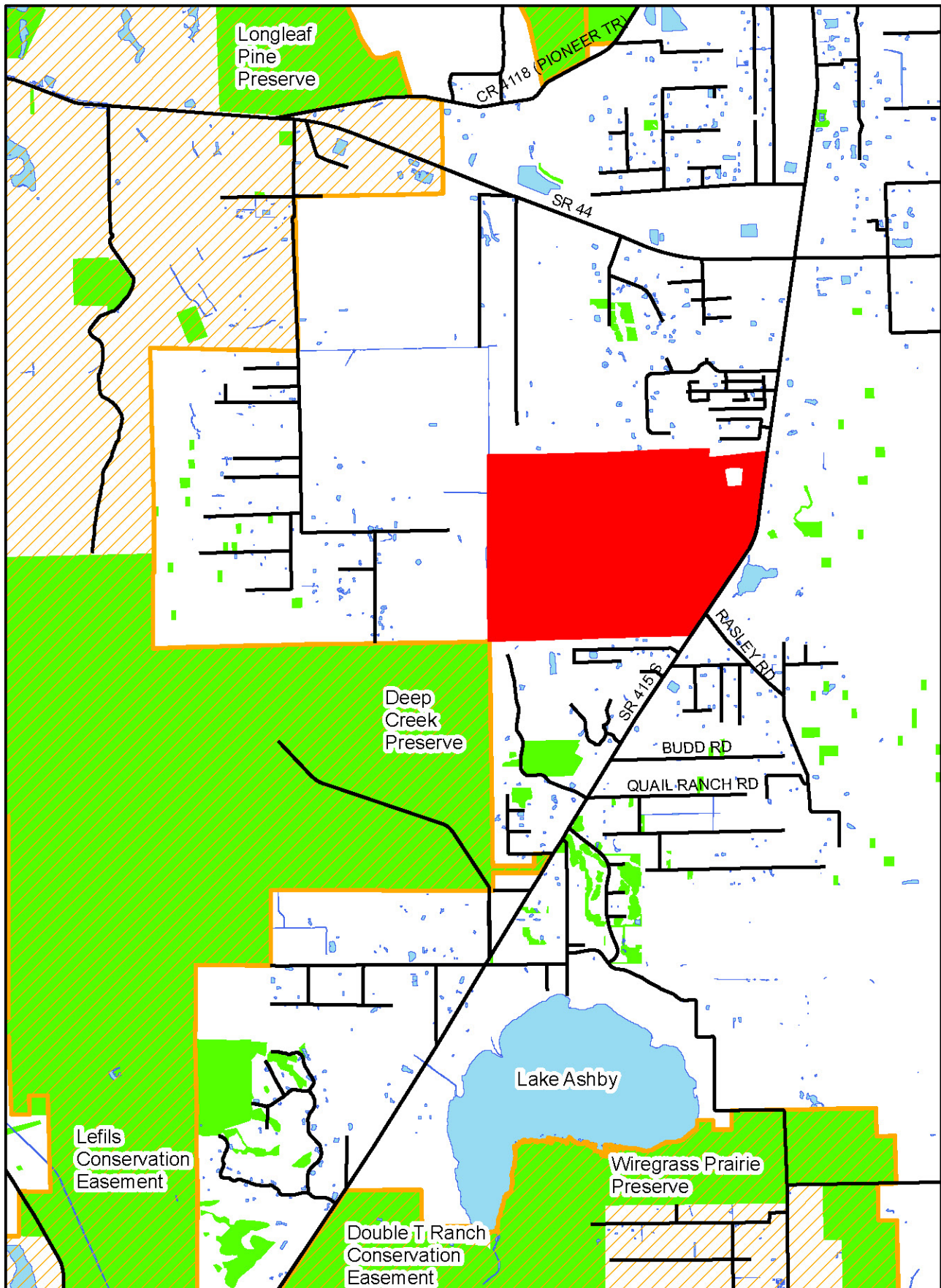
Management Costs and Sources of Revenue:

Initial costs are as follows:

Site security (boundary maintenance, signage, fencing/gates)	\$15,000
Management plan development	\$50,000
Capital (amenities establishment and development)	\$300,000
Prescribed fire	\$65,000
Mechanical fuel reduction	\$60,000
Upland ecological restoration (430 acres Longleaf Pine restoration, invasive species control)	\$200,000
Hydrological restoration (culverts and/or low water crossing installation)	\$15,000

Sources of Revenue:

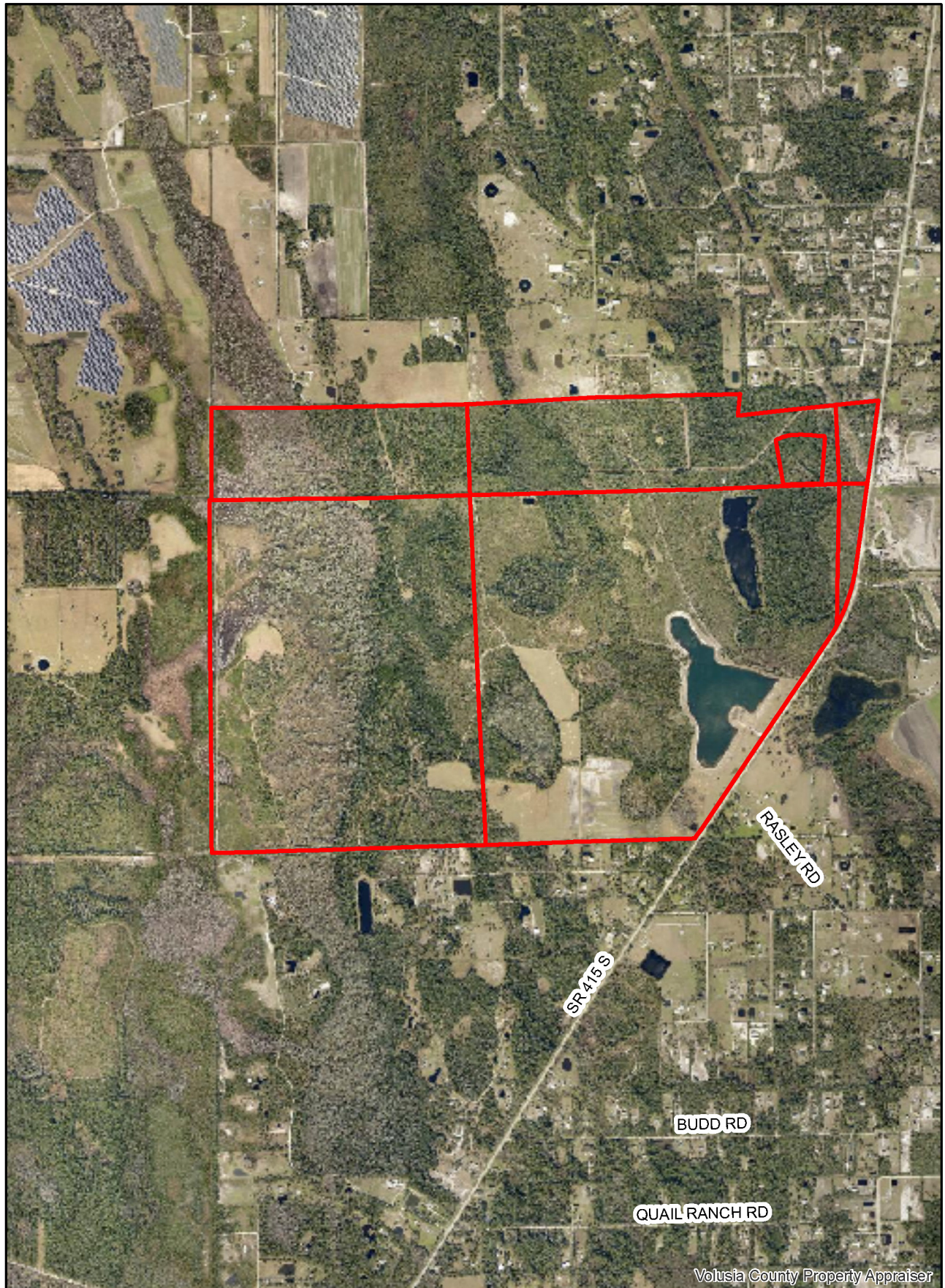
- Volusia Forever 15% set aside
- Volusia ECHO
- Timber
- Allowable lease opportunities
- Vendor agreements for the rental of canoes/kayaks/fishing equipment.
- Facility rentals for special events.
- Primitive camping.



VF Applicant Property-1338.08 Acres
Volusia Conservation Corridor

Existing 2013 Conservation Lands and Conservation Easements

Deep Creek Preserve: 8,041 Acres
 Longleaf Pine Preserve: 11,808 Acres
 Wiregrass Prairie Preserve: 1,423 Acres
 Conservation Easements: 4,543 Acres
 Small Lots: 60 Acres



Volusia County Property Appraiser



 VF Applicant Property

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

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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 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



Planted Pine



Abandoned Pasture

April 14, 2023



Road along ecotone between mesic and wet flatwoods



Flatwoods dominate the site



Basin Swamp



Evidence of past logging within basin swamp



Scrubby flatwoods



Artificial Pond (former burrow pit)



Utility corridor