

*Management Plan for  
Blues Creek Ravine and Fox Pond  
FCT Project #01-141-JF1*

*Respectfully Submitted by:*

*Alachua Conservation Trust  
12 West University Avenue Suite 201  
Gainesville, Florida 32603*

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## 1.0 INTRODUCTION

For over a decade, the Florida Communities Trust (FCT) has provided a tremendous opportunity for Florida local governments to provide natural lands for their citizens. FCT's primary mission has been to help communities live up to the goals and objectives of their comprehensive plans by protecting native habitats and water resources, providing recreational opportunities, preserving historic resources, and otherwise celebrating the original Florida. With the authorization of Florida Forever, FCT and the Florida Legislature formally recognized that non-profit land conservation organizations often play a significant role in the preservation process. This has certainly been true in Alachua County, through Alachua Conservation Trust (ACT).

Since its founding in 1988, ACT has played a role in protecting nearly 11,000 acres of land and important historic resources in and around Alachua County. From restoring the 1865 Historic Haile Homestead, to obtaining inholdings in San Felasco Hammock and Paynes Prairie State Preserve, or from accepting a 700 acre conservation easement in Yankeetown to writing a successful FCT grant for Gainesville's Hogtown Creek Greenway in the first year of Preservation 2000, ACT is proud of the lasting mark we've made here in the heart of Florida. We are particularly excited to be among the first non-profits to work successfully with the Florida Communities Trust to save a special place we call Blues Creek Ravine and Fox Pond. We have worked on and off for almost eight years, and steadily for over two, to see this land preserved. We are extremely grateful to the staff and board of the Florida Communities Trust, and to Mrs. Bryant and her family, for making this longstanding dream a reality.

### **1.1 Resource Description and Existing Conditions**

The Blues Creek Ravine and Fox Pond project (FCT Project #01-141-FF1) includes ±255 breathtaking acres, located in unincorporated Alachua County in the Urban Service Area of the City of Gainesville. The site is located in Section 16, Township 9 South, and Range 19E. The project site is located North of the 7000 and 7100 block of Millhopper Road (NW 53<sup>rd</sup> Avenue), both east and west of NW 71<sup>st</sup> Street. The project will link directly to the 6900-acre San Felasco State Preserve.

Located in a fast developing part of the community, this land contains a large percentage of the floodplain and drainage basin for Blues Creek and its tributaries, which crisscross the site. Fox Pond is formed by two adjacent sinkholes, each approximately 5 acres in area and typically filled to the surface with water. Two more sinkhole ponds are located on the Fox Pond Site. The ravine features of Blues Creek are steeply incised stream banks that create a dramatic setting and unique seepage slopes.

This project seeks to link the 160-acre Blues Creek Ravine site to the ±77-acre Fox Pond site and San Felasco State Preserve, through property currently managed by the University of Florida's Institute of Food and Agricultural Sciences (IFAS). IFAS has agreed to transfer management of this Board of Trustees-owned land to the Florida Department of Environmental Protection (FDEP) and/or Alachua County. The optimal boundary of this IFAS land comprises approximately 86 acres.

Approximately 18 acres of the 21-acre Winter parcel was proposed as a conservation easement in the grant application. Protection of the Winter land will greatly enhance the connection to the Preserve. At the request and facilitation of Alachua Conservation Trust, the DEP's Division of Parks and Recreation is currently seeking full fee acquisition of the entire Winter tract, including the home, which would be used for an on-site ranger's residence. The Winter property is considered an inholding to San Felasco Hammock, as it is between the park boundary and other Board-of-Trustees-owned land (IFAS). If DEP is successful in this endeavor, ACT will request a boundary adjustment to remove the Winter parcel from our FCT project. If for any reason this acquisition is not completed by DEP, ACT will renew efforts to acquire the Winter easement via FCT. If this occurs, effective maintenance of the ecological and hydrologic connections through this property to the San Felasco Hammock will be developed in partnership with the Florida Department of Environmental Protection, Division of Parks and Recreation.

The Blues Creek Ravine site has existed in its current state, with very little human activity onsite, for many decades. There has been no tree harvesting since at least the early 1980's, and the site has had no active management, or even regular monitoring. Despite this "benign neglect," much of the site is ecologically in nearly pristine condition. There are minimal impacts from invasive exotics, a few inobtrusive remnant logging trails, and a very small amount of debris, such as very old agricultural implements. Within the 160-acres of Blues Creek Ravine, there are no site improvements. On the northern border of the land there exists a chain link fence of at least 6 ft in height, installed by IFAS. The 77-acre Fox Pond site is similarly in excellent condition. There is an old farm-type fence along the eastern and southern property boundaries, and the IFAS fence along the north. The 18-acre Winter property also contains only very minimal signs of human activity.

## **1.2 Current Site Conditions, Planned Improvements and Management Activities**

The land is maintained in a near-pristine state. Blues Creek Ravine and Fox Pond contain a number of important plant species such as the threatened crane-fly orchid and southern lady fern, and the commercially exploited green-fly orchid. The site also provides excellent habitat for state listed species, such as white ibis, little blue heron, tri-colored heron, and the eastern indigo snake. The planned management activities are intended to safeguard the ecological integrity of the site and enhance conditions for maintaining biological diversity of both flora and fauna.

The Office of Greenways and Trails has confirmed that these lands "lie within the boundaries of an identified ecological greenway linking San Felasco State Preserve to the Devil's Millhopper State Geological Site." The project will be designed to maintain this ecological greenway and also fulfill the intent of the adopted Alachua County Bicycle Master Plan, which identifies long-term opportunities to make trail connections on ecologically appropriate portions of the property. Hiking, bird-watching, and other low impact activities will be accommodated with minimal site disturbance. Educational displays, unpaved parking, and picnic facilities will be provided.

Alachua County considers this region to be a high aquifer recharge area. This is based on the fact that it is a stream-to-sink basin, located in a geologic setting in which the Floridian Aquifer is perforated or semi-confined. The Suwannee River Water Management District

has also identified the site as an important stream-to-sink system. The planned management activities are designed to maintain existing hydrologic functions of the site and safeguard surface and ground waters.

### **1.3 Historical Resources Information**

Nineteen known archaeological sites are located within a one-mile radius (See map labeled Exhibit N in Appendix A) including the northwest portion of the Fox Pond parcel. The Fox Pond site or a portion of the IFAS site is thought to be the location of the seventeenth-century Spanish mission *San Francisco de Potano*. Many of the archaeological sites surrounding the project area comprise one of several identified clusters of Alachua tradition sites within the County. Geographical proximity to a dense cluster of known sites, a readily available fresh water source, and well-drained soils suggest a high probability that as-yet undocumented, potentially significant historic resources may be located within project boundaries. Under the management plan, any significant resources that may be present on the site will be protected in accordance with the recommendations of the Florida Division of Historic Resources.

### **1.4 Overview of Management Plan**

This management plan presents the project tasks, budget, timeline and background information necessary to ensure that Blues Creek Ravine and Fox Pond will be maintained and developed in a manner that protects the conservation values and provides public access to the property as appropriate.

### **1.5 Acknowledgement of Grant Funding from the Florida Communities Trust, and Related Agreements**

The acquisition of Blues Creek Ravine and Fox Pond for perpetual conservation and public enjoyment has been made possible through grant funding of the Florida Communities Trust, a program of the Florida Department of Community Affairs, funded by Florida Forever. This management plan has been developed to ensure that the project site will be developed in accordance with the Grant Award Agreement and in furtherance of the purpose of the grant application.

## **2.0 STATEMENT OF PURPOSE**

The purpose of acquiring the project site is to protect its unique ecology, maintain its geology and hydrology, safeguard archeological sites, and provide recreational and educational opportunities for the public. The project site will be managed only for conservation, protection and enhancement of natural resources, and for public outdoor recreation that is compatible with the conservation, protection and enhancement of the project site.

The project site will be identified in all literature and advertising as being owned and operated as a natural conservation area, outdoor recreation area or other appropriate descriptive language and that the project site was acquired with funds from Florida Forever, via the Florida Communities Trust.

In the event that Alachua Conservation Trust is unable to fully manage this site, Alachua County will assume management responsibility. This commitment was made by the full Alachua County Commission upon approval of the letter provided in Appendix B, which reads, in part, "Please allow this correspondence to also confirm the County's commitment to assume all management responsibilities from the site in the unlikely event ACT cannot provide perpetual management as it fully intends." (August 7, 2001) The minutes for the meeting in which action was taken to approve the letter are attached. In action since that date the Alachua County Land Conservation Board and County Commission each voted to place this site on the list of priority projects for Alachua County Forever, further indicating a financial commitment and public support for this project. A list showing these projects among the County's priorities is also shown in Appendix B.

### **2.1 Prioritized Management Objectives**

The following is a list of management objectives in order of importance:

1. To manage the site with minimal disruption to natural systems
2. To provide public access to natural areas in Florida, as appropriate to the healthy functioning of systems
3. To educate the public as to the function of natural systems
4. To inventory and document existing site conditions
5. To restore areas of the site that have been disturbed by historical uses such as logging and agriculture
6. To eradicate the invasive species discovered in a few locations
7. To preserve green space in a section of the County where development is accelerating

### **2.2 Comprehensive Plan Consistency**

The Florida Communities Trust program has among its primary objectives to help communities live up to the goals and objectives of their local comprehensive plans. In 2001 for the first time, FCT and the Florida Legislature recognized that non-profit agencies often play a critical role in helping local governments to meet their land conservation goals. While plan compliance is typically considered primarily the purview of the local government itself, this management plan demonstrates the "work, wealth and wisdom" that non-profits and their volunteers can contribute to help meet local needs in cooperation with government. The applicable provisions of the Alachua County Comprehensive Plan are outlined here to reinforce the primary reasons that we are seeking to preserve this land.

With regard to Comprehensive Plan provisions, Alachua County has stated, *"Preservation of the Blues Creek/Fox Pond parcels is consistent with Alachua County's comprehensive plan and will provide important environmental, recreational, educational, and water quality benefits to the community. The parcels were identified as one of the top five acquisition priorities in the 1996 Alachua County Ecological Inventory Project report. Public acquisition will provide an important greenway linkage between San Felasco Hammock State Preserve and the state-owned Agriculture Experimental Research Station in a quickly developing part of our County. In addition, due to the parcels' location in the 100-year flood plain, acquisition of the project site will help minimize existing flooding problems and help balance proposed development in the watershed with open space protection."* (Letter approved by the Alachua County Commission, dated August 7, 2001)

The acquisition of the project site helps further four major elements of the Alachua County Comprehensive Plan:

- A. The Future Land Use Element
- B. The Conservation/Aquifer Recharge Element
- C. The Recreation & Open Space Element
- D. The Capital Improvement Element

Some examples of the specific policies and objectives furthered through this acquisition are provided below.

**2.2.1 Numerical Citation of Comprehensive Plan Policies & Objectives Cited**

As stated in the original FCT grant application, the acquisition and development of the site will assist Alachua County in implementing and/or furthering the following cited goals, objectives and policies of the Alachua County Comprehensive Plan:

**2.2.1.1. The Conservation/Aquifer Recharge Element**

**OBJECTIVE 2.2:**

Protect the natural functions of the 100-year flood plain -- flood mitigation, water purification, water supply, and wildlife habitat and movement corridors -- so that the flood carrying and flood storage capacity is maintained and public health and safety and the natural ecosystem are protected.

Summary of how this objective will be furthered: Portions of the Blues Creek Ravine and Fox Pond site are located within the 100 year flood plain. By protecting these sites from future development through acquisition and restoration, the natural functions referenced above will be preserved.

**OBJECTIVE 2.8:**

Preserve selected viable examples of Significant Natural Upland Communities. Develop appropriate conservation strategies to permit appropriate development where preservation cannot be accomplished.

Policy 2.8.1 Significant Natural Upland communities have been inventoried and are identified and mapped in the Conservation/Aquifer Recharge Element Map Series as provided for in Policy 1.1.1. These have been identified on a preliminary basis as priority areas for conservation based on criteria detailed in the report titled Comprehensive Inventory of Natural Ecological Communities in Alachua County.

Policy 2.8.4 The County conservation strategies for each area shall be based on:

1. The potential for becoming acquisition projects in the CARL program, the Alachua Conservation Trust, or other Federal, State, or Local public or private acquisition programs;

2. The potential for certain types of development to occur in coexistence with the ecological community to be conserved; and
3. The ability to manage the area to retain its status as a Significant Natural Upland Community.

Summary of how this objective and policies will be furthered: The Blues Creek Ravine and Fox Pond properties were highly ranked as a Significant Natural Upland communities in the Comprehensive Inventory of Natural Ecological Communities in Alachua County referenced in Policy 2.8.1. The project was identified to become an acquisition project both by Alachua County, via its Land Conservation Board and County Commission, and by Alachua Conservation Trust. Objective 2.8 will be furthered if these lands are preserved.

**OBJECTIVE 3.2:**

Evaluate and, where appropriate, conserve, protect, or acquire sites and areas of archaeological and paleontological significance.

Summary of how this objective and policies will be furthered: Nineteen known archaeological sites are located within a one-mile radius of the project site. This includes the “Fox Pond” site, (8AL272) in the northwest portion of the site. This is thought to be the location of the seventeenth-century Spanish mission *San Francisco de Potano*. Geographical proximity to a dense cluster of known sites, a readily available fresh water source, and well-drained soils suggest a probability that as-yet undocumented, potentially significant historic resources may be located within the project boundaries. After acquisition, any significant historic resources that may be present will be protected. This will be done in the following manner. Any area proposed for improvements of a ground-disturbing nature first will be tested by a professional archaeologist or trained archaeological monitor. If artifacts or archaeological features are encountered, the improvements will be relocated to a less sensitive area of the property. Should relocation of improvements prove to be infeasible, a professional archaeologist in consultation with the Florida Department of State, Division of Historic resources will assess potential significance of the resource. Significant or potentially significant resources shall be protected from further disturbance or appropriately mitigated. Finally, the Alachua County Local Public Lands Historic Preservation Ordinance (Chapter 116, Alachua County Code) provides standards for authorized historic resource investigations.

**2.2.1.2. The Recreation & Open Space Element**

**OBJECTIVE 1.1:**

Continue to provide recreation facilities adequate to meet the recreational needs of residents consistent with the level of service standard established in Policy 1.1.2.

Policy 1.1.2 The County shall adopt and maintain, at a minimum, a level of service standard for recreation of 3.00 acres of improved recreation-sites per 1000 persons in the unincorporated area of Alachua County. Improved recreation-sites shall consist of a range of park types, including Community,

Nature, Regional, and Special Use-Resource Parks, with the typical facilities and characteristics for each park type as provided in Table 1 of this Element.

Summary of how this objective and policies will be furthered: The level of service standard for improved recreation sites in the adopted Alachua County Comprehensive Plan is 3.00 acres per 1,000 persons. At the time of plan adoption, the existing level of service for Nature Parks, which Blues Creek Ravine and Fox Pond would be classified as, was at 1.79 acres per 1,000 persons. By acquiring this site, the County will move closer to the Level of Service standard adopted in Recreation Policy 1.1.2.

### ***2.2.1.3. The Capital Improvement Element***

Policy 1.6.9 Creative methods for achieving protection of preservation lands shall be used where appropriate. These may include conservation trusts, transfer of density, conservation easements, establishment of common natural areas through the development review process or cooperative efforts with land owners.

Summary of how this objective and policies will be furthered: The adopted Alachua County Comprehensive Plan, in Policy 1.6.9, clearly encourages acquisitions of this type, using the skills and resources of non-profit conservation trusts such as Alachua Conservation Trust. This acquisition will further this policy through a creative preservation method as referenced.

## **3.0 AGREED-UPON PROPOSED IMPROVEMENTS TO EXISTING CONDITIONS**

### **3.1 Proposed Improvements Agreed Upon in the Specific Management Conditions**

In developing the conceptual approval agreement between Alachua Conservation Trust and the Florida Communities Trust, a list of special management conditions were designed to articulate necessary management activities, to be consistent with the grant application and related FCT requirements. These conditions are presented and categorized below.

#### ***3.1.1 Specific Management Conditions for Blues Creek Ravine Project***

##### ***3.1.1.1. Specific Management Conditions Related to Capital Improvements***

1. Two or more resource-based outdoor recreational facilities including nature trails and a picnic facility shall be provided at the Project Site. These facilities shall be designed and located with minimal impact to natural resources on the Project Site (Specific Management Condition 1 (SMC-1; pages 21, 22, 28).
2. A permanent recognition sign shall be maintained in the entrance area of the Project Site. The sign shall acknowledge that the Project Site is open to the public, and was purchased with funds from the Florida Communities Trust Program (SMC-2; pgs. 21, 28).
3. Interpretive signage shall be provided to educate visitors about the natural environment and unique history of the Project Site (SMC-3; pages 17, 18, 28).

4. The location and design of the outdoor recreational facilities and parking areas shall have minimal impacts on the Project Site's natural resources. The parking areas shall incorporate pervious material wherever feasible. Any proposed stormwater facility for the Project Site shall be designed to provide recreation, open space, or wildlife habitat (SMC-17; pages 19, 20, 28).

5. Pedestrian and bicycle access shall be promoted by pedestrian oriented walkways and bicycle facilities that link the Project Site with adjacent residential neighborhoods, where feasible. Bike parking stands shall be installed to provide an alternative to automobile transportation to the Project Site (SMC-18; pages 20, 21, 28).

### **3.1.1.2. Specific Management Conditions Related to Natural Communities**

1. A biological inventory of the natural communities found on the Project Site, including the dominant and listed plant and animal species, shall be conducted prior to any site development. The inventory shall be used to ensure the protection of biological resources and be updated periodically (SMC-4; pages 11, 15, 26).

2. The upland mixed forest, upland pine forest, bottomland forest, blackwater stream, sinkhole, basin swamp communities that occur on the Project Site shall be preserved and appropriately managed to ensure the long-term viability of these communities (SMC-5; pages 12, 13, 15, 16, 26).

3. The Project Site shall be managed in a manner that will protect and enhance habitat by exotic species control and allowing natural succession to occur which benefits listed and non-listed native wildlife species that utilize, or could potentially utilize, the Project Site. The development of the Management Plan shall be reviewed by the Florida Fish and Wildlife Conservation Commission's Office of Environmental Services to ensure the preservation and viability of native wildlife species (SMC-6; pages 12, 13, 15, 16, 27, 28).

4. A vegetation analysis of the Project Site shall be performed to determine which areas of the Project Site need a prescribed burn regime implemented to maintain natural fire-dependent communities. If a prescribed burn regime is found to be necessary and feasible, the development of a prescribed burn plan shall be coordinated with the Division of Forestry and the Florida Fish and Wildlife Conservation Commission (SMC-7; pgs, 17, 30).

### **3.1.1.3. Specific Management Conditions Related to Site Hydrology**

1. The water quality and natural hydrology of Fox Pond shall be protected and enhanced through the implementation of appropriate watershed and lake management techniques including locating trails and other site improvements to prevent erosion and changes to hydrology (SMC-8; pages 14, 26, 30).

2. That portion of Blues Creek running through the Project Site shall be managed as a natural stream system. Specific measures shall be implemented to protect and enhance the water quality and natural hydrology of the Creek, including abatement of pollution sources and maintenance of natural stream flows including a "your neighbor is a creek" education program and the cessation of use of agricultural chemicals on formerly farmed portions of the project site (SMC-9; pages 14, 27, 30).

3. Any proposed stormwater facility for the Project Site shall be designed to provide recreation, open space, or wildlife habitat (SMC-10; pages 21, 27, 28, 30, 31).

#### **3.1.1.4. Specific Management Conditions Related to Ecological Restoration**

1. Approximately 20 acres of degraded uplands along the northern border of the Project Site near Fox Pond and adjacent to the Institute of Food and Agricultural Sciences property shall be restored to a natural community in terms of biological composition and ecological function through natural succession, replanting, and exotic species control in a cooperative effort with the Florida Department of Environmental Protection (SMC-11; pages 16, 28, 31, Site Plan).

2. Approximately 40 acres of disturbed wetlands throughout the site shall be restored to a natural community in terms of biological composition and ecological function through natural succession, replanting, and exotic species control in a cooperative effort with the Florida Department of Environmental Protection (SMC-12; pages 16, 29, 31, Site Plan).

3. An ongoing monitoring and control program for invasive vegetation including exotic (non-native) and nuisance native plant species shall be implemented at the Project Site. The objective of the control program shall be the elimination of invasive exotic plant species and the maintenance of a diverse association of native vegetation. The Management Plan shall reference the Exotic Pest Plant Council's List of Florida's Most Invasive Species to assist in identifying invasive exotics on the Project Site (SMC-13; pages 12, 16, 31, App. C).

4. A feral animal removal program shall be developed and implemented, as necessary, for hogs, dogs, cats, and other non-native wildlife that may be found on the Project Site (SMC-14; pages 17, 28, 31).

#### **3.1.1.5. Specific Management Conditions Related to Archaeological Resources**

1. An archaeological survey shall be performed for any area within the Project Site proposed for development prior to the commencement of proposed development activities in that area. All planned activities involving known archaeological sites or identified site areas shall be closely coordinated with the Department of State, Division of Historic Resources in order to prevent the disturbance of significant sites. A protection plan shall be developed and implemented in conjunction with the Division of Historic Resources for the protection of known historic sites located on the Project Site (SMC-16; pgs. 5, 18, 19, 27, 30).

## **4.0 KEY MANAGEMENT ACTIVITIES**

### **4.1 Natural Resources in Need of Protection**

The site includes plants, animals and ecosystems that are specially recognized by the State of Florida, and require protection. The Florida Natural Areas Inventory provides a mechanism for reporting on such imperiled resources. The forms for completing this are provided in Appendix D, and will be used during site management as appropriate.

#### **4.1.1 Natural Communities**

This project contains many acres of forested uplands and wetlands, and heavily vegetated bogs that together, comprise a large percentage of the drainage basin for Blues Creek and its tributaries. Both the Fox Pond and Blues Creek Ravine tracts contain many important natural features, despite historic logging activities and limited acreage used for row crops (at least 45 years ago). The map labeled Exhibit F in Appendix A depicts the location and extent of the natural communities on 237 of the 255 acres using the Florida Natural Areas Inventory classification system (FNAI, 1990). The area formerly used for row crops is limited in size (approximately 20 acres) and has since become forested with large > 20 inch diameter at breast height (DBH) loblolly pine (*Pinus taeda*), laurel oak (*Quercus laurifolia*), live oak (*Quercus virginiana*), and other assorted Upland Mixed Forest (UMF) species. The community is designated as UMF/old agriculture land use in Exhibit F in Appendix A. The canopy is now closed and is succeeding into a more natural UMF.

Parts of each site were logged historically. More recently, very selected hardwood logging occurred in the early 1980's. Despite logging the canopy is closed with many mature hardwoods and pines. The hydrology, surface water flows, and soils are intact. Road access is limited to two very old logging roads with a closed canopy and high levels of wildlife use. Despite historic logging and farming activities, these parcels have many > 35 inch diameter at breast height (DBH) live oaks and spruce pine (*Pinus glabra*), and > 30 inch DBH pignut hickory (*Carya glabra*), swamp chestnut oak (*Quercus michauxii*), southern magnolia (*Magnolia grandiflora*), bluff oak (*Quercus sinuata*), and red bay (*Persea borbonia*). Forested upland and wetland communities cover approximately the entire site. Ground cover and sub-canopy vegetation are intact in most of the communities, despite past land uses. Recovery in the old agriculture area is well underway via natural succession, except for an area (3-5 acres) that is disturbed by the invasive exotic Chinese wisteria (*Wisteria sinensis*) and about one acre of cogongrass (*Imperata cylindrica*). A very small number of Chinese tallow (*Sapium sebiferum*) invasive exotics also have been observed. Recovery of this area should be rapid with suitable land management and an exotic species eradication program.

The dominant, relatively natural upland communities are Upland Mixed Forest (UMF, 68 acres), Upland Pine Forest (UPF, 57 acres) and Bottomland Forest (BF, 65 acres). The UMF/UPF/BF communities have a closed canopy, a sub-canopy, and a relatively open under story. The communities occur on the higher elevations throughout the site. Large canopy vegetation species in the UMF include: spruce pine (*Pinus glabra*), laurel oak (*Quercus laurifolia*), live oak, pignut hickory, American basswood (*Tilia americana*), winged elm (*Ulmus alata*), sweetgum (*Liquidambar styraciflua*), white ash (*Fraxinus americana*), Florida maple (*Acer saccharum* subsp. *floridanum*), loblolly pine (*Pinus taeda*), and red mulberry (*Morus rubra*). Epiphytes observed include: green-fly orchid (*Epidendrum conopseum*), Spanish moss (*Tillandsia usneoides*), ball moss (*Tillandsia recurvata*), Bartram's airplant (*Tillandsia batramii*) and resurrection fern (*Polypodium polypodioides*). Sub-canopy and understory species include: hophornbeam (*Ostrya virginiana*), bluebeech (*Carpinus caroliniana*), sweetleaf (*Symplocos tinctoria*), parsley haw (*Crataegus marshallii*), wax myrtle (*Myrica cerifera*), yaupon holly (*Ilex vomitoria*), American holly (*Ilex americana*), wild olive (*Osmanthus americana*), witchhazel (*Hamamelis*

*virginiana*), and sparkleberry (*Vaccinium arboreum*). Ground species are partridgeberry (*Mitchella repens*), sarsaparilla vine (*Smilax pumila*), woodsgrass (*Oplismenus birtellus*), and various other grasses and herbs.

Wetlands cover at least 40 acres of the Blues Creek Ravine tract and at least 40 acres of the Fox Pond parcel. They include Depression Marsh (DM, 4 acres), Basin Swamp (BS, 15 acres), Bog (B, 17 acres), Swamp Lake (SL, 3 acres), and Black Water Stream (BWS). All of the wetlands on-site are connected with Blues Creek either within the boundaries of the property or with hydrological connections farther downstream in the San Felasco Hammock State Preserve (SFHSP). The Blues Creek Ravine tract represents the largest contiguous forested ecosystem along Blues Creek and its headwaters that is not either developed, proposed for development, or in public ownership. The wetlands on-site are intact and little historic land use appears to have impacted them. The flow and hydroperiod (days of inundation or flow per year) of the site's largest BWS (Blues Creek) may be slightly impacted by drainage features (retention/detention ponds) found in the developments on the property's east side. Management of upstream weirs and control structures presents a good opportunity to contribute to the enhancement of the ecosystems within the Blues Creek Ravine lands. There are no major ditches on-site or immediately adjacent to the tract.

The Basin Swamp (BS) wetland is a forested system that is frequently inundated. It was logged historically and the largest trees are around 20 – 25 inches DBH. Most trees are strongly buttressed or multi-stemmed with horizontal aboveground roots caused by frequent high water levels. There are small, sunny, open areas with herbs and grasses. The canopy species are swamp black-gum tupelo (*Nyssa sylvatica* var. *biflora*), red maple (*Acer rubrum*), sweetbay (*Magnolia virginiana*), swamp bay (*Persea palustris*), loblolly bay (*Gordonia lasianthus*), and dahoon holly (*Ilex cassine*). Other species include buttonbush (*Cephalanthus occidentalis*), swamp doghobble (*Leucothoe racemosa*), fetterbush (*Lyonia lucida*), large gallberry (*Ilex coriacea*), lizard's tail (*Saururus cernuus*), and Virginia willow (*Itea virginica*). The BS flows offsite and connects with a small-unnamed creek that meets with Blues Creek west of the parcels.

Several Bogs occur on the property. The Bog on the eastern boundary is barely in the Blues Creek tract. Three tributaries arise from the Bogs and flow into Blues Creek. These tributaries are ephemeral and generally flow only during the rainy season. Several forested sinks (identified as Bogs in the grant application) occur at the creek's edge and flow into Blues Creek, also only during the rainy season. The largest bogs (all on the Fox Pond parcel and the northern most bog on the Blues Creek Parcel) are inundated even during the driest periods. The smaller ones dry up every year during the dry season. Canopy vegetation includes swamp black-gum tupelo, loblolly bay, and sweetbay. Other species include large gallberry, swamp doghobble and fetterbush at the edges. The largest have relatively open centers with swamp black-gum tupelo, buttonbush, Virginia willow, lizard's tail, duckweed (*Lemna* spp.), and various sedges and rushes in the middle. The Bogs on the Fox Pond parcel are the largest and contain a more diverse assemblage of native species.

Fox Pond (a Swamp Lake) has highly colored water and is usually completely covered with duckweed. The pond is large enough however, that during windy periods the duckweed is blown to the sides exposing open-water. The pond is approximately 15 feet deep with a

large amount of peat and muck. The emergent fringe consists of floating vegetated islands that contain red maple, swamp blackgum tupelo, wax myrtle, Virginia willow and fetterbush. Herbaceous and aquatic vegetation includes spatterdock (*Nuphar lutea*), fragrant water lily (*Nymphaea odorata*), pickerelweed (*Pontedaria cordata*), and various other aquatics and herbs. Fish that occur in the lake include largemouth bass, speckled perch, and large softshell turtles have also been documented.

The Bottomland Forest (BF) occurs adjacent to Blues Creek and its tributaries, and the Bogs and BS more or less throughout the Blues Creek Ravine parcels. This community represents the floodplain and is very steeply graded especially adjacent to the creeks. Canopy species include most of the species that occur in the UMF community; however, many of the trees are larger. Portions of this community are flooded by Blues Creek. During periods of high rainfall many areas within this community are inundated or saturated and spring seeps along the steep banks of Blues Creek are common.

The majority of the Winter site retains a full canopy, consistent with other natural lands in the area. Its importance in the project is primarily for creating a seamless eastern border for San Felasco State Preserve.

#### **4.1.2 Geological Features**

There are a variety of karst depressions on the property. The sinkholes are numerous on-site. Although not all are large, deep or with exposed limestone, they contribute significantly to the hydrology of Blues Creek. They are old sinks with well-defined soils, a healthy tree canopy and very steep topography. Some of the sinks are approximately 20-25 feet deep and many contain water during all but the driest periods. Sinkhole wetlands within the Blues Creek Ravine tract represent a sample of a very significant karst geological system. The systems begins with the Devil's Millhopper State Geological Site approximately ½ mile to the southeast of the Blues Creek Ravine lands, the San Felasco Hammock State Preserve approximately ¾ mile to the west, and Warren Cave 3 ¼ miles to the southwest. Warren Cave is also publicly owned and is the longest cave in Florida.

#### **4.1.3 Water Quality**

The preservation of the site's uplands and wetlands is crucial to the continued natural hydrology and good water quality of the creeks on site. The water quality and natural hydrology of the Blues Creek Ravine and Fox Pond shall be protected and enhanced through the use of appropriate watershed and lake management techniques, including locating trails and other site improvements to prevent erosion and changes to hydrology. The portion of Blues Creek that runs through the project site shall be managed as a natural stream system. Specific measures shall be implemented to protect and enhance the water quality and natural hydrology of the Creek, including abatement of pollution sources and maintenance of natural stream flows, including the "Your Neighbor is a Creek" education program and the cessation of use of agricultural chemicals on formerly farmed portions of the site.

## **4.2 Imperiled Communities & Listed Species**

### **4.2.1 Imperiled Communities**

Several of the plant communities that occur on-site are ranked by the Florida Natural Areas Inventory (FNAI). The sinkhole communities are ranked as imperiled in the state because of rarity or because of some factors making them vulnerable to extinction throughout their range (S2). The Blackwater Stream (BWS) is also ranked S2. The Bogs and the Swamp Lake are the older peat-filled wetlands that drain into Blues Creek and are ranked as rare or uncommon in the state (S3). These communities are healthy and viable and have recovered or are successfully recovering from the limited logging that has occurred in the past. Blues Creek is highly dependent on the surrounding wetlands (Basin Swamp and sinkholes) and uplands and its continued health and viability are dependent on the pristine nature of its watershed. Development, even for low density or estate-zoned housing could potentially destroy this ecosystem by disrupting the hydrology of the region. Preservation of the site is the only way to ensure its continued health and viability.

### **4.2.2 Listed Species**

The wetlands on-site (Bogs, Swamp Lake and Basin Swamp) provide suitable habitat for many Florida listed species of special concern (Florida Fish and Wildlife Conservation Commission, FFWCC) such as the wading bird species white ibis (*Eudocimus albus*), little blue heron (*Egretta caerulea*), tricolored heron (*Egretta tricolor*), and snowy egret (*Egretta thula*). The state and federally endangered woodstork (*Mycteria americana*) is also very likely to use these habitats. The Bogs (approximately 18 acres), Swamp Lake (approximately 3 acres) and Basin Swamp (approximately 25 acres) are viable and present an excellent foraging opportunity for these listed species. It is also possible that these areas could be used for breeding; however no rookeries have been documented on-site. The upland habitats on-site provide suitable habitat for the eastern indigo snake (*Drymarchon corais couperi*), which is listed as federally and state threatened. The Upland Mixed Forest and Upland Pine Forest provide excellent, viable, high quality habitat for this species. The habitats suitable for the wading birds and upland listed species will be protected by preservation. Detailed ecological inventories will be conducted when the site is purchased and the information will be used to develop a management plan and ecological monitoring plan that will ensure their long-term viability and health.

### **4.2.3 Surveys**

A biological inventory of the natural communities, plant and animal species found on the project site shall be conducted prior to any site development. The inventory shall be used to ensure the protection of biological species and be updated every two to three years.

The procedure to forward newly identified listed species information to the Florida Natural Areas Inventory (FNAI) is to fill out and deliver the official FNAI Notification Form. Copies of these forms are provided in Appendix D.

### **4.2.4 Monitoring**

The project site will be monitored every two to three years to ensure the continued viability of vegetative communities and listed species. Alachua Conservation Trust will coordinate

with the Florida Fish and Wildlife Conservation Commission (FFWCC) for appropriate guidance, recommendations and necessary permits to avoid impacts to listed species. In addition, this management plan will be provided to the FFWCC so that they may have the opportunity to will provide comments and suggestions for improvement.

### **4.3 Resource Enhancement**

#### **4.3.1 Restoration**

Native vegetation will be restored in the portions of the site that have been degraded by previous logging activities, or via clearing along the northern border on the University of Florida's IFAS property. Areas of prior site disturbance are shown in the map labeled Exhibit G in Appendix A. In those areas that require eradication of exotics such as Cogon grass and Chinese wisteria, native plants will be reintroduced. Decisions with regard to what species are most viable and appropriate will be made in consultation with local experts and organizations such as the Florida Native Plant Society, Kanapaha Botanical Garden, and the City and County Arborists. A copy of the Exotic Pest Plant Council's List of Florida Invasive Species is provided in Appendix C and will be used for reference for management and restoration of this site.

The area with the most dramatic disturbance is along the southern border of the University of Florida's IFAS property. There is a signed letter of intent indicating that IFAS is willing to transfer oversight of some portion of this property to the Florida DEP, to facilitate the ecological connectivity and to allow access between the Fox Pond and Blues Creek Ravine lands. The plan is to use this area to site both a pedestrian trail and, if needed, an access way for cars. Significant restoration will also be undertaken in this corridor, using native plants and trees. Those areas that are not needed for a trail will be replanted with native vegetation to enhance the area's wildlife function and aesthetic quality. Restoration shall be a cooperative effort with the Florida Department of Environmental Protection and Alachua County.

There is also an opportunity for restoration of wetland communities in the northern part of the Blues Creek Ravine Parcel, where a portion of Blues Creek crosses near cleared areas on the IFAS property. Restoration through replanting, restoring hydroperiod, and other appropriate measures will be undertaken to the extent appropriate. Restoration shall be a cooperative effort with the Florida Department of Environmental Protection. Altogether approximately 40 acres of wetlands, as shown on the master site plan in Appendix E, will be restored to a natural community in terms of biological composition and ecological function through natural succession, replanting, and exotic species control in a cooperative effort with the FDEP. No need for onsite hydrologic restoration has been identified. However, in the public processes related to site development, we will emphasize stream protection to upstream neighbors and landowners.

In addition, the master site plan shows approximately 20 acres of degraded uplands along the northern border of the project site near Fox Pond and adjacent to the IFAS property that will be restored to a natural community in terms of biological composition and ecological function through natural succession, replanting, and exotic species control in a cooperative effort with the Florida DEP.

The biological composition and ecological function of the communities within Blues Creek Ravine and Fox Pond are relatively intact and functioning. The greatest enhancement will be their preservation by the elimination of further inappropriate logging and development, which will allow natural succession to continue.

#### **4.3.2 Invasive Exotic Removal**

A 3-5 acre area on the Blues Creek Ravine site is sparsely disturbed by the invasive exotic Chinese wisteria (*Wisteria sinensis*) and about one acre of cogongrass (*Imperata cylindrica*). A very small number of Chinese tallow (*Sapium sebiferum*) invasive exotics also have been observed in this area. Recovery of this area should be rapid with suitable land management and an exotic species eradication program.

Following the removal of exotics, a monitoring and control program for invasive vegetation including exotic (non-native) and nuisance native plant species will be implemented. The objective of the program shall be the elimination of invasive exotic plant species and the maintenance of a diverse association of native vegetation. In implementing the above, the Alachua County Trust shall refer to the Exotic Pest Plant Council's List of Florida's Most Invasive Species to assist in their identification. This is provided in Appendix C.

#### **4.3.4 Prescribed Burns**

There are few locations in Alachua County where the wildland/urban interface affects as much residential density as in this area. A significant portion of the borders of the subject property, the Fox Pond property, and the 6,900-acre San Felasco Hammock State Preserve adjoin residential subdivisions. Additional ecological investigation is needed to determine whether the former agricultural areas on this site should be fire-maintained. This southeastern quadrant of the property needs further evaluation to determine if it should be managed as a pine-dominated forest or a hardwood-dominated forest. Given the Millhopper Sand substrate in this area, historically it could have been either, depending on fire regime. These are the most well drained soils ("moderately well drained") on the property and occur on the highest elevations. It is quite possible that, historically, this was upland pine forest. If so, this property could participate in the above-mentioned fuel reduction program. The drafting of such a program would be coordinated with the Division of Forestry and the Nature Conservancy.

Regardless, public access to this property will serve as an opportunity to provide public education. Many of the visitors to this park are anticipated to be neighborhood residents who would benefit from practical knowledge regarding fire threats within natural areas. Educational materials provided on signage will address fire management issues within the area. If it is determined that a prescribed burn program is desirable for this site, we will conduct a neighborhood outreach program to inform neighbors of the value and benefits of prescribed burns.

#### **4.3.5 Removal of Feral Animals**

A feral animal removal program shall be developed and implemented, as necessary, for hogs, dogs, cats, and other non-native wildlife that may be found on the project site. We will

actively work with the FDEP, which has implemented feral animal programs on nearby lands, as well as with Alachua County Animal Control, and other appropriate agencies. Our goal will be to remove the animals as humanely and efficiently as possible, while minimizing costs and risk.

#### **4.4 Archaeological and Historical Resource Protection**

Any significant historic resources present on the site will be protected. A cultural resource survey will be performed for any area within the project site that is proposed for development. This will occur prior to commencement of any development activities in that area. The survey will be accomplished in the following manner. Any area proposed for improvements of a ground-disturbing nature first will be tested by a professional archaeologist or trained archaeological monitor. If artifacts or archaeological features are encountered, the improvements will be relocated to a less sensitive area of the property. Should relocation of improvements prove to be infeasible, a professional archaeologist in consultation with the Florida Department of State, Division of Historical Resources, will assess potential significance of the archaeological resource. Significant or potentially significant resources shall be protected from further disturbance or appropriately mitigated. The collection of artifacts or the disturbance of archaeological and historic sites on the project site is prohibited unless prior authorization has been obtained from the Department of State, Division of Historical Resources. The management of any archaeological and historic resources will comply with the provisions of Chapter 267, Florida Statutes, specifically Sections 267.061(2) (a) and (b).

Finally, the Alachua County Local Public Lands Historic Preservation Ordinance (Chapter 116, Alachua County Code) provides standards for authorized historic resource investigations of properties owned or controlled by the County. Further, this code provides for enforcement and penalties regarding unauthorized investigations. Should historical resources funding become available, the County will sponsor a public-assisted archaeological project and interpretive kiosks for mission-era and prehistoric resources.

#### **4.5 Environmental Education Program**

Attractive, accurate informational signage will be installed to introduce visitors to the unique hydrology, geology, ecology, and archeology of the property. Way-finding signs will also be provided to the extent appropriate. In developing the signage, Alachua Conservation Trust will seek guidance from local experts, as well as staff from the San Felasco State Preserve, the City of Gainesville Nature Operations Division, and the Parks Division of the Alachua County Public Works Department.

Every effort will be made to offer regular guided hikes to explore the hydrology, ecology, history, geology and archaeology of these outstanding sites. The wealth of expertise available pro bono from faculty and student of the University of Florida will assist with this goal. Alachua Conservation Trust's Board of Directors of the Alachua County Trust includes an emeritus Professor of History, a number of ecologists, and other experts.

Alachua Conservation Trust will update the Florida Communities Trust on the various educational activities conducted on the project site and any revenues collected for such

activities and how such revenues were expended. Any revenues collected thought the educational programs may only be used for the upkeep and maintenance of the Project Site.

#### **4.6 Greenway Management**

As noted by a letter from University of Florida researchers Peggy Carr and Tom Hctor this property has been identified as part of a larger statewide greenway network. This was confirmed by a letter from the Office of Greenways and Trails, which states that these lands *“lie within the boundaries of an identified ecological greenway linking San Felasco State Preserve to the Devil’s Millhopper State Geological Site and possibly the Murphree Wellfield Protection Conservation Easement to the east of these properties.”* Acquisition of the Blues Creek Ravine and Fox Pond properties will act as a bridge between numerous other natural lands already in public ownership or under conservation easement.

#### **4.7 Coordinated Management**

The Alachua Conservation Trust will coordinate with the following in the management of the project site:

- The Florida Department of Environmental Protection, Division of Recreation & Parks to provide effective maintenance of the ecological and hydrologic connections through the project site to the San Felasco Hammock State Preserve.
- The Florida Fish and Wildlife Conservation Commission to protect listed species.
- The Division of Forestry on all prescribed burns, if the land is deemed appropriate for such burns.
- Department of State, Division of Historical Resources to protect archaeological sites should any be found.
- The Alachua County Forever Program, as well as the County's Public Works, Planning, and Parks and Recreation programs to ensure that we are following all requirements and best management practices.

##### **4.7.1 Coordination with Adjacent Land Uses**

Management of the project site shall not be in conflict with the adjacent San Felasco Hammock State Preserve. ACT will also work closely with IFAS to ensure that their operations are not disrupted at all by public visitation to the park, and will also work closely with nearby neighborhoods to follow their wishes to the degree possible while meeting grant conditions.

#### **4.8 Site Access and Improvements**

##### **4.8.1 Site Access and Parking and Stormwater Facilities**

There are at least three possible options under review for providing the primary public access and parking locations for Blues Creek Ravine and Fox Pond. The first options are exactly as were depicted in the original grant application. The Fox Pond site has frontage directly on Millhopper Road (NW 53<sup>rd</sup> Avenue), and the southeastern corner of the property, which is at the intersection of NW 53<sup>rd</sup> Ave and NW 71<sup>st</sup> Street, would provide the most visible and easily accessible entrance and parking location. Park visitors could follow the

foot trails north throughout the Fox Pond land, across the IFAS connector, and into the Blues Creek Ravine site. This option was shown in the original grant application.

The second proposed option was also shown in the application, placing a parking area near the northern border of the Blues Creek Ravine site, allowing access by car or foot along the IFAS connector. This continues to be considered a viable option, but would likely require some additional expense associated with the need to grade and maintain an access road on the IFAS land. The third, and perhaps most desirable option, would be to develop just one parking lot on the IFAS land, just east of NW 71<sup>st</sup> Street. This area is already cleared and disturbed, and would not require significant improvements to the access road. IFAS is motivated to see NW 71<sup>st</sup> Street itself improved, as it is paved but in need of some maintenance. NW 71<sup>st</sup> Street is in usable condition, but IFAS would ideally like to see it improved if additional traffic is to be attracted to the area as a result of parking access in the northern part of the site, as proposed in the last two options mentioned above. ACT is currently researching options for this with the Florida Department of Transportation (71<sup>st</sup> Street is owned by the state), as well as with local government officials.

The parking area will be built using pervious material to minimize both cost and runoff. Construction and stormwater permitting will dictate some aspects of the design. It is expected that altogether the parking area(s) will provide approximately 20 parking spaces. If only one parking area is provided, then it will need to be larger than if two different areas are built. Trash receptacles will be placed near all parking areas.

Any proposed stormwater facility for the project site shall be designed to improve recreation, open space, or wildlife habitat. Any needed stormwater facilities will be designed to build in a park-like manner that mimics a natural system and provides wildlife habitat or provides recreational open space.

#### **4.8.2 Pedestrian and Bicycle Access and Americans With Disabilities Act Compliance**

Pedestrians' use of the park will be enabled by providing pedestrian access points linking the project site with adjacent neighborhoods. As we do not plan any perimeter fencing between the project site and adjacent residential areas, there will be good pedestrian accessibility from multiple neighborhoods. Historical use patterns indicate that many neighbors will access the land in this way.

Bicycle racks will be available in all car parking areas in substantial numbers to encourage visitors to come to the site via bike. When public meetings are held to obtain community input on the park's development, we will encourage establishing pedestrian access points within the neighborhoods, with bicycle racks provided. This could conceivably occur at several different locations, but will require neighborhood support and therefore cannot be indicated with any certainty at this time.

Millhopper Road is a county scenic road with a good quality and highly used in-street bicycle lane. Because of the canopied nature of the road, and the substantial restrictions imposed by its scenic status, we do not anticipate additional sidewalk construction along Millhopper Road. Regardless, this area is very bicycle and pedestrian friendly, and we anticipate that,

like other area parks, many visitors will access Blues Creek Ravine and Fox Pond through non-motorized means.

In the Adopted County Bicycle Master Plan, a “Priority I” trail is proposed to extend from the San Felasco Preserve Area, through the University of Florida’s IFAS land just North of Blues Creek Ravine and Fox Pond, and East to San Felasco County Park and the North Alachua Rail-Trail on NW 43<sup>rd</sup> Avenue. Acquisition of this project will enhance the likelihood of closing a gap in this connection. It is anticipated at this time that bicycle traffic will be allowed along the IFAS corridor, in already disturbed areas, but not interior to the Fox Pond or Blues Creek Ravine sites. A copy of a letter and project list regarding how the Blues Creek Ravine and Fox Pond sites will further the Bicycle Master Plan are shown in Exhibit F.

To ensure that all members of the public will be able to enjoy the park, access to the site will comply with the Americans With Disabilities Act.

#### **4.8.3 Hiking Trails**

The project includes new nature trails throughout both the Blues Creek Ravine and Fox Pond properties. To the extent feasible, site disturbance will be minimized through use of existing old access roads. Together, these trails are expected to extend over 1 mile in length, to provide outdoor recreation activities such as hiking, bird watching, and plant and wildlife identification. A 10foot buffer (or greater, if required by codes or permits) will exist between the mulched or naturally surfaced nature trail and the wetlands. A 25 foot buffer (or greater if required by codes or permits) will exist between paved trails (if needed) or other minor facilities and the wetlands. It is anticipated that footbridges may be needed to cross over wet areas at some locations. This will be finalized at a later stage of the project, with the understanding that the site design will seek to minimize both capital costs and disturbance to sensitive ecological systems.

#### **4.8.4 Educational Displays & Signage**

Attractive, accurate informational signage will be installed to introduce visitors to the unique hydrology, geology, ecology, and archeology of the property. Way-finding signs will also be provided to the extent appropriate. In developing the signage, Alachua Conservation Trust will seek guidance from local experts, as well as staff from the San Felasco State Preserve, the City of Gainesville Nature Operations Division, and the Parks Division of the Alachua County Public Works Department

A permanent recognition sign shall be maintained at the entrance to the site. The sign shall acknowledge that the project site is open to the public and was purchased with funds from the “Florida Communities Trust Florida Forever Program.” The sign shall be at least 2’ x 3’ in size and will include the FCT logo. The following language is recommended: “Funding for the acquisition of this site was provided by The Florida Communities Trust’s Florida Forever Program.” The next printed line shall identify the month and year the project site was acquired. Such recognition shall also be included in all printed literature and advertising associated with the project site.

#### **4.8.5 Picnic Areas**

There will be two picnic areas, one near the Blues Creek Ravine parking area and one near the Fox Pond parking area. These are expected to be attractive and welcoming, but low-impact and cost-conscious. The facilities will be designed and located with minimal damage to natural resources on the site. Trash receptacles will be placed near all picnic areas.

A minimum of two picnic tables will be provided at each of the picnic areas; more will be provided as funding allows. In addition, funding will be sought to provide small, attractive picnic shelters at each of the picnic areas to draw people to use the site for this purpose.

#### **4.8.6 Chain Link Fence Relocation**

A chain link fence currently exists along the northern border of the Blues Creek Ravine parcel and the Fox Pond land, controlling access to the IFAS parcel. ACT has requested that the fence be relocated northward to the new border of the IFAS parcel. In addition to making the park project boundaries clear and contiguous, this relocation should also improve wildlife movement along Blues Creek.

#### **4.9 Maintenance**

Alachua Conservation Trust will coordinate maintenance and capital improvement activities for the project in cooperation with Alachua County and FDEP up until park opening, expected to occur in January of 2005. The Alachua Conservation Trust will work in partnership with Alachua County and the Florida Department of Environmental Protection to ensure effective maintenance of the park after it is opened to the public.

Regular maintenance activities will include site cleanup and trash removal; trail maintenance; exotic plant removal and habitat restoration; facilities upkeep; and security. Any agreements contemplated by Alachua Conservation Trust pursuant to these tasks will be provided to the Florida Communities Trust for review and approval prior to execution.

#### **4.10 Security**

It is anticipated that security will consist of park opening and closing and regular visits by a contractor hired for this purpose. Vandalism and trespass will be controlled by restricting the number of access points to the property, and encouraging nearby neighbors to regularly visit the site and report any problems that exist. The park will be secured during non-operating hours with signage indicating no trespassing after sundown.

#### **4.11 Staffing**

The park will not require full-time staff or daily management. All indications are that Alachua County and FDEP will assist in the maintenance of the park. Trash receptacles will be located near the main entrance to allow for easy access by contractors. All picnic areas, and trail entrances shall have garbage receptacles to be emptied on a regular basis by contracted maintenance staff.

Additionally, the site will have maintenance provided by volunteers from Alachua Conservation Trust and nearby neighborhoods. Alachua Conservation Trust's Board of Directors includes several ecologists and other experts who will assist in the maintenance.

#### **4.12 Required Permitting**

Alachua Conservation Trust has identified a number of required permits for proposed development and restoration work. These include:

- Alachua County Site Plan Approval
- Alachua County Construction Permit (for Parking, Stormwater, Other Site Work)
- Suwannee River Water Management District (Stormwater Permit)

As Part of the FCT grant conditions, and to ensure that other requirements are not missed, ACT will also contact the following agencies prior to initiating any work onsite:

- Florida Fish and Wildlife Conservation Commission (FFWCC)
- Florida Department of Environmental Protection
- Florida Department of Forestry
- Florida Division of Historic Resources
- Alachua County Parks and Recreation

#### **4.13 Easements & Concessions or Leases**

IFAS holds a lease with the State (Board of Trustees) for the parcel directly north of the Blues Creek Ravine and Fox Pond parcels. This Management Plan proposes to link the 160-acre Blues Creek Ravine site with the ±77-acre Fox Pond site and San Felasco State Preserve, through land that the University of Florida's Institute of Food and Agricultural Sciences (IFAS) has agreed to transfer to DEP. The optimal boundary of this IFAS land was originally estimated at approximately 86 acres, but will be more accurately determined in the coming months. The ideal transfer includes the forested areas above both Fox Pond and Blues Creek Ravine, and a 100 ft wide strip that connects these areas together.

Approximately 18 acres of the 21-acre Winter parcel was also proposed as a conservation easement in this project. This easement would greatly enhance the connection to the Preserve. At the request and facilitation of Alachua Conservation Trust, the DEP's Division of Parks and Recreation is currently seeking full fee acquisition of the entire Winter tract, including the home, which would be used for an on-site ranger's residence. The Winter property is considered an inholding to San Felasco Hammock, as it is between the park boundary and other Board-of-Trustees-owned land (IFAS). If DEP is successful in this endeavor, ACT will request a boundary adjustment to remove the Winter parcel from our FCT project.

For any property that is acquired via the Florida Communities Trust, Alachua Conservation Trust will provide 60 day prior written notice and information regarding any lease of any interest, the operation of any concession, any sale or option, the granting of any management contracts, and any use by lay person other than in such person's capacity as a member of the general public. ACT acknowledges that the execution of any document will require review and approval by the Florida Communities Trust.

Although small fees (approximately \$3 per car) are charged for parking at nearby state parks (San Felasco Hammock, and the Devil's Millhopper Geological Site), there is no plan to collect fees at Blues Creek Ravine and Fox Pond. If site operation subsequently indicates

the need to collect funds at the site, all fees would be placed in a segregated account and will go to the upkeep and maintenance of the project site.

#### **4.14 Project Site Future Land Use & Zoning**

Alachua Conservation Trust will request that Alachua County initiate an amendment of the land use designation of the site to conservation within one year after acquisition. Alachua Conservation Trust will also request that that County amend its zoning map to be consistent with the amended future land use designation for the project site.

#### **4.15 Project Site Public Identification**

The project site will be identified in all literature and advertising as being owned and operated as a natural conservation area, outdoor recreation area or other appropriate descriptive language and that the project site was acquired with funds from Florida Forever, via the Florida Communities Trust.

### **5.0 IMPLEMENTATION OF SPECIFIC MANAGEMENT CONDITIONS INCLUDING COST ESTIMATES, TIMELINE AND RESPONSIBLE PARTIES**

Over the course of time, proposed improvements will be completed by a combination of Alachua Conservation Trust staff and volunteers, Alachua County staff, Florida Department of Environmental Protection staff, or contractors hired by one or more of these agencies. In August 2002, ACT hosted a joint meeting of all of these entities, and also IFAS, the University of Florida Foundation Director of Real Estate, and a few nearby neighbors. The goal of ACT, as a non-profit agency, is to ensure that the natural features of the property are protected, and the resource is made as accessible to the public as possible. All indications are that Alachua County is committed to entering into a management agreement for the Blues Creek Ravine Property, FDEP is willing to manage Fox Pond in concert with the adjacent San Felasco Hammock, and IFAS is willing to transfer management of a portion of their southern boundary to FDEP and/or the County. ACT will be responsible for management until these entities complete transfers and agreements. If for any reason these agreements are not executed as anticipated, Alachua Conservation Trust will make every effort to raise private funds necessary to fulfill the commitments outlined in this management plan.

At the present time, FDEP is considering acquiring full title to the Winter Property including the home for use as a San Felasco Hammock ranger's residence. This approach was developed through the facilitation and with the encouragement of ACT. Having a ranger living adjacent to the Fox Pond property would be very beneficial for security and management of this project as well. If this is completed successfully, the Winter easement will be removed from our project boundary.

As property owner, Alachua Conservation Trust will oversee any activities that occur onsite and will not undertake any site improvements or alterations that are not addressed in this management plan without requesting written approval from the Florida Communities Trust.

Table 1 is provided below to summarize the management responsibilities, estimated timeline, costs and responsible parties. ACT is committed to ensuring that the project is completed as planned, and that the agreed-upon conditions are upheld, whether by the responsible parties

listed or others, as needed. All work is subject to review and acceptance by other project partners, and is dependent on annual funding allocations from the respective decisionmaking bodies. As amendments to this workplan become necessary, ACT will seek all necessary approvals from the Florida Communities Trust. It is anticipated that the public approval processes required by the County and FDEP may lead to amendments to this plan, adjustments to the timeline, and refinements to the cost estimates. ACT will act with the understanding that the requirements of the grant agreement will be one of the primary considerations in all such processes.

**Table 1. Management Activities, Timelines, Cost Estimates and Responsible Parties**

Activity	Projected Start and Completion Dates	Estimated Cost (cash, volunteer or in-kind)	Responsible Party or Parties
1. Acquire the Blues Creek Ravine acreage from the Trust for Public Land	Start: Early 2002 End: November 2002	Subject to confidentiality agreement with FCT	Alachua Conservation Trust and FCT
2. Facilitate lease transfer from IFAS (related to SMC-9)	Start: August 2002 End: June 2003	\$3000 value staff, volunteer time	ACT/FCT, Alachua County, FDEP, IFAS and University of Florida Foundation
3. Submit Management Plan for review by FFWCC (SMC-6)	Start: September, 2002 End: October, 2002	Minimal excess costs over normal management expenses	ACT
4. Preserve existing communities to ensure long-term viability (SMC-5)	Start: Upon Acquisition End: Ongoing	No excess costs over normal management	ACT, Alachua County, FDEP
5. Manage Blues Creek as a natural stream system (SMC-9)	Start: Upon acquisition End: Ongoing	No excess costs over normal management	ACT, Alachua County, FDEP
6. Hold initial public meeting/event to introduce neighbors to the project	Start: December, 2002 End: December, 2002	\$500 cost (invitations, mailing, food) \$500 value staff time	ACT
7. Acquire Fox Pond parcel from Mrs. Bryant and family, and the Winter Property	Start: January 2003 End: July 2003	To be Determined	ACT and FCT
8. Completion of biological survey of natural communities (SMC-4)	Start: January 2003 End: April 2003 Repeat: Every 2-3 years	\$3,000 value (ACT volunteers and county staff) \$2,000 /yr recurring	Alachua Conservation Trust (ACT), Alachua County
9. Conduct Vegetation Analysis to determine if a prescribed burn regime is needed (SMC-7)	Start: January 2003 End: April 2003 Repeat: Every 2-3 years	\$2,000 value (ACT volunteers and county staff)	Alachua Conservation Trust (ACT), Alachua County
10. Review site hydrology and available water quality data to ensure implementation of protective watershed measures (SMC-8, 9)	Start: March 2003 End: May 2003 Repeat: Every 2-3 years	\$3,000 value (ACT volunteers and county staff)	Alachua Conservation Trust (ACT), Alachua County, Consult with Suwannee River WMD

**Table 1 Continued.**  
**Management Activities, Timelines, Cost Estimates and Responsible Parties**

Activity	Projected Start and Completion Dates	Estimated Cost (cash, volunteer or in-kind)	Responsible Party or Parties
11. Develop conceptual locations and designs for trails, parking area(s), picnic area, pedestrian and bicycle access, and stormwater management to minimize site damage and capital and maintenance costs, minimize impervious surfaces and maximize public access and wildlife habitat (SMC, 1, 10, 17, 18, and others)	Start: May, 2003 End: October, 2003 Review/complete after subsequent information is gathered	\$7,500 staff time (ACT and County staff) \$7,500 cost (contractors)	Alachua Conservation Trust (ACT), Alachua County, Consult with Suwannee River WMD
12. Obtain County Approval for Planned Site and Capital Improvements	Start: June, 2003 End: December, 2003	\$10,000 value (ACT staff and county staff)	ACT staff and County staff
13. Request that Alachua County initiate the process to amend the land use and zoning designations of the land	Start: June, 2003 (NOTE: must be after acquisition of all parcels). End: December, 2003	\$2,000 value (ACT staff and county staff)	ACT staff and County staff
14. Cease use of agricultural chemicals on formerly farmed portions of the site (SMC-9)	Start: June 2003 End: Ongoing	No excess costs over normal management	ACT, Alachua County, FDEP, IFAS
15. Conduct archaeological survey and develop a protection plan prior to any site development with review of Div. Historic Resources (SMC-16)	Start: October, 2003 End: January 2004	\$15,000 direct cost (Estimate)	Alachua County, FDEP (NOTE: A great deal of work has been done on these sites)
16. Conduct control and monitoring of exotic species (SMC-6, 13)	Start: November 2003 End: Ongoing	\$8,000 Year 1, \$8,000 Year 2, \$3,000/yr Thereafter	Alachua County, FDEP, ACT Volunteers
17. Initiate the “Your Neighbor is a Creek” Program with mailings and handouts (SMC-9)	Start: January, 2004 End: Ongoing Periodic mailings, handouts to neighbors	\$500/yr cost for mailing, postage and programs \$1,000/yr staff time	ACT, using educational materials provided by the City of Gainesville, Alachua County and/ or the Suwannee River WMD

**Table 1 Continued.**  
**Management Activities, Timelines, Cost Estimates and Responsible Parties**

Activity	Projected Start and Completion Dates	Estimated Cost (cash, volunteer or in-kind)	Responsible Party or Parties
18. Install a permanent sign at the entrance of the project site, noting that it is open to the public and was purchased with FCT funds. (SMC-2)	Start: September, 2003 (purchase sign) End: January, 2004 (installation)	\$1000	ACT (with grant funding already approved)
19. Install interpretive signage describing history and environment of the site (SMC-3)	Start: January, 2003 (purchase) End: January, 2004 (installation)	\$500	ACT (with grant funding already approved)
20. Restore approx. 20 acres of degraded uplands on northern border by succession, exotics control and replanting (SMC-11)	Start: January, 2004 End: Ongoing	\$5,000/yr for three years	Alachua County, FDEP, ACT Volunteers
21. Design/implement feral animal control with appropriate partners and safeguards (SMC-14)	Start: January, 2004 End: Ongoing	\$2,000/yr Ongoing	ACT, Alachua County, FDEP
22. Finalize designs for planned improvements, and obtain permits	Start: January, 2004 End: June, 2004	\$7,500 value (staff) \$7,500 direct costs (contractors)	Alachua Conservation Trust (ACT), Alachua County, Consult with Suwannee River WMD, contractor to complete permits, etc.
23. Construct Unpaved Parking Lot and any needed stormwater management areas	Start: June, 2004 End: October 2004	\$20,000 direct costs (contractors)	Alachua County
24. Establish and Mark Trails and pedestrian access, Install Footbridges if needed	Start: June, 2004 End: October, 2004	\$10,000 value (volunteers, staff) \$7,500 direct costs (contractor)	ACT volunteers, Alachua County
25. Install new fencing and gate(s)	Start: June, 2004 End: October, 2004	\$6,000 direct costs	Alachua County
26. Install picnic area(s) and bicycle parking	Start: June, 2004 End: October, 2004	\$1,500 direct costs	Alachua County
27. Move IFAS Fence	Start: October, 2004 End: November, 2004	\$25,000 direct costs (Estimate)	Alachua County

**Table 1 Continued.**

**Management Activities, Timelines, Cost Estimates and Responsible Parties**

Activity	Projected Start and Completion Dates	Estimated Cost (cash, volunteer or in-kind)	Responsible Party or Parties
28. Restore approx. 40 acres of disturbed wetlands throughout site by succession, exotics control and replanting (SMC-12)	Start: January, 2005 End: Ongoing	\$5,000/yr for six years	Alachua County, FDEP, ACT Volunteers
29. Hire Security to Open and Close gates, etc.	January 2005 Ongoing	\$8,500/yr	Alachua County
30. General Site Maintenance	January 2005 Ongoing	\$10,000/yr	Alachua County

**Table 2. Total Cost Estimates From Table 1 Above**

Cost Category	Timeframe	Cost Totals	Responsible Party
Staff and Volunteers' Time Value – One Time <i>Shown in Blue</i>		\$48,500 one time	ACT, Alachua County, FDEP, IFAS and Volunteers
Other ACT Direct Costs – One Time <i>Shown in Pink</i>		\$2,000 one time	ACT
Capital Cost Total (Including Contractors) <i>Shown in Green</i>	May 03 – Nov 04	\$90,000 one time	Alachua County
Maintenance Cost Total (per year) <i>Shown in Red</i>	Per Year	\$42,000/yr (Approx. \$130/ac/yr)	Alachua County (with some volunteer assistance)
Total Cost Estimate (Capital + 1.5 year ops)	Sept 02 – Dec 05	\$203,500	

**Table 3. Capital and Management Activities By Year**

<b>Activities</b>	<b>FY 02-03</b>	<b>FY 03-04</b>	<b>FY 04-05</b>	<b>FY 05-06</b>
Facilitate lease transfer from IFAS (related to SMC-9)	\$3,000			
Hold initial public meeting/event to introduce neighbors to the project	\$1,000			
Completion of biological survey of natural communities (SMC-4)		\$3,000		\$2,000
Conduct Vegetation Analysis to determine if a prescribed burn regime is needed (SMC-7)		\$2,000		
Review site hydrology and available water quality data to ensure implementation of protective watershed measures		\$3,000		
Develop conceptual locations and designs for trails, parking area(s), picnic area, pedestrian and bicycle access, and stormwater management to minimize site damage and capital and maintenance costs, minimize impervious surfaces and maximize public access and wildlife habitat (SMC, 1, 10, 17, 18, and others)			\$15,000	
Obtain County Approval for Planned Site and Capital Improvements		\$10,000		
Request that Alachua County initiate the process to amend land use and zoning designations of the land		\$2,000		
Conduct archaeological survey and develop a protection plan prior to any site development with review of Div. Historic Resources (SMC-16)			\$15,000	
Conduct control and monitoring of exotic species (SMC-6, 13)		\$8,000	\$8,000	\$3,000
Initiate the “Your Neighbor is a Creek” Program with mailings and handouts (SMC-9)			\$1,500	\$1,500
Install a permanent sign at the entrance of the project site, noting that it is open to the public and was purchased with FCT funds. (SMC-2)		\$1,000		

**Table 3 Continued**  
**Capital and Management Activities By Year**

Activities	FY 02-03	FY 03-04	FY 04-05	FY 05-06
Install interpretive signage describing history and environment of the site (SMC-3)		\$500		
Restore approx. 20 acres of degraded uplands on northern border by succession, exotics control and replanting (SMC-11)			\$5,000	\$5,000
Design/implement feral animal control with appropriate partners and safeguards (SMC-14)			\$2,000	\$2,000
Finalize designs for planned improvements, and obtain permits			\$15,000	
Construct Unpaved Parking Lot and any needed stormwater management areas			\$20,000	
Establish and Mark Trails and pedestrian access, Install Footbridges if needed			\$17,500	
Install new fencing and gate(s)			\$6,000	
Install picnic area(s) and bicycle parking			\$1,500	
Move IFAS Fence			\$25,000	
Restore approx. 40 acres of disturbed wetlands throughout site by succession, exotics control and replanting (SMC-12)				\$5,000
Hire Security to Open and Close gates, etc.				\$8,500
General Site Maintenance				\$10,000
<b>TOTAL PER YEAR</b>	\$4,000	\$29,500	\$131,500	\$37,000
<b>GRAND TOTAL</b>				\$202,000

*Note that recurring costs decrease in subsequent years. Dollar figures do not translate exactly between Tables 1, 2 and 3 due to allocation of recurring costs.*

The costs presented are intended for planning purposes only. The final costs and schedule will depend on approval of the responsible decision-making bodies, and will be subject to budgetary, purchasing, and similar constraints.

## **6.0 MONITORING, REPORTING AND MANAGEMENT PLAN UPDATES**

### **6.1 Progress Assessment and Reporting**

Alachua Conservation Trust shall be responsible for providing an annual stewardship report that evaluates implementation of the management plan. The first stewardship report shall be due on January 30<sup>th</sup> of each year.

## **6.2 Management Plan Updates**

Should the Alachua Conservation Trust propose changes to the approved management plan, it will send such proposals to Florida Communities Trust for review and approval prior to the implementation of any of the proposed changes.