

MANAGEMENT PLAN

Tanglewylde Center

Putnam County

FCT # 01-137-FF1

May 2003

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1. INTRODUCTION

The **Tanglewylde Center** is located on the north and south side of West River Road, about 7 miles north of the City of Palatka in Putnam County. The property is located on the banks of the St. Johns River, an American Heritage River (See Exhibit 1). The south parcel of the property is surrounded by residential lots along the St. Johns River. To the north is the community of Bostwick with numerous rural residential homes scattered throughout the area (See Exhibit 1).

The **Tanglewylde Center** site was the long-time residence of Mrs. Frances Brown Frank who lovingly cared for the site until her death in 1990. Mrs. Frank maintained the three dwellings and swimming pool on the 7 plus acre property on the south side of West River road while protecting the native vegetation from harm. The 18 acres across the road from the residence on the north side was left in its natural state, regenerating from early 1900's logging activities.

Upon Mrs. Frank's death, the property passed to the Florida Wildlife Federation by her will.

Grant funding from the Florida Communities Trust (FCT) was used to acquire the project site and the management plan was 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. The County will create an environmental education center for broad community use at the Tanglewylde Center. The conversion of the property from its present use as a residence to a valuable community resource will be a major part of the environmental education curriculum.

Volunteers and professionals from all parts of the area will participate.

Existing structures will be repaired or replaced, a minimum amount of new structures for passive recreation will be constructed and the natural areas will be restored or preserved to the maximum extent feasible.

There are three existing structures on the south parcel and none on the north parcel. The main house (lodge) is a two-story board and batten structure that consists of approximately 1,500 square feet and contains full living space on the second floor and enclosed meeting and storage space below. There are two WW 11 barracks on cement slabs (cottages) adjacent to the lodge, one of which was used by Ms. Frank as a residence until her death (designated cottage 2" on Exhibit 11). Each of these structures is approximately 900 square feet in size. A currently unused cement swimming pool and lanai is located between the lodge and the riverfront. There is also a small covered parking area between the lodge and the road. A driveway enters the property

through a chain link fence gate off West River Road.

The community intends to appoint a Tanglewylde Center Advisory Board (TCAB) to advise it about the many decisions necessary to bring the project to fruition. The TCAB will be composed of citizens of the community who are Interested in all aspects of the **Tanglewylde Center** construction and future operations.

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EXHIBIT 1 - SITE LOCATOR MAP

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11. PURPOSE OF THE PROJECT

The overall purpose of the **Tanglewylde Center** project is to further the aims of the Florida Forever program by creating a community-based project for natural resource protection, environmental education, nature-based recreation and open space in an urbanizing area, and to further implement the local government comprehensive plans of Putnam County. The project will be managed to provide functional open spaces passive recreational opportunities and environmental education, and protect the natural areas on the site, remove exotic vegetation and restore disturbed areas watts native plants integrated into environmental education and outdoor recreational opportunities. There will be both active and passive management of the site depending on maintenance and restoration needs. Many of the goals will be accomplished through ongoing, community-based environmental education programs.

The **Tanglewylde Center** will be identified in all literature and advertising as being publicly owned and operated as an environmental education and natural conservation area owned by Putnam County. Funding for the acquisition of this site was provided by the Florida Communities Trust.

111. KEY MANAGEMENT OBJECTIVES The following are the key management objectives in general priority order.

1. Place appropriate silage.
2. Preserve the natural resources on the project site by completing the following plans and studies as part of the ongoing environmental education classes and seminars that will be conducted on the site over the next 5 years.
 - a. Develop a bowline survey of plant and animal species.
 - b. Create a protection and enhancement plan for listed plant and Animal species.
 - c. Create a protection and enhancement plan for native vegetative communities including the removal of invasive exotic vegetation.
 - d. Create a protection plan for surface water and groundwater quality.
 - e. Forward survey information on the occurrence of listed plant and animal

species to the Florida Natural Areas Inventory; f Conduct a Phase I cultural assessment of the site and coordinate with the Department of State, Division of Historical Resources regarding the appropriate action to protect cultural resources, if necessary.

g. Periodically monitor the site to insure the continued viability of vegetative communities, plant species and animal species found on the site and to control invasive exotic vegetation', 3, Conduct master planning and prepare a Master Site Plan showing the general location and extent of all physical improvements on the site.

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4. Restore and enhance the natural resources on the project site using environmental education classes and volunteers from within the community. This |11 include the removal of exotic species that interfere with native vegetation and stabilization of the river bank and associated drain ways on the property.

5. Remove dilapidated and unnecessary structures.

6. Provide fully accessible rest rooms on the site.

7. Provide public access and adequate parking.

8. Construct nature trails, boardwalk, picnic shelters and physical improvements such as a playground.

9. Provide ongoing environmental education activities at the project site.

10. Renovate existing structures to provide a small museum and meeting space.

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EXHIBIT 11 - EXISTING STRUCTURES AND SITE MAP

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IV. COMPREHENSIVE PLAN IMPLEMENTATION

The acquisition and management of the site as proposed in the original FCT application would further the following key comprehensive plan directives:

Policies -A.1.4.18, F.1.4. Requires the County to promote the acquisition of floodplains along the St. Johns River thorough available state and federal programs and ensure the provision of open space by public agencies. The acquisition of this property will eliminate the potential for residential development within the 100-year floodplain and maintain this area as open space.

The acquisition will provide over 24 acres of open space for County residents. The purchase of this property will establish passive public access to the St. Johns River in an area with little other access for the public.

Policy E.1.4.5. Requires the County to identify, enhance, and promote greenways in Putnam County. The project will provide an important link in

the future St. Johns River Blueway as well as part of the future County bicycle trail network.

Policies E.1.3.6, E.1.4, E.1.4.1, E.1.4.2 and E.1.4.3. Directs the County to preserve native vegetation and protect marine and wildlife habitat and coordinate with applicable state agencies in identifying listed species and wildlife habitat. The acquisition of this property will allow the County to conserve the habitat that is important for manatee protection and survival, as well as provide habitat for black bears, gopher tortoise, bald eagles and other species.

Policies E.1.2, E.1.4, E.1.4.2, E.1.4.3, E.1.4.4, G.1 and G.1.2. The acquisition of the property will further coordination with the SJRWMD SWIM plan for the St. Johns River by placing land within the 100 year flood plain in public ownership. It will also allow the County to further the aims of the Manatee Recovery Plan adopted by the U.S. Fish and Wildlife Service and the Florida Fish and Wildlife Conservation Commission by offering educational programs about manatees within the St. Johns River System. The project will also further the intergovernmental element of the plan in supporting recreational activities of other counties along the river system who are part of the proposed St. Johns River trail designation.

Policy E.1.2.5. This policy requires preservation or restoration of a vegetated upland buffer. It directs the County to assist in the restoration or enhancement of degraded natural areas and restoration of natural hydrology. The project will restore degraded areas in the northern parcel using clearing and controlled fire techniques while restoring areas of the southern parcel by removing non-native vegetation and restoring the eroded bluff area.

Policies D.1.6.4, E.1.2, E.1.2.5, E.1.2.6. Directs the County to establish vegetative buffers to protect ground and surface water quality as well as protect the quality of waters flowing into estuarine waters, which includes the St. Johns River in this area. The project will place lands along the river in public ownership and create numerous programs to restore natural water flow into the river system from the property that is presently degrading water quality in the river.

Policies A.1.5.1, A.1.5.4. Directs the County to protect historic resources and seek funding to further designate additional sites within the County. The project will contain a small history museum to help display historic and archeological information, including a central County location for site listings. In addition, the project includes a high bluff overlooking the St. Johns

River that would be reasonably expected to contain early Native American habitats. Various artifacts have been recovered from the surrounding area

which may be displayed in the museum.

High bluffs of this nature on the river are unusual and those that have been thoroughly surveyed have produced historic/archaeological sites.

Putnam County |11 amend its local comprehensive plan and land use map to include the subject property in the Conservation land use category within the next year, as well as needed changes in other elements. Similar changes will be made in the appropriate zoning regulations as well.

It will also upgrade its County bicycle plan, as needed, to include the West River Road as part of the County's future Master Bicycle Route Plan.

V. NATURAL AND CULTURAL RESOURCES

Inventory of Natural Communities

The project area consists of two parcels, a northern parcel (18.04 ac.) and a southern parcel (8.02 ac.) for a total of approximately 26 acres. The two parcels are separated by West River Road (CR 209) and will be treated separately for the purposes of this description.

The north parcel consists of approximately 17.82 acres of Mesic Flatwoods. Mesic Flatwoods are designated by the Florida Natural Areas Inventory (FNAI) as S4, apparently secure in the state, although it may be rare in some parts of its state range.

The northwest corner of the site contains an approximately 0.22 acre portion of a larger and adjacent Depression Marsh natural community. Depression Marsh natural community is designated by FNM as G4. It is of uncertain Global rank, though apparently secure globally. It may be quite rare in parts of the ranges especially at the periphery; and S3, rare or uncommon and declining in state. Dominant species present in the Depression Marsh are swamp tupelo (*Nyssa sylvatica*), pickerelweed (*Pontederia cordata*), maidencane (*Panicum* spp.), and royal fern (*Osmunda regalia*).

The Mesic Flatwoods are in good condition however the lack of lire is evidenced by the presence of hardwoods. The canopy is dominated by long-leaf pine (*Pinus palustris*), slash pine (*Pinus elliottii*) with a sub-canopy of laurel oak (*Quercus laurifolia*) and live oak (*Quercus virginiana*), southern magnolia, (*Magnolia grandis*) and Sweetgum (*Liquidambar styraciflua*).

The understory on some portions of the site is dominated by native vines such as grape vine (*Vitis rotundifolia*), virginia creeper (*Parthenocissus quinquefolia*), and smilax (*Smilax* spp.), and may be evidence of some prior site disturbance. The prevalent understory species is saw palmetto (*Serenoa repens*). The condition of the Mesic Flatwoods could be improved through active land management and the application of prescribed fire at the appropriate time of year at regular but varying intervals. The northern parcel

contains little to no evidence of invasive exotic species.

The southern parcel is approximately 7.3 acres of Upland Mixed Forest bordered by approximately 500 lineal feet (.19 an.) of what can best be described as Bluff natural community. The topography descends dramatically to approximately 500 lineal feet (.54 an.)

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Along the St. Johns River, a Black-water Stream natural community. This parcel contains numerous invasive exotic plant species in low densities throughout (listed below). These populations may be controlled through the use of accepted restoration techniques.

The Upland Mixed Forest of large mature trees is in good condition but interspersed with low to moderate density populations of invasive exotic species. Upland Mixed Forest is ranked S4 by FNAI; apparently secure in state, although it may be rare in some parts of the state range. The canopy is dominated by live oak laurel oak, pignut hickory (*Carya glabra*), southern magnolia, and sweetgum (*Liquidambar styraciflua*). Understory species include, devil's walking stick (*Aralia spinosa*), Florida anise (*Illicium floridanum*), and pawpaw (*Asimina parviflora*).

Ground cover species include coolie (*Zamia pumila*), grape vine and smilax and royal fern.

The site drops off abruptly towards the St. Johns River (15 to 20 feet) in what can best be described as a Bluff natural community. Bluff is ranked S2 by FNM; imperiled in state because of rarity or because of some factors) making it very vulnerable to extinction throughout its range. The canopy along the Bluff is dominated by live oak. The bluff has been eroded over the years carrying numerous sediments down to the riverbank. A small erosion gully cuts through the bluff near the west side. Non-native species such as bamboo have established on a portion of the bluff and could be removed as part of restoration efforts. Additional native plants should be planted to stabilize bluff-migration.

The riverine shoreline is dominated by cypress (*Taxodium distichum*) and cattail (*Typha* spp).

There is a small beach along the shoreline that is provided with sand from bank that is exposed at normal water levels. Native aquatic grasses exist a short distance from shore and extend out to a depth of 3 or 4 feet.

The project site abuts the St. Johns River, a Blackwater Stream. Black-water Stream natural community is ranked by FNM as G4, S2; apparently secure globally, though it may be quite rare in parts of its range and imperiled in state because of rarity or because of some factors) making it very vulnerable to extinction throughout its range.

Royal fern was the only listed plant identified on site. Royal fern is listed as C; Commercially exploited by the Florida Fish and Wildlife Conservation Commission (GFC). No other listed plant or animal species were found on the project site at the time of the site visit by the Sllk.WMrl| but listed species have been seen on the site at other times consistent with the habitat types. There are active bald eagle nests along the river bank and individuals have been sited flying over the property. Gopher tortoises and indigo snakes have been seen in the past on the North parcel. Black bears have been seen in the area and are known to migrate along the river system. Manatees are often found in the river adjacent to the property in the winter and mortality rates are relatively high in the area because of substantial boat traffic. FNAI also recognizes the potential for several listed species found in Depression Marsh natural communities: gopher frog (*Ninia capitol* and white ibis (*Eudocimus albus*), both listed as Species of Special Concern by the GFC and wood storks (*Mycteria Americana*), listed as endangered by the GFC.

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Invasive species found on the southern parcel: Loquat (*Eriobotrya japonica*) Camphor (*Cinnamomum camphora*) Mimosa (*Albizia julibrissin*) Bamboo (*Bambusa* so.)

Heavenly bamboo (*Nandina domestica*) Ardisia (*Ardisia prentissii*) Border grass (*Ophiopogon japonicus*) Wandering jew (*Tradescantia virginiana*) Air potato (*Dioscorea dumetorum*) Boston fern (*Nephrolepis exaltata*) Native species found on the southern parcel (* found on both parcels) Laurel cherry (*Prunus caroliniana*) Beauty berry (*Callicarpa americana*) Sweet gum (*Liquidambar styraciflua*)* Smilax (*Smilax glauca* and *Smilax latifolia*)* Coontie (*Zamia pumila*)* Laurel oak (*Platanus laurifolia*)* Red Mulberry (*Morus rubra*) Pignut hickory (*Carya glabra*) Cypress (*Flintzandium distichum*) Typha (*Typha* so.)

Cedar (*Juniper virginiana*) Devil's walking stick (*Aralia spinosa*) Carolina jessamine (*Gelsemium sempervirens*) Poison ivy (*Toxicodendron radicans*) Southern magnolia (*Magnolia grandiflora*)* Sabal palm (*Sabal palmetto*)* Virginia creeper (*Parthenocissus quinquefolia*) Florida anise (*Illicium floridanum*) Toothache tree (*Zanthoxylum americanum*) Royal fern (*Osmunda cinnamomea*) Pawpaw (*Asimina triloba*) Dahoon Holly (*Ilex canina*) Slash Pine (*Pinus elliottii*)* Native species found on the northern parcel: Longleaf Pine (*Pinus palustris*) Saw palmetto (*Serenoa repens*) Swamp tupelo (*Nyssa sylvatica*) Pickerelweed (*Pontederia cordata*) Maidencane (*Panicum* sap.)

The original baseline plant and animal studies will be expanded and updated

periodically to create and maintain a natural history map of the property showing listed species, critically imperiled vegetative communities, other native communities and exotics that need to be removed. Educational program activities include updates and monitoring of vegetative communities. Participants of the programs teach exotic species removal and replacement in accordance with accepted state practices as well as developing new site-specific practices that can be used statewide. The project may also be used as a site for water quality monitoring of the St. Johns River in conjunction with state and local agencies. All geological features will be noted and programs will be established to restore those that need it and protect the rest. All reports of endangered plant and animal species will be made to FNM on the approved FNAI forms. These forms are attached in Appendix B.

Natural Resource Protection

Except in the areas adjacent to the structures, all native plants and animals will be protected on the property unless replaced by other local native species to provide a more natural setting. The primary responsibility of the live-in caretaker will be the protection of the natural resources on the site from human depredation. This will include trash removal and control as well as nighttime policing of the premises to stop illegal vegetation removal, poaching, fires and vandalism.

The environmental education programs from the Putnam County School Board and St. Johns River Community College that will be conducted on site will emphasize protection of native plants, restoration of disturbed areas and removal of exotics as a primary part of their teaching methods.

Techniques such as forest thinning and prescribed burning may be used if the restoration plan and safety permits. Some of these techniques, as well as others to be determined, will be used to enhance the listed wildlife species and their habitat that may be found on the property, particularly wading birds and gopher tortoises. Thinning of the pine plantations on the north parcel will enhance habitat for gopher tortoises, and preservation of nearly all of the shoreline on the South Parcel will help protect habitat for wading birds. The County will coordinate with the Florida Fish and Wildlife Conservation Commission's Office of

Environmental Services, Florida Department of Environmental Protection and the U.S. Fish and

Wildlife Service to determine appropriate protection, restoration and enhancement measures regarding listed species and their habitat. This will be accomplished by providing plant and animal survey information to these agencies for review and comment. All listed plant species will be flagged in

the field and preserved intact on site. Exotic plant control activities, anal trail location and all other physical improvements will be located or meandered to circumvent individual specimens. ne bluff-will be stabilized through the removal of exotic species, planting native vegetation and possibly sailboater control measures that would redirect sheet flow runoff away from the bluff Resource Management and Enhancement

The following areas will need some level of restoration management: North Parcel: Pine flatfoots are overgrown and susceptible to catastrophic fires if not managed properly. The water regime in the marshes needs to be studied to see if they have been altered by early logging or farming practices. Trmsh will need to be removed. All listed plant species 12

on the site |11 be protected by appropriate locating and marking (if advisable) as well as removal of exotics and other vegetation that might interfere with their growth and development.

The monitoring program for all natural resources on the site will be updated by studies to be performed as part of the ongoing environmental education activities on the site. Consideration will be given to placing a fire break along the perimeter of the property and around areas proposed for prescribed balding.

South Parcel: Exotics away from the dwellings will need to be removed and replaced with native species. The high bluff-overlooking the river is partly eroding and cut tllroug)z by a small gully requiring soil stabilization. The beach system and aquatic grasses will require continuous management to protect the system from erosion and help restoration of natural systems in an active aquatic environment. These systems will be restored as is determined by the studies conducted by the various environmental education activities. These may include planting vegetation, re-contouring small areas, as well as others that are yet to be determined. Any black-water steams on the property will be managed in a similar fashion.

The following areas will need some level of resource enhancement: North Parcel: The north parcel is manly pine Haywood that |11 require periodic blaming to maintain a natural community. This has not happened in many years and is needed when it can safely be accomplished. Prior to balding, a plan would be developed with the Division of Forestry to determine the areas of the site that would benefit from prescribed burning and those areas of forest would have to be thinned of lnderstor.v fuel and excess trees. rl"lzis would be accomplished as part of the environmental programs assisted by 41-1 clubs, local private forestry experts, the Florida Division of Forestry and other experienced members of the community.

Because of nearby residences, this part of the project would have to be

carefully planned and timed and a neighborhood outreach program will be developed to inform residents of the benefits of prescribed burns.

The water regime in the marshes on the north parcel will have to be carefully scrutinized to determine if prior logging practices have altered their natural flow. If so, some pond reshaping may be necessary for optimum natural development of plant and animal species.

Removal of the small amount of trash from illegal dumping from this side of the road will also allow the native system restoration to proceed in a more natural and aesthetic manner.

South Parcel: The high bluff overlooking the river is subject to erosion because of the lack of proper vegetative cover and shoreline waves during high wind periods. There is a small gully that cuts thorough it, bringing water, sand and debris into the river. This area will need to be studied and the water flow modified to a more natural state to reduce erosion and sediment inflow. The restoration of this system could produce a different ecotone with multiple opportunities for the introduction of different local native species. This area will require some physical terrain management to be restored. With changes in the bluff the beach system will be altered and need various management techniques to restore native vegetation. All of these will be accomplished through the environmental education programs with physical assistance from the community.

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The proposed parking areas are surrounded by previous plantings and will be supplemented by native plantings. Areas of additional native planting will be located along the West River Road right of way, around the parking areas, the lodge, the boardwalk and on the bluff and riverbank to assist with soil stabilization. The improved areas are conceptually shown on the Master Plan Exhibit III. A more detailed landscaping plan will be shown as part of the Final Master Site Plan, which will be forwarded to Florida Communities Trust for review and approval. As stated in the application, vegetation around the existing structures will be left in place and grassed areas mowed to protect the structures until some later decision can be made whether they should be replaced. Native vegetation will be restored in other areas as stated in the Management Plan.

All restoration efforts will be monitored and their successes and failures marked on the Tanglewylde Center Project Natural Resource Map and Inventory that will be maintained as part of the museum and education programs. Invasive exotics listed on the Exotic Pest Plant Council's List of Most Invasive Species will be used to identify invasive exotic plant species on the site, which will be removed from the site as part of the ongoing

environmental education programs. The 2001 Florida Exotic Pest Plant Council's List of Invasive Species is included as Appendix C.

There are no known feral animals on the property. Household pets from the neighborhood are sometimes found on the property. A monitoring program will be established and feral animals shall be removed when sighted by the ongoing study teams.

Water Quality

The water quality of the St. Johns River adjacent to the site has not been specifically determined at this time. It is anticipated that a water quality monitoring station will be established at the Center as part of the environmental education program. At that time, all appropriate measures will be taken to improve the water quality adjacent to the site if it is contributing to the discovered problems.

Archaeological and Historical Resource Protection

Because no survey has been performed on the site, there are no known listed archaeological or historic sites within the project boundaries. However, most, if not all, of the high bluff areas of the St. Johns River that have been studied contain habitation sites for Native Americans back thousands of years and more recent early European settlers of the area. A complete survey of the property will be part of the ongoing education programs at the museum and will be completed for areas proposed for development prior to construction. This will be accomplished with the help of local informed citizens, experts at the St. Johns River Community College as well as University of Florida Anthropology Department. The County will coordinate with the Department of State, Division of Historical Resources regarding the appropriate action to protect identified sites. All sites discovered on the property will become part of the museum's exhibits.

Any area of land that will be used for any new permanent structures will be reviewed for archeological and historic resources before the commencement of construction. In the event that any archaeological or historical resources are discovered on the site, the County will immediately notify the Division of Historical Resources and agrees that "the management of archaeological and historic resources will comply with the provisions of Chapter 267,

Florida 14

Statutes specifically Sections 267.061(2)(a) and (18)." The buildings on the site will be evaluated to determine their historic significance and, if any is found, the feature will be restored in accordance with the Secretary of Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings with appropriate available federal and state funds. The Division of Historical Resources will be consulted on all aspects of the

protection and management of archeological and historic resources. No collection of artifacts or historic resources on the site shall be allowed unless prior authorization has been secured from the Division.

VK SITE DEVELOPMENT AND IMPROVEMENTS

Physical Improvements

Proposed Structures:

South Parcel - It is proposed that the existing cottages will be maintained or modified to meet the needs of the Project. One cottage will be replaced by a picnic area on the same concrete foundation and the second cottage will be restored, if possible. The second cottage will become the site of meeting and classroom space, if economically feasible. If not, it will become additional picnic or outdoor classroom space. The upstairs of the lodge building will be used for living space for the caretaker while the downstairs will be used for meetings, conferences, classrooms and a small museum. The swimming pool will be filled to provide space for a picnic pavilion. At least one additional picnic shelter will be provided for a total of two picnic shelters and one larger pavilion. Outdoor grills will be provided within close proximity of the picnic shelters and pavilion. An outdoor informational kiosk will be located between the parking areas, the existing lodge and within the vicinity of the picnic pavilion. An interpretive nature trail will also be constructed on the south parcel and the County will consider the construction of a playground/tot lot, horseshoe pits and a sand volleyball court during the master site planning process. The master site planning will be conducted after the completion of the natural resource surveys and evaluation have been completed pursuant to Section 111. Key Management Objectives. An open boardwalk area for wildlife and scenic viewing will be constructed on a stable area on the high bluff above the St. Johns River that is presently vegetated with exotic species. Sidewalks will connect the parking area, lodge, cottage and picnic shelters and pavilion to the open boardwalk. Structural supports for the boardwalk will be at least 305 from the mean high water line of the river. A stairway will be provided down the face of the bluff to a small platform to allow for canoe and kayak access from the St. Johns River. Motorized watercraft will be prohibited. The driveway will be modified to allow drive through access with adjacent parking areas. A bike rack will be installed to promote non-motorized use and support community-wide bicycle access. Perimeter fencing will be repaired and improved to control access on both parcels and trash cans will be provided at appropriate locations.

North Parcel - A small (25 square feet more or less) kiosk with user information, a bike rack and parking area will be constructed adjacent to

West River Road. Picnic tables will also be provided. Primitive earthen nature trails will be constructed from the kiosk meandering through the pine forest to the wetland area in the northwest corner. The trails will be developed in a manner to maximize the length of the trail and to take advantage of areas for nature

interpretation. Interpretive signs will be placed along the trails and a small (approximately 64 square feet or less), elevated viewing platform will be constructed to allow observation of the wetlands. A viewing platform will be constructed at least 25 feet from the wetland.

Bike racks will be provided near the entrance to the nature trail area in order to encourage and accommodate visitor access via bicycle, however bicycle access will be prohibited on the nature trails. ACCESS. Access to the property will be from West River Road, which bisects the north and south parcels. Access to the project site will be compatible with all applicable state and federal construction standards, including the Americans with Disabilities Act. Access points from the north and south parcels will be limited to one on each side that are aligned with each other to avoid traffic conflicts. A striped pedestrian crossing will be provided across West River Road and appropriate signage will be placed to warn approaching vehicular traffic of the pedestrian crossing. All access points will be gated throughout the park is closed.

so as to prevent vehicle access to the north and south parcels. g hello HOURS AND SECURITY. The park will be open from sunrise to sunset seven days a week.

Perimeter fencing and gates will be constructed along the frontage of West River Road. A caretaker will be responsible for checking fencing and gates twice daily and all other related security measures.

PROPERTY BOUNDARY. The boundaries of the Project Site are indicated on Exhibit 11.

SIGNS. A permanent recognition sign shall be maintained in the entrance area of the Project Site. The sign shall acknowledge that the project site was purchased with funds from the Florida Communities Trust. The sign shall be at least 36" x 36" in size and include the FCT logo. The following language will be included on the sign: Funding for the acquisition of this site was provided by The Florida Communities Trust. The next printed line shall identify the year that project was acquired. Such recognition shall also be included in all printed literature and advertising associated with the project site.

TASK COMPLETION AND COSTS. The time frame for completing all improvements is estimated to be five (5) years (April 2008). See Exhibit JV

for the project tasks, estimate of costs and estimated times of starting and completion.

SITE ALTERATION. The proposed alterations of natural and disturbed areas at the site consist primarily of minor restoration of the area around the river bank, the installation of the boardwalk, at least one picnic shelter, grills, playground, stairway to the rivers edge, nature trail and possibly a horseshoe pit and volleyball court, and parking areas. A picnic shelter and the pavilion will be constructed in the footprint of the existing cottage or cottages and the swimming pool. The estimated amount of actual disturbance will be in the range of 0.5 acres to 1.5 acre on the South Parcel. Site alterations on the northern half of the site will involve the trail, wetland observation areas and a parking area. The estimated amount of site disturbance on the North Parcel will be in the range of 0.2 acre to 1.0 acre. A 10-foot wide buffer of existing native vegetation will be maintained from the east and west property lines of the south parcel. Any invasive, exotic vegetation will be removed and native plantings added if necessary. The alteration or removal of indigenous plants and animals will be supervised by the County in conjunction with biologist from the Silk WA/HI and St. Johns River Community College and the 16 alteration or removal of any listed plant or animal species will be done in a manner provided by law. Any needed stillwater facilities on the project site will be constructed in a park-like manner that mimics a natural system and provides wildlife habitat or recreational open space.

Bicycle access shall be directly from the paved roadway (which will become part of the County's bicycle route system) onto the property driveway and/or parking area. The buildings on the site will be evaluated to determine their historic significance and, if any is found, the feature will be restored in accordance with the Secretary of Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings.

Master Site Plan

The Master Site Plan showing all existing and proposed improvements is attached as Exhibit 111.

Putnam County will request written approval from FCT before undertaking any site alterations or physical improvements that are not addressed in the FCT-approved management plan as shown on the Master Plan, Exhibit 111. A final master site plan will be submitted to FCT for review and approval once it is completed.

Hazard Mitigation

Most of the property within the 100-year flood zone is on the river beach area (less than .1

acres). Those lands will be protected with natural vegetation and human use restricted with the exception of the stairway and the small platform for canoe access.

Permits

A demolition permit will be required for removal of the cottages) and an Environmental Resource Permits) may be necessary for the parking and other impervious surface improvements made on the site. Site plan and building permits will also be required for the picnic pavilion, boardwalk, and possibly wetland viewing platform. The Department of Health (DOH) will also need to review and permit the septic system. A County driveway permit will be required to access the north parcel, and the south parcel if the current location is moved. A Nationwide Permit from the Army Corps of Engineers (ACOE) may be required for the bank stabilization, and a General Permit for the canoe launch platform may also be required. An Environmental Resource Permit may be required from the St. Johns River Water Management District (SJRWMD) for development of the physical improvements on the site, particularly if there is 4,000 square feet or more of impervious area for vehicular use, or a total of 9,000 square feet of impervious surface area, or 5 or more acres for a recreational facility. The County will coordinate with DOH, ACOE, DEP and SJRWMD during master site planning to determine what permits will be necessary in order to avoid adverse impacts to wetlands and surface water.

Easements, concessions, or leases No easements or concessions are planned or anticipated. The only leases that may occur are with the caretaker and possible users of meeting space such as the SO, Putnam County 17 School Board, St. Johns River Community College, environmental and civic organizations. No commercial activities are anticipated.

Putnam County will provide 60 days prior written notice and information to FCT regarding any sale or lease of any interest, the operation of any concession, any sale or option to buy things attached to the site, the granting of any management contracts, and any use by any person other than in such person's capacity as a member of the general public. The County will request FCT'S review and approval of such documents prior to the County executing any such agreements.

As of this writing, it has not been determined whether any fee will be collected for the use of Tanglewylde Center facilities, however, if any fees are charged, the County agrees to place such fees in a segregated account which shall go to the upkeep and maintenance of the project site and provide FCT with a copy of each concession and management agreement for review and approval prior to executing the same.

VII. MANAGEMENT ACTIVITIES

Education Program

Environmental education for K-12, community college students and adults will be a major part of the development and management of Tanglewylde Center. Initial programs will emphasize construction, restoration and natural resource management techniques. These will include trail building, bluff-restoration, planting and trimming. Many aspects of terrestrial and aquatic biology will also be taught but will become more extensive as the natural communities are restored. The restoration map and log will become an important teaching tool for the future. The Center will be managed by Putnam County which expects to partner with numerous other governmental and non-profits in the County.

Though it is not possible to determine all of the uses of the Tanglewylde Center Project at this time, the following environmental education activities and programs could be anticipated: Putnam County School Board - Provide students and teachers in the natural sciences. These could eventually build to three classes per day, three days a week or more.

St. Johns River Community College - Provide on-site teaching facilities for lab work in the natural sciences two to four classes per week.

St. Johns River Water Management District - employee continuing education and assistance to other education users.

Adult Education Classes - Natural resource awareness classes including Manatee protection and boating safety.

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Other organizations such as the 4-H Club, environmental groups, garden club, civic organizations, etc. will also be encouraged to use the facility for meetings, conferences and educational opportunities.

The community is committed to ensure that at least 24 environmental education classes or programs will be conducted annually at the Project Site by trained educators or resource professionals when the Master Site Plan is completed.

The time frame for implementing the educational programs will start when the County acquires ownership of the property. The programs are proposed to be conducted throughout the year depending on the timing and demand for such programs.

The County will update FCT on the various educational activities conducted at Tanglewylde Center in its annual stewardship report and will provide FCT with a list of proposed educational programs as they are developed.

Recreational Trail Linkages

Tanglewylde Center Project will be an important component of the County's

recreational trail system. Tanglewylde Center is located on West River Road, which is a future bicycle route.

The County's future bicycle network is shown on Exhibit VI. As can be seen, West River Road is a loop route from U.S. 17 North that could include a potential multi-use trail adjacent to the roadway. The Tanglewylde Center could be used as a gathering and rest stop along the system for riders who use the less traveled roads in the community. Tanglewylde Center will become a stop on the proposed St. Johns River Paddling Trail that will connect the Cross Florida Greenway to Jacksonville by "Blueway." The site will provide bicycle racks, potable water, restroom facilities as well as a small museum destination for non-motorized riders. The bicycle network will be integrated into the statewide bicycle road network and the bluejay will become part of the state paddling trail system.

Coordination

The numerous environmental education programs and recreational opportunities will require coordination with many state, regional and local agencies. The City of Palatka, St. Johns River Community College and the Putnam County School Board will play essential roles in developing the environmental education programs and coordinating with other ongoing efforts in this area. The St. Johns River Water Management District assisted in the development of the application and will be a major partner in all water quality, wetlands, environmental education and shoreline programs. This will require close coordination with the district's SWIM program as well as environmental education needs. The Department of Agriculture and Consumer Services Division of Forestry will play a substantial role in establishing sound forest thinning and control burn schedules. They will also help with listed plant species. The Florida Fish and Wildlife Conservation Commission will play numerous roles. They will help identify, establish and maintain listed species along with other animals on the property and help establish manatee protection and monitoring programs. They will also aid in fisheries education and other animal related water projects. The Department of Environmental Protection will need to be involved 19

with groundwater studies as well as river water quality monitoring programs. Managers will also need to coordinate with the Office of Greenways and Trails on bluejays and cycling trails, including trail construction information. Following FCT approval of the management plan, copies will be forwarded within 30 days to the Florida Fish and Game Conservation Commission, the Department of Environmental Protection and the U.S. Fish and Wildlife

Service for review and comment. Feedback from these organizations will be used to further develop strategies to manage and protect resources on the project site and St. Johns River.

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