



# WITHLACOOCHEE STATE TRAIL

Ú Chapter

NORTHEAST DISTRICT TRAIL SYSTEM



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## Withlacoochee State Trail

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## Withlacoochee State Trail

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**Planning Region:** Trail System

**County:** Citrus, Hernando, and Pasco

**Lease/Management Agreement Number:** 3876

**Overview:** Designated as a National Recreation Trail, the Withlacoochee State Trail provides a 47-mile pedestrian corridor and access to numerous other conservation lands. The trail preserves the rail corridor and other historic railroad features like whistle markers, the Lake Henderson Trestle, a restored 1925 caboose, and the 1982 Inverness Depot.

**Total Acreage:** 761.58

<b>Natural Communities</b>	<b>Acres</b>
Mesic Hammock	6.39
<b>Altered Landcovers</b>	<b>Acres</b>
Developed	751.17
Successional Hardwood Forest	4.01

**Acquisition:** On September 26, 1989, the Board of Trustees of the Internal Improvement Trust Fund (Trustees) approved the purchase of 739.30 acres of rail corridor comprised of two abandoned CSX Transportation, Inc. segments known as the Gulf Junction-Inverness and the Inverness-Owensboro abandonments. Purchased through the Rails to Trails Program utilizing State Infrastructure funds, the Trustees acquired fee simple title on December 21, 1989.

### Resource Management Component

#### Hydrology

- Conduct/ obtain an assessment of the trail's hydrological restoration needs.

#### Imperiled Species

- Update baseline imperiled species occurrence inventory lists.
- Monitor and document 1 selected imperiled animal species (gopher tortoise).
- Monitor and document 1 selected imperiled plant species (sand butterfly pea).

#### Invasive and Nuisance Species

- Annually treat 4 acres of exotic plant species.
- Develop and implement measures to prevent the accidental introduction or further spread of invasive exotic plants.
- Implement control measures on invasive animal species.

#### Cultural Resources

- Assess and evaluate 6 of 24 recorded cultural resources.
- Compile reliable documentation for all recorded historic and archaeological resources.



- Bring recorded cultural resources into good condition.

### Land Use Component

#### Conceptual Land Use

##### *General Trail Needs*

- Resurface the trail.
- Comply with the Manual on Uniform Traffic Control Devices (MUTCD).
- Install a 9-1-1 emergency system.
- Provide sewer connections for all restrooms along the trail.
- Provide more interpretation.
- Provide vegetation buffers and low-profile railings.

##### *Gulf Junction Trailhead*

- Remove sidewalk to picnic pavilion.
- Install a ramp compliant with the Americans with Disabilities Act (ADA).
- Restore inaccessible parking area.

##### *South Citrus Trailhead*

- Relocate parking spaces.
- Install picnic pavilion and tables.
- Install ADA-compliant ramp to access the trail.
- Permeably pave parking spaces.

##### *Inverness Trailhead*

- Consider removing the restroom and restoring the footprint.
- Pave parking areas.
- Remove shed and carports.

##### *Ridge Manor Trailhead*

- Pave and organize parking area.
- Relocate the restroom.
- Install an ADA-compliant ramp where restroom is relocated.
- Consider replacing wooden fencing.

##### *Trilby Trailhead*

- Remove and discontinue use.
- Revegetate road loop.
- Secure from public access.
- Install a permanent fence.
- Remove from informational resources.

##### *Owensboro Junction Trailhead*

- Install a picnic pavilion and two tables.

## Withlacoochee State Trail

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- Permeably pave and organize parking spaces.

### *Road Crossings*

- Install pedestrian hybrid beacons where the trail crosses County Road 476 and County Road 486.
- Consult with the Florida Department of Transportation (FDOT) to improve visitor safety.

### **Optimum Boundary**

To the south of the Withlacoochee State Trail, the Land Trail Priority project, the Bi-County Trail Corridor and Suncoast Trail Corridor, would provide a connection to the Florida Department of Transportation's Suncoast Trail. In the town of Croom, there is another Land Trail Priority project that would provide an uninterrupted corridor from the Withlacoochee State Trail to the General James A. Van Fleet State Trail via the South Sumter Connector. These two trail connectors would provide for an unbroken recreation corridor to the Gulf Coast and Central Florida. Acquiring these trail segments will also support the Office of Greenways and Trails Land Trail Priority mission of regional trail networks.





Florida State Parks

Trailheads

Rest Stops

Cities & Towns

Unincorporated Communities


Florida National Scenic Trail

Florida Forest Service

FL Fish & Wildlife Commission

County Parks

North Florida Land Trust



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N

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S

**WITHLACOOCHEE STATE TRAIL**  
**CITRUS, HERNANDO, & PASCO COUNTIES**

0

3

6 Miles





## INTRODUCTION

### **LOCATION AND ACQUISITION HISTORY**

The Withlacoochee State Trail is located in Citrus, Hernando, and Pasco counties. The Northeast District Trail Network Map also reflects significant land and water resources existing near the trail. Portions of the Withlacoochee State Trail border Fort Cooper State Park, several local parks, and the Withlacoochee State Forest. The following trailheads provide trail access and parking:

**Gulf Junction Trailhead:**

2233 W. Magenta Drive, Citrus Springs, FL 34434  
N 29.0274 W -82.4714

**South Citrus Springs Trailhead:**

64 Citrus Springs Blvd., Citrus Springs, FL 34434  
N 28.9754 W -82.4300

**Inverness Trailhead:**

315 N. Apopka Ave., Inverness, FL 34450  
N 28.8406 W -82.3308

**Ridge Manor Trailhead:**

6410 Croom Rital Road, Ridge Manor, FL 33523  
N 28.5268, W -82.2189

**Owensboro Junction Trailhead:**

19755 U.S. Highway 301, Dade City, FL 33523  
N 28.4459, W -82.1891

On Sept. 26, 1989, the Board of Trustees of the Internal Improvement Trust Fund (Trustees) approved the purchase of 739.3 acres of rail corridor comprised of two abandoned CSX Transportation, Inc. segments known as the Gulf Junction-Inverness and the Inverness-Owensboro abandonments. Purchased through the Rails-to-Trails program utilizing state infrastructure funds, the Trustees acquired fee simple title on Dec. 21, 1989. Subsequent to the initial purchase, there was additional land added as follows: 12 acres donated by Citrus County, 9.21 acres purchased for the Kabrich trailhead, 0.41 acres of Murphy Act lands and a 0.67-acre donation from William and Janet Weber. A 0.08-acre parcel was sold to Bob Watson Enterprises. Currently, the total acreage is 761.51 acres. On June 20, 1990, the Trustees conveyed management authority to the Florida Department of Environmental Protection (DEP), Division of Recreation and Parks (DRP) via lease agreement 3876. The lease expires on June 28, 2040.

Withlacoochee State Trail is designated single-use to provide public outdoor recreation and conservation. There are no legislative or executive directives that constrain the use of this property (see appendix). A legal description of the trail property can be made available upon request to the Department of Environmental Protection.

## **SECONDARY AND INCOMPATIBLE USES**

In accordance with 253.034(5) F.S., the potential of the trail to accommodate secondary management purposes was analyzed. These secondary purposes were considered within the context of DRP's statutory responsibilities and resource values. This analysis considered the trail's natural and cultural resources, management needs, aesthetic values, visitation and visitor experiences. It was determined that no secondary purposes could be accommodated in a manner that would not interfere with the primary purpose of resource-based outdoor recreation and conservation.

DRP has determined that uses such as water resource development projects, water supply projects, stormwater management projects, linear facilities and sustainable agriculture and forestry (other than those management activities specifically identified in this plan) would not be consistent with the management purposes of the trail.

In accordance with 253.034(5) F.S., the potential for generating revenue to enhance management was also analyzed. Visitor fees and charges are the principal source of revenue generated by the trail. It was determined that multiple-use management activities would not be appropriate as a means of generating revenues for land management. Instead, techniques such as sponsorships, concessions and similar measures may be employed on a case-by-case basis as a means of supplementing management funding. Generating revenue from consumptive uses or from activities that are not expressly related to resource management and conservation is not under consideration.

## **PURPOSE AND SIGNIFICANCE OF THE PARK**

### **Park Purpose**

The purpose of Withlacoochee State Trail is to provide Florida's residents and visitors with a high-quality multiuse trail experience and regional multi-modal transportation opportunities. The trail preserves a historic trail corridor now used by pedestrians, supports local economies, and improves access to healthy recreation.

### **Park Significance**

- The Withlacoochee State Trail has designation as a National Recreation Trail and is a key component in the Florida Greenways and Trails System, which plays an important role in advancing Florida's economy, tourism, health, transportation, recreation, conservation and quality of life.
- The Withlacoochee State Trail follows a route where rail passengers once traveled. Historic railroad reminders include blockhouses, cement mile and whistle markers, the Lake Henderson trestle, a restored 1925 caboose, and the adjacent Inverness Depot built in 1892.
- The Withlacoochee State Trail provides important recreational opportunities including hiking, biking, skating, horseback riding, geocaching, picnicking and wildlife viewing, as well as environmental and cultural education opportunities.

## **Central Park Theme**

Running past remnant whistle markers of Henry Plant's West Coast Route, the Withlacoochee State Trail offers a mix of trail town life and natural seclusion.

Withlacoochee State Trail is classified as a state trail in the DRP unit classification system. In the management of state trails, primary consideration is given to providing opportunities for active recreational pursuits. Thus, user considerations are generally given priority over resource considerations. In areas where exceptional natural or cultural resources are included, however, resource considerations may become paramount even at the loss of some recreational use. Emphasis is placed on active recreational pursuits, although passive uses may be provided if suitable resources exist. Program activity is concerned with promoting use of the site for public recreation and with interpreting the trail and its surrounding area for public enjoyment. Development is aimed at enhancing the recreational appeal of the trail by providing basic facilities for access, user convenience and safety, and interpretation.

### **OTHER DESIGNATIONS**

The unit is not within an Area of Critical State Concern as defined in Section 380.05, Florida Statutes, and is not presently under study for such designation. The trail is a component of the Florida Greenways and Trails System, administered by the DEP Office of Greenways and Trails.

All waters along the trail have been designated as Outstanding Florida Waters, pursuant to Chapter 62-302, Florida Administrative Code. Surface waters that the trail crosses are also classified as Class III (suitable for fish consumption and recreation) waters by DEP. The trail corridor is not within or adjacent to an aquatic preserve as designated under the Florida Aquatic Preserve Act of 1975 (Section 258.35, Florida Statutes).

### **PARK ACCOMPLISHMENTS**

- Continued invasive plant removal in all management zones.
- Installed new ADA accessible benches or made existing structures ADA compliant approximately every 2 miles along the entire length of the trail.
- Installed six new kiosks at each trailhead and brought the trail map into ADA compliance.
- Developed new interpretive programs for trail visitors.
- Removed uprights from each intersection for visitor safety.

## RESOURCE MANAGEMENT COMPONENT

Withlacoochee State Trail Management Zones			
Management Zone	Acreage	Managed with Prescribed Fire	Contains Known Cultural Resources
WT-01	56.16	N	Y
WT-02	114.09	N	Y
WT-03	63.41	N	Y
WT-04	63.04	N	Y
WT-05	36.55	N	Y
WT-06	123.67	N	Y
WT-07	94.5	N	Y
WT-08	76.02	N	Y
WT-09	98.84	N	Y
WT-10	35.3	N	N

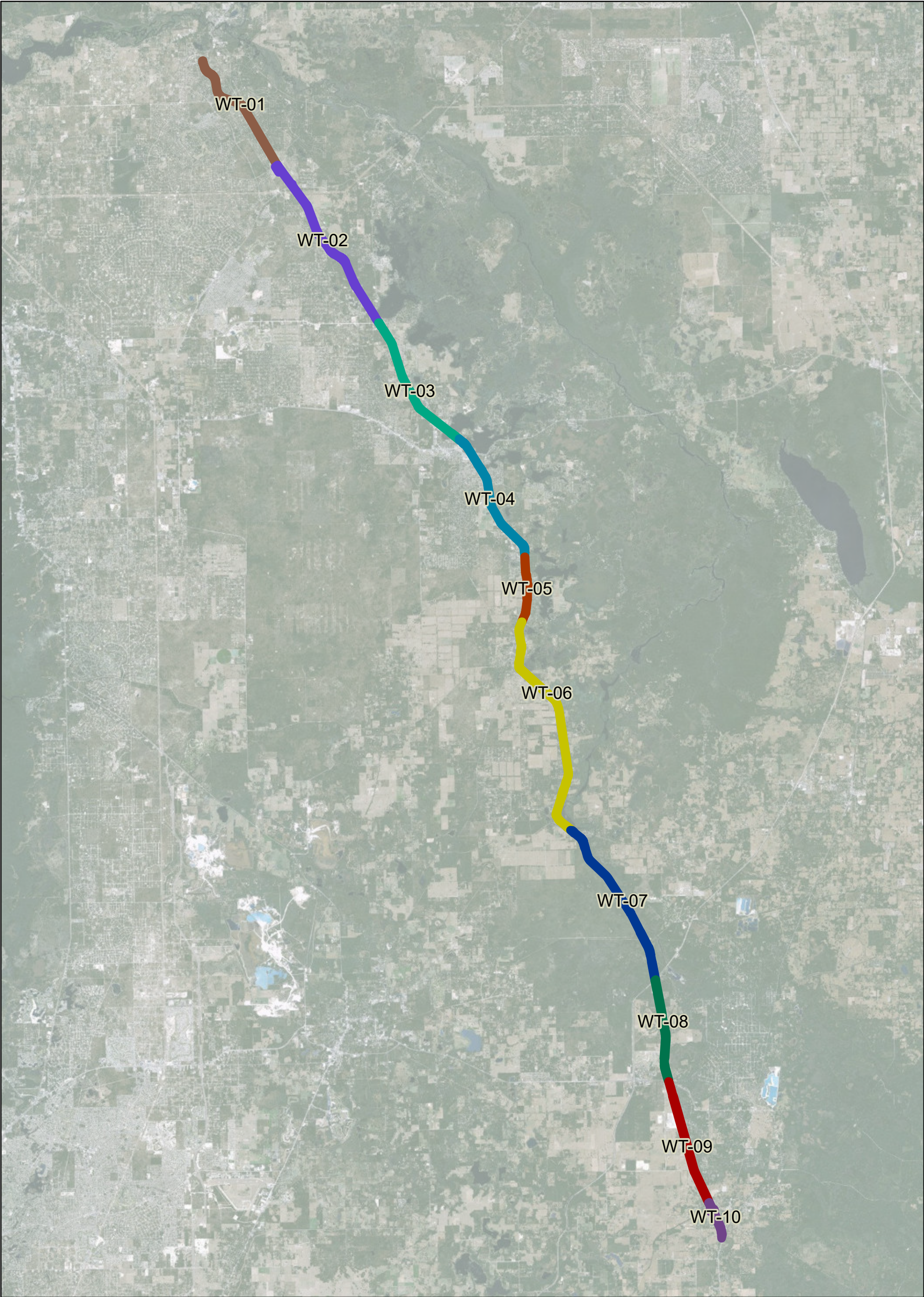
### **TOPOGRAPHY**

Withlacoochee State Trail is located within the Brooksville Ridge and the Tsala- Apopka Plain subdivisions of the Central Highlands physiographic province (North 2000). Natural elevations vary greatly in this region, ranging between 70 and 200 feet above mean sea level (msl) along the Brooksville Ridge and between 60 and 80 feet above msl within the Tsala-Apopka Plain (Hyde et al. 1977, Pilny et al. 1988).

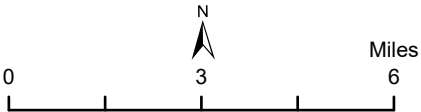
Most of the trail follows the Brooksville Ridge, where the rolling topography has been heavily influenced by karst activity. Sinks, depressions and sharp changes in elevation within short distances are common in this terrain. In contrast, portions of the trail occurring within the Tsala-Apopka Plain pass through flatter, lower landscapes produced by solution of the underlying limestone substrate. Broad grassy sloughs, ponds and depressions characterize the topography of this plain.

The natural topography has been altered along much of the trail corridor, largely due to construction of the rail bed, adjacent roadways, power lines and access points. Construction activities along the historic railway corridor were designed to provide consistent elevation grade and drainage, thereby creating an artificially flat topography for the length of the actual rail bed. Achievement of the desired grade necessitated the excavation of cuts through the low ridges that intersected the rail corridor and the filling of depressions and other low areas along the route. Many of the topographic disturbances on adjacent properties are attributable to the construction and maintenance of U. S. Highway 41, which closely parallels the trail for over half its length. In addition, abandoned phosphate mine sites are scattered about on private lands along the old railroad route, creating unnaturally deep scars and pits. The original topography and natural communities along the trail are probably most closely represented where the trail passes Fort Cooper State Park or through the Withlacoochee State Forest Croom Tract.





WITHLACOOCHEE STATE TRAIL  
Management Zones



This graphical representation is provided for informational purposes and should not be considered authoritative for navigational, engineering, legal, and other uses.





## **SOILS**

Thirty specific soil types occur within the Withlacoochee State Trail corridor (Hyde et al. 1977, Pilny et al. 1988). See the appendix for a complete list and descriptions of these soils. The majority of these soils are typical of sand ridges, although soils that are characteristic of poorly drained areas also occur within the trail corridor in Hernando and Pasco Counties. The artificial berm that supports the trail is composed of soils from adjacent ditches and borrow pits. Excavation and fill activities associated with the construction of this berm have permanently altered or destroyed the natural soil profile in and near the trail.

Erosion control is the primary management concern for soils along the Withlacoochee Trail. The steep slopes associated with the elevated rail bed are subject to occasional erosion, especially where vegetative cover is lacking. Management activities will follow generally accepted best management practices to minimize or prevent soil erosion and conserve soil and water resources on site.

## **HYDROLOGY**

Withlacoochee State Trail lies entirely within the Withlacoochee River drainage basin. Several large water bodies exist near or partially within the trail corridor, including the Tsala-Apopka Chain of Lakes, Connell Lake, and Bradley Lake. There are also numerous small ponds, swamps and sinkholes adjacent to the trail. Rainfall runoff and groundwater inflow contribute to surface water inputs in the region (Jones 1985).

The elevated berm and parallel ditches of the historic railbed may have altered the natural surface hydrology of wetlands adjacent to the trail. The berm can impede the natural surface water sheetflow and may impound water during times of heavy rainfall. The railbed passes through several low-lying and wetland areas, and there is a bridged crossing at Lake Henderson.

The trail has culverts and bridges that are designed to facilitate unimpeded surface water flow from one side of the berm to the other. Nonetheless, the effectiveness of these water control structures in maintaining the natural hydroperiod of adjacent wetlands has not yet been determined. The parallel ditches associated with the berm provide drainage for the railway infrastructure. However, they may also channelize water in times of high flow, further altering natural drainage patterns.

The most significant hydrological features along the Withlacoochee State Trail are the river floodplain lakes associated with the Withlacoochee River. Below are hydrological assessment actions recommended for trail.

### **Assessment of Needs**

#### **Objective: Conduct/obtain an assessment of the trail's hydrological restoration needs.**

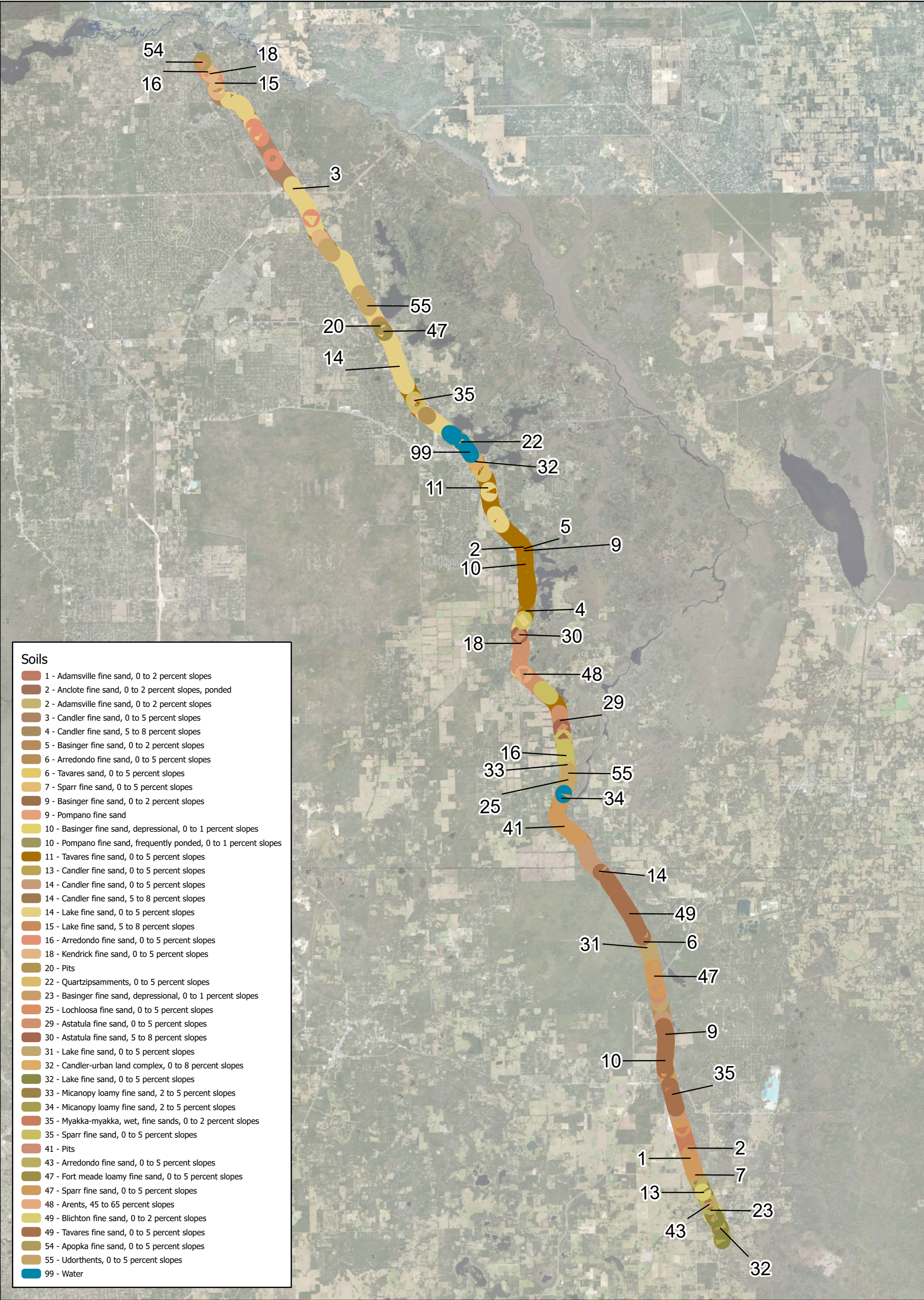
##### *Actions:*

- Cooperate and seek guidance from state and federal agencies engaged in hydrological research and monitoring programs within wetlands associated with the trail corridor.
- Provide timely response to any significant water quantity/quality issue within wetlands associated with the trail corridor.
- If necessary, seek guidance for and mitigate any wetland issue using best management practices.

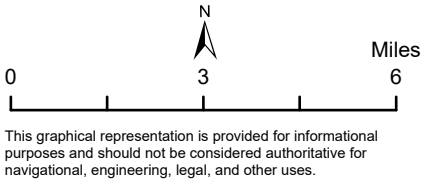
DRP will continue its tradition of close cooperation with state and federal agencies that monitor waterways intersecting the trail. DRP will rely upon agencies such as the Southwest Florida Water Management District







WITHLACOOCHEE STATE TRAIL  
Soils







(SWFWMD), U.S. Geological Survey (USGS) and DEP to keep it informed about any declines in groundwater or surface water quality or quantity that might have occurred in watersheds through which the trail passes. Restoration of the original hydrology along the trail route would likely entail removal of the rail bed and restoration of the corridor to original grade, which is not feasible. However, after a detailed assessment of natural flow rates and patterns, a project could be designed that would help mitigate the hydrologic alterations associated with the historic railroad berm and restore, to the extent feasible, the original flow patterns between wetlands. Improving the hydrologic function of the surrounding watershed should be a chief consideration in the design of any hydrological restoration project.

## **NATURAL COMMUNITIES**

Construction of the rail bed and continual maintenance of the railroad right-of-way over the years have permanently altered the natural communities that once existed within the Withlacoochee State Trail corridor. Today, except for a small amount of remnant mesic hammock, almost all lands within the trail corridor are classified as either developed or altered landcover type. Consequently, this plan does not include a map of natural communities. However, the trail corridor does pass through some natural landscapes that have managed to persist outside of trail corridor boundaries. These landscapes contain six distinct natural communities, all of which have experienced varying degrees of disturbance from both public and private use.

Rather than the standard desired future condition descriptions, a brief characterization of each of the six natural communities intersected by the trail corridor is provided below. However, assessments of community conditions are not provided. Applicable management measures for each natural community are generally not discussed since the trail corridor does not actually contain viable representative examples of them. A list of plants and animals occurring along the trail is contained in the appendix.

### **Mesic Hammock**

Some mesic hammock is still intact within the Withlacoochee State Trail corridor on the former Kabrich property, a 9-acre parcel south of Inverness. This rectangular fragment extends westward from the trail corridor to U.S. Highway 41. The trail intersects other patches of mesic hammock along its route, where it typically constitutes a transition zone between upland and floodplain areas. Live oak (*Quercus virginiana*) is usually the dominant tree, with cabbage palm (*Sabal palmetto*) interspersed through the understory. Other common trees may include southern magnolia (*Magnolia grandiflora*), pignut hickory (*Carya glabra*), laurel oak (*Quercus laurifolia*) and water oak (*Quercus nigra*). Some areas within this community may contain relatively few live oaks and have an open understory of sparkleberry (*Vaccinium arboreum*) and other small trees or shrubs, with saw palmetto (*Serenoa repens*) scattered about. In other areas, a live oak canopy may extend over a dense shrub layer of yaupon (*Ilex vomitoria*) and saw palmetto. Groundcover in mesic hammock is sparse and patchy, but generally consists of panicgrasses (*Panicum spp.*), switchgrass (*Panicum virgatum*), sedges and various ferns and forbs. Numerous vines and epiphytes typically occur on the live oaks, cabbage palms and sub-canopy trees.

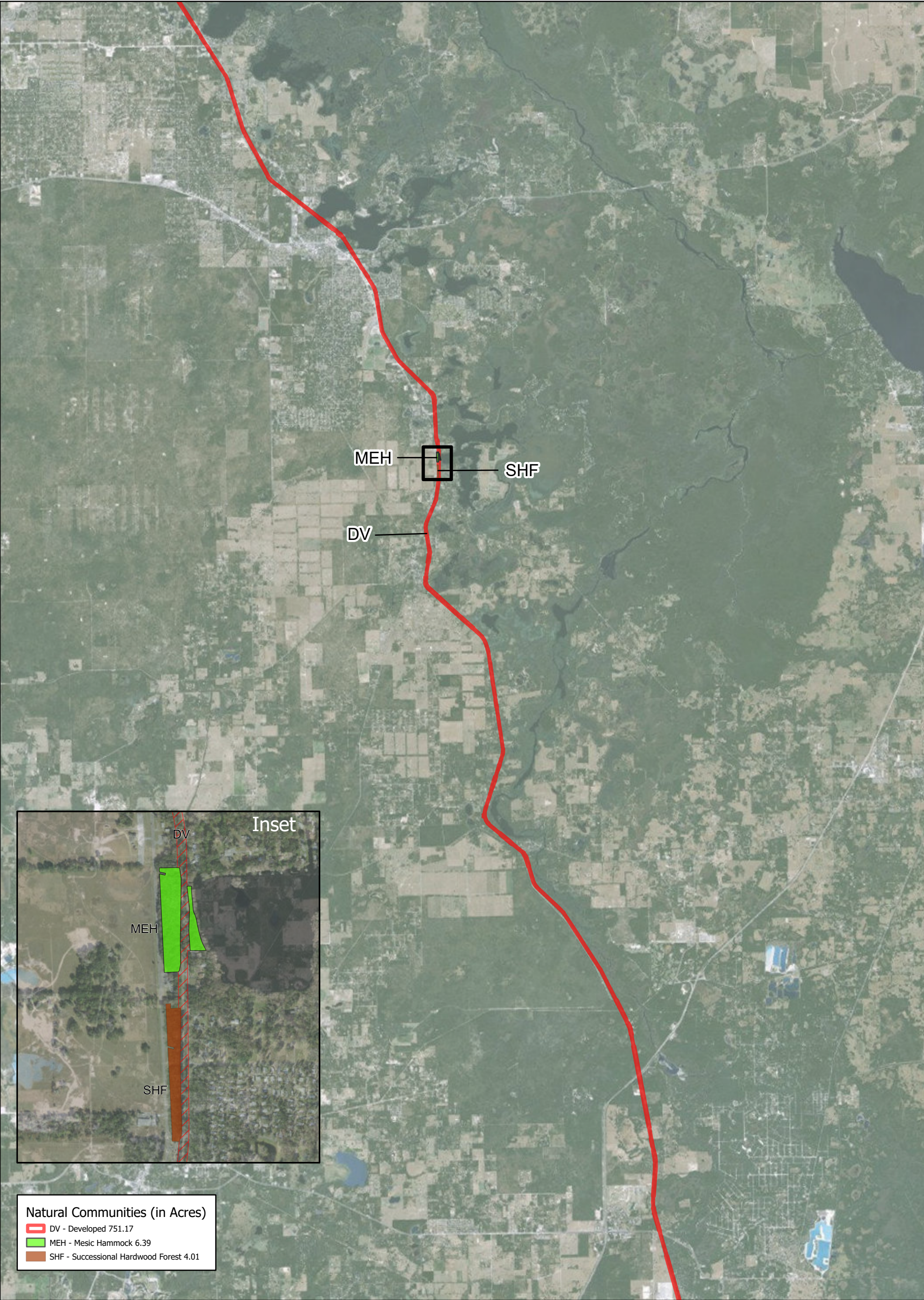
No management measures are needed for the mesic hammock on the former Kabrich property other than protection from inappropriate uses and regular treatment of invasive plants, particularly skunkvine (*Paederia foetida*).

### **Sandhill**

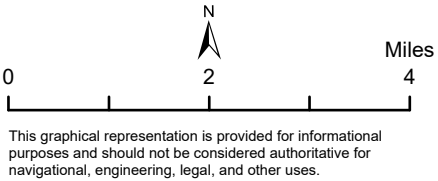
Prior to development of the rail bed and surrounding areas, sandhill was probably the dominant natural community along the Withlacoochee State Trail corridor. Portions of the trail corridor still contain narrow slivers of remnant sandhill, but those fragments are much too small to allow active management. Today, several scattered sandhill remnants persist on private properties along the northern half of the trail.







WITHLACOOCHEE STATE TRAIL  
Natural Communities - Existing Conditions







However, the largest remaining tracts of sandhill adjoining the trail are contained within Fort Cooper State Park and the Withlacoochee State Forest/Croom Tract. The dominant tree in sandhill that is in good condition is the longleaf pine (*Pinus palustris*). There may also be scattered individual trees or clumps of on-site oak species such as turkey oak (*Quercus laevis*), sand post oak (*Quercus margaretta*) and bluejack oak (*Quercus incana*). Among the understory species may be saw palmetto, sparkleberry, deerberry (*Vaccinium stamineum*), gopher apple (*Licania michauxii*) and pricklypear (*Opuntia humifusa*). Wiregrass (*Aristida stricta* var. *beyrichiana*) is the dominant herbaceous groundcover species, but pineywoods dropseed (*Sporobolus junceus*), lopsided indiagrass (*Sorghastrum secundum*), narrowleaf silkgrass (*Pityopsis graminifolia*) and other grasses and forbs may be common as well.

While DRP does not plan to conduct prescribed fires independently within the Withlacoochee State Trail corridor, portions of the trail adjacent to public lands such as Fort Cooper State Park and the Withlacoochee State Forest/Croom Tract may occasionally receive fire when prescribed fires take place on those properties. The trail may be used as a firebreak during such fires, and vegetated areas between the trail and the public properties may be incorporated into the fires if feasible. Managers of these lands (DRP, Florida Forest Service (FFS) and the Florida Fish and Wildlife Conservation Commission (FWC)) will coordinate with trail staff when conducting prescribed fires on their respective properties in zones adjacent to the trail. Some of the prescribed fires on adjacent properties may necessitate temporary closure of portions of the trail.

#### Xeric Hammock

Scattered small patches of xeric hammock, dominated primarily by sand live oak (*Quercus geminata*), appear on some of the private lands adjacent to the trail. The occurrence of this community in those locations is likely the result of fire exclusion in what was formerly sandhill. Other species that may be common in the xeric hammock include laurel oak, sand post oak, sparkleberry, wild olive (*Osmanthus americanus*), deerberry, yaupon and saw palmetto. Herbaceous groundcover is generally absent or very sparse.

#### Alluvial Forest

This hardwood community occurs adjacent to the trail in the Withlacoochee River floodplain on ridges or slight elevations above the floodplain swamp, primarily within the Withlacoochee State Forest/Croom Tract. It is generally flooded for one to four months of the year during the growing season. Typical overstory trees may include overcup oak (*Quercus lyrata*), laurel oak, water hickory (*Carya aquatica*), American elm (*Ulmus americana*) and red maple (*Acer rubrum*). Some bald cypress (*Taxodium distichum*) may occur as well. Understory species may include swamp dogwood (*Cornus foemina*), American hornbeam (*Carpinus caroliniana*) and willow species (*Salix spp.*). The presence of groundcover plants such as netted chain fern (*Woodwardia areolata*) and other shade-tolerant herbaceous species is variable.

#### Floodplain Swamp

The trail passes through or near floodplain swamp associated with the Withlacoochee River drainage. Floodplain swamp along the Withlacoochee River is a frequently or permanently flooded community within very low areas of the floodplain, roughly parallel to alluvial forest that occupies slightly higher elevations. More frequent flooding and the dominance of cypress and gum trees are features that distinguish floodplain swamp from the similar alluvial forest. The canopy is typically closed, with bald cypress the dominant tree, but it often includes tupelo species (*Nyssa spp.*), as well as water hickory, red maple and overcup oak. Tree bases are typically buttressed. The understory and groundcover are generally sparse.

#### River Floodplain Lake

The trail directly intersects and may hydrologically impact several relatively small lakes that are hydraulically connected to the Tsala-Apopka Chain of Lakes in Citrus County. These lakes, which are best classified as river floodplain lakes, characteristically have a shallow open water zone, with or without floating or submerged aquatic plants, surrounded by basin swamp or floodplain swamp.

Although water levels may fluctuate substantially, the river floodplain lakes will generally be permanent water bodies but may dry up during extreme droughts. Water flow is generally nonexistent to very slow. Existing vegetation may include American white waterlily (*Nymphaea odorata*), American lotus (*Nelumbo lutea*), spatterdock (*Nuphar advena*), duckweed (*Lemna sp.*), coontail (*Ceratophyllum demersum*), watermilfoil (*Heterophyllum sp.*) and bladderwort (*Utricularia sp.*). Emergent plants may also occur.

#### Altered Landcover Types

Routine herbicide treatment of woody vegetation along the railroad corridor was an integral part of the maintenance regime conducted by CSX Transportation Inc. when it owned the right-of-way. That practice, in combination with land excavation and filling associated with railway berm construction, has converted nearly all of what is now the Withlacoochee State Trail corridor into a dramatically altered landscape that, for the purposes of this management plan, the entire corridor except for the Kabrich parcel is classified as developed or altered landcover type. Invasive weeds, vines, shrubs and grasses now dominate the altered areas.

#### Developed

The entire trail corridor is classified as developed, with the exception of limited areas of mesic hammock and successional hardwood forest. Included in this designation are the paved trail, its associated berm and swale system, trailhead parking areas, maintenance structures, and recreational facilities such as picnic areas. A complete list of the developed areas may be found in the *Land Use Component*.

DRP staff will regularly check developed areas for the presence of priority invasive plants and will routinely treat any invasives discovered. Other management measures will include the proper management of stormwater and the use of development guidelines that are compatible with resource management activities on adjacent public natural areas.

#### Successional Hardwood Forest

The Florida Natural Areas Inventory (FNAI) describes successional hardwood forest as a closed-canopy woodland dominated by fast-growing hardwoods such as laurel oak, water oak and sweetgum (*Liquidambar styraciflua*), often with a scattering of loblolly pines (*Pinus taeda*). These forests become established either in pyrogenic natural communities that have experienced extended periods of fire suppression or in old fields that have long been abandoned.

The most significant area of successional hardwood forest along the trail corridor is a narrow strip of land between the trail and U.S. Highway 41 just south of the Kabrich parcel. The strip likely once contained a fire-adapted natural community, but clearing for agricultural purposes radically changed the area to an old field type of landcover, which in turn eventually succeeded to hardwood forest. Laurel oaks and other invasive off-site hardwoods now form a dense canopy within the strip. There are no plans to restore this area.

## **IMPERILED SPECIES**

One imperiled plant species and one imperiled animal species have been recorded as residing within the Withlacoochee State Trail corridor. An additional 13 imperiled animal species have been identified as transients that occasionally travel along or across the trail corridor.

Sand butterfly pea (*Centrosema arenicola*) was recorded along the railroad right-of way in 1962 and 1976 (Brockwell and Hough 1999), long before conversion of the rail corridor to a state trail. It has not been observed in recent years and may be locally extirpated. No other imperiled plant species have been identified along the trail. District 2 biologists need to survey the trail route for possible remnant individuals of sand butterfly pea. Park staff should be familiar with the species and watch for possible occurrences along the trail. The gopher tortoise (*Gopherus polyphemus*) is the lone imperiled animal species that resides within the trail corridor. Edges of the old railway berm and its associated swale provide suitable open habitat for tortoises to excavate burrows and forage for food. The 13 other imperiled species recorded within the park (see the table below) are either birds that happen to fly over the trail or individual animals that utilize the corridor only for foraging or as a passageway between various natural communities adjoining the trail. Since these species are merely transients through the trail, there is no management action that applies to them other than recording their occurrences when observed. Nevertheless, DRP will strive to protect any imperiled species that happen to reside in or regularly travel along the trail corridor. Appropriate management of natural communities in public lands adjacent to the trail will benefit most of the imperiled species that use the trail for foraging or passage.

<b>Imperiled Species Inventory</b>						
<b>Common and Scientific Name</b>	<b>Imperiled Species Status</b>				<b>Management Actions</b>	<b>Monitoring Level</b>
	<b>FWC</b>	<b>USFWS</b>	<b>FDACS</b>	<b>FNAI</b>		
<b>PLANTS</b>						
Sand butterfly-pea <i>Centrosema arenicola</i>			LE	G2, S2	2, 10	Tier 1
<b>REPTILES</b>						
American alligator <i>Alligator mississippiensis</i>	FT(S/A)	T(S/A)		G5, S4	14	Tier 1
Eastern indigo snake <i>Drymarchon couperi</i>	FT	LT		G3, S3	14	Tier 1
Gopher tortoise <i>Gopherus polyphemus</i>	LT			G3, S3	2, 10	Tier 2
Florida pine snake <i>Pituophis melanoleucus mugitus</i>	SSC			G4, T3, S3	14	Tier 1
<b>BIRDS</b>						
Little blue heron <i>Egretta caerulea</i>	SSC			G5, S4	14	Tier 1

Imperiled Species Inventory						
Common and Scientific Name	Imperiled Species Status				Management Actions	Monitoring Level
	FWC	USFWS	FDACS	FNAI		
Snowy egret <i>Egretta thula</i>	SSC			G5, S3	14	Tier 1
Tricolored heron <i>Egretta tricolor</i>	SSC			G5, S4	14	Tier 1
Swallow-tailed kite <i>Elanoides forficatus</i>				G5, S2	14	Tier 1
White ibis <i>Eudocimus albus</i>	SSC			G5, S4	14	Tier 1
Limpkin <i>Aramus guarauna</i>	SSC			G5, S3	14	Tier 1
Florida sandhill crane <i>Grus canadensis pratensis</i>	ST			G5,T2 T3,S2, S3	14	Tier 1
Wood stork <i>Mycteria americana</i>	FT	LT		G4, S2	14	Tier 1
Red-cockaded woodpecker <i>Picoides borealis</i>	FE	LE		G3, S2	14	Tier 1
<b>MAMMALS</b>						
Sherman's fox squirrel <i>Sciurus niger shermani</i>	SSC			G5, T3, S3	14	Tier 1

**Management Actions:**

- |  |   |
|--|---|
| 1. Prescribed Fire                               | 8. Predator Control   |
| 2. Invasive Plant Removal                        | 9. Erosion Control  |
| 3. Population Translocation/Augmentation/Restock | 10. Protection from visitor impacts (establish buffers)/law enforcement |
| 4. Hydrological Maintenance/Restoration          | 11. Decoys (shorebirds)   |
| 5. Nest Boxes/Artificial Cavities                | 12. Vegetation planting   |
| 6. Hardwood Removal                              | 13. Outreach and Education  |
| 7. Mechanical Treatment                          | 14. Other   |

**Monitoring Level:**

- Tier 1. Non-Targeted Observation/Documentation: includes documentation of species presence through casual/passive observation during routine park activities (i.e. not conducting species-specific searches). Documentation may be in the form of Wildlife Observation Forms, or other district specific methods used to communicate observations.
- Tier 2. Targeted Presence/Absence: includes monitoring methods/activities that are specifically intended to document presence/absence of a particular species or suite of species.
- Tier 3. Population Estimate/Index: an approximation of the true population size or population index based on a widely accepted method of sampling.
- Tier 4. Population Census: A complete count of an entire population with demographic analysis, including mortality, reproduction, emigration, and immigration.
- Tier 5. Other: may include habitat assessments for a particular species or suite of species or any other specific methods used as indicators to gather information about a particular species.

## Inventory

### **Objective: Update baseline imperiled species occurrence inventory lists.**

#### *Actions:*

- Enlist the assistance of academic researchers and staff from other agencies in developing imperiled species occurrence inventory lists for the trail.

## Animal Species Monitoring

### **Objective: Monitor and document one selected imperiled animal species.**

#### *Actions:*

- Conduct at least one gopher tortoise survey (burrow count) along the trail corridor.

Informal surveys for imperiled animal species in the trail corridor have focused primarily on vertebrates. There have been no formal surveys for gopher tortoises. Consequently, there are no baseline population estimates for gopher tortoises within the corridor. Periodic burrow counts along the trail might be useful in determining whether DRP management activities are affecting resident gopher tortoises.

## Plant Species Monitoring

### **Objective: Monitor and document one selected imperiled plant species.**

#### *Actions:*

- Survey the trail corridor for possible surviving populations of sand butterfly pea.

DRP staff conducted an extensive plant survey along the Withlacoochee State Trail prior to 2002, but additional inventory would likely augment the trail's species list and might reveal hitherto unknown populations of sand butterfly pea.

## **INVASIVE SPECIES**

At least 36 invasive plant species have been recorded within the Withlacoochee State Trail corridor. To varying degrees, every zone along the length of the trail has infestations of invasive plants. A comprehensive detailed survey for Florida Invasive Species Council (FISC) Category I and Category II species along the trail should be updated to assess current threats and determine treatment priorities.

Chemical control of invasives along the Withlacoochee State Trail has occurred at irregular intervals over the past 15 years. Species previously targeted for treatment have included paper mulberry (*Broussonetia papyrifera*), camphortree (*Cinnamomum camphora*), Chinaberrytree (*Melia azederach*), Chinese tallowtree (*Sapium sebiferum*), Brazilian pepper (*Schinus terebinthifolia*), cogongrass (*Imperata cylindrica*), natalgrass (*Melinis repens*), Johnsongrass (*Sorghum halepense*), air potato (*Dioscorea bulbifera*), Japanese climbing fern (*Lygodium japonicum*), skunkvine and castorbean (*Ricinus communis*). Contract treatments of large cogongrass infestations covering a total of 259 acres took place in 2009. Additional contract herbicide treatments of cogongrass, totaling 311 acres, occurred in the fall of 2010 and spring of 2011.

The present focus of chemical control in the park is on cogongrass and skunkvine, the species that have the greatest potential to spread rapidly along the length of the trail and into adjacent natural areas. Treating infestations located near or adjacent to publicly managed natural areas is critical. Trail staff should continue to identify invasive plants along the trail, mapping infestation sites on a broad scale and entering the sites into the statewide invasive plant database maintained by DRP. Staff should survey the trail corridor biennially to update invasive plant location data. Infestations of particularly invasive species that are near or adjacent to managed natural areas such as Fort Cooper State Park and Withlacoochee State Forest should be treated with herbicides at least annually. Any mowers or other equipment used along the trail must be cleaned thoroughly before entering other public lands adjacent to the corridor, particularly Fort Cooper State Park.

Invasive Plant Species			
Species Name Scientific Name - Common Name	FISC Category	Distribution	Zone ID
<b>PLANTS</b>			
Camphor tree <i>Cinnamomum camphora</i>	I	1	WT-03
Air potato <i>Dioscorea bulbifera</i>	I	2	WT-01, WT-02, WT-03, WT-04, WT-05, WT-06, WT-07, WT-08, WT-09, WT-10
Cogongrass <i>Imperata cylindrica</i>	I	2	WT-06, WT-07, WT-08
		3	WT-01, WT-02, WT-03, WT-04, WT-05, WT-09, WT-10
Skunkvine <i>Paederia foetida</i>	I	2	WT-01, WT-02, WT-03, WT-07, WT-08
		3	WT-04, WT-05, WT-06, WT-09, WT-10
Brazilian pepper <i>Schinus terebinthifolius</i>	I	2	WT-03
Paper mulberry <i>Broussonetia papyrifera</i>	II	2	WT-06, WT-10
Chinaberrytree <i>Melia azedarach</i>	II	2	WT-10
Arrowleaf elephant's ear <i>Xanthosoma sagittifolium</i>	II	2	WT-04



**Distribution Categories:**

- 0 No current infestation: All known sites treated and no plants are currently evident.
- 1 Single plant or clump: One individual plant or one small clump of a single species.
- 2 Scattered plants or clumps: Multiple individual plants or small clumps of a single species scattered within the gross area infested.
- 3 Scattered dense patches: Dense patches of a single species scattered within the gross area infested.
- 4 Dominant cover: Multiple plants or clumps of a single species that occupy a majority of the gross area infested.
- 5 Dense monoculture: Generally, a dense stand of a single dominant species that not only occupies more than a majority of the gross area infested, but also covers or excludes other plants.
- 6 Linearly scattered: Plants or clumps of a single species generally scattered along a linear feature, such as a road, trail, property line, ditch, ridge, slough, etc. within the gross area infested.

Several invasive animal species have been recorded within the trail corridor. Most are transients rather than actual residents. Among the invasive species recorded, domestic dogs and cats, feral hogs and armadillos are the most significant threats to native wildlife and habitat. In areas where the rooting of feral hogs has caused significant damage along the trail corridor, park officials will cooperate with adjacent landowners and managers of public lands in hog control efforts.

### **Invasive Plant Treatment**

**Objective: Annually treat 4 acres of invasive plant species.**

**Actions:**

- Annually treat at least 4 infested acres of cogongrass, skunkvine and Japanese climbing fern.
- Conduct a comprehensive survey of the trail for Category I and Category II invasive plants and repeat biennially.
- Develop an invasives treatment plan that identifies the major infestation sites and prioritizes site treatments based on species composition and on danger of spread to non-infested areas of the trail.

A considerably higher number of gross acres of invasive plants will need to be surveyed and treated in order to achieve the target goal for infested acres. Top priority for treatment should be infestations within the trail corridor that are near or adjacent to other public natural areas. For maximum effectiveness, staff should treat cogongrass in the fall before the first frost and, if possible, treat skunkvine before it bears fruit and treat Japanese climbing fern before it forms spores.

### **Preventative Measures**

**Objective: Develop and implement measures to prevent the accidental introduction or further spread of invasive species.**

**Actions:**

- Develop and practice preventive measures, including protocols for inspection and decontamination of equipment, designed to limit the accidental introduction and spread.

Invasive plants often invade an area through preventable means of entry. Activities such as mowing, landscaping, trail construction and debris disposal can redistribute invasives along the trail via contaminated equipment, or worse, introduce invasives to uncontaminated natural areas outside the trail corridor. Some new infestations of invasives may be preventable by ensuring that contractors clean their equipment before performing duties in the trail corridor. The further spread of established invasives may be avoided by making sure that staff and contractors do not move equipment or

landscaping debris or soil from a contaminated site to an invasive-free area within the trail corridor or into adjacent public natural areas. Any equipment that is relocated from a contaminated area to an invasive-free area should be cleaned prior to moving.

The invasive plants of particular concern for accidental spread within the Withlacoochee State Trail corridor are cogongrass, skunkvine and Japanese climbing fern. Equipment can easily carry propagules of these species into non-infested areas and create new infestations. Whenever an infested area is mowed, the equipment used should be cleaned thoroughly before leaving that area and entering a non-infested area.

### **Invasive and Nuisance Animal Control**

#### **Objective: Implement control measures on invasive animal species.**

##### *Actions:*

- Cooperate with adjacent landowners and managers of public lands in the implementation of hog control efforts on their properties.

While DRP staff will not implement feral hog control measures within the trail corridor itself, DRP will cooperate with adjacent landowners and public lands managers in their control efforts for areas where the rooting of feral hogs has caused significant damage along the trail corridor.

### **CULTURAL RESOURCES**

#### **Prehistoric and Historic Archaeological Sites**

The Florida Master Site File (FMSF) lists 11 archaeological sites, three linear resource groups and four historic cemeteries that either occur within the trail corridor or are adjacent to the trail and have boundaries that may overlap the corridor boundaries. Four of the archaeological sites contain prehistoric components, and the remainder are from the historic era. The three linear resource groups constitute the remains of the former rail lines. A predictive model has not been completed for the park.

The Floral City Lake and the Stupid Flake sites, 8CI1010 and 8CI1013, respectively, are prehistoric ceramic sites consisting of ceramic and lithic fragments found in subsurface soils. The Floral City Lake site is located north of Floral City between the Withlacoochee State Trail and the U.S. Highway 41 right-of-way. The Stupid Flake site is located less than one-quarter mile south of the Floral City Lake site, also between the trail and U.S. Highway 41. The Floral City Lake site is much larger in area than the Stupid Flake site. However, both were found to have a low density of artifacts when sampled in 1996.

The Seaboard Coast Line Railroad Tracks (linear resource group 8CI335) is an adaptively reused, abandoned railroad bed that once belonged to the Atlantic Coastline Railroad but now consists of a 12-foot-wide paved bicycle and pedestrian trail paralleled by a natural surface trail for equestrian use. According to the FMSF record, the original rail bed was constructed in 1893 by Henry Plant to complete the Plant System's West Coast Route. That railroad became the Atlantic Coastline Railroad in 1902, the Seaboard Line in 1967, and CSX Transportation in 1980. By 1987, business had declined to the point that the line was abandoned and the crossties and rails removed. The state of Florida purchased the property in 1989 through the Rails-to-Trails program. According to site surveyors, the former rail line is not eligible for the National Register of Historic Places because of the removal of significant details (crossties, rails and tie plates) and the paving of the rail bed. Several historic railroad structures that are

still intact within the trail corridor remain unrecorded. The FMSF form for 8CI335 should be updated to include these sites.

The depot site, 8CI837, contains a scatter area and trash pit, with artifacts deposited circa 1890-1910. It is thought to be associated with a train depot. The site is located west of the Withlacoochee State Trail right-of-way near Country Club Drive in Citrus Springs. Archaeological testing in 1994 in preparation for a proposed road expansion revealed that the depot site was located in proximity to the historic railroad and contained various bottles and inkwells, as well as animal bones.

The Croom, Istachatta and Nobelton sites, 8HE289, 8HE300, and 8HE302, respectively, overlap the trail corridor and are probable sites of historic towns located around and adjacent to the former railroad and within the limits of modern towns bearing the same names. The Istachatta site, which includes building remains, graves and earthworks within its boundaries, is classified as post-Reconstruction (1880-1897). The Croom site, consisting of building remains and road segments, is considered more recent (1898-1916). The Nobelton site contains building remains from the boom period of 1921-29 and may contain human remains. Rural agriculture and residential development are currently the predominant land uses at these sites.

Four historic cemeteries are adjacent to the trail: Williams Cemetery (8CI260), Frazier Cemetery, Community Graveyard (8CI261), Dampier Cemetery (8CI333) and Rooks-Bellamy Cemetery (8CI953). At least two of these are African American cemeteries. Some of the cemeteries extended into the trail area at the time of the railroad development. Gravesites were moved away from the rail bed by the railroad company.

The boundaries of some of the FMSF sites along the trail are not well defined. Some sites described as adjacent to the trail may extend onto the trail property. The historic town sites of Rital Station/Bay City (8HE295) and Nobleton (8HE302) are both located adjacent to the historic railroad, within small modern towns bearing the same names. Other recorded sites that are near but probably do not overlap the trail include various lithic deposits, historic cemeteries, the Istachatta Mound and Fort Cooper. Boundaries of many sites need to be better defined to determine if any parts of the sites exist within the state trail property. All sites are currently in good condition. Protection from ground disturbance and looting will be necessary to keep them in that condition. Staff should take extra care when maintaining these sites.

Three recorded linear resource groups and five recorded archaeological sites within the trail corridor have been determined ineligible for the National Register of Historic Places by the State Historic Preservation Officer (SHPO). The remaining archaeological sites have not been formally evaluated for significance.

On Sept. 17, 2003, the Seaboard Coast Line Railroad Tracks site (8CI335) was determined to be ineligible for the National Register by the SHPO, who agreed with the surveyor's opinion that the removal of significant details and the application of materials inconsistent with the railroad's period of significance (placing the paved trail on the former railroad bed) adversely affected the historic integrity of the railroad. The depot site (8CI837) was determined ineligible by the SHPO on Aug. 10, 1995. The SHPO agreed with the surveyor's findings that, due to lack of building remains and the limited nature of historic deposit, there was a lack of archaeological information available to render the site eligible for the National Register. On Oct. 28, 1996, Floral City Lake (8CI1010) and Stupid Flake (8CI1013) were both determined ineligible by the SHPO, who agreed with the surveyor's opinion that there was a low research potential for both sites due to their limited artifact density and diversity.

DRP staff will continue to protect and preserve all cultural sites within the trail corridor. Archaeological sites within the trail corridor that are not yet well defined, as well as outside sites that may overlap trail boundaries, need to be delineated more clearly. Staff may know about other sites that have not yet been recorded. Any such sites should be submitted to the FMSF. Staff must ensure that appropriate archaeological surveys have been completed prior to construction activities or site alterations along the trail. Staff should attend the Division of Historical Resources' Archaeological Resource Management training when the opportunity arises.

### **Historic Structures**

Historic structures within Withlacoochee State Trail corridor include a trestle over a western lobe of Henderson Lake near Inverness, train station foundations, blockhouses, mileposts and whistle markers. The foundations of the original Trilby train station, built circa 1900, remain within the trail corridor at Trilby. In addition, remnants of the railroad yard structures such as the sand tower, water tower and coal tower are still present along the edge of the trail corridor. The Inverness train station, built in 1892, is now privately owned. Restored to near original condition, it has been moved across the railroad bed from its original location. The original foundations of the Inverness train station may still exist beneath modern structures that now occupy that space.

Blockhouses, mileposts and whistle markers, all remnants of the former railroad line, are scattered along the trail corridor. Equipment was stored in the blockhouses, train operators used the three-sided, cement mileposts as reference points, and the whistle markers signaled engineers to sound the train whistle when approaching railroad crossings. These historic features are not currently recorded in the FMSF. The park could remedy that by updating the FMSF description for linear resource group CI335 to include the locations and descriptions of all the historic structures within the Withlacoochee State Trail corridor as noted above. These structures are visible to observant trail users and contribute to the interpretive value of the trail.

In addition to these unrecorded railroad-related structures, there are recorded historic structures which are privately owned but may be encroaching onto trail property. These include Hanson Home (8CI304), 325 Washington Ave. (8CI620), 329 Washington Ave. (8CI621), Wallace Brooks Park (8CI702) and 410 N. Apopka Ave. (8CI787). It will be necessary to determine if these private structures encroach onto the trail. The National Register-listed Floral City Historic District is adjacent to the trail but is outside of the trail boundary.

The train station foundations are in poor condition, and the Henderson Lake trestle is in good condition. The conditions of the various blockhouses, mileposts and whistle markers range from fair to good.

None of the standing historic structures in the park have been formally evaluated for significance.

DRP efforts to preserve elements of the original Trilby train station, which primarily consists of remnant building foundations, will include vegetation control and protection from ground disturbing activities. DRP will also institute a preventive maintenance program for remnant railroad structures such as the blockhouses and mileposts. A combination of brochures and personal interpretation provided by volunteers and staff will help to increase public awareness of historic resources within the trail and emphasize the importance of continued preservation.

## Collections

Although the park does not currently maintain a collection, staff still should develop a Scope of Collections Statement. This document would serve to guide future collections management programs. Items should only be accepted for any future collection if they fit within the goals of the Scope of Collection and the trail's interpretive themes. To define the latter, a Statement of Interpretation needs to be developed.

Cultural Sites Listed in the Florida Master Site File					
Site Name and FMSF #	Culture/Period	Description	Significance	Condition	Treatment
8CI260 Williams Cemetery	1880 – 20th century	Historic Cemetery	NE	F	P
8CI261 Frazier Cemetery, Community Graveyard	1880 – 20th century	Historic Cemetery	NE	F	P
8CI304 Hanson Home	1926	Historic Structure	NS	NE	N/A
8CI333 Dampier Cemetery	1881	Historic Cemetery	NE	NE	P
8CI335 Seaboard Coast Line Railroad Tracks	Historic late 19th-early 20th century	Linear Resource Group	NS	F	ST
8CI620 325 Washington Avenue	C1945	Historic Structure	NE	NE	N/A
8CI621 329 Washington Avenue	C1945	Historic Structure	NE	NE	N/A
8CI702 Wallace Brooks Park	C1960	Historic Structure	NE	NE	N/A
8CI787 410 North Apopka Avenue	C1940	Historic Structure	NE	NE	N/A
8CI837 The Depot Site	Historic late 19th to early 20th century	Archaeological Site	NS	G	P
8CI853 U.S. 41 Overpass	Circa 1935	Historic Bridge	NE	F	N/A
8CI953 Rooks-Bellamy Cemetery	1880 – 20th century	Historic Cemetery	NE	NE	P
8CI970	19th and 20th century	Archaeological Site	NE	G	P

Cultural Sites Listed in the Florida Master Site File					
Site Name and FMSF #	Culture/Period	Description	Significance	Condition	Treatment
Calphos Phosphate Mine	American				
8CI971 Felicia Phosphate Mine	Prehistoric, 19th and 20th century	Archaeological Site	NE	G	P
8CI972 Seacoll Phosphate Mine I	Prehistoric, 19th and 20th century	Archaeological Site	NE	G	P
8CI1010 Floral City Lake	Prehistoric	Archaeological Site	NS	G	P
8CI1013 Stupid Flake	Prehistoric	Archaeological Site	NS	G	P
8CI1071 Late Historic Herty Cup Scatter	20th century American, 1900- present	Archaeological Site	NE	NE	P
8CI1125 Seaboard Airline Railroad	1900 to present	Linear Resource Group	NS	NE	P
8HE289 Croom	Historic 1898-1916	Archaeological Site	NE	G	P
8HE295 Rital Station	Historic 1821- present	Archaeological Site	NE	NE	P
8HE300 Istachatta	Historic 1880-1897 Post-Reconstruction	Archaeological Site Possible Human Remains	NE	G	P
8HE302 Nobelton	Boom Times, 1921-1929	Archaeological Site Possible Human remains	NE	G	P
8HE514 Florida Southern Rail Line	19th and 20th century American	Linear Resource Group	NS	P	P

**Significance:**

NRL National Register listed  
 NR National Register eligible  
 NE not evaluated  
 NS not significant

**Condition:**

G Good  
 F Fair  
 P Poor  
 NA Not accessible  
 NE Not evaluated

**Recommended Treatment:**

RS Restoration  
 RH Rehabilitation  
 ST Stabilization  
 P Preservation  
 R Removal  
 N/A Not applicable

## **Condition Assessment**

### **Objective: Assess and evaluate six of 24 recorded cultural resources.**

#### **Actions:**

- Work with the State Historic Preservation Officer (SHPO) to determine the significance of sites that have not been evaluated for the National Register.

There is no need for Historic Structures Reports during this planning period.

## **Documentation of Recorded Sites**

### **Objective: Compile reliable documentation for all recorded historic and archaeological resources.**

#### **Actions:**

- Document and submit to the FMSF any additional cultural sites found within the trail corridor.
- Update the FMSF description for linear resource group CI335 to include the locations and descriptions of all historic structures within the Withlacoochee State Trail corridor that are not currently on file in the FMSF.
- Develop and adopt a Statement of Collections that includes a description of the trail's interpretive themes.
- Cooperate with appropriate agencies to determine which historic structures not owned by the state are encroaching onto state property.

A predictive model has not been completed for the trail. All known archaeological sites are currently on record with the FMSF, but additional cultural resources along the trail such as historic structures are not yet recorded. Staff should be watchful for other unrecorded resources and promptly submit any new finds to the FMSF. Cultural resource information should be integral to the trail's interpretive plan.

## **Preservation Measures**

### **Objective: Bring recorded cultural resources into good condition.**

#### **Actions:**

- Adopt and implement a regular schedule of visitation to all cultural sites within the park to ensure their continued protection.
- Institute a monitoring and preventive maintenance program for remnant railroad structures such as the blockhouses and mileposts.

All cultural sites within the trail corridor are currently in fair or good condition, and further improvement of may not be feasible. There are no stabilization needs for the trail's cultural resources at this time. However, the trail needs to develop and implement a site inspection protocol that will help to ensure that its cultural resources remain in good condition.

## **SPECIAL MANAGEMENT CONSIDERATIONS**

### **Arthropod Control Plan**

All DRP lands are designated as “environmentally sensitive and biologically highly productive” in accordance with Ch. 388 and Ch. 388.4111 Florida Statutes. If a local mosquito control district proposes a treatment plan, the DRP works with the local mosquito control district to achieve consensus. By policy of DEP since 1987, aerial adulticiding is not allowed, but larviciding and ground adulticiding (truck spraying in public use areas) is typically allowed. The DRP does not authorize new physical alterations of marshes through ditching or water control structures.

The Withlacoochee State Trail does not have an Arthropod Control Plan. Mosquito control plans temporarily may be set aside under declared threats to public or animal health, or during a Governor’s Emergency Declaration.



## **LAND USE COMPONENT**

### **VISITATION**

The Withlacoochee State Trail spans 47 miles between the town of Dunnellon, in Citrus County, and the historic junction of Owensboro, in Pasco County. One of the first trail corridors acquired under the Rails-to-Trails program, it spans a region in which local history includes pre-Columbian human habitation, significant action in the Seminole Indian Wars of the early-to-mid-19th century, and the formation of the Atlantic Coastline Railroad in the early 20th century. Today, visitors are reminded of the historic railroad presence that parallels the trail with original cement mileposts, whistle markers and the 1892 Inverness Depot. The historic depot is the centerpiece of the downtown Inverness “Depot District,” a flagship attraction along Florida’s system of state trails.

Southern stretches of the trail parallel the unique, northward-flowing Withlacoochee River, which is accessible via several connections within the Withlacoochee State Forest. In the town of Croom, the Florida National Scenic Trail and the Withlacoochee Paddling Trail can be accessed from the Withlacoochee State Trail. Along with numerous connections to conservation lands, trail connections also allow access to the Heart of Florida Loop, the Coast-to-Coast Connector and the Marjorie Harris Carr Cross Florida Greenway. Combined, this network provides users a continuous trail corridor from the Gulf of Mexico to the Atlantic coast.

The trail travels through quaint, historic “Old Florida” towns, including Floral City and Nobleton. These hamlets offer a significant departure from the bustle of Orlando to the east and Tampa to the south, and the trail provides an outdoor getaway for west central Florida’s growing population. Along the trail, the Lake Henderson Trestle and the boardwalk at Lake Townsend Regional Park offer expansive views of large lakes and the abundant wildlife in the area. Along with the trestle, picturesque views and community events are numerous and robustly attended in the Citrus County seat of Inverness. The trail is highly regarded for its lengthy stretches through immersive forest canopy and rolling “horse country” along the Brooksville Ridge.

### **Trends**

One of the Florida State Parks system’s most visited state trails, the trail annually receives about 400,000 visitors. Over the previous decade, seasonal visitation fluctuations exhibit higher totals in the winter and spring months. There are several events, including the autumn Rails-to-Trails Annual Bike Ride, that spur upticks in visitation totals during the cooler months.

### **Economic Impact**

The Withlacoochee State Trail recorded 522,511 visitors in FY 2022/2023. By DRP estimates, the FY 2022/2023 visitors contributed \$62,896,291 in direct economic impact, the equivalent of adding 881 jobs to the local economy (FDEP 2023).

## **EXISTING FACILITIES AND INFRASTRUCTURE**

The Gulf Junction trailhead in the unincorporated community of Citrus Springs is the trail's northern terminus. Restrooms, an interpretive kiosk, 20 parking spaces, a picnic pavilion and two picnic tables are located here. A trail connector about three-quarters of a mile east of the Gulf Junction trailhead, at the eastern terminus of West Delmane Drive, allows for visitors to access the Marjorie Harris Carr Cross Florida Greenway's Dunnellon trailhead.

Further south paralleling U.S. Highway 41, the South Citrus trailhead includes 68 parking spaces, a restroom, an interpretive panel, a gazebo and a small shelter.

The bustling Inverness trailhead includes a restroom, several interpretive kiosks, a stabilized parking areas with 20 spaces and a picnic pavilion with four tables. A carport and a storage building utilized by the trail's citizen support organization (CSO) are also present in Inverness. South of Inverness, Fort Cooper State Park provides a trailhead and maintenance facility for the trail.

The Citrus County owned and managed Floral City rest stop offers visitors a permanent restroom, gazebo, interpretive kiosk and 17 paved parking spaces. The Ridge Manor trailhead, which has significantly increased in popularity in recent years, offers 50 parking spaces, a restroom, an interpretive panel, two picnic pavilions with tables and access to the Cross Seminole Trail. No structures exist at the Trilby trailhead, while the Owensboro Junction trailhead, the trail's southern terminus, has 23 parking spaces, an interpretive kiosk and a small shelter.

### **Facilities Inventory**

<i>Gulf Junction Trailhead</i>	
Stabilized Parking Area (20 spaces)	1
Restroom	1
Interpretive Kiosk	1
Picnic Pavilion (2 tables)	1
<i>South Citrus Trailhead</i>	
Stabilized Parking Area (68 spaces)	1
Gazebo	1
Shelter	1
Restroom	1
Interpretive Kiosk	1
<i>Inverness Trailhead</i>	
Stabilized Parking Area (20 spaces)	1
Restroom	1
Picnic Pavilion (4 tables)	1
Interpretive Kiosk	3
Carport	2
CSO Storage Shed	1
<i>Floral City Rest Stop</i>	
Paved Parking Area (17 spaces)	1
Interpretive Kiosk	1
Restrooms	1
Gazebo	1

<i>Croom/ Florida Trail Access Point</i>	
Grass Parking Area (30 spaces)	1
Restroom	1
<i>Ridge Manor Trailhead</i>	
Stabilized Parking Area (50 spaces)	1
Picnic Pavilion	2
Interpretive Kiosk	1
Restroom	1
<i>Owensboro Junction Trailhead</i>	
Paved Parking Area (23 spaces)	1
Interpretive Kiosk	2
Shelter	1

## **CONCEPTUAL LAND USE PLAN**

### **General Trail Needs**

**Objectives: Update trail interpretation and develop and improve infrastructure.**

#### **Actions:**

- Resurface the trail.
- Comply with the Manual on Uniform Traffic Control Devices (MUTCD).
- Install 911 emergency system.
- Provide sewer connections.
- Expand interpretation.
- Provide vegetation buffers and low-profile railings.

Regarding trail infrastructure, segments should be resurfaced where necessary to repair cracks, potholes and other damage from roots, sustained use, and weathering. Staff should routinely sever or remove encroaching trees roots to prevent the pavement from buckling and further eroding.

The MUTCD ensures uniformity of traffic control devices by setting minimum standards and providing guidance for safe and efficient transportation. All improvements or developments made to the trail should be followed with the proper MUTCD-compliant signage.

A 911 emergency system should be implemented. Installation of the system would involve the placement of decals or mile markers along the trail to identify the exact location of multiple “station numbers” assigned to the trail. The use of station numbers will enable 911 call takers to know the exact location (using geographic coordinates) of trail users in need of emergency response services. Call takers will immediately know which units to dispatch and the best way for emergency responders to reach the incident. Local law enforcement should be informed and knowledgeable about these trail markers to ensure this system is effective.

Currently, all five restrooms along the trail are connected to septic tanks that are problematic from a maintenance standpoint. Wherever feasible, connections to local municipal sewage systems should be explored and implemented.

Historical and cultural aspects of the trail should be more robustly interpreted in a planned and coordinated fashion. Trail facilities could include interpretation of the trail's setting in the surrounding natural landscape, emphasizing nearby conservation lands and natural features such as Fort Cooper State Park, the Withlacoochee State Forest and the Withlacoochee River. It should also highlight local restroom facilities available for the public.

There are numerous unauthorized vehicular paths accessing the trail. Though these makeshift trail connections provide for convenient access, they also interrupt the continuous natural viewshed and create erosion scars. To mitigate this issue, vegetated screening buffers and low-profile railings should be considered for problematic locations. Appropriate signage and cooperation with local law enforcement may also help reduce existing and future unauthorized entry points.

### **Gulf Junction Trailhead**

**Objective: Improve accessibility and trailhead aesthetics.**

**Actions:**

- Remove sidewalk.
- Install ramp.
- Restore inaccessible parking area.

To access the picnic pavilion, the sidewalk should be removed and replaced with an accessible ramp.

A parking area located on the corner of North Haitian Drive and West Magenta Drive is not available for visitor parking, as vehicular driving on the trail is prohibited. Currently, these parking spaces and the trail are approximately a combined 40 feet wide. These parking spaces connected to the southern side of the trail should be removed and restored. The pavement connected to the north of the trail, across from this lot and along the tree line and ditch, should remain, keeping approximately 20 feet in pavement.

### **South Citrus Trailhead**

**Objective: Improve parking lot, picnicking opportunities, and accessibility.**

**Actions:**

- Relocate parking spaces.
- Install pavilion and tables.
- Install ADA-compliant ramp to access the trail.
- Pave parking spaces with permeable surfaces.

The trail entrance currently connects to two accessible parking spaces. Northwest of these spaces and the trail entrance, one picnic pavilion and two tables would likely receive heavy visitor use due to the proximity of these features. These spaces should be removed for easier access to the trail and relocated in front of the restroom. To the northwest of these spaces, there are five additional parking spaces and curbs that should be relocated to the southern end of the parking loop. After these parking spaces are relocated, the picnic pavilion and tables should be installed where the grass parking spaces were.

The existing ramp that provides visitors access from the parking area to the trail is too steep for ADA requirements. To improve accessibility onto the trail from the parking area, the current ramp should be replaced with an ADA-compliant ramp.

Paved parking spaces are recommended for the entire lot. To better manage stormwater, cost-effective, durable pervious pavement should be considered.

### **Inverness Trailhead**

**Objective: Formalize and improve this trailhead's appearance.**

*Actions:*

- Consider removing the restroom.
- Pave parking areas.
- Remove shed and carports.

The restroom at this trailhead has been identified as redundant due to its location in a city park with numerous additional restroom alternatives. The restroom should be considered for removal and other nearby restroom facilities should be identified on a trail map at this trailhead.

To formalize this trailhead, the parking lot adjacent to the restroom should maximize the number of spaces possible and be fully paved. If the restroom is removed, additional parking spaces should be considered. If reconfiguring the parking lot is warranted, spatial restraints should be considered.

The main parking area surrounding the restroom is occasionally at capacity. Signage directing visitors to the overflow parking area should be considered.

The current shed and carport structures are seldom used and should be removed.

### **Ridge Manor Trailhead**

**Objective: Improve functionality and accessibility of trailhead infrastructure.**

*Actions:*

- Pave and organize parking area.
- Relocate the restroom.
- Install an ADA-compliant ramp.
- Consider replacing wooden fencing.

The parking area should be fully paved and organized with parking curbs.

To improve ingress and egress from the trail and parking area, the restroom should be relocated east of the trail and adjacent to the centrally located picnic pavilion. In conjunction with the relocation, a connecting ADA-compliant ramp should be installed.

Immediately south of the trailhead, the trail crosses U.S. Highway 98 via an impressive bridge that highlights the trail to passing motorists. South of this bridge, wooden fencing is deteriorating, and replacement should be considered, ideally with a more durable, aesthetic, and cost-effective material like vinyl or steel.

## Trilby Trailhead

**Objective: Deter improper use and potentially remove trailhead.**

**Actions:**

- Remove and discontinue use.
- Revegetate road loop.
- Secure from public access.
- Install a permanent fence.
- Remove from informational resources.

This trailhead is redundant, due to the presence of the Owensboro trailhead 2 miles to the south, and highly problematic. It should be removed, discontinued, re-naturalized and secured from public access. Illicit activities, most notably the dumping of garbage, are commonplace on this pervious roadway loop. Monitoring this area consumes park resources and staff schedules. Installation of permanent and sturdy fencing to block public access and a careful examination of the presence and visibility of the trailhead on park maps and, ideally, on other informational resources such as Google Maps, should precede removal. Revegetation efforts along the loop should commence promptly.

## Owensboro Junction Trailhead

**Objective: Formalize this trailhead.**

**Actions:**

- Install a picnic pavilion.
- Pave and organize parking spaces.

The southern terminus of the trail should be enhanced with a picnic pavilion and two tables. The parking lot in this location should be paved and organized with parking curbs. Durable pervious pavement should be considered when paving.

## Road Crossings

**Objective: Coordinate with appropriate stakeholders to increase safety features at road crossings.**

**Actions:**

- Install pedestrian hybrid beacons.

County Road 486 provides a high-visibility crosswalk with a pedestrian refuge island and a setback distance for stopping cars. To improve pedestrian safety on this busy four-lane highway, installation of a pedestrian hybrid beacon is recommended. Considering the speed limit on County Road 486 is 50 miles per hour, this traffic control device would reduce the difficulty of crossing this heavily trafficked road. DRP should consult with Citrus County and FDOT to increase safety features at this intersection. If this proposal is implemented, a pedestrian countdown signal must also be installed.

County Road 476 is also a heavily trafficked road with high-speed vehicles and a slight blind turn that hinders the view of the trail crossing ahead. Currently, the trail crossing has cross warning signs but could

be improved with a pedestrian hybrid beacon. Considering the speed limit on this road is 55 miles per hour, DRP should consult with Hernando County and FDOT to install speed limit reduction signs eastbound and westbound on County Road 476. A pedestrian hybrid beacon is also recommended to provide a highly-visible crosswalk for visitors on this high-speed road. If the pedestrian hybrid beacon is installed, a pedestrian countdown signal must also be installed.

### **OPTIMUM BOUNDARY**

Many segments of the Withlacoochee State Trail parallel U.S. Highway 41, the Withlacoochee River, numerous residential areas, and forested lands. It is situated in between the Florida Circumnavigational Saltwater Paddling Trail and the Withlacoochee Paddling Trail.

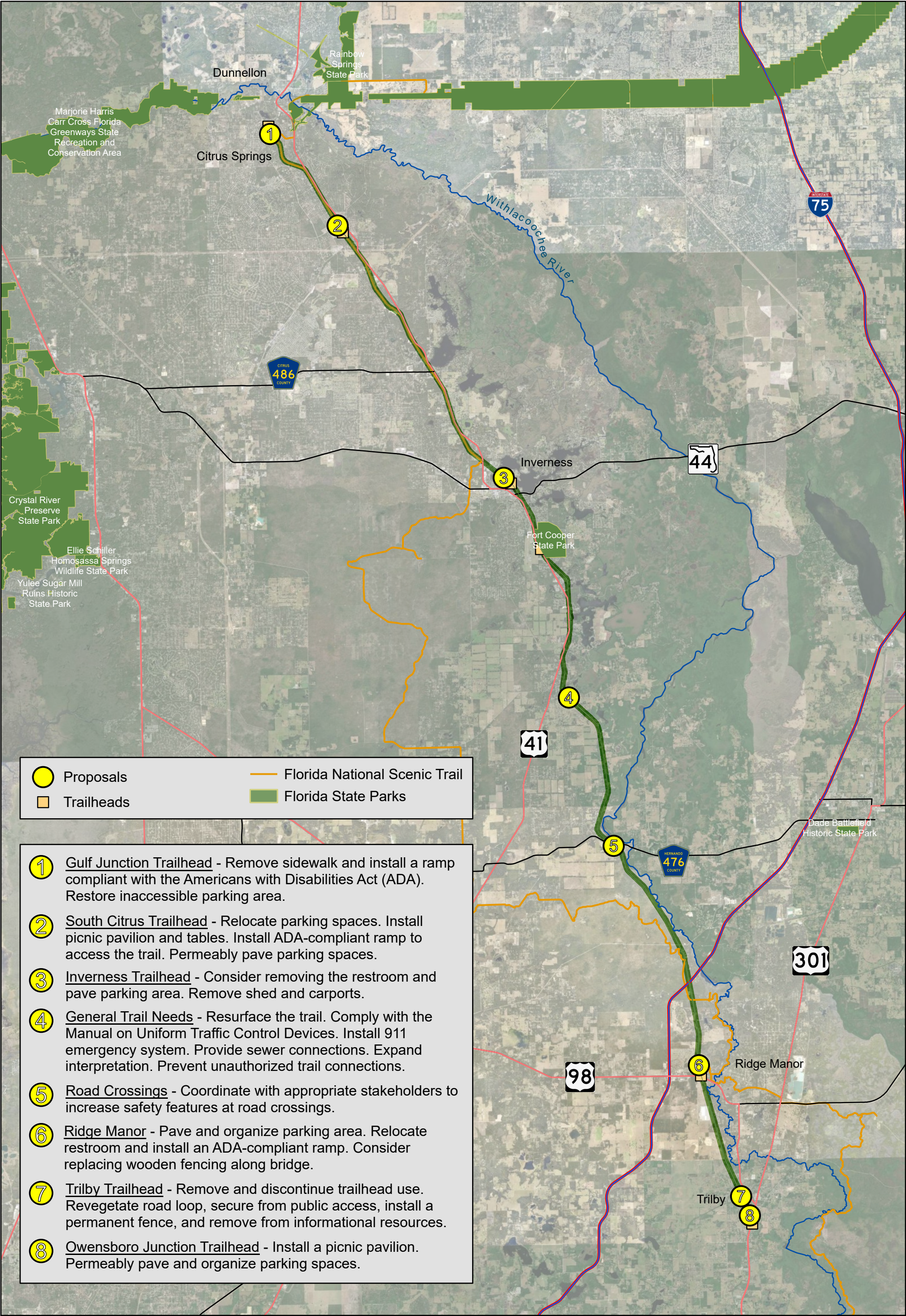
Just 7 miles south of Fort Cooper State Park, along the trail is a connection to the Florida Forever Board of Trustees Project for the Withlacoochee River Corridor. This project holds unique karst features and protects various habitats and should not be considered as an addition to the trail so as to preserve these diverse natural features. Although it is not recommended for acquisition or as an extension of the trail, if were to be acquired, it should be managed exclusively for conservation purposes and not allow public access.

To the south of the Withlacoochee State Trail, the Land Trail Priority project, the Bi-County Trail Corridor and Suncoast Trail Corridor, would provide connections to the Florida Department of Transportation's Suncoast Trail along the Gulf Coast near Tarpon Springs. In the town of Croom, there is another Land Trail Priority project that would provide an uninterrupted corridor from the Withlacoochee State Trail to the General James A. Van Fleet State Trail via the South Sumter Connector. These two trail connectors would provide for an unbroken recreation corridor to the Gulf Coast and central Florida.

Any extension of the Withlacoochee State Trail should not depend upon direct DRP management.

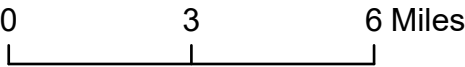






# Withlacoochee State Trail

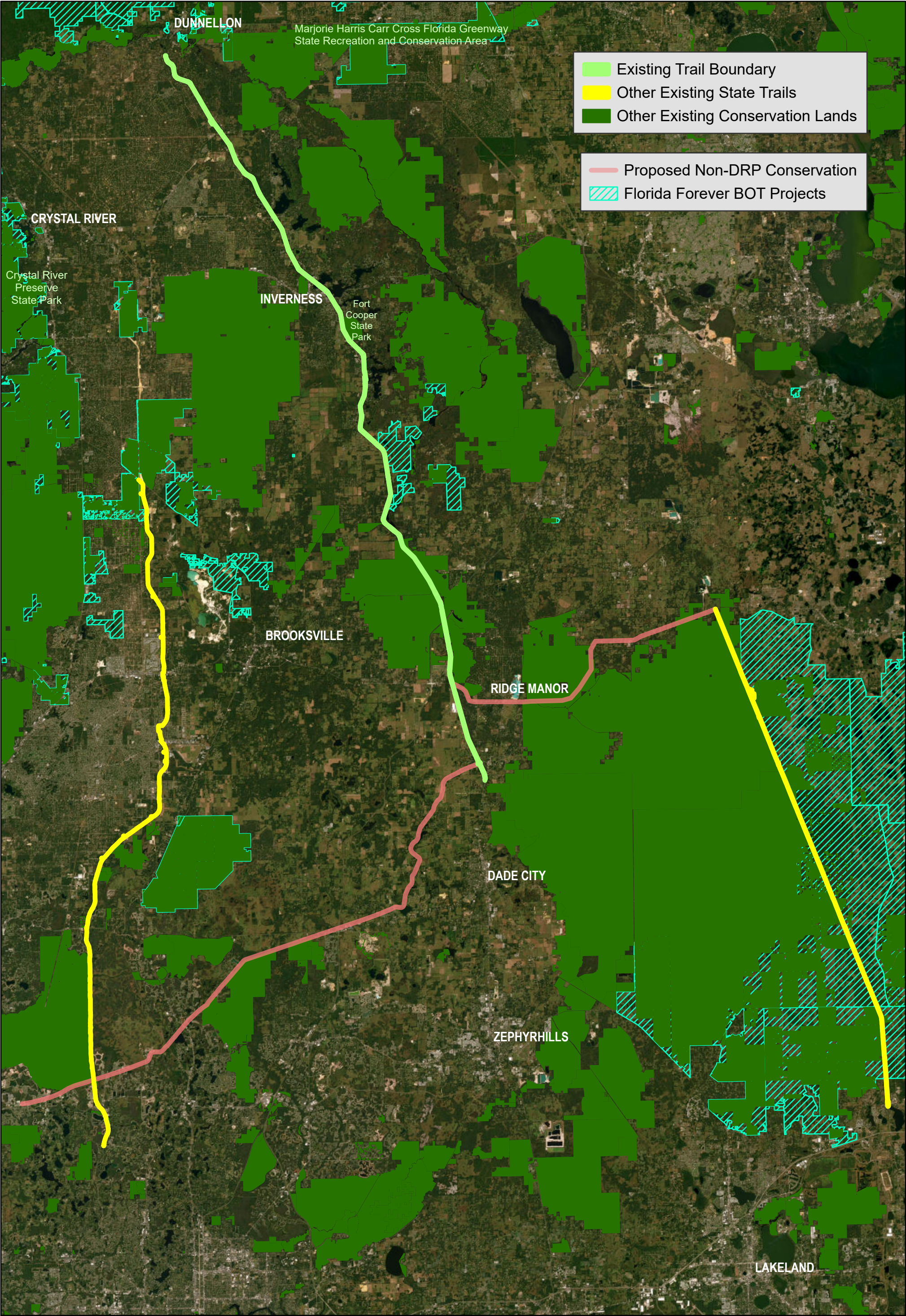
## Conceptual Land Use Plan











- Existing Trail Boundary
- Other Existing State Trails
- Other Existing Conservation Lands

- Proposed Non-DRP Conservation
- Florida Forever BOT Projects



# Withlacoochee State Trail

Optimum Boundary

