

UPPER ST. MARKS RIVER CORRIDOR DRAFT FLORIDA FOREVER PROJECT EVALUATION REPORT LEON, JEFFERSON, and WAKULLA COUNTIES

INTRODUCTION

General Description

The Upper St. Marks Corridor project spans 14 miles along the upper reaches of the St. Marks River and consists of approximately 13,376 acres. Approximately fifty percent of the proposal is in natural condition and consists of forested wetland communities, and upland hardwood forest/mesic hammocks. The natural communities are considered to be in good condition. The majority of the remaining uplands are in pine plantations of varying ages. Acquisition of the project would also assist with the protection of the water quality in the river and numerous springs in the area. The evaluation team visited the site on March 31, 2003.

Purpose for Acquisition

The following goals and criteria for the project are the result of consensus approval of the ARC liaison staff, FNAI staff, and the staff of the Office of Environmental Services (DSL). The enumerated goals represent the acquisition objectives as set forth in Section 259.105(4), Florida Statutes. The criteria define resource concerns generally applicable to or known to be specific to this project and identify appropriate strategies for the management of those resources.

(b) Increase the protection of Florida's biodiversity at the species, natural community, and landscape levels

1. To the greatest extent possible, the existing natural communities shall be managed to perpetuate natural species composition and relative abundances, natural age structure, and natural processes. Areas of old growth forest shall be managed to retain old growth characteristics. Fire dependent communities have suffered from fire exclusion and will benefit from the re-introduction of fire, particularly growing-season fire. Native groundcover should not be disturbed by the construction of plow lines. Instead, natural fire breaks, existing roads, and black lines should be used to contain prescribed fires. When practical, natural fires (via lightning strikes) should be allowed to burn if they are within the parameters of a written prescription; burn plans should incorporate contingency plans for managing such fires.
2. To the greatest extent practical, restrict the placement of facilities in already disturbed areas.
3. Although an exhaustive survey has not been conducted for vascular plants and animals, the project is known to harbor no FNAI-listed species of vascular flora and 4 rare animals. Occurrences of other listed species are probable. Special care will be necessary to insure that any facilities development is planned and that recreational uses are managed so as not to cause degradation of listed species habitat.

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(c) Protect, restore, and maintain the quality and natural functions of land, water, and wetland systems of the state

1. Uses, public or private, that are incompatible or would interfere with the protection, restoration, or management of the natural resources for which this project is to be acquired shall be prohibited.

2. All management activities on Florida Forever land should include a monitoring component so that managers can judge the effectiveness of their actions. Management plans, which are required for all Florida Forever land, should indicate specifically how and when the results of management activities will be monitored and how that information will be used to improve subsequent management activities.

3. Approximately 50 percent of the land within the Resource Planning Boundary of the project is disturbed to the extent that FNAI does not classify it as natural community (primarily in silviculture). The majority of the disturbed areas were once mesic flatwoods and sandhill natural communities. These areas should be restored to their original natural character to the greatest extent possible. To the greatest extent practical, onsite plant germplasm (seeds and other propagules) should be used in restoration efforts.

4. Hydrology should be allowed to remain as natural as possible and water quality should be maintained or improved. Where necessary and practical, the natural, preexisting hydrology, should be restored by removing or cutting roads and filling or plugging any ditches.

(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

1. As the demand for water statewide increases, protection and management of ground water recharge areas will have to increase so that natural systems and the citizens of the state will have sufficient quantities.

(e) Increase natural resource-based public recreational and educational opportunities

1. Management should provide for uses and recreational activities that are compatible with the protection of the rare and sensitive resources. Varied public recreational uses could include hunting, camping, picnicking, nature appreciation, hiking, and horseback riding, canoeing, and kayaking.

(g) Increase the amount of forestland available for sustainable management of natural resources

1. To the greatest extent possible, the existing natural communities shall be managed to perpetuate (or restore if necessary) natural species composition and relative abundances, natural age structure, and natural processes. Areas of old growth forest shall be managed to retain old growth characteristics. Fire dependent communities have suffered from fire exclusion and will benefit from the re-introduction of fire, particularly growing-season fire. Native groundcover should not be disturbed by the construction of plow lines. Instead, natural fire breaks, existing roads, and black lines should be used to contain prescribed fires. When practical, natural fires (via lightning strikes) should be allowed to burn if they are within the parameters of a written prescription; burn plans should incorporate contingency plans for managing such fires.

Location & Proximity to Other Managed Areas

The St. Joe Timberlands - Upper St. Marks River Corridor proposal includes 13,376 acres in eastern Leon and western Jefferson counties, all of which is owned by the St. Joe Company. The corridor ranges from 1 to 3 miles wide along 14 miles of the upper St. Marks River (from US 27 on the north to just north of the Natural Bridge Road on the south) and is proposed by The Nature Conservancy for fee simple acquisition. The proposal is presented as two phases, Phase 1 (2882 acres) north of Tram Road (CR 259) and Phase 2 (10,494 acres) south of Tram Road.

The proposal surrounds Natural Bridge Battlefield State Historic Park near its southern border. The north boundary of the proposal is about 1 mile east of three small preserves around the Lake Lafayette drainage owned by the city of Tallahassee and Leon County (Piney Z Plantation Tract, J. R. Alford Open Space Preserve, and L. Kirk Edwards Wildlife Environmental Area). The proposal is 6 miles east of the Apalachicola National Forest (Leon County) and 6 miles northeast of Wakulla Springs State Park and State Forest (Wakulla County). It is one mile northwest of Aucilla Wildlife Management Area (Jefferson County), which was recently expanded west to CR 59.

RESOURCE DESCRIPTION

This assessment of the natural communities of Upper St. Marks River Corridor is based on a site visit with the ARC liaison staff on March 31, 2003, plus two subsequent site visits on April 2 and April 24, 2003, by Florida Natural Areas Inventory (FNAI) biologist Ann Johnson. Review of 1999 DOQQ aerial photographs, ArcView coverages incorporating FLUCCS classification (NFWFMD), and Florida Fish and Wildlife Conservation Commission landcover data were also helpful. Additional information was gathered from the January 2003 project proposal, timber stand maps provided by St. Joe Company and natural resource and rare species data in the FNAI database. Brief descriptions and a summary table of the principal natural communities within the proposal are given below.

A primary goal of the Upper St. Marks River Corridor proposal is to buffer the upper St. Marks River from development and preserve its water quality, while also protecting the natural communities in its floodplain. Presumably this would also protect, at least to some extent, the water quality of the first magnitude St. Marks Spring just south of the proposal boundary. The proposal encompasses all but 270 acres of the 940-acre Florida Forever First Magnitude Springs project surrounding St. Marks Spring. The 270 acres around the spring are not owned by St Joe Company. There is a possibility that several more phases could be added to the project in the future to contribute to protection of the lower portion of the St. Marks River south as far as the point where it enters the St. Marks National Wildlife Refuge, about 10 miles south of Natural Bridge Road.

Approximately 50 percent of the proposal is in natural condition, most of the remainder being in pine plantation. Forested wetland communities in the floodplain (hydric hammock and floodplain swamp) are the dominant natural communities, with smaller areas of mesic hammock and upland hardwood forest in higher areas within the floodplain and on the upland fringes grading to pine plantation. Dome and basin swamps dot the uplands, surrounded by pine plantation. Most of the natural communities are in good condition, with

the exception of 111 acres of hydric hammock and upland hardwood forest at the mouth of Burnt Mill Creek that was recently clearcut. Most of the pine plantations seen in the site visits had a relatively natural understory with some wiregrass present, both those planted in former flatwoods areas and those in former sandhill areas. An exception are the plantations on the northwest side of Phase 2, from Chicken Branch north to Tram Road, which have an understory of dense titi shrubs (*Cliftonia monophylla* and *Cyrilla racemiflora*). The trees were planted in a wet area, which probably originally had a grassy ground cover, based on 1949 aerial photographs from a similar area in the Aucilla Wildlife Management Area. Drainage and shading after planting allowed titi shrubs to replace the original herbaceous component. The table below lists the acreage of the natural and non-natural land cover types within the site's boundaries.

Natural communities and landcover types within Upper St. Marks River Corridor

Community or land cover type	Acres	Percent of Proposal
hydric hammock/basin swamp/baygall	4101	31
floodplain swamp/dome swamp	2309	17
upland hardwood forest/mesic hammock	308	2
open water ^a	8	<1
blackwater stream	3	<1
pine plantation	6566	49
disturbed ^b	80	1
TOTAL	13,376	100

^a includes lakes and reservoirs

^b primarily residential (63 acres)

Hydric hammock/basin swamp/baygall. —These are mostly young to mid-sized forests with canopy dominated by swamp laurel oak (*Quercus laurifolia*), with occasional sweetbay (*Magnolia virginiana*), and subcanopy of musclewood (*Carpinus caroliniana*). Occasional shrubs of blue palmetto (*Sabal minor*) are found in higher areas in the understory. The most extensive area of this community was seen in the Willow Swamp, both north and south of Tram road on the west side of the river. A basin swamp with similar species composition was seen east of Old Plank Road, immediately south of Natural Bridge Road in the vicinity of Rhoades Spring.

Floodplain swamp – At most sites this is a young forest with a canopy of black gum (*Nyssa biflora*), green ash (*Fraxinus pennsylvanica*), bald cypress (*Taxodium distichum*), and red maple (*Acer rubrum*). Swamps with large trees and a well-developed community structure were observed at two sites: south of US 27 east of St. Marks River and at Old Plank Road bridge across Chicken Branch.

Upland Hardwood Forest/Mesic hammock - This community usually forms a narrow fringe on land sloping down to hydric hammock along the River and tributaries. It was seen along Old Plank Road and on east side of the River south of Burnt Mill Creek. The canopy consists of live oak (*Quercus virginiana*), pignut hickory (*Carya glabra*), water oak (*Quercus nigra*), and sweetgum (*Liquidambar styraciflua*) with subcanopy of southern magnolia (*Magnolia grandiflora*), American holly (*Ilex opaca*), and devils walking stick (*Aralia spinosa*). There is a sparse herbaceous layer of partridge berry (*Mitchella repens*) and wild

sarsaparilla (*Smilax pumila*). Beech (*Fagus grandifolia*) was found in the canopy at one site south of Burnt Mill Creek. Often the ecotone with pine plantation is dominated by water oak (*Quercus nigra*) with a shrubby understory of large gallberry (*Ilex coriacea*). At one such site west of the River near Horn Spring Road the native wisteria vine (*Wisteria frutescens*) was seen in flower.

Dome swamp – These isolated swamps are embedded in the matrix of pine plantation that was formerly mesic or wet flatwoods or wet prairie. They are in all stages of succession, from very young trees hardly taller than the surrounding shrubs to tall, mature swamps. An example of the latter was visited north of Chicken Branch in a young (5 ft tall) slash pine plantation. Black gum (*Nyssa biflora*) formed a monospecific subcanopy beneath a sparse canopy of emergent pond cypress (*Taxodium ascendens*). A dense evergreen shrub layer composed of shiny lyonia (*Lyonia lucida*) and fetterbush (*Leucothoe racmosa*) grew on hummocks around the base of the trees. Fringing of the swamp was a dense hedge of white titi (*Cyrilla racemiflora*).

Pine plantation – Plantations with relatively natural mesic flatwoods understory are found in recently cut plantations south of Tram Rd west of the River and in plantations in the narrower portion of the proposal, extending about 2 miles north and south of Natural Bridge Road. Species seen southeast of the junction of Old Plank and Natural Bridge Road include gallberry (*Ilex glabra*), lyonia (*Lyonia mariana*), and saw palmetto (*Serenoa repens*), with patches of dwarf shrubs (*Vaccinium darrowii*, *Gaylussacia frondosa*) and scattered clumps of wiregrass (*Aristida stricta*) and Florida dropseed (*Sporobolus floridanus*). The tall, widely spaced planted slash pines have fire scars on their bases.

Plantations with sandhill/upland pine forest were seen at two locations: south of Tram road (74 acres) where spindly loblolly pines are about the same height as the understory trees and south of US 27 (240 acres) in a young slash pine plantation. Understory species at the site south of Tram Road include turkey oak (*Quercus laevis*), bluejack oak (*Q. incana*), and laurel oak (*Q. hemisphaerica*) in canopy, with a shrub layer of sparkleberry (*Vaccinium arboreum*) and deerberry (*Vaccinium stamineum*). Clumps of wiregrass (*Aristida stricta*) are scattered in herb layer along with ground lichen (*Cladina subtenuis*).

Plantations with a dense understory of 10- foot-tall titi shrubs (*Cliftonia monophylla* and *Cyrilla racemiflora*) are found on the west side of the River between Tram Road and Chicken Branch. These are probably on sites formerly occupied by wet prairie.

BIODIVERSITY

FWC Strategic Habitat Conservation Area

Encompassing approximately 13,500 acres located in Jefferson and Leon Counties that extend from U.S. Highway 27, along both sides of the St. Marks River, south to the Natural Bridge Battlefield State Historic Site, the conception of this proposal is to preserve a contiguous river corridor system. Reviewed here are Phase I and II of a potential three-phase project that would eventually connect to the St. Marks National Wildlife Refuge.

Significant portions of the area contained within the proposal is either considered to be Strategic Habitat Conservation Areas or habitat for rare and imperiled species. The St. Marks River is a blackwater stream designated as an Outstanding Florida Water. Florida Natural Areas Inventory (FNAI) has documented element occurrence data for the alligator snapping turtle (*Macrochelys temminckii*), as well as the limpkin (*Aramus guarauna*), near the southern end of the proposed project area. Signs of river otter (*Lutra Canadensis*), gray fox (*Urocyon cinereoargenteus*) and bobcat (*Lynx rufus*) have been observed along this river corridor and its associated floodplain.

Contained within the Upper St. Marks River Corridor are diverse assemblages of natural communities that offer a mosaic of habitats for wildlife. Approximately 52% of the proposed area consists of hardwood communities, represented by bottomland forest and floodplain swamp, which are flanked by a narrow band of upland hardwood forest. Neotropical migrant species, which are in decline due to loss of habitat, utilize these hardwood hammocks during spring and fall migration as stopover and foraging habitat. Breeding passerines that are also thought to be in decline also use these habitats. These include the prothonotary warbler (*Protonotaria citrea*), Kentucky warbler (*Oporornis formosus*), hooded warbler (*Wilsonia citrina*), Swainson's warbler (*Limnothlypis swainsonii*), wood thrush (*Hylocichla mustelina*) and the yellow-billed cuckoo (*Coccyzus americanus*). In addition, the floodplain swamp provides potential habitat for the Louisiana waterthrush at the southern edge of its breeding range. This species shows a strong preference for contiguous forest tracts and unpolluted headwater streams and, according to Breeding Bird Survey data, is exhibiting a strong declining population trend within the main body of its range (Cox et al. 1994).

Most of the upland habitat on the proposed area has been converted to silviculture, however a significant quantity of native ground cover, including wiregrass, remains. These pine plantations were previously sandhill and mesic or wet flatwoods natural communities. Sandhills, a once common natural community is dwindling in Florida due to its high commercial value. Sandhill habitat provides refuge for several listed species of wildlife including Gopher tortoises (*Gopherus polyphemus*), a state listed Species of Special Concern, which were observed on the area.

With gopher tortoises comes the potential for the occurrence of other species that utilize their burrows such as the gopher frog (*Rana capito*), a Species of Special Concern, the eastern indigo snake (*Drymarchon corais*), federally and state listed as Threatened and eastern diamond back rattlesnake. Other species that utilize sandhills include the declining fox squirrel (*Sciurus niger ssp.*), northern bobwhite (*Colinus virginianus*), common ground dove (*Columbina passerina*), pocket gophers (*Geomys pinetis*), Florida pine snake (*Pituophis melanoleucus*), and the southeastern American kestrel (*Falco sparverius*).

Due to the juxtaposition of many habitat types, the proposed area has the potential to sustain breeding Cooper's hawks (*Accipiter cooperii*). After 50 years of decline, Cooper's hawks appear to have rebounded to pre-DDT levels in many parts of the country since the 1970's. However, Breeding Bird Survey data for Florida indicates that the Florida population has not changed much in recent years (Cox and Kautz 2000). Cooper's hawks will nest in a variety of different habitats and prefer nest sites relatively close to at least four different major habitat types (Cox and Kautz 2000) some of which are present on this tract.

One large depression marsh exists on the project area that provides habitat important to a variety of wildlife, particularly several species of listed wading birds including, snowy egret (*Egretta garzetta*), little blue heron (*Egretta caerulea*) and tricolored heron (*Egretta tricolor*), which are all listed Species of Special Concern. Wood storks (*Mycteria Americana*), a federally listed endangered species, also utilize these areas. Herons and egrets likely feed in the shallows along the length of the river. The floodplain swamp may also serve as ephemeral breeding locations for rare amphibian species. Other animals, such as rabbits, deer, and turkey are found in the mixed pine/hardwood tracts rising from the river bottom.

The Florida black bear (*Ursus americanus floridanus*), a threatened species, is also known to occur on the project area. Black bears need large contiguous tracts of land in order to ensure a viable breeding population of > 200 individuals (COX et al. 1994). Special deliberation should be given to this fact when considering the value of this property as conservation lands. The proposed project area lies within 1-½ miles of the Aucilla Wildlife Management Area (Aucilla WMA), which provides a direct linkage with St. Marks National Wildlife Refuge (St. Marks NWR), just west of the Aucilla River and has been identified by Cox et al. (1994) as containing high quality black bear habitat with scores of ≥ 9 on a scale of 1-10. As the human population of Leon and Wakulla Counties continues to grow, acquisition of the proposed area will aid in buffering the Apalachicola bear population from encroachment and narrow the gap between the Apalachicola National Forest, St. Marks NWR and Aucilla WMA.

Considering the importance of the Upper St. Marks River Corridor as black bear habitat, together with its diverse plant and animal communities and the potential for resource-based public outdoor recreation, acquisition of this tract is warranted. Along with the restoration of the degraded upland communities, the enhancement or maintenance of the intact natural floodplain hardwood communities would maintain a functioning ecosystem for the purpose of perpetuating wildlife diversity. Accomplishment of these goals on this project appears viable while providing ample nature-based recreational opportunities such as wildlife observation, canoeing, fishing, and hunting.

Displayed in the unique ecology of this waterway and its associated forests, are stands of old growth cypress and many rare species. Given the proximity of the site to the Aucilla WMA, the project would aid in establishing a corridor that could potentially link the St. Marks NWR via the Wacissa and Aucilla River watersheds. Protection of the lands within this corridor will help to preserve the critical migration and habitat for a substantial number of bird species, noted above. Affording the potential to protect a functional ecological river corridor extending from Lake Lafayette to the St. Marks National Wildlife Refuge, the Upper St. Marks River Corridor project presents a remarkable prospect to conserve a natural and scenic river with an important array of wildlife habitat.

FNAI Priority Conservation Area

An analysis of priority conservation areas based on Florida Forever Conservation Needs Assessment data may be found in Appendix A. Habitat conservation priorities for 265 of Florida's rarest species were mapped and divided into six priority classes. Appendix A shows the acres for each priority class found on the Upper St. Marks River Corridor. Overall the site contains approximately 10,000 acres (100%) of rare species habitat. Most of the

habitat is Priority 6 (46% of site) with the remainder in Priority 5 (18% of site). The following table lists the acres of habitat for each species that may be found on the site, based on the FNAI Habitat Conservation Priorities. Please note that habitat for these species may overlap so that the sum total of habitat for all species may be more than the total acreage of the priority conservation areas.

Rare species habitat on the Upper St. Marks River Corridor proposal based on FNAI Habitat Conservation Priorities for 265 species with the greatest conservation need.

Scientific Name	Common Name	Global Rank	Acres
<i>Drymarchon corais</i>	Eastern indigo snake	G3	8,306
<i>Haliaeetus leucocephalus</i>	bald eagle	G4	964
<i>Trichechus manatus</i>	manatee	G2	11,132

Under-represented Natural Communities

The Florida Forever natural communities 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. Appendix A lists the acreages of under-represented natural communities found on the site. Based on this analysis, the Upper St. Marks River Corridor contains approximately 2,500 acres of good quality pine flatwoods (19% of site). The field assessment, however, reports only pine plantation, although some of this still has relatively intact mesic flatwoods understory. It is likely that the flatwoods reported in the Florida Forever analysis has been converted to plantation in recent years.

OGT Significant Landscapes, Linkages, Corridors

This project is an excellent recreational trail opportunity, which would help facilitate a possible connection to other conservation and recreation lands in Leon County, such as the JR Alford Greenway. The majority of the project is located within the ecological greenways network identified by the Office of Greenways and Trails and the University of Florida.

Natural Communities Mosaic & Large Landscape Component

Upper St. Marks River Corridor, along with existing conservation lands, would not contribute to a large landscape-sized protection area of at least 50,000 acres. This site is not within a priority landscape based on the Florida Forever analysis (Appendix A).

FNAI Element Occurrences

The Upper St. Marks River Corridor is within the primary habitat zone for Florida black bear (*Ursus americanus floridanus*) as identified by the Florida Fish and Wildlife Conservation Commission. Numerous bear sign have been reported as seen recently on the tract by George Willson of St. Joe Company, as well as by a hunter during one of the site visits. Three other rare animals are documented in the FNAI database on the site, the dusky shiner in the river and gopher tortoise and eastern diamondback rattlesnake from the surrounding uplands. Eastern indigo snake (*Drymarchon couperi*) and southeastern weasel (*Mustela frenata olivacea*) are documented near the site in the FNAI database and have suitable habitat on site.

Rare plants and animals within Upper St. Marks River Corridor

Scientific name	Common name	Global Rank	State Rank	Federal Status	State Status
rare plants documented on site					
none					
rare animals documented on site					
<i>Notropis cummingsae</i>	dusky shiner	G5	S4	N	N
<i>Crotalus adamanteus</i>	eastern diamondback rattlesnake	G4	S3	N	N
<i>Gopherus polyphemus</i>	gopher tortoise	G3	S3	N	LS
<i>Ursus americanus</i>	Florida black bear	G5T2	S2	N	LT

Appendix A 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 above table because a) some species may have more than one occurrence on the proposal site, or b) some species observed on site lack sufficient data to justify 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.

NATURAL FUNCTIONS

Ecological Restoration Needs

The Upper St. Marks River Corridor has approximately 6,566 acres of pine plantation that was likely once wet prairie, mesic flatwoods, wet flatwoods and sandhill/upland pine forest. Since most of the understory for the mesic flatwoods and sandhill/upland pine forest portions is intact, the most important first step in restoration would be in thinning or cutting the pines before they become too dense and shade out the wiregrass and other herbaceous species in the understory. Plantation in former wet prairie will require intensive clearing and possibly re-planting of wiregrass to restore, since it is now occupied by dense titi shrubs and little or no wiregrass and other wet prairie herbaceous species remain. The clearcut areas of hydric hammock should be monitored to determine if they are succeeding to mature hammock or will require some type of intervention to allow them to do so.

Water Quality Assessment

The Upper St. Marks River Project is adjacent to an Outstanding Florida Water (OFW) and on EPA's 1998 303(d) list of impaired waterbodies. The land parcel does not include the river; however it lies within the River's watershed. The Upper St. Marks River proposal contains one water body that is reported in the 2000 Water Quality Assessment 305 (b) report. This water body is the St. Marks River. The river has known water quality impairment and is not fully meeting its designated use.

There does not appear to be any Class I or Class II surface waters near or on the property. Therefore, any surface waters on the property would be considered Class III waters which have a designated use for recreation, propagation and maintenance of a healthy, well-balanced population of fish and wildlife (chapter 62-302, F.A.C.). Any activities proposed in

surface waters or wetlands would require appropriate Environmental Resource Permits from either the Water Management District or the DEP. The St. Marks River has been designated as Outstanding Florida Waters pursuant to Chapter 62-302, F.A.C.

Natural Floodplains

The project contains approximately 2,318 acres of land that would protect natural floodplain functions.

Coastal Resources

The project does not contain or protect fragile coastal resources.

Beach Erosion

The project does not contain critically eroding beaches contiguous with existing restored and protected public lands

Functional Wetlands

The project contains approximately 1,704 acres of functional wetlands that will be protected by acquisition.

Invasive Plants

This proposed acquisition represents a project designed to protect the upper St. Marks River basin and hence the watershed for Florida jewels such as the St. Marks and Wakulla Springs. The project encompasses portions of the upper St. Marks River, Sweetwater Branch, Moore Branch, Gum Creek, and Willow Swamp. Natural communities include hydric and mesic hammocks; basin, dome, and floodplain swamps; and baygalls. Most of what were flatwoods or sandhills have been converted to pine plantations, but these areas may still harbor some of their natural groundcover and understory species. No rare plants are documented for this tract, but the Florida-Threatened fever tree (*Pinckneya bracteata*) is known to occur along Burnt Mill Creek just northeast of the tract, and the Florida-endangered Flyr's nemesis (*Brickellia cordifolia*) occurs in a private nature preserve just upstream on Moore Branch. A more intensive plant survey upon acquisition will no doubt be worthwhile; at the very least, more of the uncommon native wisteria found in a Phase 2 project area is likely to be seen.

No invasive exotic plants were noted by the FNAI team for this tract (a wondrous thing in Florida conservation lands). However, a few species certainly might be expected and monitored for. Cogon grass (*Imperata cylindrica*) is known in scattered locations along Tram Road (and was seen on a woods road in the Phase 2 area south of Tram); it is likely to turn up on the disturbed well-drained uplands. Japanese climbing fern (*Lygodium japonicum*) and Chinese privet (*Ligustrum sinense*) are known along nearby edges of U.S. 27 and will need to be watched for in the floodplain communities especially. Chinese tallow (*Sapium sebiferum*) is also known from southeast Leon and west Jefferson counties. Other possibilities are noted in the Table below. (Assigned managers for this tract will need to be familiar with the distinguishing characters of the native and Chinese wisteria.)

Documented invasive exotic plants in public conservation lands, Leon and Jefferson Counties. This information is drawn from our upland databases and staff observations.

INVASIVE SPECIES	COMMON NAME	EPPC CATEGORY
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<i>Albizia julibrissin</i>	mimosa	I
<i>Aleurites fordii</i>	tung oil tree	II
<i>Ardisia crenata</i>	coral ardisia	I
<i>Cinnamomum camphora</i>	camphor tree	I
<i>Colocasia esculenta</i>	taro, wild taro	I
<i>Elaeagnus pungens</i>	silverthorn	II
<i>Imperata cylindrica</i>	cogon grass	I
<i>Ligustrum lucidum</i>	glossy privet	II
<i>Ligustrum sinense</i>	Chinese privet	I
<i>Lonicera japonica</i>	Japanese honeysuckle	I
<i>Lygodium japonicum</i>	Japanese climbing fern	I
<i>Melia azederach</i>	Chinaberry tree	I
<i>Nandina domestica</i>	heavenly bamboo	I
<i>Paederia foetida</i>	skunk vine	I
<i>Sapium sebiferum</i>	Chinese tallow tree	I
<i>Wisteria sinensis</i>	Chinese wisteria	II

WATER RESOURCES

SWIM or Water Supply Plan Component

The proposal is within the St. Marks River SWIM plan. The plan includes the watersheds of the Wakulla River, and Apalachee Bay. The goals of the plan include: implementation and update as necessary a comprehensive plan for the watershed, and develop the research necessary to guide a management program, increase information available about the natural resources of the St. Marks and Wakulla rivers and Apalachee Bay, identify and quantify both point and nonpoint sources of pollution in the watershed and develop management strategies that will protect and preserve water quality, document water and sediment quality and relate change in water quality to specific activities, such as land use, shoreline alteration and nutrient inputs, determine ground water and surface water interactions and identify possible sources of water quality problems, and improve public awareness about the St. Marks and Wakulla rivers and Apalachee Bay ecosystem through an aggressive public education campaign about basin habitats and natural resources, on-site disposal systems, responsible recreational behavior, and responsible land and water stewardship.

Surface Water Protection

There are approximately 2,872 acres that have been identified within the project area that would protect surface waters of the State.

Retention & Storage of Surface Waters

There does not appear to be any structures for the retention and storage of surface waters.

Water Quantity

Since the project area is not directly addressed by a regional water supply plan, it is not possible to quantify the amount of water made available at this time.

Water Recharge

Approximately 2,872 acres have been identified that provide groundwater recharge, and approximately 1,475 acres of forestland have been identified that would serve to maintain natural groundwater recharge functions.

Contribution towards Solving Regional Water Resource Problems

The project contains approximately 1,704 acres of wetlands that provide natural retention and storage of surface water, but it is unknown whether they are consistent with the maintenance of water resources or water supplies and consistent with district water supply plans.

Due to the connectivity with the Florida's First Magnitude Springs Florida Forever project, and the Cary State Forest the project contributes to ongoing governmental efforts to protect and restore the regional land and water resources.

RESOURCE-BASED RECREATION

The Upper St. Marks River Corridor has the potential of providing a diverse recreational experience of a regional context. It is also immediately adjacent to a major urban area. The project is separated into two parts, Phase I and Phase II. Phase I lies between US27 and Tram Road. Phase II lies south of Tram Road and extends to a point a little over a mile south of Natural Bridge Road. While a large portion consists of the flood plain of the upper portion of the St. Marks River, the project can support a wide diversity of resource-based recreational opportunities. To maximize the full potential of those opportunities, however, the project would benefit through the expansion of the its boundaries.

Phase I could be enhanced through the addition of uplands east of the project boundary and the inclusion of an 80-acre parcel close to Tram Road. The addition of the eastside lands would enhance internal circulation and improve potential public access by bringing the project boundary to a public road. The addition of this land would also enhance the potential for facility development. The 80 acres is an inholding within the project.

Phase II would benefit by the addition of uplands between the northwest boundary of that phase and Tram Road on the north and Old Plank Road on the west. The addition of these lands would provide greater latitude in the establishment of permanent facilities, as well as improve access from the north. A second parcel lies adjacent to the southeast boundary of the project and is next to the north side of Natural Bridge Road. Access into this portion of the project is across a dirt road immediately on the project boundary. The additional lands would make the road more internal within the project and thereby deter a need to construct a future vehicular access within the fairly natural area between the road and the river. A second magnitude spring, Rhodes Spring, is located at the southwest corner of Old Plank Road and Natural Bridge Road. This spring and a suitable area around it should be included in the project.

There is good access into portions of Phase I from paved highways on the north (US27) and south (Tram Road). There is lesser accessibility east of the river. Access into this eastern

area is to be provided by easements across lands that are owned by the landowner of the project area. Phase II is readily accessible from the north, south, southeast and west.

Both Phase I and Phase II can support a diversity of resource-based outdoor recreational opportunities. Silviculture and timbering activities in portions of the project will have an impact on the quality of these opportunities for many years to come. As the resource recovers, however, the natural experience will be more and more enjoyable for the naturalist at heart. While water levels in the floodplain will affect public use, hiking, bicycling and horseback riding opportunities can be provided expansively and may be connected with trails from other nearby public lands. Phase I is more limited in this capacity due to wetlands that interrupt the drier portions of the property. Phase II is thought to have better overall trail potential. The existing internal logging road system ties many of the drier uplands together. As one approaches natural bridge from the north, access within this phase is constricted on the west side of the river. The lands south of Natural Bridge are higher, drier and have good potential for trails, other activities and facilities.

In addition to trails, other resource-based activities can be provided within both phases. Nature appreciation and wildlife observation could be enjoyed at the same time as one is enjoying trail opportunities. Camping and picnicking would be supportable in both phases and would bolster the project as a destination point. Scientific research and environmental education are also supportable. Depending on management emphasis, hunting can also be supported. Both phases are currently under hunting leases. A large hunt camp exists in the south portion of Phase II, east of the river. This camp is immediately adjacent to Horn Spring, a second magnitude spring. While the river traverses both phases, canoeing is not reliable in Phase I. However, canoeing becomes an activity highlight in Phase II where at least a two to three hour aesthetically pleasing float down stream can be had. While on the water, or on the bank, freshwater fishing is a common pastime on the southern portions of the river in this project. Lastly, historic preservation and interpretation is an extremely important part of the south portion of this project. It is in this area that the Battle of Natural Bridge took place. The project contains a significant part of the battlefield. Natural Bridge Battlefield Historic State Park is located at this site.

Of the activities mentioned, the 2000 Statewide Comprehensive Outdoor Recreation Plan identifies bicycling as having a need for the year 2005 for the region in which the project is located. Bicycling is reflected as having a low need when compared amongst regions statewide for this activity. When compared amongst all resource-based activities statewide, bicycling is reflected as having a low relative need.

Resource-based potential for the project is considered high, depending on the ability to add the recommended lands. While not reflected in the plan as having a need, the Florida Fish and Wildlife Conservation Commission advises that the project has low-moderate hunting potential.

ARCHAEOLOGICAL & HISTORICAL RESOURCES

The Upper St. Marks Corridor currently contains 17 archaeological sites and one structure (a logger's dam) listed in the Florida Master Site File. Most of these sites are small artifact

scatters/campsites that manifest Archaic, Deptford, Weeden Island, Fort Walton, Leon-Jefferson, Civil War and American period components. In fact, a portion of the Natural Bridge (Civil War) Battlefield would be picked up by this purchase. In looking at topographic maps, this tract appears to have a moderate-to-high probability of holding potentially significant archaeological or historical sites in well-drained upland areas overlooking the St. Marks River and its tributaries. Additionally, some quarry sites might be expected in or around the areas where sinkholes occur. A cannon ball dating to the Civil War and the remains of mastodon were found in a stream run just east of the St. Joe property.

As for field impressions, most of the low sandy ridges will be found to contain aboriginal archaeological sites. In fact, during our field assessment we found a new site, a lithic scatter with no diagnostic artifacts, which is in the process of being added to the Florida Master Site File. Portions of the property also may hold rare Paleo-Indian period sites, especially along karst features such as springs and sinkholes. We also noted some tram roads and associated bridges that were used probably from the late 19th to the mid-20th century in association with the timber industry. Archival research may yield additional information regarding historical activities that occurred on or near this tract.

MANAGEMENT

See Appendix B

ACQUISITION COORDINATION

Contribution to Completing Projects begun under Previous Programs

This project (approximately 13,376 acres) is adjacent to the Natural Bridge Battlefield Historic State Park, and adjacent to the First Magnitude Springs Florida Forever project.

Potential for Alternatives to Fee-Simple (<Fee Conservation Easement)

The project is proposed for fee simple acquisition.

Acquisition Partnerships

The Division of Recreation and Parks and the Office of Greenways and Trails are co-sponsors of the project.

Funding Sources

There are no alternative (partnership) funding sources at this time.

Funding for Mapping, Appraisal, Negotiations & Closing

There does not appear to be alternate funding sources available for acquisition costs.

Resolutions

None at this time.

Title Vesting Issues (shared or Joint title)

Shared or Joint title is not contemplated.

OWNERSHIP PATTERN & ACQUISITION PLANNING:

The project consists of approximately 17,631.50 acres, multiple parcels and one owner. The 2001 tax assessed value is estimated at \$1,915,147.

Tax Parcel Information

Phase I

<u>Owner</u>	<u>Parcel</u>	<u>Acres</u>	<u>Assessed Value</u>
<u>Jefferson County</u>			
St. Joseph Land &	30-1S-3E-0000-0010-0000	622	\$49,353
Development Co.	31-1S-3E-0000-0010-0000	639.76	\$66,866
P.O. Box 908	32-1S-3E-0000-0010-0000	631.16	\$61,246
Port St. Joe, Fl. 32457-0908	05-2S-3E-0000-0020-0000	549.00	\$81,784
	06-2S-3E-0000-0010-0000	640.25	\$36,360
	07-2S-3E-0000-0010-0000	639.50	\$47,958
	08-2S-3E-0000-0010-0000	638.75	\$65,557
<u>Leon County</u>			
	3225200040000	548.33	\$55,431
	3430200020000	632.68	\$88,013
	3234200600000	629.11	\$58,101
	3235200600000	633	\$81,392
	3236200600000	637.25	\$37,314
	3429200140000	442.92	\$51,086
	3403200020000	638.75	\$93,338
	3404200020000	632.45	\$111,163
	3402200020000	638	\$65,051
	3401200020000	640.50	\$46,331
	3408200400000	629.53	\$81,914
	3409200400000	642.50	\$73,342
	3410200400000	639.50	\$67,603
	3411200500000	639.82	\$69,386
	3412200500000	641.50	\$60,975
	3414200600000	646.25	\$81,552
	3415200600000	645	\$84,841
	3416200600000	645.25	\$66,284
	3417200020000	588.74	\$59,333
	3420202300000	360	\$30,335
	3421200020000	640	\$82,818
<u>Wakulla County</u>			
	31-2S-02E-000-05863-000	320	\$40,900
	32-2S-02E-000-05865-000	160	\$19,520
		17,631.50	\$1,915,147

PER Upper St. Marks River Part 2 of 2

Willingness to sell at or below 80% of appraised value

The landowners do not appear to be willing to consider a sale of land at 80 percent or less of appraised value, but every attempt will made to acquire parcels at 80 percent or less of appraised value.

Title & Legal Access Issues

There do not appear to be any title or legal access issues.

Sovereignty Lands Issues

Portions of the upper reach of the St. Marks River are located within the project area. Appraisal mapping will determine the extents of potential sovereignty lands.

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

There are short term hunting leases over most of the property.

Legal issues (lawsuits, administrative actions, etc.)

There do not appear to be any ongoing legal issues associated with this property.

Acquisition Phases

Since the project is a single owner project the entire project is essential.

Acquisition Strategy

The project is comprised of two phases. Phase I should be pursued before Phase II.

GOVERNMENT PLANNING & DEVELOPMENT**Development Potential**

There is high potential for development in the proposed Upper St. Marks River Corridor north of I-10 in Leon and Jefferson. Leon County is experiencing growth pressures as a result of growth in Tallahassee and neighboring suburbs. The growth rate county-wide was approximately 24% from 1990 to 2000. There are numerous subdivisions approved and proposed in Tallahassee/Leon including Southwood Plantation and Welaunee. The area just west of the subject is densely developed with homes in the \$125,000 to \$350,000 price range on small (5 to 10 acre) tracts. The subject is a logical area to expand existing residential development on similar sized lots. The area of the subject in Jefferson County is projected to follow this pattern within 5 to 10 years.

Potential for Losing Significant Natural Attributes or Recreational Open Space

The potential for losing significant natural attributes and open space is high. The St. Joe Corporation has been activity marketing a number of parcels in this area.

Potential for being Subdivided

Given the current development pattern in the area, the potential for subdivision is high. It is anticipated that much of the undeveloped land surrounding Tallahassee will be subdivided for future residential development. There is a high demand for larger lots such as 10 acre tracts found in the subject area.

Current & Proposed Land Use in Local Government Comprehensive Plan

The current land uses are vacant. The proposed uses include approximately 2,560 acres in Leon County and 640 acres in Jefferson County held in private ownership. The land is designated as Rural/Agriculture with an allowable density of 1 du/10 acres in Leon County and Agricultural with an allowable density of 1 du/20 acres in Jefferson County. The wetlands are shown in the St. Marks Lowland overlay in the Leon County Plan.

Contribution to Open Space Needs & Location Relative to Urban Service Area

The project site is adjacent to the Leon County urban service area. Acquisition of the project site will provide additional recreational opportunities for residents of the Leon County urban service area. The Leon County comprehensive plan identifies the area as a potential Greenway.

Local Development Regulations

The area of the subject in Leon County is zoned Rural/Agriculture. This refers to largely undeveloped acreage remotely located away from urbanized areas containing the majority of the County's present agricultural, forestry and grazing activities. Very low residential density (1 to 10 acres) and minimal commercial designed to service basic household needs of adjacent residents are allowed, as well as passive recreational land uses are. The area in Jefferson County is substantially agricultural in nature and subject to similar development.

Transportation Corridors

No multi-laning project is currently proposed for the portions of State Road 20 (US 27) in either County. However, there is a Project Development and Environmental (PD&E) Study slated for a portion of State Road 20 to the west of County Road 1543, approximately one mile west of the western limits of the proposed acquisition. Otherwise, there are no indicated potential conflicts.

Ongoing Governmental Efforts

This project does not implement elements from a plan developed by an ecosystem management team.

The project is not a component of the Everglades Restoration Plan.

PROJECT BOUNDARIES**FNAI Resource Planning Boundary**

See Appendix C

Recommended Modifications

Pursuant to a request, by the Acquisition and Restoration Council, staff assessed the second phase of St. Joe property for possible inclusion in the current proposal. The second phase property is located south of the existing proposal and is comprised of approximately 10,644 acres. Staff unanimously agreed to include the second phase of the project.

Final Project Map

See Appendix D

SPECIFIC PERFORMANCE MEASURES

See Appendix A

ACKNOWLEDGEMENTS

Consensus among the FNAI, ARC Liaison staff, and the staff of the Division of State Lands (DSL) determined the final project recommendations. John Barrow, Office of Environmental Services, was responsible for the overall coordination of this report.

Contributors

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Upper St. Marks River



Upland mixed hardwood forests



St. Marks River at the end of Phase I



Former sandhill area



Horn Spring



Former sandhill area

FWC Prospectus: Projected Budget

Area/Project:

Upper St. Marks

Maximum expected single-year expenditure

Acreage: 13,376

<u>Resource Management</u>	<u>Startup</u>	<u>Recurring</u>
Exotic Species Control	\$53,504	\$107,008
Prescribed Burning	\$8,161	\$16,321
Hydrological Management	\$40,000	\$4,475
Other	\$98,094	\$98,094
Subtotal	\$199,759	\$225,898
<u>Administration</u>		
Central Office/Headquarters	\$57,642	\$23,151
Districts/Regions	\$24,704	\$9,922
Subtotal	\$82,345	\$33,072
<u>Support</u>		
Land Management Planning	\$25,000	\$1,000
Land Management Reviews	\$0	\$500
Training/Staff Development	\$0	\$1,000
Vehicle Purchase	\$110,850	\$15,836
Vehicle Operation/Maintenance	\$13,230	\$13,230
Subtotal	\$149,080	\$31,566
<u>Capital Improvements</u>		
New Facility Construction	\$870,442	\$0
Facility Maintenance	\$0	\$112,515
Subtotal	\$870,442	\$112,515
<u>Visitor Services/Recreation</u>		
Operations	\$1,738	\$178
Subtotal	\$1,738	\$178
<u>Law Enforcement</u>		
All Activities	\$9,363	\$9,363
TOTAL	\$1,312,727	\$412,592

Figures include salary for 3 FTEs.

Upper St. Marks River Proposal: Florida Forever Measures Evaluation

ACRES = 13,362

MEASURES	Acres ^a	% of project	MEASURES (continued)	Acres ^a	% of project
B1: Strategic Habitat Conservation Areas			C4: Natural Floodplain Function		
Priority 1	0	0%	Priority 1	5,783	43%
Priority 2	0	0%	Priority 2	104	1%
Priority 3	0	0%	Priority 3	4,438	33%
Priority 4	4,229	32%	Total Acres	10,325	77%
Priority 5	0	0%	C5: Surface Water Protection		
Priority 6	249	2%	Priority 1	13,096	98%
Total Acres	4,478	34%	Priority 2	261	2%
B2: FNAI Habitat Conservation Priorities			Priority 3	0	0%
Priority 1	0	0%	Total Acres	13,358	100%
Priority 2	0	0%	C7: Fragile Coastal Resources		
Priority 3	0	0%	Uplands	0	0%
Priority 4	3	0%	Wetlands	0	0%
Priority 5	2,461	18%	Total Acres	0	0%
Priority 6	6,134	46%	C8: Functional Wetlands		
Total Acres	8,598	64%	Priority 1	5,573	42%
B3: Ecological Greenways			Priority 2	90	1%
Priority 1	0	0%	Priority 3	920	7%
Priority 2	0	0%	Priority 4	1,567	12%
Priority 3	0	0%	Total Acres	8,149	61%
Priority 4	0	0%	D3: Aquifer Recharge		
Priority 5	0	0%	Floridan	13,362	100%
Priority 6	0	0%	Other	0	0%
Priority 7	13,113	98%	Total Acres	13,362	100%
Total Acres	13,113	98%	E2: Recreational Trails		
B4: Under-represented Natural Communities			(prioritized trail opportunities from Office of Greenways and Trails & Univ. Florida)		
Pine rockland	0	0%	Priority 1	0	0%
Upland glade	0	0%	Priority 2	4,083	31%
Bog/seepage slope	0	0%	Priority 3	0	0%
Tropical hammock	0	0%	Total Acres	4,083	31%
Sandhill	0	0%	F2: Archaeological Sites		
Scrub	0	0%	25 sites listed by DHR		
Upland hardwood	0	0%	G1: Sustainable Forestry		
Pine flatwoods	2,506	19%	Priority 1	2,937	22%
Total Acres	2,506	19%	Priority 2	1,609	12%
B5: Landscape-sized Protection Area (Yes/No)			Priority 3	1,943	15%
Priority 1	no		Priority 4	0	0%
Priority 2	no		Priority 5	9	0%
Priority 3	no		Total Acres	6,499	49%
B6: Listed Species (# occurrences)			G3: Forestland for Recharge		
G1	0		*Number of acres of each resource in the project and percentage of project represented by each resource are listed except where noted.		
G2	1				
G3	1				
G4	1				
G5	1				
Total Occurrences	4				

FISH & WILDLIFE CONSERVATION COMMISSION

MANAGEMENT PROSPECTUS

UPPER ST. MARKS RIVER CORRIDOR/ST. JOE TIMBERLANDS

(Draft, 5/27/03)

INTRODUCTION

The Upper St. Marks River Corridor/St. Joe Timberlands Florida Forever Project comprises approximately 13,376 acres located in Jefferson, Leon and Wakulla counties, extending from US 27 in Leon County southward along the St. Marks River Corridor through Jefferson County to a point about 1.5 miles south of Natural Bridge Road and 0.5 miles into Wakulla County. The project is located approximately 7 miles east of Tallahassee, 15 miles southwest of Monticello, and 13 miles northeast of Crawfordville. The project area ranges from 0.25 to 3 miles wide, and extends along approximately 14 miles of the St. Marks River Corridor. It extends to within one mile of the L. Kirk Edwards WEA, which drains Lake Lafayette, and adjoins the Natural Bridge Battlefield Historic SP. The project concept is to preserve a contiguous river corridor to protect resources of the St. Marks River ecosystem.

The Upper St. Marks River Corridor/St. Joe Timberlands project consists of two adjoining acquisition phases. Phase I (2,882 acres) extends from Highway 27 in Leon County southward to County Road 259 (Tram Road) in Jefferson and Leon counties. Phase II (10,494 acres) extends southward from CR 259 to the southern extent of the project in Wakulla County. This is a potentially three-phase project that would eventually connect to the St. Marks National Wildlife Refuge (NWR).

The project consists of forested upland and forested wetland communities extending up-gradient along both banks of the St. Marks River Corridor. Contained within the Upper St. Marks River Corridor/St. Joe Timberlands are diverse assemblages of natural communities that offer a mosaic of habitats for wildlife. Approximately 52% of the project area consists of hardwood communities, including basin swamp, baygall, dome swamp, floodplain swamp and hydric hammock, bordered up-gradient by a narrow band of upland hardwood forest. Most of the remaining acreage is upland habitat that has been converted to silviculture. However significant native ground cover, including wiregrass (*Aristida beyrichiana*), persists on some uplands. These pine plantations were previously sandhill and mesic or wet flatwoods natural communities. The project includes open water areas of the blackwater stream community constituting the river itself, and by open water of lakes and reservoirs. However, these open water areas make up less than 1% of the total project area. The forested wetlands include old growth bald cypress (*Taxodium distichum*) trees.

Most of the project area is habitat for rare and listed species. Sandhill habitat provides

refuge for several listed species of wildlife including the gopher tortoise (*Gopherus polyphemus*), and the gopher frog (*Rana capito*) and the eastern indigo snake (*Drymarchon corais*), which inhabit gopher tortoise burrows. The flatwoods salamander (*Ambystoma cingulatum*) has been documented to occur in the area. If acquired, project lands would be surveyed to determine the occurrence and appropriate conservation measures for the flatwoods salamander. The eastern diamond back rattlesnake (*Crotalus adamanteus*) and other species also inhabit gopher tortoise burrows. Among other sandhill species are the fox squirrel (*Sciurus niger ssp.*), northern bobwhite (*Colinus virginianus*), common ground dove (*Columbina passerina*), pocket gophers (*Geomys pinetis*), Florida pine snake (*Pituophis melanoleucus*), and the southeastern American kestrel (*Falco sparverius*). Due to the juxtaposition of many habitat types, the proposed area has the potential to sustain breeding Cooper's hawks (*Accipiter cooperii*), which will nest in a variety of different habitats, and which prefer nest sites close to different habitat types present on this tract. Other animals, such as rabbits (*Sylvilagus spp.*), deer (*Odocoileus virginianus*), and turkey (*Meleagris gallopavo*) are found in the mixed pine/hardwood tracts rising from the river bottom.

Neotropical migrant species, which are in decline due to loss of habitat, utilize these hardwood hammocks during spring and fall migration as stopover and foraging habitat. Breeding passerines, thought to be in decline in these habitats, include the following species: prothonotary warbler (*Protonotaria citrea*), Kentucky warbler (*Oporornis formosus*), hooded warbler (*Wilsonia citrina*), Swainson's warbler (*Limnothlypis swainsonii*), wood thrush (*Hylocichla mustelina*) and yellow-billed cuckoo (*Coccyzus americanus*). In addition, the floodplain swamp provides potential habitat for the Louisiana waterthrush (*Seiurus motacilla*) at the southern edge of its breeding range. This species, exhibiting a strong population decline, prefers contiguous forest tracts and unpolluted headwater streams. Herons and egrets likely feed in the shallows along the length of the St. Marks River. The floodplain swamp may also serve as ephemeral breeding locations for rare amphibian species. The land in this project provides habitat for the American alligator (*Alligator mississippiensis*), bald eagle (*Haliaeetus leucocephalus*) and the swallowtail kite (*Elanoides forficatus*). Marsh associated with the open water areas provides habitat important to a variety of wildlife, including listed wading birds such as the snowy egret (*Egretta garzetta*), little blue heron (*Egretta caerulea*) and tricolored heron (*Egretta tricolor*), which are all listed Species of Special Concern. Wood storks (*Mycteria americana*), a federally listed endangered species, also utilize these areas.

Significant portions of the area contained within the proposal is either considered to be Strategic Habitat Conservation Areas or habitat for rare and imperiled species. The Florida black bear (*Ursus americanus floridanus*), a threatened species, is also known to occur on the project area. This project conserves habitat for the Apalachicola bear population and narrows the gap between the Apalachicola NF, the St. Marks NWR and the Aucilla WMA so that there is better habitat connectivity. Black bears need large contiguous tracts of land in order to ensure a viable breeding population. This project is

within the "Aucilla Gateway" for bears, which provides the only viable link for bears between the Apalachicola National Forest (NF) and the Big Bend region. The location of the project 1.5 miles of the Aucilla Wildlife Management Area (WMA) provides a direct linkage with the St. Marks NWR, just west of the Aucilla River. It also contains high quality black bear habitat.

Along with the restoration of the degraded upland communities, the enhancement or maintenance of the intact natural floodplain hardwood communities supports a functioning ecosystem for the purpose of perpetuating wildlife diversity. This project helps protect water quality of the St. Marks River, designated as an Outstanding Florida Water and the St. Marks Spring, a first magnitude spring proposed for public acquisition. The landscape connectivity and diversity provided by the Upper St. Marks River Corridor/St. Joe Timberlands project has the potential for many resource-based public outdoor recreation activities, including canoeing, fishing, hiking, hunting and wildlife viewing.

The Florida Fish and Wildlife Conservation Commission (FWC) is recommended as lead manager. The Division of Forestry, Department of Agriculture and Consumer Services (DOF) and Northwest Florida Water Management District (NFWFMD) are recommended as cooperating agencies.

GOALS OF THE FLORIDA FOREVER ACT (259.105, FLORIDA STATUTES)

This project contributes to the following goals in accordance with the Florida Forever Act (259.105(4), F.S.):

- (B) Increase the protection of Florida's biodiversity at the species, natural community, and landscape levels.
- (C) Protect, restore, and maintain the quality and natural functions of land, water, and wetland systems of the state.
- (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.
- (E) Increase natural resource-based public recreational and educational opportunities.
- (G) Increase the amount of forestland available for sustainable management of natural resources.

MANAGEMENT GOALS

Priority will be given to the conservation and protection of environmentally unique native habitats, and threatened and endangered species. Management programs will be designed to conserve, protect, manage and/or restore important ecosystems, landscapes, wildlife populations, forests and water resources. The tract will also be

managed to provide opportunities for canoeing, fishing, hiking, hunting, and wildlife viewing.

The configuration and location of this proposed project within the landscape structure, provides large areas of functional wetlands, and protection of surface water and natural floodplain function. These areas are important habitats for wildlife populations, and are unique environments for outdoor recreation in Florida. Since one of the principal purposes of the proposal is to protect habitat for wildlife, management goals will be oriented to conservation and protection of wildlife species, and to careful control of public uses.

Priority will be given to use of an objective-based management process for the project area. Objective-based management requires the delineation of vegetation management units, determination of the desired future condition for each unit, selection of an indicator-based management objective for each unit, and monitoring of the indicator to determine attainment or progress towards accomplishing the objective. In this way, management can be adapted to best accomplish the management objective for each vegetation management unit. Management objectives which apply to several vegetation management units, or the entire project, may also be developed through a similar process.

CONDITIONS AFFECTING INTENSITY OF MANAGEMENT

Some portions of the proposed project include lands that are low-need tracts, requiring basic resource management including the frequent use of prescribed fire where appropriate. However, since over 52% of the project area has been disturbed for silviculture or other purposes, significant restoration activities are contemplated for some of the acreage on which fee title is acquired. The primary management needed for perpetuation of the less disturbed natural communities will involve the introduction of prescribed fire and control of human access. Sparse infestation by the invasive exotic cogon grass (*Cylindrica imperata*) occurs in the project area. There will be surveillance for, and removal of such infestations of exotic invasive species.

Biotic surveys will be a priority, since many rare or listed species are expected to be present. Development of facilities, as on all wildlife management areas, will be kept to the minimum level necessary to assure a high quality recreational experience, and any such development will be confined to areas of previous disturbance. Restoration activities will be guided by techniques recommended by specialists in the field of ecological restoration, including the most recent advancements in methods and approaches to such restoration.

TIMETABLE FOR IMPLEMENTING MANAGEMENT PROVISIONS

During the first year after acquisition, emphasis will be placed on site security, posting boundaries, public access, fire management, resource inventory and removal of refuse. A conceptual management plan will be developed by the FWC describing the management goals and specific objectives necessary to implement future resource management.

Long-range goals will stress ecosystem management and the protection and management of threatened and endangered species. Essential roads will be stabilized to provide all weather public access and management operations. Programs providing multiple recreational uses will also be implemented. An all-season prescribed burning management plan will be developed and implemented using conventional and biologically acceptable guidelines. Management activities will strive to manage natural plant communities to benefit native wildlife resources. Where appropriate, practical and in pursuit of wildlife habitat objectives, these resources will be managed using acceptable silvicultural practices as recommended by the Division of Forestry. Archaeological and historic sites will be managed in coordination with the Division of Historical Resources.

Environmentally sensitive areas will be identified and appropriate protective measures will be implemented on those areas. Unnecessary roads, fire lanes and hydrological disturbances will be abandoned or restored as practical. Other existing infrastructure will be protected to the extent possible. Minimal infrastructure development will be required to allow public access, provide facilities for the public, and provide security and management of the property.

ESTIMATE OF REVENUE-GENERATING POTENTIAL

Substantial revenue from forest products production, as currently occurs, should continue. However, management will seek to improve the other revenue-generating potential of areas currently serving for forest products production by improving wildlife diversity and resource-based recreation in such areas. Additional revenue will be generated from sales of hunting licenses, fishing licenses, wildlife management area stamps and other special hunting stamps. Some revenues might be realized in the future from recreational user fees and ecotourism activities, if such projects can be economically developed.

RECOMMENDATIONS AS TO OTHER GOVERNMENTAL AGENCY INVOLVEMENT

The FWC should cooperate with other state and local governmental agencies, including the DOF and the NFWFMD in managing the area.

REVENUE SOURCES, MANAGEMENT COSTS AND EMPLOYEES NEEDED

The St. Marks River Corridor/St. Joe Timberlands proposal, when acquired by the State, will require three FTE positions to manage the project area.

WLD 8-5-2

BWM\PROSPECTUS\Drafts\Upper St. Marks River Prospectus1

Upper St. Marks River Corridor (Jefferson and Leon Counties)

Resource Planning Boundary

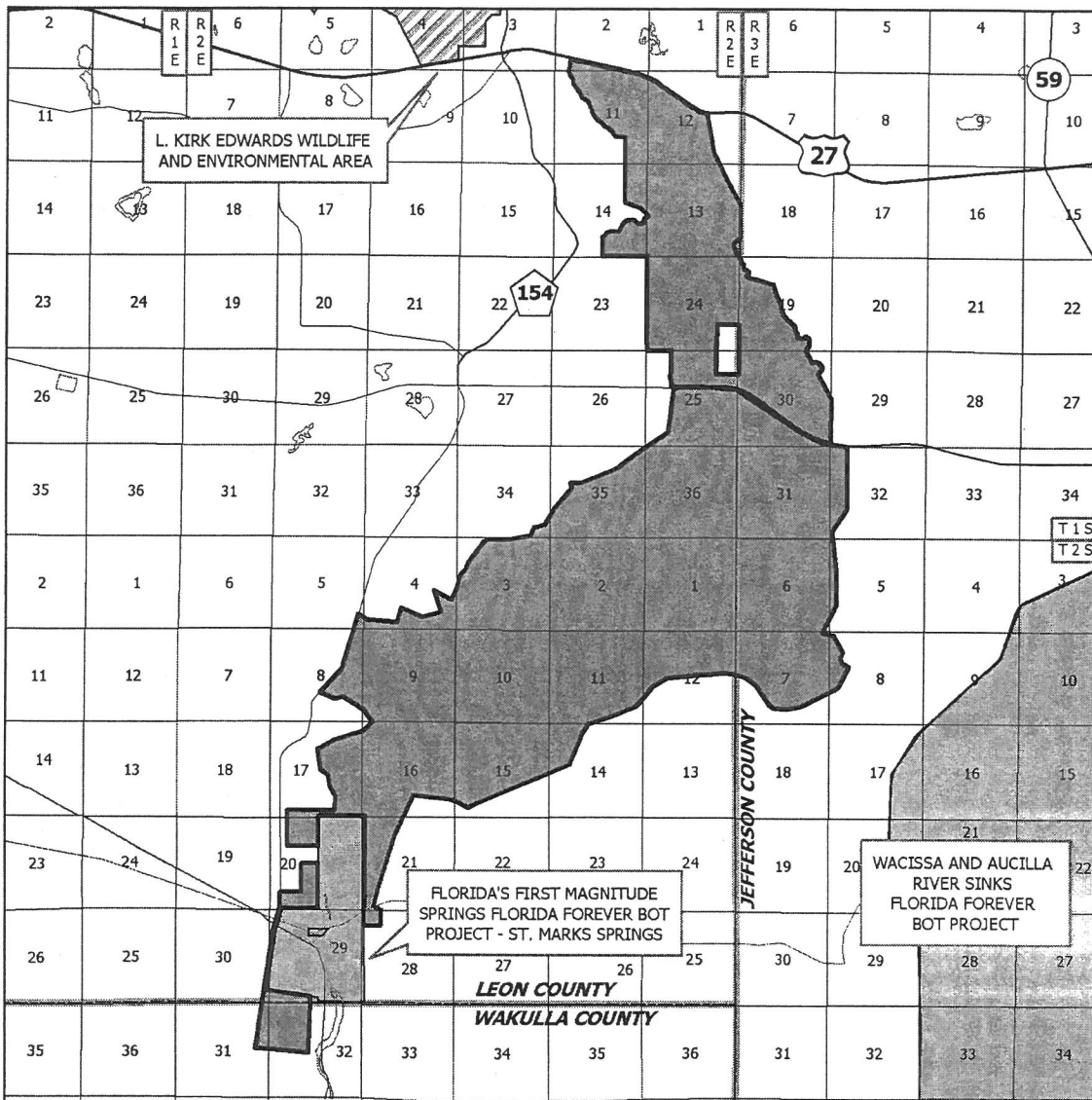
Acquisition of Upper St. Marks River Corridor is proposed for the following public purposes:

- (B) Increase the protection of Florida's biodiversity at the species, natural community, and landscape levels
- (C) Protect, restore, and maintain the quality and natural functions of land, water, and wetland systems of the state
- (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
- (E) Increase natural resource-based public recreational and educational opportunities
- (G) Increase the amount of forestland available for sustainable management of natural resources

Natural resource values for this proposal are highlighted in the Preliminary Evaluation of January 2003 Florida Forever Proposals. Proposed boundaries were evaluated using Digital Ortho Quarter Quads infrared aerial photography, black and white aerial photography, USGS 7.5' topographic quadrangle maps, and information in the FNAI database. Because of rapid development in the state, however, ground-truthing during the assessment phase is necessary to confirm the resources within the proposed boundaries.

The 2882-acre proposal protects about 4.5 miles of the Upper St. Marks River drainage and is presented as the first phase of a potential two- or three-phase project that would protect the remaining 19-mile river corridor all the way to the St. Marks National Wildlife Refuge at the Gulf of Mexico and would encompass the existing 945-acre Florida First Magnitude Spring Florida Forever project. In itself, aside from its potential value in buffering the complete river corridor, this proposal protects old growth cypress stands, plus upland and hydric hardwood forests along the upper St. Marks River.

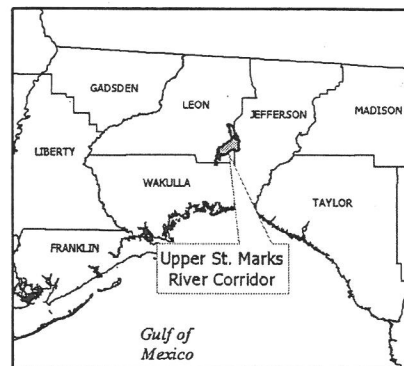
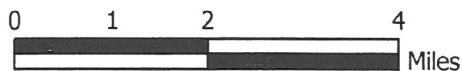
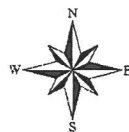
FNAI recommends no additions or deletions to this proposal. [A potential addition to this proposal is the remaining river corridor; since this would add as much as 20,000 additional acres, it would be best considered as a separate proposal.]



Upper St. Marks River Corridor Proposal

LEON AND WAKULLA COUNTIES

-  Florida Forever Proposal Boundary
-  Essential Parcel(s)
-  Other Florida Forever BOT Projects
-  State Owned Lands



MAY 2003

RF

Memorandum

Florida Department of
Environmental Protection

Date: June 3, 2003

To: ARC Members

From: Mark Glisson

RE: June ARC meeting

Please find enclosed an information package from Cypress Gardens and a missing management prospectus for the Upper St. Marks project from the Division of Recreation and Parks. Thank you.

UPPER ST. MARKS RIVER

Qualifications for State Designation

A significant portion of the acreage within this project is floodplain. The project has frontage on both sides of the upper portion of the St. Marks River south of US 27. The project is defined as Phases I and II, with Phase II being the more southern portion. Of the two phases, Phase II has the greater potential for providing a diverse resource-based recreational experience of a regional context. This project is also adjacent to and fast becoming part of the Tallahassee urban area and the already existing Natural Bridge Historic State Park. It is the combination of all these factors that makes Phase II desirable as a unit of the state park system.

Conditions affecting intensity of management

Portions of Phase II are in planted pine that will require thinning over time to provide for a natural looking landscape. Otherwise the property should not require a high level of management intensity in the short term, except for the possible need to construct or maintain existing bridges or elevated pathways to provide access within the floodplain of the river.

Over the long term, the intensity of management and related costs will significantly increase as management emphasis shifts from protection and restoration efforts with limited public uses to a broader public use area with more substantial infrastructure.

Timetable for implementing management and provisions for security and protection of infrastructure

Once the property is acquired and assigned to the Division of Recreation and Parks, the acquired lands will be secured and management planning implemented. Natural Bridge Historic State Park will serve initially as a point of access for low intensity resource-based recreation, such as canoeing and hiking. Consideration will be given in the management planning process for the provision of access from other locations as such may be considered necessary to accommodate recreation demand. The magnitude and diversity of future resource-based recreation opportunities offered will in great part depend on establishment of a management plan for the property and funding for positions and infrastructure.

Revenue-generating potential

No significant revenue is expected to be generated initially. Some revenue may be generated through timber sales as the land is being restored. The degree of future revenue generated will depend on the nature and extent of public use and facilities placed on the land.

Cooperators in management activities

No local governments or others are recommended for management of this project. The Division of Recreation and Parks will cooperate with and seek the advice of other state agencies, local government entities and interested parties as appropriate.

Management costs and sources of revenue

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

Salary (1-FTE,1-OPS)	\$52,000
Expense	10,000
OCO	22,000
TOTAL	\$84,000