

# ***Fred George Basin Greenway***

## **MANAGEMENT PLAN**

FCT PROJECT #07-102-FF7



FLORIDA COMMUNITIES TRUST

Prepared by the  
Tallahassee-Leon County Planning Department

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**EXHIBITS**

- Exhibit A-1: Location Map
- Exhibit A-2: Existing Improvements
- Exhibit B: Public Lands Map
- Exhibit C: Natural Communities
- Exhibit D: Soils Map and Soil Descriptions
- Exhibit E: Florida Natural Areas Inventory Report Forms
- Exhibit F: Exotic Pest Plant Council List of Florida’s Most Invasive Species
- Exhibit G: Conceptual Master Site Plan
- Exhibit H: Trail Network Map
- Exhibit I: Greenway System Map
- Exhibit J: Grant Award Agreement
- Exhibit K: Existing Land Use
- Exhibit L: Future Land Use
- Exhibit M: Existing Zoning
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## **I. INTRODUCTION**

### Project Name

Fred George Basin Greenway

### Location

Fred George Watershed, Tallahassee, Florida, T1N, R1W, Section 8

### Resource Description

The Fred George Basin Greenway (FGBG) is located north of Fred George Road, between Capital Circle NW and the CSX tracks that run parallel to and west of Old Bainbridge Road. This project is located within the Fred George Drainage Basin (see Exhibit A-1). The original acquisition consisted of four parcels: a 78 acre R.P. Properties (Ghazvini) parcel on the east; the 76 acre Maples parcel on the west; the 2.6 acre Christine Maples parcel fronting Fred George Rd on the south and west side of the property, and the 3.6 acre Schwartz parcel on the north abutting Knollwood Dr. for a total of 160.2 acres in size.

Approximately 51(33 percent)of the project site is characterized by Florida Natural Areas Inventory (FNAI) natural community descriptions as Floodplain Swamp/Floodplain Forest interwoven with natural and manmade water channels that have consistent water flows. Approximately 39 acres (25 percent) of the project site is Bottomland Forest, located outside of the Floodplain Swamp/Floodplain Forest. Several water channels in this area, as well as several small waterbodies, have been modified by previous property owners.

Additionally, approximately 29(18 percent) of the site is Upland Mixed Forest, with some small Slope Forest areas. There are five small waterbodies. Four are approximately ½ acre in size, and the largest is approximately 2.5 acres in size. Several small freshwater shrub marshes are scattered throughout the area identified as Floodplain Swamp/Floodplain Forest. Approximately 23 acres of Planted Pine are located in the southwest area of the project site, and the remaining approximately 15 acres of the project site are classified as Open Space/Pasture.

Two of the four parcels originally purchased for the Greenway previously had occupied single-family houses onsite. The Christine Maples parcel, fronting Fred George Road, also had an old barn/shelter onsite (see Exhibit A-2 and P). The house has been removed by Leon County due to excessive deterioration and the barn/shelter is being evaluated for structural integrity and potential use as a pavilion. The larger Maples parcel was farmed in the past and had approximately one-third of its area in planted pine. This parcel also has several outbuildings (i.e., pole barns) and a single-family house that has been renovated for a museum by Leon County. The remainder of the property is mostly wooded.

Portions of the R.P. Properties (Ghazvini) parcel, which is the largest, most environmentally sensitive parcel, have been modified by previous owners of the property over the last several decades at various times by earthmoving equipment and by the dumping of construction and wood debris. This area is currently vacant, and is part of the Open Space/Pasture area.

Prior to acquisition, this parcel had several storage buildings onsite, as well as piles of construction debris, waste soil, and assorted junk stored under and near a large pole barn in the Open Space/Pasture area. With the exception of the large pole barn, all of this was removed by the previous owner. A permitted construction debris landfill had existed onsite in this general area throughout the 1980s. An extensive cleanup of this parcel, and the regrading and smoothing out of the Open Space/Pasture area where much of the dumping had occurred, also was conducted by the previous owner prior to its purchase by Leon County.

The Fred George Sinkhole itself is located on the 3.6-acre Schwartz property, one of the four properties in the project. The Sink is hydrologically connected to the properties selected for acquisition, receiving runoff from these adjacent properties. It is also part of the same floodplain/karstic depression, and contains significant wet and/or vegetated areas, including cypress-dominated floodplain forest/floodplain swamp, bottomland hardwood, and several shrub marshes and open water bodies. Anecdotal information indicates that this sink was previously open wide enough for a human to walk in, but slumping of the surrounding sediments from episodic flooding events has closed any large openings.

#### Adjacent Land Uses

The adjacent land uses are primarily low-density residential. While there are no anticipated significant conflicts with these land uses presented by the use or management of the project site, these land uses will present some limited but not necessarily insignificant potential impacts on the project site, which will be described further in this management plan.

As indicated on Exhibit A-2, Leon County owns two contiguous residential parcels (Tax ID# 210515 A0140 and 210515 A0130) adjacent to the 78-acre parcel (Tax ID# 21-08-20-606-0000). These parcels were given to the County as mitigation for development rights granted elsewhere, and they will remain in their natural state in perpetuity and be managed as part of the Fred George Basin Greenway.

Another adjacent parcel (Tax ID#210540 A0010) was purchased by the County in 1997 using federal flood mitigation funds. It is currently vacant. . This parcel abuts a small piece (0.15 acres) of the original R.P. Properties (Ghazvini) property which was clipped at its northeast corner by an existing, active railroad line. These two parcels, together, will remain in their natural state in perpetuity.

#### Funding

These properties were acquired using a Florida Communities Trust (FCT) grant to cover a portion of total acquisition costs. The remainder was paid by Leon County using Blueprint 2000 funding. This 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.

## II. PROJECT PURPOSE

The protection of the Basin, including its floodprone areas, wetlands, and the Fred George Sink itself, has been a community priority since the early 1990s, as noted by the Special Development Zone classification adopted for the Basin in the *Tallahassee – Leon County Comprehensive Plan* and the zoning of these parcels to low-density residential. Surface water entering the Sink enters the Floridan Aquifer from which the City of Tallahassee obtains drinking water for its municipal distribution system. According to City staff, a portion of the water that enters the Sink and the underlying aquifer is withdrawn into the City's distribution system via two City water wells.

The FGBG is identified in the adopted Tallahassee – Leon County Greenways Master Plan. The Greenway is intended to preserve and protect large floodprone areas in this part of the County that contain significant wildlife and vegetation habitat and which drain into sinkholes and other surface water features that contribute to the local Floridan Aquifer.

The FGBG itself is intended to be a resource-oriented passive recreation and cultural greenway with a minimum of four recreational facilities and a staffed nature and cultural museum and educational facility. These recreational facilities include including two wildlife observation platforms, a system of trails, a multipurpose sports field, and a baseball field.

Environmentally sensitive areas of the project site will be restored over time to their original ecological values and function. The project site will be managed for the conservation, protection, and enhancement of on-site resources, and for public outdoor recreation compatible with the protection and enhancement of the site.

### History

The history of the project is relatively brief. These properties were used for agricultural purposes in the early to mid-20<sup>th</sup> Century, mostly as open pasture, with the bottomlands left in their natural state. In the late 1960s and early 1970s, several single-family homes were built on two of the parcels. A significant portion of the larger Maples parcel was planted in pine trees. Two permitted construction debris landfills were operated through the 1980s and early 1990s on the R.P. Properties (Ghazvini) parcel. Based on anecdotal information provided by a former property manager for the largest parcel, two Environmental Site Assessments (ESAs) performed by a County contractor as part of the acquisition of this parcel, and from Florida Department of Environmental Protection files, these landfills received concrete and other construction debris, clean fill dirt from offsite development projects, tree debris, and various other debris, including old tires. The ESAs indicated no hazardous materials or other environmental pollutants onsite.

In April 2006, the owners of three of the parcels that form the core of the FGBG (R.P Properties, LLC, Christina Maples and James Maples) applied for a rezoning of their property to two-family residential (R-3). Prior to the Planning Commission hearing the request, petitions were filed with the Florida Division of Administrative Hearings (DOAH) by Misty Penton, a nearby resident, claiming that the increase in density would change the rural nature of the community; increase runoff in the Fred George Basin that would cause flooding within some neighborhoods; and, have a negative impact on threatened and endangered species in the area.

Standing to challenge was found in two of the three rezonings (R.P. and James Maples). The owners voluntarily postponed the rezoning requests, and the DOAH hearing was placed in abeyance, pending a decision on final disposition of the property. In response to the County's request to continue the case in abeyance for another six months, the Administrative Law Judge (ALJ) issued an Order to Show Cause, requiring the parties to state reasons that DOAH should retain the case, in light of the multiple requests to keep the case in abeyance. The County did not object to DOAH closing the cases while the acquisition issues were being resolved.

On March 26, 2008, the ALJ closed the files and relinquished jurisdiction to Leon County. The Order states that the parties may re-file for an administrative hearing if their efforts at settlement are unsuccessful.

At the October 10, 2006 regular meeting, the Leon County Board of County Commissioners discussed the acquisition of the parcels. Staff was directed to develop an agenda item concerning the issue. The agenda item went before the Board at its regular meeting of December 12, 2006. After discussion, the Board moved to acquire the tract owned by R.P. Properties LLC, the most environmentally sensitive parcel, upon dismissal of the rezoning request, with the option to acquire the James Maples and Christina Maples property at a future time. The motion was amended to direct staff to pursue Blue Print 2000 (BP 2000) funding for the acquisition of all three properties.

At the February 13, 2007 regular meeting, a second agenda item concerning the proposed Greenway was presented to the Board. After discussion, the Board directed staff to seek funding for the acquisition of the three original parcels, and two additional parcels that include the four-acre Schwartz property, located to the north of the original parcels, and the 13-acre Cavanaugh property, located to the east of the original parcels. In addition, staff was directed to seek the additional funding required for the acquisition by submitting a Florida Communities Trust (FCT) grant application to the Florida Department of Community Affairs.

In January 2007, the County submitted a request to BP 2000 to reclassify the Fred George project from a Tier Two to Tier One within its project classification system, necessary to obtain BP 2000 funding. Additionally, the County requested that BP2000 utilize the funding, originally allocated for Lake Jackson projects, for the Fred George project since many of the Lake Jackson projects had been completed using other sources of funding. BP 2000 staff submitted this proposal to its Technical Review Committee (TRC) on February 8, 2007. The TRC considered the issue and formally recommended to transfer \$2.69 million from the Lake Jackson project to the Fred George project.

The recommendation was presented to its Citizens Advisory Committee (CAC) that met later on the same date. The CAC concurred with the TRC and formally recommended to transfer \$2.691 million to the Fred George project, and to begin the reclassification process necessary to move the project from Tier Two to Tier One. This recommendation went to the BP 2000 Intergovernmental Agency (IA) meeting on February 26, 2007. The IA directed BP 2000 staff to schedule the public hearing necessary to move the Fred George Basin project to Tier 1 and, upon the reclassification, transfer no more than \$2.77 million to the project. On June 4, 2007, the IA held a public hearing and approved the reclassification of the project to Tier One, and allocated no more than \$2.77 million to the project.

Concurrent with the process of seeking funds through BP 2000, the Tallahassee-Leon County Planning Department, working with the County Grants Coordinator and interested citizens, developed a FCT application for the Fred George Basin Greenway project. The application called for reimbursement of the County after the parcels have been acquired through a voluntary negotiated transaction. The application requested \$2,350,000 (50%) of the estimated \$4,700,000 project cost and was submitted to the FCT offices on May 9, 2007. It successfully competed against 118 other projects and was approved by FCT, with a grant agreement approved by the Board at its regular meeting of January 15, 2008.

### Management Objectives

The FGBG will be an important greenway as envisioned in the adopted *Tallahassee – Leon County Greenways Master Plan*. The Master Plan is intended to preserve and protect large floodprone areas in this part of the County that contain significant wildlife and vegetation habitat, and which drain into sinkholes and other surface water features that contribute to the local Floridan Aquifer.

Portions of the project site will be enhanced and/or restored by the Leon County Department of Public Works to improve water quality and to reduce adjacent site flooding. These efforts will include the removal of structures and berms in the Northeast area to re-establish free-flow conditions to reduce backwater flooding into the neighborhoods east of the project site, as well as reestablish the natural floodplain condition. These will be replanted with native transitional species to stabilize the creek flowway during peak flow and enhance nutrient uptake during low flow conditions.

The FGBG is also intended to be a resource-oriented passive recreation and cultural greenway with at least four recreational facilities and a staffed nature and cultural museum and educational facility. In addition to classroom and exhibit space, this facility will eventually provide restrooms and a hands-on classroom for archaeological, ecological, hydrological and zoological studies. The Wildwood Preservation Society has committed to provide trained professionals from the disciplines of archaeology, wildlife biology, hydrology, geology and more to teach monthly classes to the public.

The proposed project is intended to meet the following objectives:

#### **1. Implement the Tallahassee – Leon County Greenways Master Plan**

As indicated on Exhibit I, the project site was identified as part of the proposed Ochlockonee River Valley Greenway, one of the major greenways identified in both the locally adopted *Tallahassee – Leon County Greenways Master Plan* and the *Blueprint 2000 Project Definitions* Report. The project site will link the City of Tallahassee's Northwest Park with the State of Florida's Talquin State Forest and the Ochlockonee River Wildlife Management Area. Since its acquisition by Leon County, the Greenways Master Plan has been updated to indicate that the Fred George Basin Greenway is part of the local Greenways System.

Although the majority of the area of the project site is not specifically identified in the Master Plan (due mostly to the age and resolution of the original data used in the

Master Plan), the Plan identifies similar sites nearby in an effort to identify and protect major ecological corridors in the Tallahassee – Leon County region. The project site is part of a larger ecological corridor that is also the foraging area of the Wood Stork; a major breeding rookery is located within approximately ½ mile of the project site. The Greenway is part of a larger ecological corridor that includes listed species habitat, wetlands, bottomland and upland hardwood forests, and comprehensive floodplain areas within the Fred George Basin. The acquisition of this project site will protect a significant portion of this larger ecological corridor by preserving listed species habitat and other onsite environmental features from urban development.

## **2. Improve water quality and reduce adjacent site flooding**

Approximately 51 acres (33 percent) of the project site is Floodplain Swamp/Floodplain Forest interwoven with natural and manmade water channels that have consistent water flows. These areas are also within the 100-year floodplain. These bottomland swamp and forest areas will be allowed to flood naturally in order to recreate a more natural hydroperiod and to increase storage volume during high water periods. This will help maintain the existing cypress, as well as inhibit the growth of more aggressive species that are less water-tolerant.

Portions of the project site have been modified in the past to alleviate flooding, particularly on the R.P. Properties (Ghazvini) parcel. These modifications include the channelization of existing streams, filling, and the construction of berms to divert the natural channel and sheet flow across portions of the Floodplain Swamp/Floodplain Forest and the Bottomland Forest areas. The result of these efforts by previous property owners has created conditions that exacerbate natural flooding around and into Fred George Sink, as well as allowing untreated urban stormwater runoff and trash to enter the sink w/o any treatment.

Areas of the site that have been modified will be enhanced and/or restored where necessary by the Leon County Department of Public Works to improve water quality and to reduce adjacent site flooding. These efforts will include the removal of structures and berms in the Northeast area to reestablish free-flow conditions to reduce backwater flooding into the neighborhoods east of the project site, as well as reestablish the natural floodplain condition. These areas will be replanted with native transitional species to stabilize the creek flowway during peak flow and enhance nutrient uptake during low flow conditions.

## **3. Protect and maintain wildlife habitat**

According to FNAI natural community descriptions, portions of the project site, including the Floodplain Swamp/Floodplain Forest, Bottomland Forest, and the waterbodies, are potential habitat for federal and/or state-listed species. This potential habitat is associated with known occurrences in the vicinity of the project site of Woodstorks (*Mycteria americana*), Oval Pigtoe (*Pleurobema pyriforme*), Narrowleaf Naiad (*Najas filifolia*), Shiny-rayed Pocketbook (*Lampsilis subangulata*), Barbour's Map Turtle (*Graptemys barbouri*), Purple Bankclimber (*Elliptoideus sloatianus*), and Eastern Indigo

Snake (*Drymarchon couperi*). The onsite habitat is also ranked high for American Alligator (*Alligator mississippiensis*), Little Blue Heron (*Egretta caerulea*), Tricolored Heron (*Egretta thula*), and Southeastern American Kestrel (*Falco sparverius paulus*). Woodstorks have been identified onsite foraging in the Floodplain Swamp/Floodplain Forest area, and there is a documented woodstork rookery approximately ½ mile north of the project site. In addition, FNAI element occurrence maps, indicated on Exhibit X, indicate several areas onsite as Rare Species Habitat.

These habitat areas will be protected through the acquisition of the project site and by continued protection through this management plan for the site. The management plan will identify these areas and limit their uses, as well as protecting their features and functions by design and by minimizing any facilities and their environmental impacts in these areas. The management plan will specify the identification of any known listed species habitat identified through biological inventories, as well as invasive plant and/or animal species, and will specify strategies to protect such habitat and to address invasive and other exotic plant and/or animal species as appropriate.

**4. Provide publicly accessible, passive (resource-based) recreational and educational areas and facilities**

As indicated on Exhibit G, resource-based passive recreation activities planned for the park include several wildlife observation platforms and a trail and sidewalk system. In addition, active recreation amenities for the park include, a multipurpose sports field, a baseball field, and a playground. The sports fields will be constructed by the County on the southwest corner of the project site.

In addition, the Wildwood Preservation Society has committed to offer monthly classes on archeology, wildlife biology, hydrology, geology, and other subjects relating to the site.

Comprehensive Plan Objectives and Policies

- Policy 1.6.1 [Conservation Element] directs local government to implement an environmentally sensitive land acquisition program. This policy is formalized in its implementation by the adopted Tallahassee – Leon County Greenways Master Plan. The FCT acquisition and the development and management of the project site will require coordination with state and regional agencies such as the Northwest Florida Water Management District, the State Office of Greenways and Trails, and the Leon County Department of Public Works, including its Division of Parks and Recreation.
- Policy 1.6.2 [Conservation Element] establishes a land acquisition program to acquire listed species habitat and other natural communities.
- Policy 6.1.1 [Conservation Element] requires local government to develop a greenway network of preservation and conservation features and connections among them using trails. Floodplains and natural drainageways shall receive particular emphasis for inclusion in the network. The acquisition of the project site will protect the project site,

including its upland, bottomland, and wetland habitat areas and natural communities, for listed animal species that now utilize or may utilize these areas.

- Policy 6.1.2 [Conservation Element] specifies the adoption of a greenways acquisition list. The inclusion of this site in local greenway master planning efforts, including the adopted Tallahassee – Leon County Greenways Master Plan, is consistent with this policy.
- Policy 6.1.4 [Conservation Element] requires acquired greenway properties to be managed via reforestation and replanting of appropriate terrestrial and aquatic or wetland vegetation, removal of noxious exotic terrestrial and aquatic vegetation, and physical modification and biological enhancement of streambeds, ditches and shorelines to improve water quality or minimize erosion. This acquisition project help address the protection and enhancement of surface and groundwater quality by the prevention of development in floodprone and environmentally sensitive areas within the Fred George water shed. This will be implemented by the preservation of natural vegetation and wetlands, floodways, and floodplains within the project site, naturally treating the urban stormwater entering the site. The County’s proposed stormwater treatment enhancements as discussed elsewhere in this application will utilize these naturally occurring drainage features, as well as addressing modifications made to these features by previous property owners, to reduce erosion and improve surface water quality

Restoration of the project site will focus on controlling public access, modification and restoration of hydrological features, vegetation management and enhancement, and the provision of passive recreation facilities and areas. Vegetation management will include the removal of exotic invasives such as Chinese tallow and Ardesia, planting herbaceous emergent vegetation in the wetlands and marsh areas to create and enhance wildlife habitat, sediment control, and nutrient uptake, and the enhancement of understory coverage on the terrestrial sections. Portions of the cleared uplands of the site will be replanted with species appropriate to the physiographic region of Leon County. Any other minor infestations of common exotics (e.g., Nandina, Ardesia) in the wooded areas will be eliminated.

- Policy 1.1.2 [Parks and Recreation Element] requires environmental land acquisitions to protect flood plains and natural habitat. The completion of this project will fulfill the intent of this policy.
- Policy 1.1.2: [Stormwater Management] establishes a program for the acquisition of lands that naturally store and treat stormwater. Policy 1.4.1 [Stormwater Management] requires as part of this plan the use of non-structural systems as much as possible, including the utilization of naturally occurring drainage features.
- Objective 2.4 [Historical Preservation] requires the creation of a land conservation program to protect historic, natural and scenic resources. Objective 2.5 [Historical Preservation] requires a program to protect archaeological resources in the county. Policy 3.2.2 [Historical Preservation] requires that historic resources be included as a criterion in acquiring public parks.

The Florida Department of State, Division of Historical Resources, indicates that there are at least six sites in the Florida Master Site File database within ¼ mile of the project site. These sites are indicated in Exhibit R, which is the response from DHR. The Master Site File numbers include LE544, LE1699, LE1405, LE1406, LE1407, and LE1409. The Florida Department of State’s Division of Historical Resources will be engaged on how best to manage this particular resource, and its recommendations carried into the project site’s management plan. Those sites that are located on the project site will be left in situ by the managing agency, and no public access will be provided until a later date when these sites can be adequately protected.

**Land Use and Zoning**

The Future Land Use designation of the project site was previously changed to Recreation/Open Space. The zoning designation for this project was also changed to Open Space. A copy of the approved ordinance and map(s) changing the Future Land Use designation and the zoning was provided to the Florida Communities Trust following acquisition.

**III. NATURAL AND CULTURAL RESOURCES**

**Soils**

The soils found on the project site are indicated on Exhibit D and summarized in the following table:

<b>SOIL SERIES</b>	<b>ACREAGE</b>
Orangeburg fine sandy loam, 8 to 12 percent slopes	5
Plummer fine sand	72
Blanton fine sand, 0 to 5 percent slopes	15
Wagram loamy fine sand, 0 to 5 percent slopes	14
Albany loamy sand	11
Wagram loamy fine sand, 5 to 8 percent slopes	46
Norfolk loamy fine sand, 2 to 5 percent slopes	1
Yonges fine sandy loam	5
Water	2

There are no known mineral resources such as oil, gas, phosphate, or other economically valuable soil-related materials onsite.

**Natural Communities**

As indicated on Exhibit C, approximately 51 acres (33 percent) of the project site is characterized by published Florida Natural Areas Inventory (FNAI) descriptions of natural communities as Floodplain Swamp/Floodplain Forest interwoven with natural and manmade water channels that have consistent water flows. These areas are characterized by seasonal and/or episodic flooding of a flat to gently sloping area containing buttressed hydrophytic trees such as cypress and tupelo, and a sparse understory and ground cover. These areas transition to a mix of oaks, gums, and cypress trees on lesser-drained soils. The quality of this combined

community is good to very good, particularly in the wetter areas. The area immediately surrounding Fred George Sink has been artificially modified at times in the past, but this is a very dynamic area, and any significant changes of channel slope and depth are subject to natural episodic change.

Approximately 39 acres (24 percent) of the project site is Bottomland Forest, located outside of the Floodplain Swamp/Floodplain Forest. Several water channels in this area, as well as several small waterbodies, have been modified by previous property owners. The majority of these modifications—comprising mostly minor shallow channelization undertaken a decade or two ago—have taken place on the R.P. Properties (Ghazvini) parcel. An additional approximately 29 acres (18 percent) of the site is Upland Mixed Forest, with some small Slope Forest areas located where significant and severe grades are present. There are five small waterbodies (four are approximately ½ acre in size, and the largest approximately 2.5 acres in size). Several small freshwater shrub marshes are scattered throughout the area identified as Floodplain Swamp/Floodplain Forest. The Project Site contains a Locally Significant Natural Area as identified by FNAI. A letter and map from FNAI is included as Exhibit N.

Approximately 23 acres (13 percent) of Planted Pine are located in the southwest area of the project site.

The remaining approximately 15 acres (9 percent) located mostly on the R.P. Properties (Ghazvini) parcel is classified as Open Space/Pasture. Portions of this parcel, which is the largest, most environmentally sensitive parcel of the five parcels that comprise the project site, have been modified by previous owners of the property over the last several decades at various times by earthmoving equipment and by the dumping of construction and wood debris. This area is currently vacant, and is part of the Open Space/Pasture area.

Management techniques to protect and enhance onsite natural communities will include:

1. The removal of nonnative invasive vegetation,
2. The replanting of selected areas with native vegetation over time, and
3. The reworking of surface drainage features as necessary to mimic natural systems or to restore degraded areas to a more natural function and appearance.

In addition, photo-monitoring of selected onsite natural communities will be utilized on a regular basis, including documenting the project site prior to any improvements or restoration activities.

#### Invasive Exotic Plants

The control of invasive exotic (non-native) vegetation is an increasingly serious issue in many states, including Florida. Invasive exotic vegetation can over time completely change the natural vegetative character of the landscape, and it can negatively affect wildlife habitat as well. The management of invasive exotic vegetation ideally includes the complete removal of such vegetation. Removal of invasive exotic species will facilitate the re-establishment of native plants and animals to the natural community.

Vegetation management will include the removal of exotic invasives such as Chinese tallow and *Ardesia*, planting herbaceous emergent vegetation in the wetlands and marsh areas to create

and enhance wildlife habitat, sediment control, and nutrient uptake, and the enhancement of understory coverage on the terrestrial sections. Portions of the cleared uplands of the site will be replanted with species appropriate to the physiographic region of Leon County. Any other minor infestations of common exotics (e.g., *Nandina*, *Ardesia*) in the wooded areas will be eliminated.

There are several small occurrences of invasive exotic vegetation in various places on the project site, particularly along the northern boundary close to an existing residential area. Chinaberry (*Ardesia*) and Chinese Tallow have been identified in these and several other isolated areas. Although the project site is currently relatively free of the dense infestations of exotic vegetation that plague many other local conservation areas, the increase in residential land uses within the drainage basin will create a concurrent increase in the probability of additional varieties and outbreaks of exotic invasive vegetation on the project site.

Biennial biological inventories of the site will be conducted by local government staff and/or volunteers and volunteer groups who will address incidences of exotic invasive vegetation on the project site as necessary and appropriate. These include sweeps for and removal of exotic invasive vegetation by local volunteer groups such as the Wildwood Preservation Society, the Boy Scouts or Girl Scouts, and other similar groups currently working with the Leon County Parks and Recreation, who are also experienced in securing State funds to eliminate outbreaks of exotic invasive vegetation when they exceed the ability of staff and/or volunteer groups to manage these outbreaks. Staff and/or volunteers will utilize the Exotic Pest Plant Council's list of Florida's Most Invasive Species in identifying invasive exotics on the Project Site. A copy of this list is provided as Exhibit F. The biennial biological surveys will also inventory any new outbreaks or infestations of invasive exotic vegetation identified onsite.

The removal of invasive exotic vegetation will vary according to species and density of infestations. For instance, some exotics can be removed by hand, while others may require cutting down and poisoning the stem with an approved herbicide and/or burning. The appropriate technique will be determined based on the extent and type of species. Special care will be observed following a burn, clearing, mowing, or other disturbance so that these areas more vulnerable to invasion and reinvasion are monitored more frequently and extensively.

Appropriate care should be taken by onsite personnel to avoid significant impacts to natural plant and animal communities as part of the management of invasive exotic plant species. A replanting schedule should be established as a part of the site management activities so that areas subject to the removal of invasive exotics are not unnecessarily exposed to erosional forces, nor re-invaded by the same or other invasive exotics.

## Management

### *General Principles*

The management of the cultural and natural resources in this greenway will address upland, bottomland, wetland, and other areas that have been impacted by past land use practices. This will also include the installation of facilities designed to capture water-borne trash, and the removal of specific sections of an earthen berm along a watercourse, which will allow a more natural hydroperiod.

General principles for the restoration of the project site will include controlling public access, modification and restoration of hydrological features, vegetation management and enhancement, and the provision of passive recreation facilities and areas. A biological survey and assessment will be conducted within five years of the acquisition of the greenway, and various restoration plans will be drafted for implementation following this initial survey as funds permit. Restoration shall include all natural communities, including wetlands and uplands. Photo-monitoring will be used as a management tool to create a baseline of existing conditions, and to document and analyze restoration measures and their efficacy over time. The timeline for these and other restoration and management activities is indicated in Table 1.

### *Uplands*

The Leon County Division of Parks and Recreation, in coordination with the Stormwater Management Division of the Leon County Department of Public Works, following a detailed site assessment, will be responsible for planting native cypress trees around three of the five lakes onsite, as well as longleaf pine on two upland areas (the exact location and extent will be determined based on slope, soils, and other physical variables), including the area currently in planted pine and the northeastern extent of the open pasture area on the R.P. Properties (Ghazvini) parcel. Exhibit G indicates the approximate areas to be planted with native vegetation. The number of longleaf pines and cypress trees will be based on soils, slope, and other physical and cost factors. However, any planted trees will be spaced in a naturalistic pattern at least 4' apart from center. Native understory plants in these areas will also be considered as part of this restoration activity.

### *Wetlands*

For wetland areas, it is the practice of the Leon County Department of Public Works to utilize native herbaceous emergent vegetation as part of their stormwater management system to biologically treat stormwater runoff, and this practice will be utilized in selected areas of the project site. For instance, Public Works will replant currently disturbed areas with native transitional species to stabilize the creek flowway during peak flow and enhance nutrient uptake during low flow conditions. Examples of these plantings include soft rush, bulrush, pickerelweed, arrowhead, buttonbush, wax myrtle, swamp tupelo, bald cypress, sweetbay magnolia, red maple, and Virginia willow. The existing vegetation on-site will determine the number and species selected for supplemental planting.

Portions of the project site have been modified in the past to alleviate flooding, particularly on the R.P. Properties (Ghazvini) parcel. These modifications include the channelization of existing streams, filling, and the construction of berms to divert the natural channel and sheet flow across portions of the Floodplain Swamp/Floodplain Forest and the Bottomland Forest areas. The result of these efforts by previous property owners has created conditions that exacerbate natural flooding around and into Fred George Sink, as well as allowing untreated urban stormwater runoff and trash to enter the sink.

The creeks flowing through the project site will be enhanced and/or restored by the Stormwater Management Division of the Leon County Department of Public Works to improve water quality and to reduce adjacent site flooding. These stream restoration efforts will include the removal of structures and berms in the Northeast area to reestablish free-flow conditions to reduce backwater flooding into the neighborhoods east of the project site, as well as reestablish the natural floodplain condition. These currently disturbed areas will be replanted with native transitional species to stabilize the creek flowway during peak flow and enhance nutrient uptake during low flow conditions. Examples of these plantings include softrush, bulrush, pickerelweed, arrowhead, buttonbush, wax myrtle, swamp tupelo, bald cypress, sweetbay magnolia, red maple, and Virginia willow. The biological inventory will determine the number and species selected for supplemental planting, as well as the specific locations and precise acreage of these replanting areas. These proposed general planting areas are indicated on Exhibit G.

Public Works will also reduce the floatable trash entering the Fred George Sink by installing a floating boom and/or trash trap east of the railroad cross-drain along the east property line or further upstream in the adjacent neighborhood and at the Fred George cross-drain at the southeast corner of the site where the majority of off-site flow enters the project site. These proposed facilities are indicated on Exhibit G.

#### *Fred George Sink*

The Fred George Sink itself will be evaluated every two years following acquisition by County Parks and Recreation and Development Support and Environmental Management (formerly, Growth and Environmental Management) staff, with consultation provided by Florida Geological Survey staff, to determine and implement a long-term management strategy for the sink. This evaluation will be provided to FCT as part of the annual stewardship report. Management activities will include the removal of trash and debris, the stabilization of adjacent slopes, and the control of public access to the sink itself. A volunteer cleanup of trash washed in from stormwater occurred in the winter of 2007/2008. This cleanup was organized by the Wildwood Preservation Society, and similar activities will be organized and conducted on an annual basis with the assistance of the Society or other volunteer organizations or individuals.

#### *R.P. Properties (Ghazvini) Parcel*

Prior to acquisition, the R.P. Properties (Ghazvini) parcel had several storage buildings onsite, as well as piles of construction debris, waste soil, and assorted junk stored under and near a large pole barn in the Open Space/Pasture area. A permitted construction debris landfill had existed onsite in this general area throughout the 1980s. However, an extensive cleanup of this parcel and the regrading and smoothing out of the Open Space/Pasture area where much of the dumping had occurred has been conducted by the previous owner prior to its purchase by Leon County. The long-term management of this area will include:

1. The creation and maintenance of a natural ground cover such as non-invasive turf to create a stable surface with minimum erosion,
2. Planting trees, shrubs, and other vegetation as necessary and appropriate to stabilize slopes in this area prone to erosion, and
3. Annual monitoring of this surface to ensure that any depressions or cavities caused by decomposing organic fill (e.g., cut trees) do not become a safety issue.

### Forest Stewardship Plan

Within two years of final acquisition, the County Forester will survey the project site to identify any prescribed fire needs and areas. A Forest Stewardship Plan will be drafted for the County's Division of Parks and Recreation to implement that will include burning recommendations and guidelines as appropriate and necessary for this project site. This plan will consider the use of perimeter firelines where appropriate and necessary.

All prescribed fires will be strictly conducted by trained professionals with at least one certified Burner by The Florida Division Of Forestry (DOF) in accordance with the Forest Stewardship Plan, a completed burn plan, and all DOF-required permits. The burn plan will include informing adjacent neighborhoods and other residents when specific prescribed burns are to take place. Where prescribed burning is neither feasible, nor desirable, mechanical harvesting of undesirable materials shall be conducted.

### Inventory of Natural Communities

A biological community survey and assessment (including vegetation, animal, and listed species) will be conducted by a qualified biologist or urban forester within two years following property acquisition. Any surveys of selected species expected to occur on site (based on community type and regional characteristics) will be conducted at times of the year during which species are flowering to provide more rapid and definitive identification. Listed species occurrences will be mapped (using a recently updated global positioning system), dated and transmitted to FNAI. All survey information will be incorporated into a geographic information systems map or coverage of the property. The data will be used to identify areas for preservation and restoration. FNAI Element occurrence reporting forms are including in this Plan as Exhibit E.

To monitor the long-term viability of the site's ecology, the County will ensure that a survey of vegetation and condition of listed plant species every five years is performed by appropriate organizations, including staff and the local Extension Office. The findings shall be included in the annual stewardship reports to FCT. In addition, FCT has asked that the County provide photo monitoring of any proposed restoration areas. The County will coordinate with FCT to see that any techniques to do so are consistent with professional monitoring standards and that they are acceptable to FCT.

### Listed Plant and Animal Species

As indicated on Exhibit C, approximately 51 acres (33 percent) of the project site is characterized by FNAI as Floodplain Swamp/Floodplain Forest interwoven with natural and manmade water channels that have consistent water flows. These areas are characterized by seasonal and/or episodic flooding of a flat to gently sloping area containing buttressed hydrophytic trees such as cypress and tupelo, and a sparse understory and ground cover. These areas transition to a mix of oaks, gums, and cypress trees on lesser-drained soils. The quality of this combined community is good to very good, particularly in the wetter areas. The area immediately surrounding Fred George Sink has been modified at times in the past, but this is a very dynamic area, and any significant changes of channel slope and depth are subject to natural episodic change. Approximately 42 acres (25 percent) of the project site is Bottomland Forest, located outside of the Floodplain Swamp/Floodplain Forest. Some of this area may have been cut over in the past for pasture or for resource extraction, but this area is reforesting rapidly, and there are large areas that are intact and free of detectable human disturbances.

According to FNAI natural community descriptions, portions of the project site, including the Floodplain Swamp/Floodplain Forest, Bottomland Forest, and the waterbodies, are potential habitat for federal and/or state-listed species. This potential habitat is associated with known occurrences near the project site of Woodstorks (*Mycteria americana*), Oval Pigtoe (*Pleurobema pyriforme*), Narrowleaf Naiad (*Najas filifolia*), Shiny-rayed Pocketbook (*Lampsilis subangulata*), Barbour's Map Turtle (*Graptemys barbouri*), Purple Bankclimber (*Elliptoideus sloatianus*), and Eastern Indigo Snake (*Drymarchon couperi*). The onsite habitat is also ranked high for American Alligator (*Alligator mississippiensis*), Little Blue Heron (*Egretta caerulea*), Tricolored Heron (*Egretta thula*), and Southeastern American Kestrel (*Falco sparverius paulus*). Woodstorks have been identified onsite foraging in the Floodplain Swamp/Floodplain Forest area, and there is a documented woodstork rookery approximately ½ mile north of the project site. In addition, FNAI element occurrence maps, indicated on Exhibit N, indicate several areas onsite as Rare Species Habitat.

These habitat areas will be protected through the acquisition of the project site. Following the initial biological survey and assessment, any existing and previously overlooked listed plant and animal species onsite will be identified, and a set of management recommendations will be drafted consistent with recommendations provided by the Florida Fish and Wildlife Conservation Commission for listed animal species. These recommendations will be submitted to FCT as part of the annual stewardship report, and these recommendations will be implemented by the County's Division of Parks and Recreation with assistance from the FFWCC as necessary and appropriate. Follow-up biological surveys every five years will also inventory any additional listed species onsite.

### Feral Animal Program

The presence of feral animals in natural communities can be detrimental to these communities. Feral animals can damage native vegetation and out-compete native wildlife. In an urban setting with multiple land uses nearby, a variety of feral animals can be expected on conservation areas.

A biological survey and assessment will be conducted by County Parks and Recreation Department staff or their designee the second year following acquisition. As part of this survey, a set of management recommendations will be drafted for implementation by the County's Division of Parks and Recreation. Follow-up biological surveys every five years will also assess and inventory any feral or exotic animals onsite. If any feral animals are identified onsite, any such animals will be removed by the County's Animal Control Unit or by another responsible entity selected by Leon County. Follow-up surveys for feral animals will be conducted by staff or their designees on a five-year rotation. Staff will provide information on the annual stewardship reports on the presence and management of any feral animal populations. The Florida Fish and Wildlife Conservation Commission (FFWCC) will be contacted by the County for assistance as necessary and appropriate. The WPS will also monitor the site on a more regular basis concurrent with their educational mission.

### Forest Resources

Approximately 57 acres (33 percent) of the project site is characterized by the Florida Natural Areas Inventory as Floodplain Swamp/Floodplain Forest interwoven with natural and manmade water channels with consistent water flows. These areas are characterized by seasonal and/or episodic flooding of a flat to gently sloping area containing buttressed hydrophytic trees such as cypress and tupelo, and a sparse understory and ground cover. These areas transition to a mix of oaks, gums, and cypress trees on lesser-drained soils. The quality of this combined community is good to very good, particularly in the wetter areas. The area immediately surrounding Fred George Sink has been artificially modified at times in the past, but this is a very dynamic area, and any significant changes of channel slope and depth are subject to natural episodic change.

Approximately 42 acres (24 percent) of the project site is Bottomland Forest, located outside of the Floodplain Swamp/Floodplain Forest, several water channels in this area, as well as several small waterbodies, have been modified by previous property owners. The majority of these modifications—comprising mostly minor shallow channelization undertaken a decade or two ago—have taken place on the R.P. Properties (Ghazvini) parcel. An additional approximately 30 acres (18 percent) of the site is Upland Mixed Forest, with some small Slope Forest areas located where significant and severe grades are present. There are five small waterbodies (four are approximately ½ acre in size, and the largest is approximately 2.5 acres in size). Several small freshwater shrub marshes are scattered throughout the area identified as Floodplain Swamp/Floodplain Forest.

Approximately 23 acres of Planted Pine are located in the southwest area of the project site. Approximately ten acres in this area is where the proposed baseball field and related amenities will be located.

Within two years of acquisition, the County Forester will survey the project site to identify any prescribed forest management needs and recommendations. A Forest Stewardship Plan will be drafted for the County's Division of Parks and Recreation to implement that will include stand-based guidelines as appropriate and necessary for this project site.

### Archeological, Cultural, and Historical Resource Protection

According to DHR correspondence received by the Planning Department (Exhibit O) and received by FCT, DHR has identified from the Florida Master Site File at least two sites on the project site (8LE5377 and LE1405). DHR has stressed the need for these known sites to be protected and preserved. The 8LE5377 site is locally significant and will need to be interpreted.

Within five years following acquisition, a comprehensive historical and archaeological survey of the site conforming to Chapter 1A-46, F.A.C. will be conducted by trained personnel. This information will be provided to the County's Division of Parks and Recreation, the Florida Department of State, Division of Historical Resources (DHR), and FCT.

DHR will be contacted within one year of site acquisition for recommendations on how best to manage any known and previously unknown additional historical or archaeological sites or other features, and their recommendations will be incorporated into the project site's management. By default, sites or features located on the project site will be left *in situ* by the managing agency, and no public access will be provided until these sites or features can be adequately protected.

The County's Division of Parks and Recreation will coordinate with DHR on the protection and management of all archaeological and historical resources. In particular, all outbuildings on the property will be evaluated for structural integrity by a qualified engineer and for historical significance by DHR. Results of these evaluations may result in stabilizing particular facilities or demolishing them. For any remaining structures, all significant sites and/or resources will be interpreted for the public as part of the management of these resources.

A cultural resource assessment of any area within the project site proposed for development will also be undertaken prior to the commencement of proposed development activities in that area. The County's Division of Parks and Recreation will notify DHR immediately if evidence is found to suggest an archaeological or historic resource at the project site.

The collection of artifacts or the disturbance of archaeological and historic sites on the Project Site will be prohibited unless prior authorization has been obtained from DHR. The management of any onsite archaeological and historic resources will comply with the provisions of Chapter 267, Florida Statutes, specifically Sections 267.061 2(a) and (b).

## **IV. SITE DEVELOPMENT AND IMPROVEMENT**

### Acknowledgement Sign

The project site will be identified on at least one acknowledgement sign identifying the project site being purchased with funds from "Florida Communities Trust." This sign will be at least 3' x 4' in size, and will include the official FCT logo. The site will be identified in all literature and advertising as being publicly owned and operated as a natural resource-based conservation and recreation site. FCT will be identified as having provided a portion of the funds for acquisition and that the property is open to the public.

### Existing Physical Improvements

At the time of acquisition, one of the four properties had a single-family house and a smaller, old barn onsite (see Exhibit A-2). The house has been removed by Leon County due to deterioration.

The larger Maples parcel has been farmed in the past, and currently has approximately one-third of its area in planted pine. This parcel also has a single-family house and several outbuildings (i.e., pole barns). The remainder of the property is mostly wooded.

Prior to acquisition, the R.P. Properties (Ghazvini) parcel had several storage buildings onsite, as well as several piles of construction debris, soil, and assorted junk in an open pasture area. There was also a permitted construction debris landfill onsite operating throughout the 1980s, which was closed a number of years ago. Much of this parcel has been modified to some degree by earthmoving equipment and by dumping. However, approximately half of this parcel has varying degrees of natural cover, and the scattered piles of debris have been cleaned up. The pole barn remains on this site.

### Proposed Physical Improvements

The following proposed physical improvements (indicated on Exhibit G) to be incorporated upon the project site when funding becomes available include:

1. Baseball Field – A baseball field will be located in the southwest corner of the project area, which is presently planted in marketable pine trees. While the exact size and layout of this field and related amenities and ancillary features will be determined when funding becomes available, this will be a single field to be located as close to the southwest corner of the project area.

This ballfield will be constructed in an area that is presently planted in pine for pulpwood. If these trees are not removed by the time acquisition of the properties comprising the project site is complete, then the County will have them removed prior to the development of this area as a ballfield. A suitable vehicular access point will be provided to these fields. Existing access points should be reviewed for use prior to building any new access points provided they meet all applicable safety standards for ingress and egress. The field will have “green technology” playing field lights that help direct and better target the available light.

2. Multipurpose Field – A multipurpose sports field will be located adjacent to the baseball field. As part of this complex, restroom and concession buildings will be located between this field and the baseball field. A playground, parking area and sidewalks will be located here as well.

3. Wildlife Observation Platforms – A wooden wildlife observation platform will be located near the Fred George Sink above the floodplain level. This will allow the public to view the sink itself, as well as the cypress-dominated bottomland forest immediately south of the sink. Another observation platform will be located on the shore of the lake in the southeast portion of the greenway.
4. Picnic Pavilion – A picnic pavilion will be located near or adjacent to the proposed parking area on the south boundary of the project area. If water is available at this site, a drinking fountain will be installed at or near this location. An additional pavilion may be located on the restored area on the R.P. Properties (Ghazvini) parcel.

Additional improvements will include the following:

1. Trail System – A looped trail system will consist of a multi-use main trunk path that will utilize existing dirt roads where possible and appropriate. A secondary loop trail system may be developed according to user demand. . This trail system should also be designed to be accessed from outside the project site as an alternative to automobile transportation to the project site.

All trails shall be designed for maximum sustainability and located to avoid or minimize any impacts to existing environmentally sensitive areas, including shorelines, wetland areas, significant tree root systems, and listed plant species and their habitat, in accordance with recommendations from the County Forester and/or other qualified professionals. The widths and surfaces of these trails will follow national and state standards for similar trails. The main trunk trails may be stabilized as necessary, but all trail surfaces should remain as natural as possible, or at least as pervious as possible. Existing trails will be surveyed for possible use, and if not feasible or stable, sections of these trails may be rerouted to minimize environmental impacts.

All trails will be buffered from adjacent land uses where feasible and appropriate, while following all applicable sustainability and Crime Prevention through Environmental Design guidelines where necessary and appropriate. Portions of the proposed trail may require stabilization, depending on slope and soil characteristics to prevent erosion and to create and maintain a design slope appropriate for pedestrians and bicyclists where necessary.

2. Boardwalks – Wooden boardwalks with railings will be installed wherever deemed necessary to protect environmentally sensitive areas and trail users, and to help keep users on established trails. Any existing stream crossovers will be inspected and reconstructed to meet all applicable safety and habitat protection needs. Additional boardwalks or stream bridges with railings may be constructed if warranted and if they meet all locational and environmental criteria.

3. Ancillary Facilities – Bicycle racks will be provided adjacent to high activity level areas such as picnic shelters, ball fields, trailheads, and a museum/education center. Benches and trash receptacles will be placed as needed and appropriate. Existing utility lines will be considered for burial if feasible. Any new utility lines will be buried.

The property will be fenced within two years as necessary in order to prevent unauthorized and/or uncontrolled access, consistent with Leon County Division of Parks and Recreation standards and practices. Access may be granted to adjacent landowners and neighborhoods provided these access points meet clearly defined access criteria ensuring protection of environmental resources and the safety of users at a minimum. Access criteria must also consistent with other environmental and other criteria found elsewhere in this management plan.

4. Bicycle and Pedestrian Access –

Leon County has a priority list of sidewalks, and the segment of Fred George Road between Mission Road and Capital Circle NW is on this list. A new sidewalk segment is being constructed between Mission Road and the CSX railroad line on the east side of the Greenway. Additionally, the sidewalk will meander along the inside boundary of the parking and turn north along Capital Circle terminating at the museum and education center. Two residential developments on the south side of Fred George Road also have an internal sidewalk system that extends to Fred George Road. The residential development on the south side of Fred George Road across from the access road to the R.P. Properties (Ghazvini) parcel has a sidewalk that connects to Fred George Road. This will be one of the main entrances to the project site, and this sidewalk connection will allow pedestrian access to this entrance. The access road to a parking area identified in Exhibit G on the north side of Fred George Road will be aligned with Sagebrook Drive for safety reasons. A marked crossing of Fred George Road will be required for residents on the south side to access the project site more safely. The design of this crossing shall be determined by the Leon County Department of Public Works utilizing a site visit, traffic counts, and other professional traffic engineering data and standards.

A new sidewalk will be constructed along that portion of Capital Circle NW and Fred George Road where the ballfield and multipurpose sport field will be constructed. The sidewalk will allow pedestrian access to the culture resources museum from the ballfield complex and the parking area on Fred George Road. It will also connect to the new sidewalk segment east of the CSX railroad line.

5. Trail and Site Signage – Along the trails and the boardwalks, there will be interpretative signs to educate visitors about the natural environment and any known archeological and historical resources on the project site. These may identify notable plant or animal features, explain habitat transition, or identify and describe significant features such as the Fred George Sink. Additional signage will be intended to guide and control access to trail facilities in order to minimize conflicts between user groups, indicated potential hazards, and protect natural resources.

The exact size and extent of these facilities will be estimated from site visits by County Division of Parks and Recreation staff, probable use, available funds, and site restrictions. These facilities may also change over time based on increased use. For instance, a parking area sized to fit a dozen vehicles may be sufficient for the first five years of the project, but it may have to be expanded later based on increased use.

The Leon County Division of Parks and Recreation will allocate necessary funds for signage from the Division's annual requested budget. Funds for benches and trash receptacles may be sought from private individuals and/or groups. These sources may also help provide support for materials to construct any necessary boardwalks, including the use of volunteer labor as available.

The County is committed to develop the site for recreational and educational use and will program the necessary capital improvements in the capital improvements budget within a minimum of five years from the final land purchase.

To ensure the protection of the listed species and listed species habitat on the property, County staff will consult with the Florida Fish and Wildlife Conservation Commission and the University of Florida Cooperative Extension Office regarding the protection of listed species and listed species habitat prior to any development or other activities.

The Leon County Division of Parks and Recreation shall describe the location and character of any improvements not specifically or conceptually addressed in this management plan, consistent with the general purposes of the project, and request prior approval from FCT. Any proposed modification of the management plan will require prior FCT review and approval. The Division will also provide 60-day prior written notice and information regarding any lease of any interest, the operation of any concession, any sale or option, any use by a party other than a member of the public, and management contracts of any kind to the FCT. No such commitment will be entered into without approval of the FCT.

### Landscaping

The Leon County Division of Parks and Recreation, in coordination with the Stormwater Management Division of the Leon County Department of Public Works, will be planting native cypress trees around three of the five lakes onsite, as well as longleaf pine on two upland areas (the exact location and extent will be determined based on slope, soils, and other physical variables), including a portion of the area currently in planted pine, and the northeastern extent of the open pasture area on the R.P. Properties (Ghazvini) parcel where feasible. The number of longleaf pines will be approximately between 200-500 per acre (more or less based on soils, slope, and other physical and cost factors), and the number of cypress trees will be a range of approximately 50-100 depending on various physical and cost factors. These plantings will occur within five years of acquiring the project site. Exhibit G indicates the approximate areas to be planted with native vegetation.

In addition to the plantings detailed in the Restoration section of this document, the Leon County Division of Parks and Recreation will plant shade trees around the parking and picnic

areas and other recreational facilities where needed and appropriate to provide need shade. This will occur concurrent with the construction of these facilities.

### Wetland Buffer

A 100-foot minimum buffer area will be provided to the maximum extent possible between any parking lots, major facilities, or athletic fields and any existing wetlands on the project site.

### Parking

At this time, there are at least three access points from local roads to the project site. Two of these access roads are connected to Fred George Road. One of these access roads leads into the middle of the R.P. Properties (Ghazvini) parcel, and the other accesses a residence facing Fred George Road that will be the site of the museum/education center. The third access point leads to another residence facing Capital Circle NW.

The existing entrance to the museum/education center will be designed as a multi-purpose entrance for the proposed ballfield on the southwest corner of the project site.

Parking areas will be established at the R.P. Properties (Ghazvini) entrance and the museum/education center entrance, and will be similar to parking areas constructed at other County parks. The entrance to the parking area at the present Ghazvini parcel will be aligned with Sagebrook Drive.

These areas will be fenced with treated posts or other similar materials to prevent unauthorized vehicular access to other areas of the project site. The parking surface will utilize pervious natural materials where appropriate and allowable to minimize surface stormwater runoff. The capacity of these lots will be a minimum of 12 vehicles for the R.P. Properties (Ghazvini) parcel, six vehicles at the museum/education center, and 90 vehicles at the ballfield. These general areas are shown in gray on Exhibit G. The exact location of these parking areas will be established based on topography, protected environmental features, and other design and permitting parameters.

### Stormwater Facilities

Portions of the project site have been modified in the past to alleviate flooding, particularly on the R.P. Properties (Ghazvini) parcel. These modifications include the channelization of existing streams, filling, and the construction of berms to divert the natural channel and sheet flow across portions of the Floodplain Swamp/Floodplain Forest and the Bottomland Forest areas. The result of these efforts by previous property owners has created conditions that exacerbate natural flooding around and into Fred George Sink, as well as allowing untreated urban stormwater runoff and trash to enter the sink without any treatment.

The creeks flowing through the project site will be enhanced and/or restored by the Stormwater Management Division of the Leon County Department of Public Works to improve water quality and to reduce adjacent site flooding. These stream restoration efforts will include the removal of structures and berms in the Northeast area to reestablish free-flow conditions

to reduce backwater flooding into the neighborhoods east of the project site, as well as reestablish the natural floodplain condition. These currently disturbed areas will be replanted with native transitional species to stabilize the creek flowway during peak flow and enhance nutrient uptake during low flow conditions. Examples of the plantings include softrush, bulrush, pickerelweed, arrowhead, buttonbush, wax myrtle, swamp tupelo, bald cypress, sweetbay magnolia, red maple, and Virginia willow. The existing vegetation on-site determines the number and species selected for supplemental planting.

Public Works will also reduce the floatable trash entering the Fred George Sink by installing floating booms and trash traps at the railroad cross-drain along the east property line and the Fred George cross-drain at the southeast corner of the site where the majority of off-site flow enters the project site. These proposed facilities are indicated on Exhibit G. It is expected that these improvements will have minimal negative effects on existing wetland and bottomland hardwood areas, and will likely have a net positive effect because they will reduce scouring and the introduction of trash into natural areas and allow this system to more resemble its original, natural state.

New parking areas for those citizens who choose to drive to the project site will, depending on the size and materials used for these areas, have all the required stormwater facilities, including but not necessarily limited to swales and other passive facilities.

Although it is difficult to estimate the specific number of plants, the Leon County Division of Parks and Recreation, in coordination with the Leon County Department of Public Works, will be planting cypress trees around three of the five lakes onsite. The number of cypress trees will be a range of approximately 50-100 depending on various physical and cost factors. In addition, it is the practice of the Leon County Department of Public Works to utilize native herbaceous emergent vegetation as part of their stormwater management system to biologically treat stormwater runoff, and this practice will be utilized in selected areas of the project site. For instance, Public Works will replant currently disturbed areas with native transitional species to stabilize the creek flowway during peak flow and enhance nutrient uptake during low flow conditions. Examples for the plantings include softrush, bulrush, pickerelweed, arrowhead, buttonbush, wax myrtle, swamp tupelo, bald cypress, sweetbay magnolia, red maple, and Virginia willow. The existing vegetation on-site determines the number and species selected for supplemental planting.

All stormwater facilities will be designed to provide recreational open space and/or wildlife habitat in a park-like setting with shallow slopes and no fences. Existing local and state stormwater regulations will be strictly adhered to, including documenting any environmental impacts from these facilities and conducting any required on-site mitigation actions.

### Hazard Mitigation

Leon County presently has an adopted Local Mitigation Strategy plan which identifies flooding as one of the more significant natural hazards facing the County. Consistent with the goals, objectives, and recommendations of this plan, the adopted Comprehensive Plan, and adopted

land development regulations, all habitable structures will be located outside of the 100-year floodplain.

### Education Signs

At the parking area on the R.P. Properties parcel, there will be a kiosk to educate visitors about the natural environment and any known archeological and historical resources on the project site. Smaller, strategically placed interpretative signs will identify notable plant or animal features, explain habitat transition, significant features such as the Fred George Sink, and/or archeological features or sites. Trail signage will be help guide and control access to trail facilities in order to minimize conflicts between user groups, indicated potential hazards, and protect natural resources. The placement of these signs will occur as necessary and appropriate on a site basis.

### Education Program

The Wildwood Preservation Society has committed to provide a minimum of 12 environmental or historical education classes or programs per year at the Project Site conducted by trained educator(s) or resource professional(s). The target audience will be middle-school children, retirees, natural resource and archeological professionals and consultants, and others from the local community who have an interest in these subjects. A program schedule will be submitted to the County and then to FCT via the annual stewardship report once classes are initiated.

### Museum and Nature Center

The County will lease to a qualified non-profit organization the existing residential structure following its stabilization and renovation for a staffed nature and cultural museum and educational facility. The objective shall be to provide reasonable weekend operating hours and access during the workweek by appointment at a minimum.

This facility will provide disabled-accessible restrooms and a hands-on classroom for archaeological, ecological, hydrological and zoological studies. Exhibits will include surface-groundwater connections in the Basin, fossils from the karst areas, archaeological material from sites in the Basin, and photos and information on the numerous listed species present in the Basin. The lessee will utilize trained professionals from the disciplines of archaeology, wildlife biology, hydrology, geology and more to teach monthly classes.

### Permits

All improvements and facilities will adhere where necessary and appropriate with all applicable state and federal construction standards, including the federal Americans with Disabilities Act. Leon County permits will be required for all of the proposed improvements, except for the trails and the signage.

The Leon County Division of Parks and Recreation currently has a Public Works General Permit that generally addresses road development activities and stormwater facilities in all county parks. This permit allows most minor improvements (e.g., less than one thousand square feet) with the exception of any development activities within Preservation or Conservation features or within the Canopy Road regulatory zone (100 feet from either side of the centerline of a listed Canopy Road in Leon County). County environmental, stormwater, tree removal, and other permits will be required for all improvements for which the General Permit does not cover, except for signage.

A stormwater management facility management plan and associated permits will be necessary for the proposed stormwater facility improvements. The county will be required to apply for an individual permit to construct, operate, alter, maintain, abandon, or remove a stormwater management system under Section 373.4145(1)(a), F.S., and Chapter 62-346, F.A.C., within the geographic limits of the Northwest Florida Water Management District (NFWFMD). (Activities that require an individual permit are described in Rule 62-346.050, F.A.C., and Section 3 of Applicant's Handbook Volume I.) In addition, depending upon the design of the stormwater facility, any activities that require a stormwater management permit and which involve dredging and filling in waters of the State may also be required (in addition to any permit required under Section 373.4145(1)(a), F.S.):

- A dredge and fill permit under Chapter 62-312, F.A.C.;
- Authorization to use state-owned submerged lands; and
- Other applicable permits or authorization from the U.S. Army Corps of Engineers and local governments.

A tree removal permit will also be required where necessary. No other state or federal permits are anticipated.

The Leon County Division of Parks and Recreation will request written approval from FCT before undertaking any site alterations or physical improvements not specifically addressed in the management plan.

#### Easements, Concession, and Leases

There are no known publicly held easements on the project site at this time. There are three conservation easements adjacent to the project site (one owned by the City of Tallahassee, and two owned by Leon County).

There are no proposed easements or concessions at this time. The County intends to lease the renovated structure on Capital Circle to the WPS (see page 24). The County shall provide FCT a minimum 60-day prior written notice and all information regarding the WPS lease and any other lease of any interest, the operation of any concession, any sale or option, 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. No such document will be executed without the prior written approval of FCT. All fees collected by any easement, concession, or lease will be placed in a segregated account solely for the upkeep and maintenance of the project site.

## **V. MANAGEMENT NEEDS**

### Coordinated Management

As indicated on Exhibit G, Leon County in 2008 acquired through a mitigation action two contiguous residential parcels (Tax ID# 210515 A0140 and 210515 A0130) adjacent to the 78-acre R.P. Properties, LLC parcel (Tax ID# 21-08-20-606-0000). The removal of development rights as per public ownership on these two previously-buildable residential lots within the 100-year floodplain will enhance the proposed greenway project, and these two parcels will be managed as part of the Fred George Basin Greenway, including the removal of any exotic animal or plant species, the preservation of the larger bottomland hardwood and wetland habitat and drainage areas within this general area, and the eventual provision of a walking trail connecting the project site to the Wildwood neighborhood to the north of the project site.

A third adjacent parcel (Tax ID# 210540 A0010) on the east side of the railroad corridor that is located immediately east of the project site was purchased in 1997 by Leon County using federal post-disaster funding to mitigate on-site flooding. The grant award agreement limits uses on these properties to open space, recreation, wetlands management, and other similar uses, while not permitting any new occupied structures. This parcel, along with the very small portion (0.15 acres) of the R.P. Properties (Ghazvini) parcel on the east side of the railroad track adjacent to the County parcel, while not considered part of the Fred George Greenway, will be kept in its natural state in perpetuity.

The management of the project site will require coordination with state and regional agencies such as FCT, the Northwest Florida Water Management District, the State Office of Greenways and Trails, and the Leon County Department of Public Works, including its Division of Parks and Recreation. This coordinated management will serve to both project the project site, including its upland, bottomland, and wetland habitat areas, and provide for public access, enjoyment, and education. The Division of Parks and Recreation will be the lead managing entity. Additional coordination will be allowed and encouraged between the Division and selected, incorporated non-profit and other similar neighborhood or community groups via a written agreement at the discretion of the Director of the Leon County Division of Parks and Recreation.

The WPS, under the direction and supervision of the Division of Parks and Recreation, may also assist the Division as appropriate in managing the project site's cultural, historical, and natural features and resources.

### Trail Network

As indicated on Exhibit G and H, an onsite looped trail system will consist of a multi-use main trunk path that will utilize existing dirt roads where possible and appropriate. A secondary loop trail system may be developed according to user demand. This trail system should also be designed to be accessed from outside the project site as an alternative to automobile transportation to the project site where feasible.

All trails shall be designed for maximum sustainability and located to avoid or minimize any impacts to existing environmentally sensitive areas, including shorelines, wetland areas, significant tree root systems, and listed plant species and their habitat, in accordance with

recommendations from the County Forester and/or other qualified professionals. The widths and surfaces of these trails will follow national and state standards for similar trails. The main trunk trails may be stabilized as necessary, but all trail surfaces should remain as natural as possible, or at least as pervious as possible. Existing trails will be surveyed for possible use, and if not feasible or stable, sections of these trails may be rerouted to minimize environmental impacts.

All trails will be buffered from adjacent land uses where feasible and appropriate, while following all applicable sustainability and Crime Prevention through Environmental Design guidelines where necessary and appropriate. Portions of the proposed trail may require stabilization, depending on slope and soil characteristics to prevent erosion and to create and maintain a design slope appropriate for pedestrians and bicyclists where necessary.

The greenway will be accessible from a sidewalk on the segment of Fred George Road between Mission Road and Capital Circle NW. The residential development on the south side of Fred George Road across from the access road to the R.P. Properties (Ghazvini) parcel will connect to the trailhead via a marked crossing of Fred George Road for residents on the south side to access the project site more safely.

#### Greenways

The project site is one of the major greenways identified in both the Tallahassee – Leon County Greenways Master Plan and the Blueprint 2000 Project Definitions Report. The adopted Tallahassee – Leon County Greenways Master Plan identifies a countywide greenway system that includes a system of connecting greenway trails and trailheads. The Master Plan proposes to acquire and connect where feasible a number of parks and conservation areas, including the City of Tallahassee’s Northwest Park and the Ochlockonee River Wildlife Management Area subunit of the Talquin State Forest.

The project site is also part of a larger ecological corridor that includes several foraging areas for the Wood Stork. A major breeding rookery is located within approximately ½ mile of the project site. The Greenway is intended to protect a larger ecological corridor composed of environmentally sensitive areas such as listed species habitat, wetlands, bottomland and upland hardwood forests, and comprehensive floodplain areas within the Fred George Basin. The acquisition of this project site will protect a significant portion of this larger ecological corridor by preserving listed species habitat and other onsite environmental features from urban development.

#### Optimal Boundary

At this time, there are no additional parcels that are identified for purchase. However, should funding become available and should there be a willing seller, parcel number 210515A0120 should be considered for acquisition. This parcel is immediately west, and adjacent to, the two contiguous parcels at the north-eastern part of the property that were given to the County for mitigation purposes (Tax ID# 210515 A0140 and 210515 A0130).

## Public Involvement

There has been extensive public involvement at several steps in the acquisition and conceptual use of the project site. The County has provided a minimum of five individual opportunities for the public in 2007-2008 to provide input on the acquisition phase of the project, including a publicly-advertised meeting of the Blueprint 2000 Citizens Advisory Committee, an advertised public hearing of the project provided by the Blueprint 2000 Intergovernmental Agency (the Leon County Board of County Commissioners and the Tallahassee City Commission), and one advertised regular business meeting and two public hearings conducted by the Board of County Commissioners. The proposed acquisition and conceptual use of the project site was developed with input from the Wildwood Preservation Society, and the Florida Communities Trust (FCT) grant application was reviewed at an advertised public meeting of the FCT Governing Board in late 2007. This meeting allowed public input, which was given in support of the project and its intended use. All public comments received in all of these meetings supported the project and its objectives.

## Maintenance

Once operational, the Leon County Division of Parks and Recreation will hire a full-time park attendant whose primary responsibility will be oversight of this facility. The established budget for this position includes the following:

- 1-FTE: \$67,592
- Vehicle: \$40,000
- Fuel/Insurance: \$5,000
- Supplies (including uniforms): \$3,674
- Invasive Control (1<sup>st</sup> year): \$60,000
- Other capital costs (1<sup>st</sup> year): \$5,150

Regular maintenance tasks would include:

- Trash Removal
- Trail Maintenance
- Ballfield Maintenance
- Signage Repair
- Fence Maintenance
- Structural Repairs
- Exotics Removal

The total annual regular maintenance costs would range from approximately \$60,000 to \$80,000.

While Leon County Division of Parks and Recreation will ensure daily and weekly site cleanup, trash removal, and general facilities upkeep, certain tasks such as annual cleanups may be assigned or delegated to selected, incorporated non-profit and other similar community groups at the discretion of the Division Director.

## Security

Security will include ensuring the integrity of existing fencing along the project perimeter. Bollards, gates, or other locked access control device will be placed at all vehicular access points to prevent improper or unauthorized access. The site's regular hours (dawn to dusk, except for special events) will be posted onsite at each entrance.

The Leon County Division of Parks and Recreation will provide periodic patrol of the project site. The Leon County Sheriff's Office (LSCO) will have police jurisdiction over the project site. Additional patrols may be provided by selected, incorporated non-profit and other similar neighborhood or community groups via a written agreement at the discretion of the Division Director.

The County Safety Manual sets out policies and procedures for accident reporting, analysis and record keeping as well as for emergency response. The supervisors of this facility will be responsible for complying with the safety manual. The Division of Parks and Recreation will coordinate program and facility safety with the LSCO on an as-needed basis (including traffic control, crowd control, and area security).

## Staffing

Staffing for routine maintenance will be provided by the County's Division of Parks and Recreation. While the requisite number of employees will be determined following implementation of the management plan, the Division estimates that one-half to a full-time staff equivalent will be needed for these purposes.

A program to engage volunteer staff for selected projects, such as resource inventories, exotics removal, occasional cleanups, and the development of additional interpretative materials, will be developed where necessary and appropriate in coordination with the Master Conservationist program under the University of Florida Cooperative Extension Office. The County has worked constructively with this program in the past.

The museum/education center will be staffed by selected, incorporated non-profit and other similar community groups via a written agreement at the discretion of the Division Director, and approval by the Board of County Commissioners, when necessary. FCT will be notified and the County will seek approval on any lease and/or management agreement with the WPS as noted on Page 25 of this plan.

## **VI. PRIORITY SCHEDULE, COST ESTIMATES, AND FUNDING SOURCES**

### Implementation Priorities and Time Line

Development of the project will require phasing over several years. Table 1 presents an estimated timeline and approximate costs. This timeline is subject to County priorities and available funding, which can change from year to year. The Leon County Division of Parks and Recreation will attempt to implement this time line and priority listing to the maximum extent possible.

### Funding & Maintenance

As previously indicated, the total annual regular maintenance costs would range from approximately \$60,000 to \$80,000. However, it is not possible at this time to estimate the total costs for the scheduled improvements. State and County budgets have been significantly reduced for the last several years. The County's budget is tight, and significant funding for opening this greenway park and constructing its planned improvements will likely take some time to become available. However, the basic steps of changing the project site's land use and zoning designation can be done within one year of acquisition as part of the local government's regular comprehensive planning amendment cycle, and the required security measures, surveys, monitoring, forest planning, and education program can be conducted with a combination of County staff and qualified volunteers.

Funding sources will include a combination of assigned Division of Parks and Recreation annual budget funding (based on need and available County funds); federal, state, and local (public and private) grants; and in-kind (volunteer) labor and other contributions. Physical improvements will require a minimum of five years to program into the County's Capital Improvements budget process.

**Table 1: Proposed Implementation Timeline**

Project Number: <b>#07-102-FF7</b>										
Project Name: <b>Fred George Basin Greenway</b>										
Grant recipient: <b>Leon County</b>										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Design					X	X				
Permitting						X				
Demolition/Deposition of Existing Structures				X						
Amend Future Land Use Designation			X							
Amend Zoning Designation			X							
<b>Structures And Improvements</b>										
Entrance Sign with FCT Recognition (Required)		X								
Parking							X			
Fencing				X						
Restrooms							X			
Trash Cans							X			
Bike Rack							X			
Water Fountain							X			
Benches							X			
Interpretive Kiosk							X			
Interpretive Signs							X			
Museum & Education/Nature Center (design, permitting, and construction/renovation)					X	X	X			
Stormwater Facilities								X		
Sidewalk Access							X			
<b>Resource-Based Facilities</b>										
Picnicking Pavilion								X		
Nature Trail							X			
Off-Road Bike Trail							X			
Wildlife Observation Platforms									X	
<b>User-Oriented Facilities</b>										
Baseball Field							X			
Multipurpose Fields							X			
<b>Key Management Activities</b>										
Cultural Resources Survey & Assessment					X					
Biological Survey & Assessment (initial & follow-ups)					X			X		
Forest Stewardship Plan				X						
Restoration and Landscaping Plan							X			
Exotic Plant Removal				X			X			X
Feral Animal Removal							X			X
Landscaping							X	X		
Upland Restoration								X	X	X
Wetland Restoration								X	X	X
Educational Programs					X	X	X	X	X	X
Water Quality/Hydrological Improvements							X	X	X	X
Evaluation of Sink		X		X		X		X		X
Photo-Monitoring		X		X		X		X		X
Annual Stewardship Report (Required)		X	X	X	X	X	X	X	X	X

## **VII. MONITORING AND REPORTING**

### Progress Assessment

The Leon County Division of Parks and Recreation shall be responsible for preparing an annual report that evaluates implementation of this Management Plan. The annual report, which shall be due to FCT on the last business day of October of each year, shall include a review of all program commitments and related schedules made in this management plan.

The County will also provide an update on the status of site development on an annual basis beginning with the first update due within one year of project plan approval of the acquisition. In the event that revenues are not adequate to implement the development of this property as specified in the management plan, the County shall reassess the proposed physical improvements and request an amendment to the management plan consistent with the original purposes of the plan.

### Plan Updates

Updates to this management plan may be provided as a part of the annual progress assessments to be provided to FCT. As required by the Grant Award Agreement, all proposals for park development will be provided to FCT for review. Any proposals for park development inconsistent with the approved management plan will be provided to FCT for review and approval.