# *Florida Forever Project Evaluation Report*

# *Avalon Phase II*

***Jefferson County***

**Acquisition Type:** Less-Than-Fee
**Acres:** 1,384
**Just Value:** $3,158,220
**Application Date:** October 31, 2022
**Project Sponsors:** Tall Timbers Research Inc.

**Prepared By:**
Division of State Lands
Office of Environmental Services

FLORIDA FOREVER
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Submitted to the Acquisition and Restoration Council
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### *Executive Summary*

The proposed Avalon Phase II Florida Forever project contains 6 parcels, totaling 1,384 acres in Jefferson County. The project contains two disjunct tracts; one is located on the northwest corner of US 27 and US 19 and the other is bordered by US 27 along its southern boundary. The tract along US 27 and US 19 is known as the "Beau Turner Youth Conservation Center," and the most western tract is referred to as "Avalon Annex." The project is proposed as a less-than-fee acquisition and has a total tax assessed value of $3,158,220.

The tracts are adjacent with the Avalon Florida Forever project, and this proposal includes additional lands under Avalon Plantation ownership and management within the Red Hills region. Currently, these properties are managed primarily for silviculture and hunting activities (quail and deer) and are regularly managed with prescribed fire.

The majority of upland areas across both tracts are characterized as "old field" upland pine natural community; dominated by loblolly pine (*Pinus teada*). Notable areas contain a canopy of mature longleaf pine (*Pinus palustris*) and a diverse groundcover of desirable shrubs and herbs. Most notable is the abundance of wiregrass (*Aristida stricta*) consistently across the western "Avalon Annex" tract. Two large areas of bottomland forest traverse both tracts. These bottomlands include narrow upland edges that resemble upland hardwood forest in some places and contain small flowing clearwater streams and/or floodplain swamps in the lower areas. The proposed properties are located within the Northwest Florida Sentinel Landscape, a component of the Department of Defense Readiness and Environmental Protection Integration Program (REPI).

A variety of rare plant and animal species are documented or reported to occur in the proposal tracts. Gopher tortoise (*Gopherus polyphemus*) burrows were observed and FWC has designated a portion of the property as an Incidental Take permit recipient site. The property is also enrolled in a Safe Harbor Management Agreement for the red-cockaded woodpecker (RCW; *Picoides borealis*). This property and the adjoining Avalon project could potentially support the Florida pine snake (*Pituophis melanoleucus mugitus*). A portion of the Beau Turner Youth Conservation Center tract is within Priority 2 of the Florida Ecological Greenways Network (FEGN).

An interagency team conducted a site visit to the Avalon Phase II project site on January 24, 2023. Information included in this project evaluation report is a result of this interagency site visit.

If approved for addition to the 2024 Florida Forever Priority List, it is recommended that the final project containing 1,384 acres be amended to the Avalon Florida Forever project boundary in the Critical Natural Lands Category. All 1,384 acres proposed for acquisition are considered essential due to the resources documented on the property (see Appendix C).

## *PURPOSE FOR ACQUISITION*

This project will provide a substantial contribution to the long-term protection of forestland and wetland systems characteristic of the Red Hills Region of Florida.The project will protect high quality ecological communities that provide critical habitat for the region's rare wildlife and plant species and contribute to a contiguous corridor of conservation lands that provides important ecological connectivity in a rapidly growing region of the state.

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
- 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 Avalon Phase II proposal includes two separate tracts totaling 1,384 acres (per proposal; 1,414 as determined in GIS) in central Jefferson County. The tracts include lands associated with the Beau Turner Youth Conservation Center, founded in 2008 to expose young people to outdoor activities. The two disjunct blocks of land are generally 8-10 miles south of Monticello near the unincorporated twon town of Capps. The first tract is located northwest of the intersection of US 27 and US 19, with 1.2 miles of road frontage to the south along US 27/US 19, and 1.3 miles of frontage on US 19 to the east. The second tract lies approximately 3 miles to the west, where its southern boundary fronts US 27/FL-19 for 1 mile.

Both properties are contiguous with separate parts of the existing Avalon Florida Forever project. The eastern tract adjoins the Avalon Florida Forever project, which in turn is connected to the Avalon Plantation conservation easements. These easements represent the northernmost extent of a nearly continuous complex of conservation land along the Aucilla River south to the Gulf coast. The western block adjoins another portion of the Avalon Florida Forever project, but these properties are otherwise isolated from existing conservation lands, although extensive managed lands lie 4-5 miles away to the west, south, and east.

## *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, FLUCCS (Florida Land Use and Cover Classification System) data, and information in the FNAI database. A field survey was conducted on January 24, 2023, by FNAI biologists Amy Jenkins and Dan Hipes, along with the Acquisition and Restoration Council liaison staff. The property lies within the Red Hills region, characterized by rolling, moderately well drained uplands with clay soils overlain by loamy sands, and isolated lakes and depressional wetlands. Both tracts consist of rolling pine-covered uplands ranging to 220 feet in elevation, interspersed with lower (110-120 feet) areas of bottomland forest, with likely some areas of upland hardwood forest remaining on intermediate slopes.

Uplands on both tracts are reported to be managed with regular prescribed fire, and lanes are regularly mowed for quail hunting access. Pine plantations make up the largest landcover type in the project (42%), as most of the uplands on the eastern block have been converted to varying stages of pine plantation. The pine plantations are planted with longleaf pine (*Pinus palustris*) or loblolly pine (*Pinus taeda*). The understory is generally low-statured and dominated by woody species such as sand blackberry (*Rubus cuneifolius*), sawtooth blackberry (*Rubus pensilvanicus*), and earleaf greenbrier (*Smilax auriculata*) but southern red oak (*Quercus falcata*) was also observed. Herbs are dominated mostly by weedy species such as bluestem (*Andropogon sp.*), beggarticks (*Bidens alba*), sugarcane plumegrass (*Saccharum giganteum*), goldenrod (*Solidago* sp.), purpletop tridens (*Tridens flavus*), and yankeeweed (*Eupatorium comositifolium*). The non-native sweet tanglehead (*Heteropogon melanocarpus*) is common in the pine plantations.

Pinelands in the western tract appear to have less history of silviculture and are better characterized as upland pine. Approximately 120 acres of the western tract is high quality upland pine with a canopy of mature longleaf pine and a diverse groundcover of desirable shrubs and herbs, most notable is the high cover of wiregrass (*Aristida stricta*) consistently across the area. The diverse groundcover is made up of short statured shrubs and herbs indicative of the upland pine community including mockernut hickory (*Carya tomentosa*), bluejack oak (*Quercus incana*), water oak (*Quercus nigra*), post oak (*Quercus stellata*), sand blackberry (*Rubus cuneifolius*), sparkleberry (*Vaccinium arboreum*), lovegrass (*Eragrostis* sp.), yellow indiangrass (*Sorghastrum nutans*), narrowleaf silkgrass (*Pityopsis graminifolia*), sugarcane plumegrass, bracken fern (*Pteridium aquilinum*), pinweed (*Lechea* sp.), creeping little bluestem (*Schizachyrium stoloniferum*), foxtail (*Setaria sp.*), bluestem, arrowfeather threeawn (*Aristida purpurascens*), yankeeweed, skeletongrass (G*ymnopogon* sp.), and crowngrass (P*aspalum* sp.). Vines are common to occasional and include yellow jessamine (*Gelsemium sempervirens*) and earleaf greenbrier.Several small inclusions containing species more often associated with sandhill such as turkey oak (*Quercus laevis*) and pricklypear (*Opuntia humifusa*) were observed but were too small to distinguish on a map. Numerous sand mounds of pocket gopher (*Geomys pinetis*) are present throughout this area and gopher tortoise burrows were also present.

The majority of the uplands mapped as upland pine are not in high quality condition, however, and are better characterized as “old fields” because of a land-use history that has degraded the species composition of the groundcover. These old field upland pine areas (much of the western tract and a small portion of the eastern tract) have a natural structure with older widely spaced pines over a low groundcover of shrubs and herbs. The species composition, however, lacks the typical species as described above. Shrubs and woody vines are common and include heavy cover of blackberries (*Rubus cuneifolius* and *Rubus pensilvanicus*), as well as American beautyberry (*Callicarpa americana*), earleaf greenbrier, yellow jessamine, sweetgum (*Liquidambar styraciflua*), turkey oak, water oak, live oak (*Quercus virginiana*), bully (*Sideroxylon* sp.), sparkleberry, mockernut hickory, common persimmon (*Diospyros virginiana*), and St. Andrew’s cross (H*ypericum hypericoides*). Herbaceous species are dominated by non-native and weedy natives such as tropical bushmint (*Cantinoa mutabilis*), sweet tanglehead, showy rattlebox (*Crotalaria spectabilis*), hairy indigo (*Indigofera hirsuita*), witchgrass (*Dichanthelium* sp.), tall elephantsfoot (*Elephantopus elatus*), narrowleaf silkgrass, foxtail, goldenrod, forked bluecurls (*Trichostema dichotomum*), broomsedge bluestem (A*ndropogon virginicus*), goldenaster (*Chrysopsis* sp.), and yankeeweed. The invasive Japanese climbing fern (*Lygodium japonicum*) was observed in the old field areas. White-breasted nuthatches (*Sitta carolinensis*) were heard in the old field area on the eastern parcel.

Uplands are punctuated with several small isolated depression marshes and larger areas of bottomland forest. The depression marshes are somewhat atypical and occur as small open water ponds with scattered common buttonbush (*Cephalanthus occidentalis*) growing in open water with Pennsylvania bittercress (*Cardamine pensylvanica*) growing along the edges and duckweed (*Lemna* sp.) covering the water. An open canopy of sweetgum, swamp tupelo (*Nyssa biflora*), and water oak circles the open marsh edge.

Two large areas of bottomland forest accounting for around 7% of the total acreage traverse both tracts. These bottomlands include narrow upland edges that resemble upland hardwood forest in some places and small flowing clearwater streams and/or floodplain swamps in the lower areas. Bottomland forest bisects the western tract, while a smaller area occurs along the

norther boundary of the eastern tract. The mixed canopy is dominated by sweetgum, tuliptree (*Liriodendron tulipifera*), loblolly pine, swamp chestnut oak (*Quercus michauxii*), water oak with swamp tupelo, pond cypress (*Taxodium ascendens*), and sweetbay (*Magnolia virginiana*) dominant in the lower swamp areas with a longer hydroperiod. Shrubs are scattered throughout this habitat, the most common being switchcane (*Arundinaria gigantea*) and also includes wild olive (*Cartrema americanum*), American holly (*Ilex opaca*), sweetbay, southern bayberry (*Morella cerifera*), water oak, large gallberry (*Ilex coriacea*), Virginia willow (*Itea virginica*), swamp bay (*Persea palustris*), sawtooth blackberry (*Rubus pensilvanicus*), earleaf greenbrier, climbing hydrangea (*Decumaria barbara*), possumhaw (*Viburnum nudum*) and the state-listed needle palm (*Rhapidophyllum hystrix*). Ebony spleenwort (*Asplenium platyneuron*), woodoats (*Chasmanthium* sp.), witchgrass, manyflower marshpennywort (*Hydrocotyle umbellata*), cinnamon fern (*Osmunda cinnamomea*), maiden fern (*Thelypteris* sp.), netted chain fern (*Woodwardia areolata*), and Virginia chain fern (*Woodwardia virginica*) are the common herbaceous species that occupy the moist and sometimes mucky forest floor present in the bottomland forest. The invasive species tungoil tree (*Vernicia fordii*), Japanese honeysuckle, and coral ardisia (*Ardisia crenata*) were observed occasionally in this community.

One 40 acre upland hardwood forest lies on the southern boundary of the eastern tract. The hardwood forest is high quality with early spring ephemerals beginning to bloom at the time of the site visit. The upland hardwood forest slopes into a moist bottomland forest in its lower areas with minor streams and wet mucky soils present. The diverse canopy is made up of southern magnolia (*Magnolia grandiflora*), sweetgum, tuliptree, water oak, and Shumard's oak (*Quercus shumardii*) with smaller members of these species plus American beech (*Fagus grandifolia*) in the subcanopy. Shrubs and vines are common throughout the forest and include species such as water oak, muscadine (*Vitis rotundifolia*), Adam's needle (*Yucca filamentosa*), American hornbeam, switchcane, crossvine (*Bignonia capreolata*), earleaf greenbrier, Elliott's blueberry (*Vaccinium elliottii*) and the invasive tungoil tree, Chinese privet (*Ligustrum sinense*), and coral ardisia. Herbs include ebony spleenwort, woodoats, butterweed (*Packera glabella*), and longbract wakerobin (T*rillium underwoodii*). In a short search under a few logs in the wetter portion of the upland hardwood forest a single southern two-lined salamander (*Eurycea cirrigera*) larvae and eggs of three-lined salamanders (*Eurycea guttolineata*) were observed during the field assessment. While neither are rare, they are excellent indicators of intact habitat.

One small baygall occurs along the northeast boundary of the eastern tract. The canopy and midstory in the baygall was dominated by sweetbay but also included a lesser amount of red maple (*Acer rubrum*), sweetgum, and tuliptree. The shrub layer is dense and dominated by large gallberry, Virginia willow, fetterbush (*Lyonia lucida*), and swamp bay. The low-growing climbing hydrangea was observed commonly growing on the mucky soils. Netted chain fern is the only herb recorded in the baygall.

Other non-natural areas include small acreages of clearings, artificial ponds, developed areas, roads, and a small successional hardwood forest on the western tract. Several areas of agriculture are present on the western tract, one or more of which are impounded field(s) planted with corn which are occasionally flooded. Several of the areas mapped as artificial ponds were also planted with corn and flooded for wildlife.

Invasive plants are relatively infrequent on the Avalon Phase II properties. The most abundant and widespread is Japanese climbing fern (FISC Category I) which was found in scattered

small patches on both properties but is more abundant on the eastern tract where it was quite abundant in the old field upland pine. Occasional small patches of coral ardisia (FISC Category I), Chinese privet (FISC Category I), and tungoil tree (FISC Category II) were observed in the hardwood communities (bottomland and upland hardwood forests) on both tracts. One small patch of cogongrass (*Imperata cylindrica*, FISC Category I) was observed in the old field upland pine on the eastern tract.

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

| Community or Landcover | Acres (GIS) | Percent of Proposal |
|---|---|---|
| upland pine (old field) | 303 | 21 |
| upland pine | 122 | 9 |
| bottomland forest | 104 | 7 |
| upland hardwood forest | 40 | 3 |
| baygall | 15 | 1 |
| depression marsh | 10 | 1 |
| basin marsh | 6 | <1 |
| pine plantation | 607 | 43 |
| agriculture | 87 | 6 |
| clearing | 49 | 3 |
| artificial pond | 26 | 2 |
| road | 18 | 1 |
| successional hardwood forest | 16 | 1 |
| developed | 12 | 1 |

### *Florida Fish and Wildlife Conservation Commission (FWC)*

This resource assessment of the Avalon Phase II Florida Forever project proposal is based on field observations during the January 24, 2023, site visit and the results of GIS analysis. The project proposal adjoins portions of the existing Avalon Florida Forever project, and the eastern parcel is part of a nearly contiguous complex of conservation lands along the Aucilla River to the coast. The project presents an opportunity to protect a wildlife corridor and lands containing a variety of natural communities that provide diverse wildlife habitat.

A variety of upland and wetland communities occur on both parcels. The western parcel contains upland pine with characteristics of sandhill in some locations. Native groundcover is intact in some areas and there are scattered, mature longleaf pines among the dominant canopy of planted loblolly pine. Gopher tortoise (*Gopherus polyphemus*; State-designated Threatened) burrows were observed and FWC has designated a portion of the property as an Incidental Take Permit recipient site. This parcel and the adjoining Avalon Florida Forever project could potentially support the Florida pine snake (*Pituophis melanoleucus mugitus*; State-designated Threatened). Florida pine snakes are associated with southeastern pocket gophers (Geomys pinetus), a Species of Greatest Conservation Need (SGCN), and numerous pocket gopher mounds were observed. The landowner has documented eastern diamondback rattlesnakes (*Crotalus adamanteus*), which may also indicate that the property can support other large snakes such as the Florida pine. Examples of other SGCN observed in the uplands

included northern bobwhite (*Colinus virginianus*) and brown-headed nuthatch (*Sitta pusilla*), with many additional species reported in the application.

Examples of wetland habitats occurring on the property include bottomland forest, isolated wetlands, and artificial ponds. These areas provide foraging and nesting habitat for waterfowl, wading birds, and other avian species. Examples of species observed on the site visit include wood duck (*Aix sponsa*), great egret (*Ardea alba*), and bald eagle (*Haliaeetus leucocephalus*). The federally listed wood stork (*Mycteria americana*) has been reported on the property and the little blue heron (*Egretta caerulea*; State-designated Threatened) likely uses the area since nesting colonies occur on nearby Aucilla Wildlife Management Area (WMA). In addition to benefiting birds, snags observed throughout the bottomlands may provide roost sites for bats. The wetlands also provide habitat for a diversity of reptile and amphibian species. Examples observed on the field visit included larval southern two-lined salamander (*Eurycea cirrigera*) and eggs of three-lined salamander (*Eurycea guttolineata*).

The FWC GIS analysis of the Cooperative Land Cover v3.6 indicates that Avalon Phase II comprises a mixture of many different community types including tree plantations (41%), unimproved/woodland pasture (27%), and freshwater forested wetlands (11%). Approximately 91% of the property has been identified as priority 1-3 for the Critical Lands and Waters Identification Project- Biodiversity category. The FNAI Element Occurrence database shows two records for the eastern diamondback rattlesnake and the one-toed amphiuma (*Ampiuma pholeter*). A large portion of the eastern parcel is within priority 2 of the FEGN. The entire property is classified as frequent Florida black bear (*Ursus americanus floridanus*) range, and 58% of the property shows a species richness for 3-7 imperiled species. Almost half of the property (48%) is listed as rare fish imperiled waters for the eastern mudminnow (*Umbra pygmaea*) and the ironcolor shiner (*Notropis chalybaeus*). Additionally, the entire property provides water protection for Bailey Mill Creek, Burnt Mill Creek, Lang Branch, and Lloyd Creek streams, which are Class 3F surface waters.

Current management includes practices to improve hunting and fishing opportunities. The uplands are burned on a 1–3-year return interval to maintain habitat for northern bobwhite, and staff were preparing firelines at the time of the site visit. To facilitate waterfowl hunting and fishing, several artificial ponds were created, and staff periodically manipulate water levels. Staff plant agricultural fields for white-tailed deer (Odocoileus virginianus) and other game species. These practices benefit additional wildlife species and contribute to habitat diversity.

The project would add acreage to an existing wildlife corridor, although it is important to note that highways separate some of the conservation lands within this corridor. Additional acreage would benefit wide-ranging species like the Florida black bear, which the landowner reports as common on the property. The federally listed red-cockaded woodpecker (Picoides borealis) occurs on Avalon Plantation and St. Marks National Wildlife Refuge (NWR), with Aucilla WMA between these properties. Trees on Aucilla WMA are not currently old enough to support red-cockaded woodpecker clusters, but there is potential for a corridor from St. Marks NWR to Avalon Plantation and adjacent Florida Forever projects in the future.

Establishing this property as a conservation easement would benefit numerous fish and wildlife species that inhabit the area, including imperiled species. Land managers are currently implementing some management practices that benefit wildlife and establishing the property as an easement would support the continuation of these practices.

# *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 1,384 acres would contribute to the enhancement of essential natural resources, ecosystem service parcels and connecting corridors.

### Measure A2:

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

The entirety of the project is proposed for less-than-fee acquisition via conservation easement.

### 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. The proposed properties are located within the Northwest Florida Sentinel Landscape, a component of REPI.

## *GOAL B:*

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

### Measure B1:

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

The Strategic Habitat Conservation Areas (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 1,150 acres (81% of site) of SHCAs. This is primarily within Priority 3 (56% of site) with the remainder in Priority 5 (25%).

### 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 15 acres (1% of site) of rare species habitat. The habitat is completely within Priority 6.

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

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

| Scientific Name | Common Name | Global Rank | Acres |
|---|---|---|---|
| Mycteria americana | wood stork | G4 | 15 |

### Measure B3:

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

The FFME reports approximately 670 acres (47%) of the proposed project contributes to protection of ecological greenways all of which falls within Priority 2 areas. Prioritization is based on such factors as importance for wide-ranging species like Florida panther and Florida black bear, importance for maintaining a connected reserve network, and riparian corridors.

### Measure B4:

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

The Florida Forever natural community analysis includes only those communities that are under-represented on existing conservation lands. This analysis provides a conservative estimate of the extent of these communities, because it identifies only relatively undisturbed portions of these communities that occur within their historic range. The Florida Forever Measures table lists the acreages of under-represented natural communities found on the site. Based on this analysis, the Avalon Phase II proposal contains 122 acres of upland pine (9% of site) and 40 acres of upland hardwood forest (3%).

### 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 Avalon Phase II is not currently adjacent to any conservation lands and would not currently contribute to a contiguous landscape-sized protection area of >50,000 acres

### Measure B6:

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

The table below lists rare plant and animal species known or reported to occur on site. The entire site is within a general region where the Florida black bear is considered by the FWC to be abundant, although this encompasses a broad area that includes much of the central and eastern Panhandle. Several occurrences of needle palm (*Rhapidophyllum histrix*) were observed in the high quality upland hardwood forests during the January site survey. The FNAI database contains no additional records of rare species on the proposal. The property owner stated that the western parcel was used as a gopher tortoise recipient site and numerous burrows were observed in the upland pine during the site visit. A formal gopher tortoise survey would verify the population size on the property. More extensive surveys may reveal the occurrence of additional species of rare plant, especially in the upland hardwood forest.

The nearby Avalon Plantation conservation easement is known to harbor several rare plants and animals, including Florida mountain mint (*Pycnanthemum floridanum*; G3, S3, N, T), Flyr's brickell-bush (*Brickellia cordifolia*; G3, S2, N, E), red-cockaded woodpecker (G3, S2, E,PT,

FE), bald eagle (, G5, S3, N, N), Golden-banded Skipper (*Autochton cellus*; G4, S1, N, N), Cartwright's mycotrupes beetle (*Mycotrupes cartwrighti*; G3, S2, N, N), and several other rare invertebrates. The one-toed amphiuma (G3, S3, N, N; an “aquatic” salamander) was captured in headwaters of Bailey Mill Creek just southwest of Capps and may occur in creek mucks on site. Peter Kleinhenz (Tall Timbers Research Station and Land Conservancy) surveyed for one-toed amphiuma in several bottomland forests containing mucky soils during the site survey but none were located. The mud sunfish (*Acantharchus pomotis*; G4G5, S3, N, N) has been documented further downstream in the same creek.

Rarity rankings listed above 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 D.

Table 3 lists the number of Element Occurrences by Global Rank (G-rank) that are found on the proposed project area. Note that the number of occurrences does not necessarily match the number of species in the 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 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 plants documented on site | | | | | |
| *Rhapidophyllum hystrix* | needle palm | G4 | S4 | N | CE* |
| Rare animals documented on site | | | | | |
| *Sitta carolinensis* | white-breasted nuthatch | G5 | S2 | N | N |
| Ursus americanus floridanus | Florida black bear | G5T4 | S4 | N | N |
| Additional rare animals reported on site by applicant | | | | | |
| *Crotalus adamanteus* | eastern diamondback rattlesnake | G3 | S3 | N | N |
| *Gopherus polyphemus* | gopher tortoise | G3 | S3 | C | LT |

### *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.*

Restoration expectations may be limited for the site since the proposal is for less-than-fee acquisition. Opportunities for restoration exist on the extensive acres of pine plantation; the current owners have invested significantly in a regime of burning, thinning, and mowing that

has resulted in pine plantations that much more closely resemble natural communities than is typical. However, the groundcover of these areas resembles “old field” conditions rather than healthy native vegetation. The restoration of native upland pine groundcover in these areas would be costly, and would be a substantial commitment not normally expected of private landowners. The remnant natural areas would benefit from continued frequent fire and the discontinued use of lanes mowed through the areas.

Monitoring and ongoing treatment of invasive plants and other aggressive weeds, especially in the high quality upland pine, would be beneficial. Japanese climbing fern, and several species that are not listed as invasive but are increasingly recognized as threats to the integrity of native pinelands (particularly sweet tanglehead, showy rattlebox, and hairy indigo are widespread in plantations on the site and could expand to impact the remnant upland pine communities. Several other invasive plants were noted in bottomland and upland hardwood forests on the proposal tracts. Tungoil tree and coral ardisia infestations could pose a risk to the native diversity of these communities. A complete assessment of invasive plants on site should be completed prior to an easement being acquired.

### Measure C4:

*The number of acres acquired that protect natural floodplain functions.*

The FFME reports approximately 175 acres (12%) of the proposed project may contribute to the protection of natural floodplain function. This area is mostly divided between Priority 4 (7% of site) and Priority 3 (5%), with the remainder in Priority 5 (< 1%). 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 1,382 acres (98%) 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 (69% of site), and Priority 6 (13%), with the remainder in Priority 7 (9%) and Priority 4 (7%). These areas represent acreage that contribute 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 172 acres (12%) of the proposed project would provide protection for functional wetland systems. This area is divided between Priority 3 (7% of site), and Priority 4 (5%), with the remainder in Priority 5 (< 1%). 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 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 1,414 acres (100%) of the proposed project would provide protection for groundwater recharge areas. This area is divided between Priority 5 (57% of site), Priority 4 (27%), and Priority 3 (16%). 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 5. Spatial Analysis for Potential Water Quality Benefits of Avalon Phase II

| 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 | 7 |
| 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 | 10 |
| DEP Distance to Major Rivers (100, 500, 1000 meters) | 6,5,4 | 0 |
| Total Possible | 101 | 48 |

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

FINAL DEAR SCORE = 4 – medium/high water quality protection benefits

### *GOAL E:*

INCREASE NATURAL RESOURCE-BASED PUBLIC RECREATIONAL AND EDUCATIONAL OPPORTUNITIES

### Measures E1-E3

The Avalon Phase II project is proposed for less-than-fee acquisition with no public access. However, in the past the landowner has supported youth programs at the Beau Turner Youth Conservation Center which may be implemented in the future. The landowner has stated he does not want the site to be available for public recreation. Hunt events, perhaps in coordination with the Florida Forest Service (FFS) for the Operation Outdoor Freedom program that serves disabled veterans would be feasible.

The landowner has been involved with youth education and hunting, fishing and similar events in the past on nearby properties. Residential infrastructure, related structures, barns, hunting blinds, and an interior road system, etc., do exist on site if landowner chooses to host singular hunt or educational events,or similar resource compatible recreational or education opportunities at some point in the future.

### *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 Avalon Phase II Florida Forever project would not increase 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 preserved for public use. However, through a conservation easement agreement that stipulates cultural resource protection, the Avalon Phase II Florida Forever project would protect cultural resources 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, Avalon Phase II 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 the Division of Historical Resource's Florida Master Site File, there are currently seven archaeological sites located within or intersecting the boundary of the Avalon Phase II Florida Forever project. The assemblage of sites found throughout the project collectively contain evidence of a variety of pre-Columbian and historic-period occupations spanning at least 3,000 years of Florida history.
Notably, a portion of Mt. Zion Church Settlement (JE00345), a large habitation and village site associated with pre and postbellum African-American settlement intersects the project area. The inclusion of a portion of JE00345 in the project offers the opportunity to provide an additional level of protection to this important and rarely-conserved resource type.

FIELD OBSERVATIONS:

During the Field Review of the Avalon Phase II Florida Forever project, staff did not observe any unrecorded cultural resources. However, DHR believes that there is a high potential for numerous unrecorded sites to exist on the Avalon Phase II 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 FFME reports approximately 1,145 acres (81% of site) could be available for sustainable forest management, divided between Priority 3 (593 acres) and Priority 5 (553 acres). Prioritization is based on four criteria set by the FFS: whether trees are natural or planted, size of tract, distance to market, and hydrology. Priority 5 areas are considered "potential" pinelands; agricultural areas that could be restored to pineland.

**Measure G2:**

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

As a less-than-fee proposal, the forestlands would not be considered state-owned.

**Measure G3:**

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

Approximately 1,147 acres of forestland would serve to maintain natural groundwater recharge functions if the project is acquired.

## *FLORIDA FOREVER CRITERIA*

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

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

The Acquisition and Restoration Council shall give increased priority to:

- Projects that can be acquired in less than fee ownership, such as a permanent conservation easement.
- Projects for which the state's land conservation plans overlap with the military's need to protect lands, water, and habitat to ensure the sustainability of military missions.

## *MANAGEMENT*

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

## *FUNDING SOURCES*

Florida Forever

## *OWNERSHIP PATTERN AND ACQUISITION PLANNING*

### Title and Legal Access Issues, 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.

During the evaluation process, it was made known that Jefferson County owns an inholding parcel and related legal access to a landfill within the Beau Turner Youth Conservation Center tract. The Mt. Olive Missionary Baptist Church also owns a small inholding adjacent to the county landfill property. Neither of these inholdings are included in the project boundary.

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

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

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

According to the project sponsor an inholding is the site of a former landfill and reportedly maintained by Jefferson County. A review of aerials indicates that this landfill was established sometime in 1980s. The project sponsor referenced an access easement from US 19 to the landfill that crosses the eastern tract of the proposal.

### 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 Avalon Phase II Florida Forever project will be phased based upon price.

## *GOVERNMENT PLANNING and DEVELOPMENT*

The project is entirely located within Jefferson County and consists of two separate tracts of land. The area is characterized by pine forest and plantation, marshland and swamps, and grass clearings. The area is classified as Agriculture-20 by Jefferson County.

### Contribution to Recreation and Open Space Needs

High Potential: The contribution to Recreation and Open Space Needs would be significant. The area currently belongs to the Beau Turner Youth Conservation Center. The area has hosted thousands of young people who have deepened their connection with the outdoors through programs at this center. The surrounding fields, ponds, and upland pine forests have allowed hunting, fishing, biking, and wildlife viewing for the recreation of visitors. Acquiring these tracts would also expand the adjacent Florida Forever conservation projects to allow for a more complete conservation of habitat.

### 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. Approximately 170 acres of the Beau Turner portion of the properties are designated as wetlands, with the remaining approximately 1,214 acres being uplands. These areas are home to a diverse selection of wildlife species, including many that are listed in Florida. The project would help protect some sensitive wildlife populations. Regular prescribed fires maintain habitat for Southeastern pocket gophers, the state-threatened Florida pine snake, and the one-toed amphiuma.

### Potential for Being Subdivided

Moderate to High Potential - The subject properties have a high potential for being subdivided. The parcels within the proposed project are highly desired with an uncertain future. Both tracts are suitable for development. If these lands stay unprotected, the likelihood of land use conversion is high. As of 2020, the closest major city, Tallahassee, had a population of 192,885 and was growing at a rate of 0. 75% per year. The city continues to expand its Urban

Service Area (USA) eastward towards the proposed project area, such as when it increased the USA boundary by 2,810 acres in 2021. Many longtime owners of rural land in the immediate area have recently listed their properties for sale, as property values in Jefferson County increased by 23% between 2021 and 2022. Land-use alterations are likely to result from these changes in ownership.

### Zoning and Densities within the Project Boundaries

Zoning within the proposed project area is mostly AG-20, which allows for agriculture, forestry, subdivision, and residential development at 1 unit/20 acres. There are no legal restrictions preventing future development within the proposed project area. Given the close proximity to Interstate 10, US Highways 19 and 27, and State Highway 59, along with the hundreds of acres of uplands, the majority of the proposed project area is a prime area for development. The United States Department of Agriculture-designated 684 acres as prime soils which could also incentivize conversion of relatively forested natural areas into row-crop agriculture.

### Existing Land Uses and Future Land Use Designations

Existing Land Uses: According to the FWC data model, the largest land uses on the site are; Coniferous Plantations (573.16 acres), Unimproved/Woodland Pasture (387.25 acres), Mixed Hardwood-Coniferous Swamps (153.24 acres), and Improved Pasture (117.68 acres).

Future Land Uses: The Agriculture-20 land use relates primarily to large scale agricultural activities. Included are plantations and timber producing lands. Uses include, but are not limited to, livestock, crop production, pasture lands, silviculture, orchards and groves, forestry, and agricultural related actives. Residential density may not exceed 1 unit per 20 acres. The Agriculture 5 land use relates to a variety of agricultural uses including crop land, pasture, orchards and groves, forestry, agricultural related actives, outdoor recreation, bed and breakfast inns, and hunting lodges and clubs. Residential development cannot exceed 1 unit per 5 acres.

### Development Potential

Based on the Jefferson County Comprehensive Plan Future Land Use designations the two parcels in Jefferson County are designated as Agriculture-20 (1 unit/20 acres). With assigned residential density, the properties could accommodate over a thousand dwelling units.

### Transportation Planning Issues

This project falls within the Florida Department of Transportation (FDOT) District 3, and is located adjacent to US 19, a Strategic Intermodal System (SIS) facility. Within two miles of the site are US Highway 27, State Highway 59, and State Highway 259, all designated evacuation routes. While FDOT finds no adverse impact to this proposed project, there should be coordination with the appropriate FDOT District staff during the acquisition process to ensure that issues related to the transportation system and partnering opportunities are addressed and incorporated into the management plan as appropriate.

## *ACKNOWLEDGEMENTS*

The DEP's DSL determined the final project recommendations. The Office of Environmental Services was responsible for the overall coordination of this report, with contributions from the following:

- Florida Natural Areas Inventory – Dan Hipes, Amy Jenkins, Nathan Pasco
- Florida Fish and Wildlife Conservation Commission – Rachel Weisz, Larame Ferry, Diana Pepe
- Florida Forest Service – Catherine Ingram, Dean Blankenship
- Florida Department of State, Division of Historical Resources – Brandon Ackermann, Jason O'Donoughue
- Suwannee River Water Management District – Steven Carpenter
- Florida Department of Transportation – Ben Nasleius
- Florida Department of Economic Opportunity – Barbara Powell
- DEP, Division of Environmental Assessment and Restoration – Ken Weaver

# *APPENDICES*

## Appendix A:

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

**Avalon Phase II: Florida Forever Measures Evaluation 20230224**

GIS ACRES = 1,414

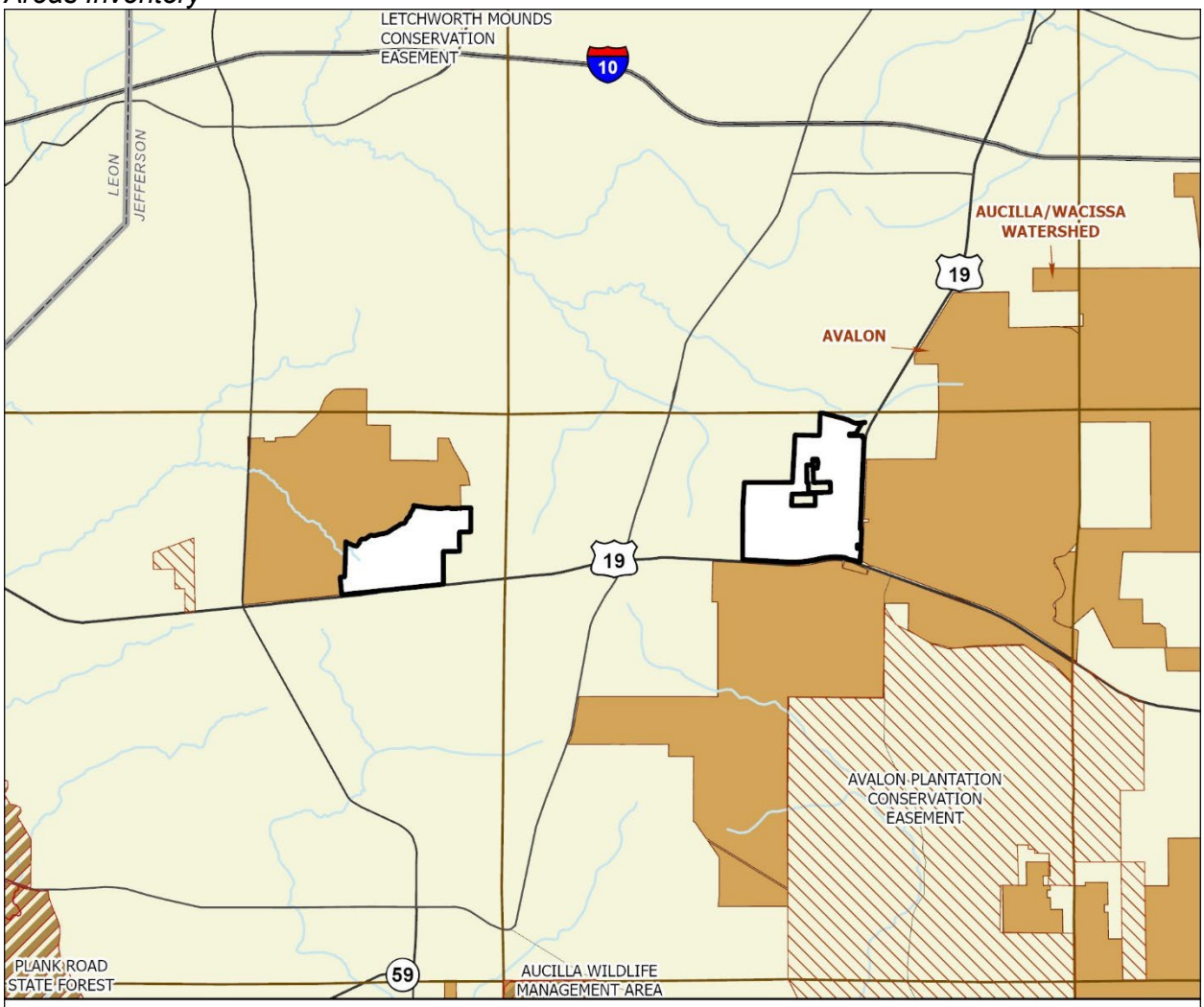
| MEASURES | Resource Acres[a] | % of project |
|---|---|---|
| **B1: Strategic Habitat Conservation Areas** | | |
| Priority 1 | 0 | 0% |
| Priority 2 | 0 | 0% |
| Priority 3 | 791 | 56% |
| Priority 4 | 0 | 0% |
| Priority 5 | 359 | 25% |
| Total Acres | 1,150 | 81% |
| **B2: FNAI Habitat Conservation Priorities** | | |
| Priority 1 | 0 | 0% |
| Priority 2 | 0 | 0% |
| Priority 3 | 0 | 0% |
| Priority 4 | 0 | 0% |
| Priority 5 | 0 | 0% |
| Priority 6 | 15 | 1% |
| Total Acres | 15 | 1% |
| **B3: Ecological Greenways** | | |
| Priority 1 | 0 | 0% |
| Priority 2 | 670 | 47% |
| Priority 3 | 0 | 0% |
| Priority 4 | 0 | 0% |
| Priority 5 | 0 | 0% |
| Total Acres | 670 | 47% |
| **B4: Under-represented Natural Communities** | | |
| Upland Glade (G1) | 0 | 0% |
| Pine Rockland (G1) | 0 | 0% |
| Scrub and Scrubby Flatwoods (G2) | 0 | 0% |
| Rockland Hammock (G2) | 0 | 0% |
| Dry Prairie (G2) | 0 | 0% |
| Seepage Slope (G2) | 0 | 0% |
| Sandhill (G3) | 0 | 0% |
| Sandhill Upland Lake (G3) | 0 | 0% |
| Upland Pine (G3) | 122 | 9% |
| Mesic/Wet Flatwoods (G4) | 0 | 0% |
| Upland Hardwood Forest (G5) | 40 | 3% |
| Total Acres | 162 | 12% |
| **B6: Occurrences of FNAI Tracked Species** | | |
| G1 | 0 | |
| G2 | 0 | |
| G3 | 0 | |
| G4 | 1 | |
| G5 | 1 | |
| Total | 2 | |
| **C4: Natural Floodplain Function** | | |
| Priority 1 | 0 | 0% |
| Priority 2 | 0 | 0% |
| Priority 3 | 72 | 5% |
| Priority 4 | 96 | 7% |
| Priority 5 | 7 | < 1% |
| Priority 6 | 0 | 0% |
| Total Acres | 175 | 12% |

| 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 | 96 | 7% |
| Priority 5 | 976 | 69% |
| Priority 6 | 181 | 13% |
| Priority 7 | 129 | 9% |
| Total Acres | 1,382 | 98% |
| **C7: Fragile Coastal Resources** | | |
| Fragile Coastal Uplands | 0 | 0% |
| Imperiled Coastal Lakes | 0 | 0% |
| Coastal Wetlands | 0 | 0% |
| Total Acres | 0 | 0% |
| **C8: Functional Wetlands** | | |
| Priority 1 | 0 | 0% |
| Priority 2 | 0 | 0% |
| Priority 3 | 100 | 7% |
| Priority 4 | 68 | 5% |
| Priority 5 | 4 | < 1% |
| Priority 6 | 0 | 0% |
| Total Acres | 172 | 12% |
| **D3: Aquifer Recharge** | | |
| Priority 1 | 0 | 0% |
| Priority 2 | 0 | 0% |
| Priority 3 | 220 | 16% |
| Priority 4 | 386 | 27% |
| Priority 5 | 807 | 57% |
| Priority 6 | 0 | 0% |
| Total Acres | 1,413 | 100% |
| **E2: Recreational Trails** (miles) | | |
| (prioritized trail opportunities from Office of Greenways and Trails & Univ. Florida) | | |
| Land Trail Priorities | 0.0 | |
| Land Trail Opportunities | 0.0 | |
| Total Miles | 0.0 | |
| **F2: Arch. & Historical Sites** (number) | 7 sites | |
| **G1: Sustainable Forestry** | | |
| Priority 1 | 0 | 0% |
| Priority 2 | 0 | 0% |
| Priority 3 | 593 | 42% |
| Priority 4 | 0 | 0% |
| Priority 5 - Potential Pinelands | 553 | 39% |
| Total Acres | 1,145 | 81% |
| **G3: Forestland for Recharge** | 67 | 5% |

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

## Appendix B:

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




# AVALON PHASE II FLORIDA FOREVER PROPOSAL

JEFFERSON COUNTY

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

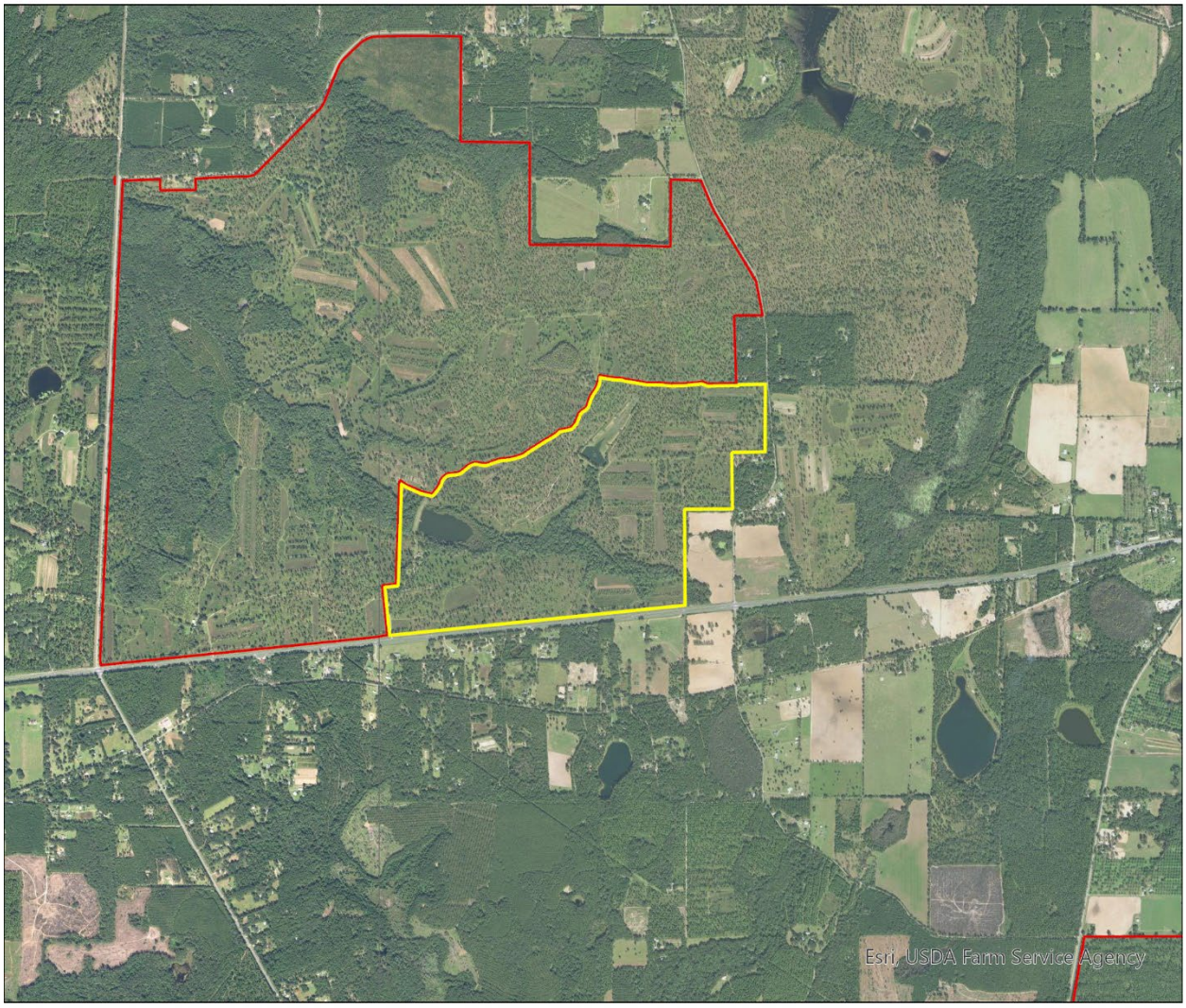
N

0 2.5 5 Miles


MAP BY FL NATURAL AREAS INVENTORY FEBRUARY 2023

# Avalon Phase II Florida Forever Proposal: Map 1

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




Map Produced by: FL Natural Areas Inventory, N. Pasco, February 2023 Background: USDA NAIP Imagery Resolution = 1.0 meter

FNAI

Florida Forever Proposal Boundary

Florida Forever BOT Projects

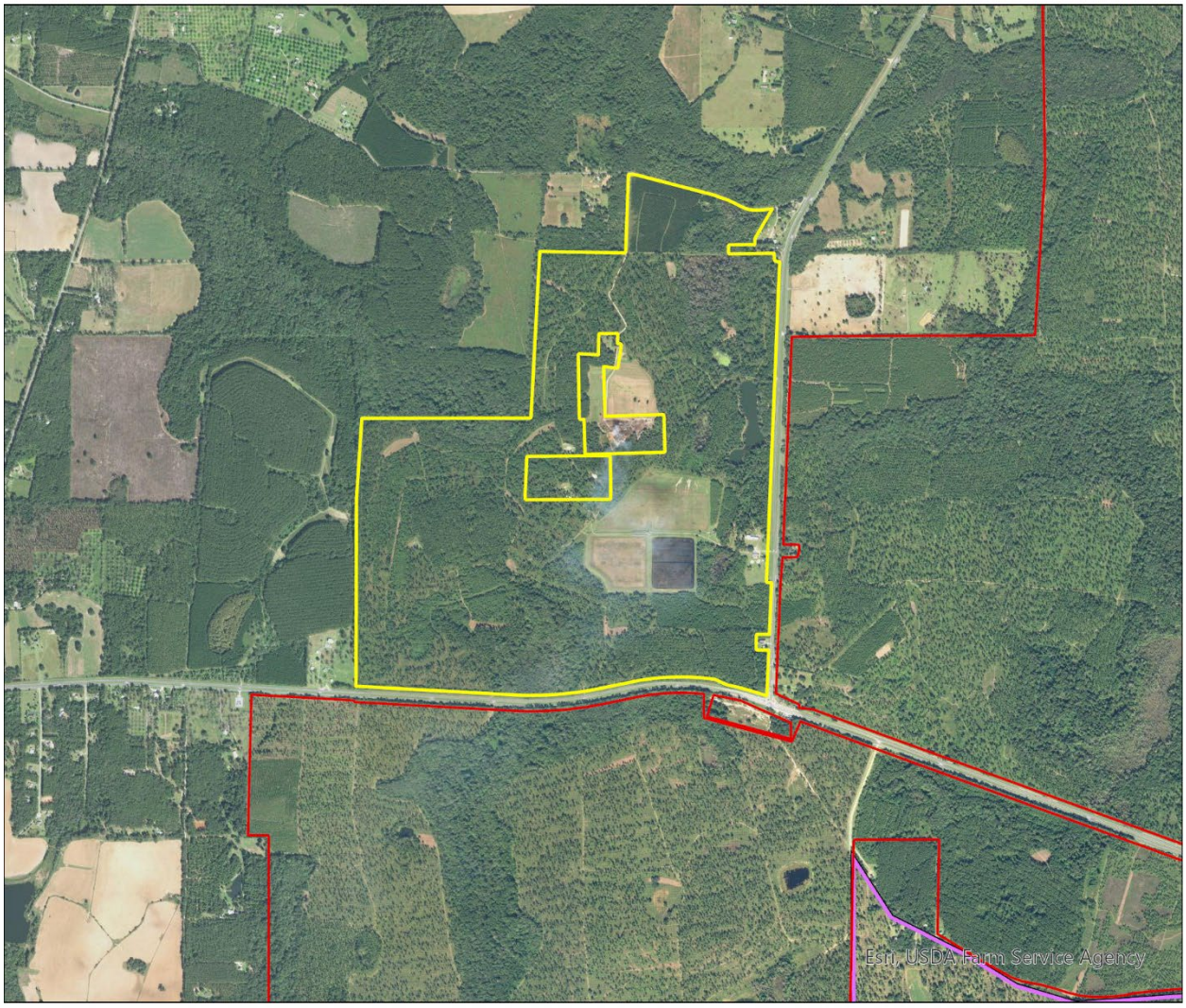
N

0 0.5 1 2

Miles

# Avalon Phase II Florida Forever Proposal: Map 2

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




Map Produced by: FL Natural Areas Inventory, N. Pasco, February 2023 Background: USDA NAIP Imagery Resolution = 1.0 meter

FNAI

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

N

0 0.5 1 2 Miles

## Appendix C:

PROPERTY ID #'S FOR FINAL RECOMMENDED BOUNDARY

| COUNTY | PARCEL ID | OWNER | ACRES PER TAX CARD | JUST VALUE | ASSESSED VALUE | PARCEL DESIGNATION |
|---|---|---|---|---|---|---|
| Jefferson | 03-1S-4E-0000-0010-0000 | RBT Partners LP | 308.09 | $281,775.00 | $102,787.00 | Essential |
| Jefferson | 03-1S-4E-0000-0022-0000 | RBT Partners LP | 51.92 | $103,840.00 | $12,420.00 | Essential |
| Jefferson | 09-1S-4E-0000-0010-0000 | RBT Partners LP | 200.26 | $360,468.00 | $60,101.00 | Essential |
| Jefferson | 10-1S-4E-0000-0010-0000 | RBT Partners LP | 300.70 | $749,516.00 | $541,135.00 | Essential |
| Jefferson | 11-1S-3E-0000-0010-0000 | Turner Reed Beauregard | 50.00 | $480,271.00 | $279,077.00 | Essential |
| Jefferson | 12-1S-3E-0000-0020-0000 | Avalon Annex LLC | 472.94 | $1,182,350.00 | $131,197.00 | Essential |
| | | | **1,383.91** | **$3,158,220.00** | **$1,126,717.00** | |

## Appendix D:
Imperiled Species FNAI Ranking Definitions

**FNAI**
**Definitions of imperiled species ranks and conservation status**

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Using a ranking system developed by NatureServe and the Natural Heritage Program Network, the Florida Natural Areas Inventory assigns two ranks for each element. The global rank is based on an element's worldwide status; the state rank is based on the status of the element in Florida. Element ranks are based on many factors, the most important ones being estimated number of Element Occurrences (EOs), estimated abundance (number of individuals for species; area for natural communities), geographic range, estimated number of adequately protected EOs, relative threat of destruction, and ecological fragility.

**FNAI GLOBAL ELEMENT RANK**

**G1** = Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
**G2** = Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
**G3** = Either very rare and local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
**G4** = Apparently secure globally (may be rare in parts of range).
**G5** = Demonstrably secure globally.
**GH** = Of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker).
**GX** = Believed to be extinct throughout range.
**GXC** = Extirpated from the wild but still known from captivity or cultivation.
**G#?** = Tentative rank (e.g., G2?).
**G#G#** = Range of rank; insufficient data to assign specific global rank (e.g., G2G3).
**G#T#** = Rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1).
**G#Q** = Rank of questionable species - ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q).
**G#T#Q** = Same as above, but validity as subspecies or variety is questioned.
**GU** = Unrankable; due to a lack of information no rank or range can be assigned (e.g., GUT2).
**GNA** = Ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
**GNR** = Element not yet ranked (temporary).
**GNRTNR** = Neither the element nor the taxonomic subgroup has yet been ranked.

**FNAI STATE ELEMENT RANK**

**S1** = Critically imperiled in Florida because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
**S2** = Imperiled in Florida because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
**S3** = Either very rare and local in Florida (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
**S4** = Apparently secure in Florida (may be rare in parts of range).
**S5** = Demonstrably secure in Florida.
**SH** = Of historical occurrence in Florida, possibly extirpated, but may be rediscovered (e.g., ivory-billed woodpecker).
**SX** = Believed to be extirpated throughout Florida.
**SU** = Unrankable; due to a lack of information no rank or range can be assigned.
**SNA** = State ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
**SNR** = Element not yet ranked (temporary).

**FEDERAL LEGAL STATUS**

Legal status information provided by FNAI for information only. For official definitions and lists of protected species, consult the relevant federal agency.

Definitions derived from U.S. Endangered Species Act of 1973, Sec. 3. Note that the federal status given by FNAI refers only to Florida

**FNAI**
**Definitions of imperiled species ranks and conservation status**

populations and that federal status may differ elsewhere.

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

STATE LEGAL STATUS

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

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

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

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

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

## Appendix E:

*Site Visit Photos*

*Impoundment*

*Upland Pine w/native groundcover*

*Basin Swamp*

*Gopher Tortoise burrow*

*Open field and longleaf pine plantation*

*Bottomland forest with seepage stream*

*Old Field*

*Old Field*

*Artificial pond*

*Planted pine*

Upland Hardwood/Bottomland Forest

Wakerobbin (*Trillium underwoodii*)