

# **Farmton Conservation Management Plan**

**Volusia County**

**Pursuant to**

**Farmton Local Plan**

**Ordinances 2009-34, 2011-10, and 2013-05**



**Miami Corporation**

**Farmton Conservation Management Plan Task Force**

**Effective upon final adoption by Volusia County Council**

**Ordinance 2013-07 Exhibit A**

## **Executive Summary**

The Farnton Conservation Management Plan (CMP) for Volusia County is required by the Farnton Local Plan (FLP) adopted by Ordinance 2011-10 which became effective on March 29, 2012. The CMP applies to approximately 32,000 acres designated GreenKey, Environmental Core Overlay and Mandatory Resource Based Open Space on the Volusia County Future Land Use Map, as well as additional acres designated in the future as Resource Based Open Space. The requirements for the CMP are set forth in the Farnton Local Plan including that it be enforced through conservation covenants and easements. The CMP was proposed by Miami Corporation and reviewed by the Farnton Task Force appointed by the County Council. The Task Force met between November 7, 2011 to September 5, 2012 and reviewed several iterations of the CMP.

At its final meeting, the Task Force adopted numerous amendments to the CMP and approved a motion to recommend it to the county council for adoption subject to minor amendments (scrivener's errors) agreed to by the county. Subsequent review of the recommended CMP led county staff to the conclusion that minor amendments to the FLP including the Future Land Use Map (FLUM) were required for consistency. Those amendments were processed as CPA13-003 and adopted as Ordinance 2013-05. This document contains the CMP, as proposed by Miami Corporation, with amendments adopted by the Task Force, and edits of scrivener's errors recommended by county staff. Each of the figures in the CMP has been modified to be consistent with the amended FLUM. Other changes to the CMP to conform to the revised FLP are referenced by a footnote and have been agreed to be county staff and Miami Corporation<sup>1</sup>.

The Farnton Tract consists of approximately 59,000 acres in Volusia and Brevard Counties owned by Miami Corporation and generally located between Interstate 95 and the St. Johns River. In 2009, Miami Corporation filed comprehensive plan amendments in Volusia and Brevard Counties which provided for future development with an emphasis on placing land into conservation prior to development. The Brevard County portion of the plan became effective in 2011 and the conservation easement and management plan has been approved. This CMP relates to the conservation areas in Volusia County.

The Farnton Local Plan requires that two-thirds of the property in Volusia County be placed into conservation and subject to the CMP. As Sustainable Development Areas are planned for development in the future, the FLP requires additional Resource Based Open Space to be brought into conservation. The FLP requires that ultimately 75% of Farnton to be subject to the CMP and permanently protected by conservation easement. On July 10, 2012, the Brevard County Commission approved a conservation management plan over approximately 9,000 acres. The addition of approximately 32,000 acres under this CMP in Volusia County means a total of approximately 41,000 acres in both counties will be placed in conservation thus meeting the initial requirements of the FLP.

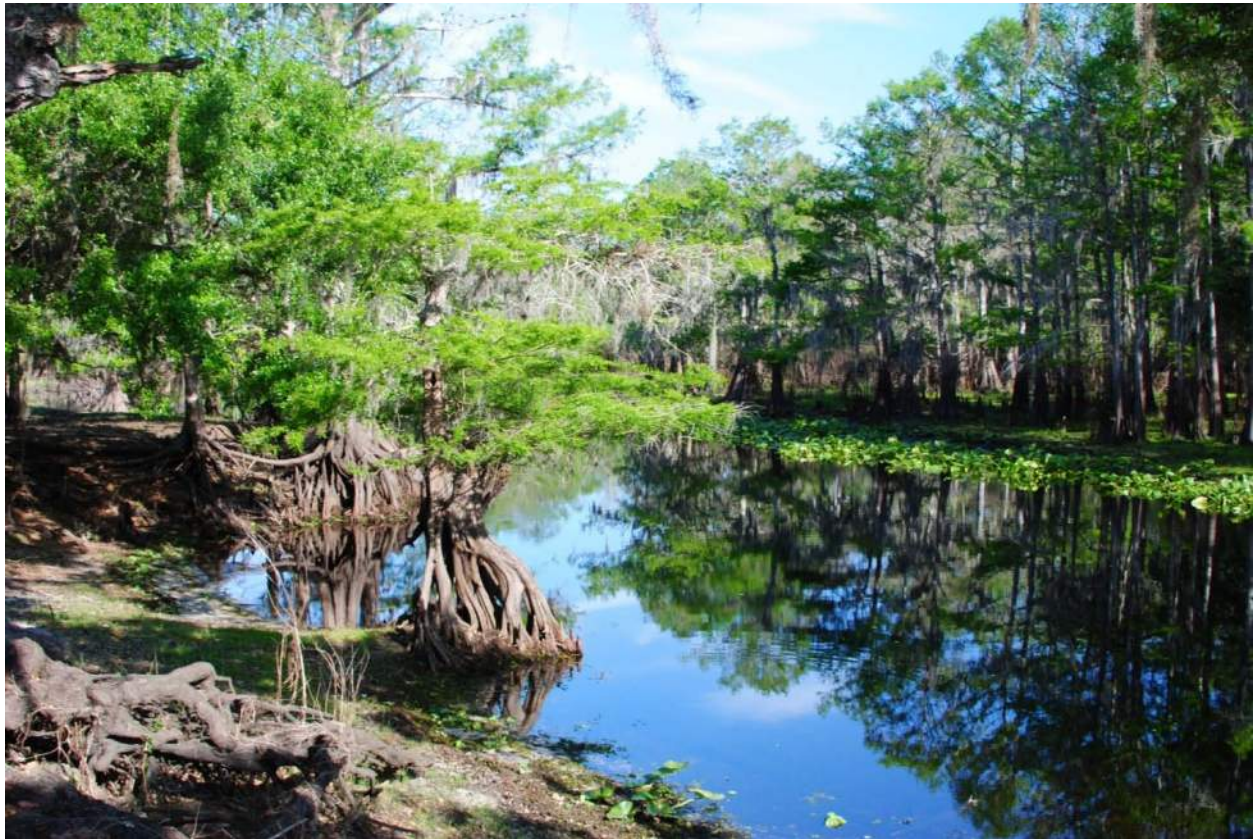
The CMP explains its relationship to the FLP and to adjoining conservation lands in Brevard County. The CMP also relates to approximately 19,000 acres of the property permitted as the

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<sup>1</sup> This language was added by staff to clarify that certain provisions of the CMP as recommended by the Task Force were amended to be consistent with the provisions of CPA 13-003, and adopted as Ordinance 2013-05.

Farnton Mitigation Bank to be managed pursuant to permit conditions. The CMP sets forth: 1) a history of the land management of the property and a catalogue of natural resources, vegetative communities, soils, and flora and fauna on site as well documented baseline conditions; 2) land management and natural resource objectives and desired future conditions for the tract; and 3) specific actions for special areas which contain exceptional natural resources.

The Farnton Local Plan was a unique opportunity for large scale-long term planning. The Conservation Management Plan establishes the policies which will govern the natural resource management of the property in perpetuity.



## **Acknowledgements**

The Farmton Conservation Management Plan for Volusia County was prepared by representatives of Miami Corporation, reviewed by Volusia County Growth Management Department staff and Legal Department, and members of the Farmton Conservation Management Plan Task Force appointed by the Volusia County Council.

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### **Reference**

This plan shall be cited as Farmton Conservation Management Plan adopted as Volusia County Ordinance 2013-07.

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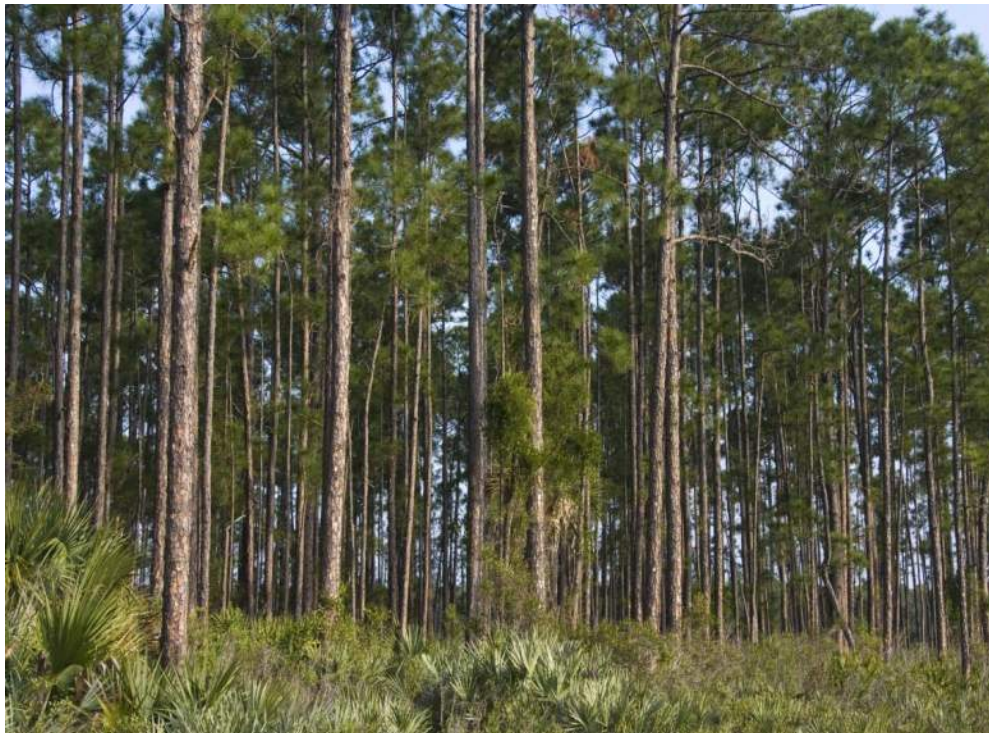
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## **List of Acronyms**

BMP	Best Management Practices
CLIP	Critical Land and Waters Identification Project
CMP	Conservation Management Plan
DACS	Florida Department of Agriculture and Consumer Services
DCA	Florida Department of Community Affairs
DEO	Florida Department of Economic Opportunity
DPDC	Deering Preserve at Deep Creek, formerly known as Deep Creek Conservation Area
DRI	Development of Regional Impact
ECRRT	East Central Regional Rail Trail
ECO	Environmental Core Overlay
EPA	US Environmental Protection Agency
FCMP	Farmton Conservation Management Plan
FFS	Florida Forest Service formerly known as Division of Forestry
FG	Farmton-GreenKey Policy reference
FLP	Farmton Local Plan
FLUCCS	Florida Land Use, Land Cover Classification System
FLUE	Future Land Use Element of Comprehensive Plan
FLUM	Future Land Use Map
FMB	Farmton Mitigation Bank
FNAI	Florida Natural Areas Inventory
FPL	Florida Power and Light
FWCC	Florida Fish and Wildlife Conservation Commission
GIS	Geographic Information System

I-95	Interstate 95 Eisenhower National Systems of Interstate and Defense Highways
LWC	Low Water Crossing
MRBOS	Mandatory Resource Based Open Space
NGVD	National Geodetic Vertical Datum
NRCS	United States Natural Resource Conservation Service
NRMA	Natural Resource Management Area
OGT	Office of Greenways and Trails
RPA	Registered Public Archaeologist
RBOS	Resource Based Open Space
SDA	Sustainable Development Area
SJRWMD	St. Johns River Water Management District
SWIM	Surface Water Improvement and Management
SMZ	Special Management Zone
SWC	Southwest Wildlife Corridor
WMA	Wildlife Management Area
USACOE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
VCHPO	Volusia County Historic Preservation Officer

## **Place Names Used in Conservation Management Plan**

**Buck Lake Marsh:** a marsh on Farmton within the South Bank adjacent to Buck Lake and Buck Lake Conservation Area.

**City of Edgewater:** a local government in Volusia County contiguous to Farmton on the north boundary.

**Cow Creek:** an intermittent stream which flows into Deep Creek.

**Crane Swamp:** a large basin swamp located in the North Bank.

**Deep Creek:** a tributary of the St. Johns River which drains most of the central part of Volusia County.

**Deering Preserve at Deep Creek (DPDC):** An area identified on the Future Land Use Map consisting of approximately 1140 acres along Deep Creek near its confluence with the St. Johns River. Most of the DPDC is within the West Bank.

**East Central Regional Rail Trail (ECRRT):** an abandoned railroad right of way which is planned as a multi-use trail.

**Farmton or Farmton Tract:** The approximately 59,000 acre tract owned by Miami Corporation and Swallowtail, LLC between I-95 and St. Johns River south of Edgewater in Volusia and Brevard Counties in East Central Florida.

**Farmton Mitigation Bank (FMB):** an area permitted by SJRWMD and ACOE as a wetlands mitigation bank made up of the North Bank, West Bank, and South Bank.

**GreenKey:** a conservation land use identified on the Future Land Use Map

**Interstate 95:** A component of the Interstate Highway System which links Florida to Maine which forms a portion of the eastern boundary of Farmton.

**Maytown Road:** a two lane road from Oak Hill to Osteen which bisects Farmton.

**Mandatory Resource Based Open Space (MRBOS):** a special area identified on the Future Land Use Map.

**Powerline Easement:** a 200 foot wide power line owned and operated by Florida Power & Light which runs bisects Farmton from northwest to southeast.

**Restoration:** the Hammock Green DRI within the City of Edgewater contiguous to the northern border of Farmton.

**Sandy Drain:** a basin swamp north of Maytown Road and west of the Powerline Easement.

Sustainable Development Area (SDA): a land use category identified on the Future Land Use Map.

Spruce Creek Headwaters: a basin swamp which serves as a headwaters of Spruce Creek which flows north ultimately to the confluence of the Halifax River and Indian River Lagoon. Most of the Spruce Creek Headwaters are within the North Bank.

St. Johns River: Florida's largest river which drains 8,000 square miles and is over 300 miles in length.

Southwest Wildlife Corridor (SWC): an area identified on the Future Land Use Map within Farmton located south of Maytown Road and west of the Powerline Easement.



# **Farmton Conservation Management Plan**

## **Volusia County**

### **1.0 Introduction**

The Farmton Tract consists of approximately 59,000 acres in Volusia and Brevard Counties generally located between Interstate 95 and the St. Johns River. Farmton (or "the property") has been owned by Miami Corporation since 1925 with approximately 47,000 acres in southeastern Volusia County. Farmton is contiguous to the City of Edgewater at the I-95\ SR 442 Interchange and includes the confluence of Deep Creek and the St. Johns River. The tract is traversed by Maytown Road which runs east-west from I-95 to Osteen and the East Central Regional Rail Trail (ECRRT) which parallels Maytown Road to the Maytown Spur and continues southeast into Brevard County (Figure 1). Various place names referred to in the CMP are depicted on Figure 2.

The property in Volusia County is currently owned by Miami Corporation or its wholly owned subsidiary Swallowtail, LLC. This Conservation Management Plan shall apply to and be enforced against all successors and assigns to the property in Volusia County and shall be incorporated by reference in the Conservation Easements and Covenants granted to Volusia County and any additional grantees to such easements and covenants.

### **1.1 Farmton Local Plan**

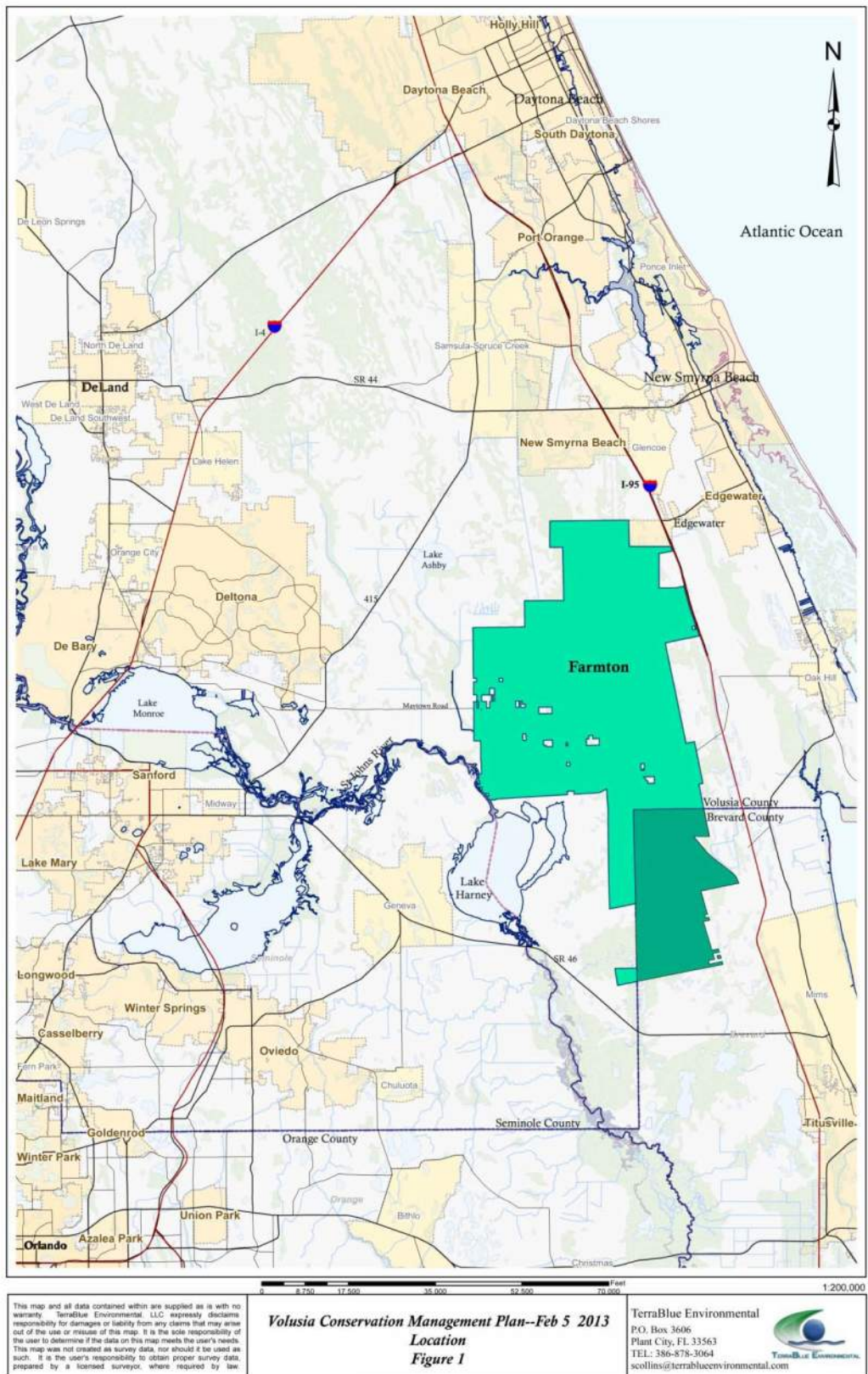
In January 2009, Miami Corporation filed applications with Volusia and Brevard Counties for a large scale comprehensive plan amendment known as the Farmton Local Plan (FLP). The Brevard County Commission adopted the plan on December 21, 2010, and it was held in compliance by the Florida Department of Community Affairs (DCA) on January 21, 2011. The Volusia County Council adopted its version of the Farmton Local Plan by Ordinance 2009-34 on February 18, 2010, which was revised to accommodate a Settlement Stipulation through a Remedial Amendment adopted as Ordinance 2011-10 on April 7, 2011. The Remedial Amendment was held in compliance by the DCA but subsequently challenged. On January 24, 2012, an Administrative Law Judge issued a proposed final order finding the Farmton Local Plan for Volusia County to be in compliance. The Executive Director of the Department of Economic Opportunity (DEO, the successor agency to DCA) issued a Final Order on March 29, 2012, which establishes that as the effective date of the FLP.

As required by the FLP, the county council appointed the Farmton Conservation Management Plan Task Force to review the required CMP and make recommendations to the council. The Task Force met from November 2011-September 2012 and recommended a CMP with provisions that required technical amendments to the FLP. On January 8, 2013, Volusia County staff and Miami Corporation filed proposed amendments to the FLP (CPA 2013-003) to conform it to the recommended CMP<sup>2</sup>. The amended FLP was adopted as Ordinance 2013-05.

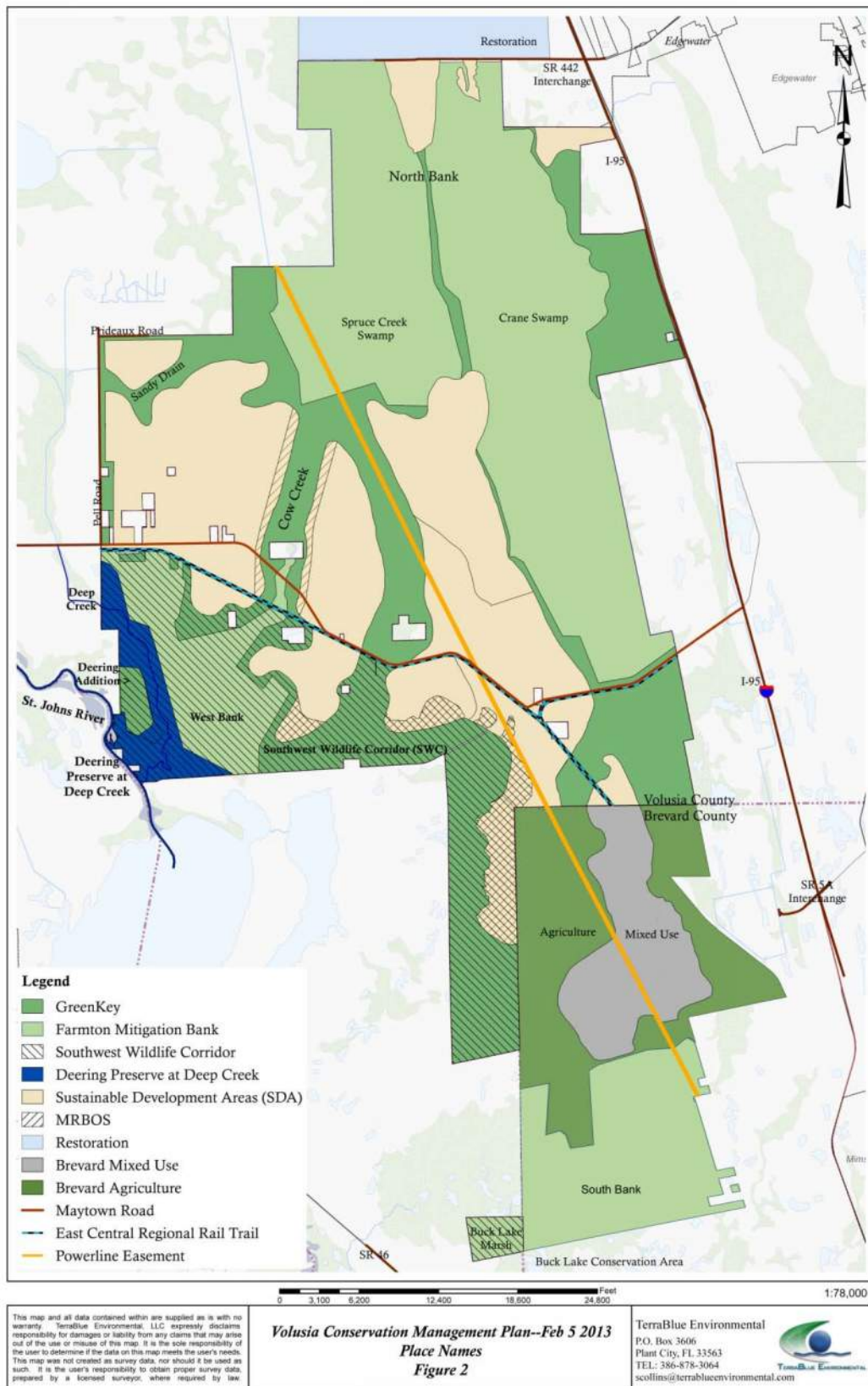
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<sup>2</sup> Ordinance 2013-05 and 2013-07 were scheduled for final adoption by county council on March 21, 2013.









The Farmton Local Plan for Volusia County applies to approximately 47,000 acres owned by Miami Corporation in Volusia County (Appendix 1). The Plan established two land uses: Sustainable Development Areas (SDA) and GreenKey.

SDAs consist of approximately 15,000 acres, and are the areas within the FLP designated for future development. Per FLP Policy FG 2.4, at least 25% of the SDA shall be designated as Resource Based Open Space (RBOS) to protect and enhance environmental systems, and provide for passive recreational use and water resource development. The FLP states that “[RBOS] shall have a public access plan for nature trails, boardwalks, conservation education programs, and passive recreational use where appropriate and shall be consistent with the conservation management plan.” FLP 2.12 lists a number of authorized uses including bicycle, pedestrian, and equestrian trails and related support facilities, utility easements and lines, solar energy facilities, environmental education facilities, and water resource development or alternative water supply.

The RBOS areas will be designated during the individual SDA Development of Regional Impact (DRI) development review process. Also within the SDAs are lands designated as Mandatory Resource Based Open Space (MRBOS). The MRBOS areas were identified on the Future Land Use Map of FLP as Figure 1-12N (In Appendix 1). MRBOS areas are different from RBOS because their location has been designated, they are not subject to the public access requirements, and are subject to a black bear management plan, and to this CMP.

GreenKey lands consist of approximately 32,000 acres designated as high quality environmental resource lands. These areas are also designated Environmental Core Overlay (ECO) lands and “shall be managed for natural resource protection and preservation of interconnected regional wildlife corridors” (FLP 2.3). FLP Policy 1.3 requires that at least 67% of the total area be designated as the GreenKey land use. The approximately 19,000 acre Farmton Mitigation Bank (FMB) in Volusia County is within GreenKey.

The designation of GreenKey lands was supported by extensive data and analysis designed to identify and protect the most significant natural resources. The plan was based upon an Ecological Evaluation Report and excerpted Ecological Evaluation Methods Report dated July 2009, and Supplemental Data and Analysis dated February 2010 with relevant portions of those reports incorporated into this plan. The plan was also the first large scale planning effort to be Peer Reviewed based on GIS data from the Critical Lands and Waters Identification Project of the Florida Fish and Wildlife Conservation Commission. As a result, the FLP identifies special areas with exceptional natural resources including Deep Creek Conservation Area and Southwest Wildlife Corridor (SWC). Figure 3 depicts GreenKey, Farmton Mitigation Bank (FMB), MRBOS, and special use areas under this FLP. Table 1 depicts approximate acreages of GreenKey, SWC, and SDA lands designated now and in the future for conservation.

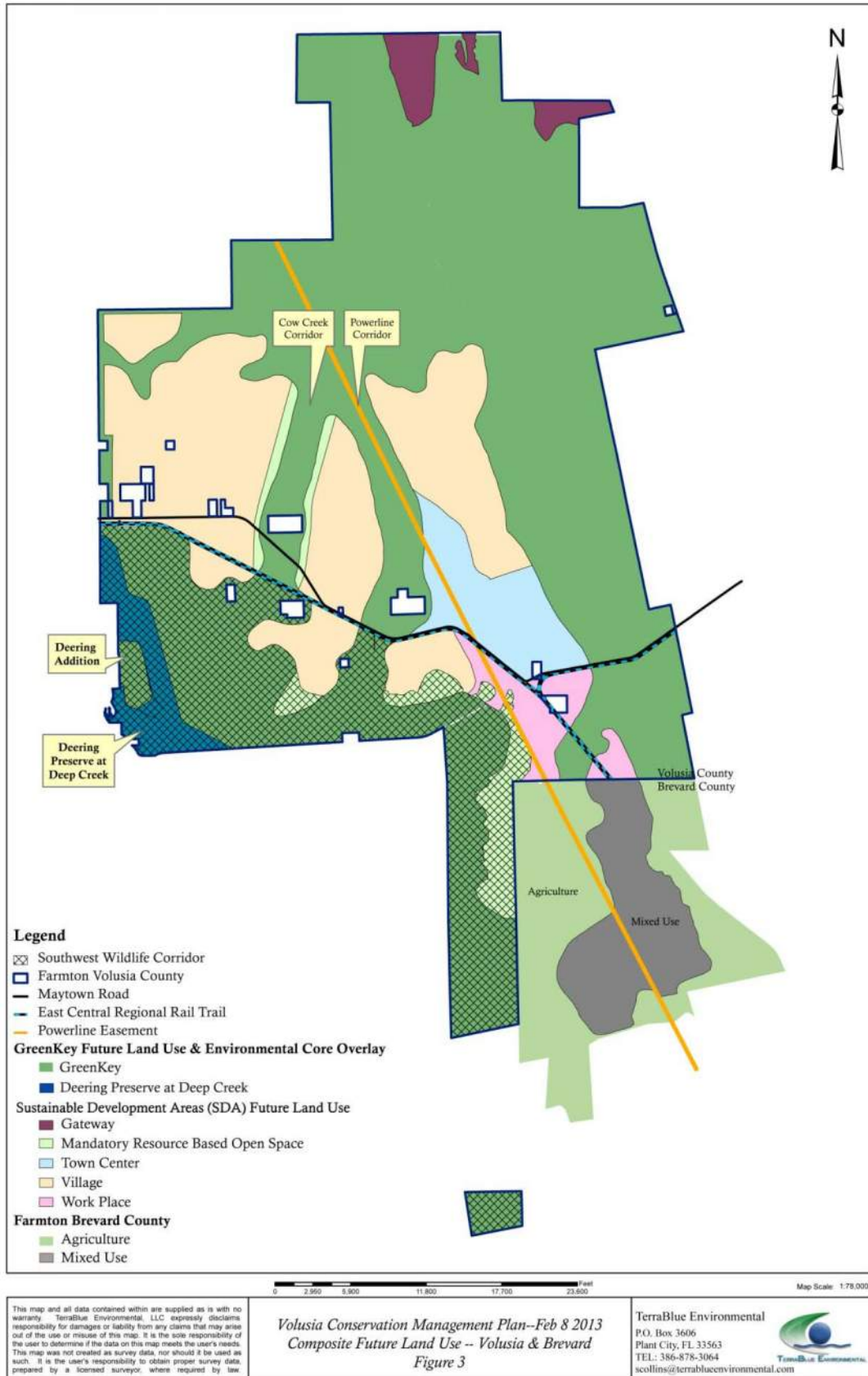
**Table 1. Farmton Conservation Management Plan Acreage**

<b>Greenkey non - SWC</b>	MRBOS		
	FMB	15147	
	Other	8380	
<b>SWC</b>	MRBOS	1169	
	FMB	Deep Creek	1027
		Non - Deep Creek	2679
		Other	113
	Other	4738	
<b>SDA</b>	MRBOS	404	
	FMB		
	RBOS	3705	
<b>Totals</b>	<b>GreenKey Acreage</b>		<b>32084</b>
	<b>Non-GreenKey Acreage</b>		<b>5278</b>
	<b>Grand</b>		<b>37407</b>

Approximate acreage is based on GIS calculations

RBOS shall be 25% of the total SDA Acreage - a minimum of 3,750

The adjoining 11,500 acres of the Farmton Tract in Brevard County are subject to a separate comprehensive plan amendment, conservation management plan, and conservation easements. The development areas within the Brevard Future Land Use Element are called Mixed Use Areas, and the lands subject to conservation easement are designated as Agriculture. The conservation management plan and conservation easements approved by the Brevard County Commission on July 10, 2012, pertain to approximately 9,000 acres. GreenKey in Volusia County, combined with Agriculture lands in Brevard County, total approximately 41,000 adjacent acres to be under multiple conservation easements, covenants, and conservation management plans. Figure 3 depicts a composite future land use map for Farmton for Volusia and Brevard Counties.



## **1.2 Conservation Management Plan**

FLP Policy 2.10 requires that all lands designated as GreenKey, RBOS, and MRBOS "shall be subject to a conservation management plan (CMP) enforced through the conservation covenants or easements." The CMP establishes a continuing duty of care to manage the property consistent with the CMP, conservation covenants and easements enforceable against Miami Corporation, Swallowtail, LLC, and their successors and assigns. GreenKey, together with MRBOS lands as designated on the Future Land Use Map, are subject to this Conservation Management Plan at this time. RBOS lands will be designated in the future at such time as the SDAs are planned. Conservation management plans for RBOS within each increment of SDA will be added to the Appendix of this CMP at such time as it is approved by the County Council. Lands within the Farmton Mitigation Bank are also within GreenKey, but are managed pursuant to separate permit conditions and conservation easement(s). There are areas within the Southwest Wildlife Corridor which is also within the FMB. Within these overlap areas more specific conservation management policies as identified in this plan shall apply. In no event shall they be interpreted to conflict with the requirements of the mitigation bank permit. In addition, a separate conservation management plan has been adopted on adjacent lands in Brevard County. Figure 3 depicts the GreenKey and MRBOS areas subject to the Conservation Management Plan.

Pursuant to FLP Policy 2.15, all conservation easements and covenants shall be subject to this CMP and enforceable by Volusia County. This CMP is effective upon formal approval by the County Council and shall be incorporated into the conservation covenants and conservation easements for the purposes of enforcement of the provisions of the CMP. For lands within the Deering Addition and lands contiguous thereto outside of the FMB, the grantee shall be Florida Audubon Society, Inc. The Grantees for the remaining conservation covenants and conservation easements are County of Volusia, St. Johns River Water Management District, and Florida Audubon Society, Inc.<sup>3</sup>

### **1.2.1 Conservation Management Plan Requirements**

The Conservation Management Plan (CMP) is a key component in the Farmton Local Plan. FLP Policy 2.11 requires the CMP to set resource protection standards and management protocols designed to ensure the long term maintenance of the ecology and restoration of GreenKey, MRBOS, and RBOS. Areas formally opened as mitigation bank are required to be managed subject to their permit conditions and conservation easements. The CMP was prepared by Miami Corporation and reviewed by the Volusia County staff and the Farmton Conservation Management Plan Task Force from November 7, 2011 to September 5, 2012. Minutes of the Task Force are included in Appendix 7. The plan takes effect upon adoption by the County Council.

The specific requirements of FLP Policy 2.11 are as follows:

The Conservation Management Plan shall establish conservation goals and objectives for diversified habitats within the Farmton Local Plan which are consistent with respective habitat requirements, ecological communities, and other natural resources and resource requirements, as

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<sup>3</sup> As required by Ordinance 2013-05.

well as conditions associated with public access and passive recreational use. Listed below are required components of the CMP with a cross reference to the provision within this CMP where it is addressed. The Conservation Management Plan shall address at a minimum, the following matters:

- a) A prioritized list of natural resource management objectives for the site and implementation methods that protect and enhance ecosystem integrity, function, and biodiversity. (CMP 6.0)
- b) Identification of special areas, including but not limited to the Deep Creek Conservation Area, Southwest Wildlife Corridor, and USFWS consultation areas. (CMP 7.1, 4.6)
- c) Identification of natural and cultural resources in need of protection and discussion on how those resources will be protected. (CMP 4.5, 7.0 et seq.)
- d) Description of natural communities and establish desired future conditions by specific habitat type. (CMP 4.4.2 ,9.8)
- e) Identification of known threatened or endangered plants and animals occurring on site and strategies and habitat management plans as identified in the best available scientific literature. (CMP 4.5.1, 4.5.2)
- f) Identification of exotic species and a plan for control/removal. (CMP 9.7)
- g) Forestry stewardship provisions consistent with Best Management Practices for silviculture, including location and logging road access management plan. (CMP 5.1.1 ,7.8)
- h) Provisions for significant water resources (such as streams, creeks, natural drainage ways, floodplains, and wetlands) protection, enhancement, and restoration and planned hydrological restoration. (CMP 8.0, et. seq.)
- i) Provisions for protection of habitat of listed or imperiled species and other indigenous species which may require special habitat protection. (CMP 7.5)
- j) Provisions for water resource development, well fields, and protection of wellfields. (CMP 9.5)
- k) Erosion control. (CMP 9.7)
- l) Fencing, appropriate public access, and development of trails, boardwalks, and interpretive facilities. (CMP 9.0, 9.1, 9.2, 9.3)
- m) Provisions for elevated roadways or wildlife crossings. (CMP 7.6)
- n) Prescribed fires specific to habitat types, Division of Forestry (now known as Florida Forest Service) criteria, and addressing flexibility associated with climatic conditions and catastrophic events. (CMP 7.4)
- o) Coordination of management plans with adjacent conservation lands and mitigation banks. (CMP 10.1)
- p) Identification of ownership and management responsibilities including financial responsibility. (CMP 10.3)
- q) Coordination of the management plans with the City of Edgewater so as to be consistent with the natural resource protection measures within the Resource Based Open Space and Conservation Areas of the Restoration Sustainable Community Development District. (CMP 10.2)
- r) Establishment of a timetable for implementation of the conservation management plan and development of a monitoring and reporting program to track the implementation. (CMP 10.5)

- s) Provisions for passive recreational use, environmental education, and public access where appropriate. (CMP 9.0)
- t) Provisions for security and maintenance. (CMP 10.4)
- u) Coordination of conservation management plans with management plan of the East Central Regional Rail Trail. (CMP 9.2)

## **2.0 Regional Overview and Natural Resource Significance**

The Farmton Local Plan was developed within a regional conservation context and lands designated as GreenKey were deemed the most significant for natural resource conservation. All lands within Farmton are subject to the Natural Resource Management Area Overlay within the Volusia Comprehensive Plan which requires a very high standard of natural resource protection. Over 11,000 acres within Farmton were designated Environmental Core Overlay (ECO) within the Volusia Comprehensive Plan which requires the highest levels of natural resource protection. As a result of the adoption of FLP all GreenKey lands were placed within the ECO Overlay. GIS modeling within the Critical Lands and Waters Identification Project of the Florida Fish and Wildlife Conservation Commission (FWCC) identified this area as a regional wildlife corridor. In 2010 the FWCC designated the area as a "strategic habitat area" for the Florida Black Bear.

### **2.1 Regional Conservation Lands**

Farmton is contiguous to several areas managed or proposed for conservation including the Volusia Conservation Corridor and Maytown Flatwoods projects approved under the Florida Forever Program. Farmton is contiguous to the Buck Lake Conservation Area managed by the St. Johns River Water Management District (SJRWMD), Wiregrass Prairie Preserve managed by Volusia County, and Scottsmoor Flatwoods Sanctuary managed by Brevard Environmentally Endangered Lands Program. Farmton is also contiguous to the Colbert Cameron Mitigation Bank. The Farmton Local Plan provides for perpetual conservation of areas contiguous to each of these public and privately managed conservation areas. The FLP requires that the CMP be coordinated with adjacent conservation plans and mitigation banks. This ensures that the areas subject to this plan will perpetually contribute to functional regionally significant wildlife corridors. The Map of adjacent conservation lands is attached as Figure 4.







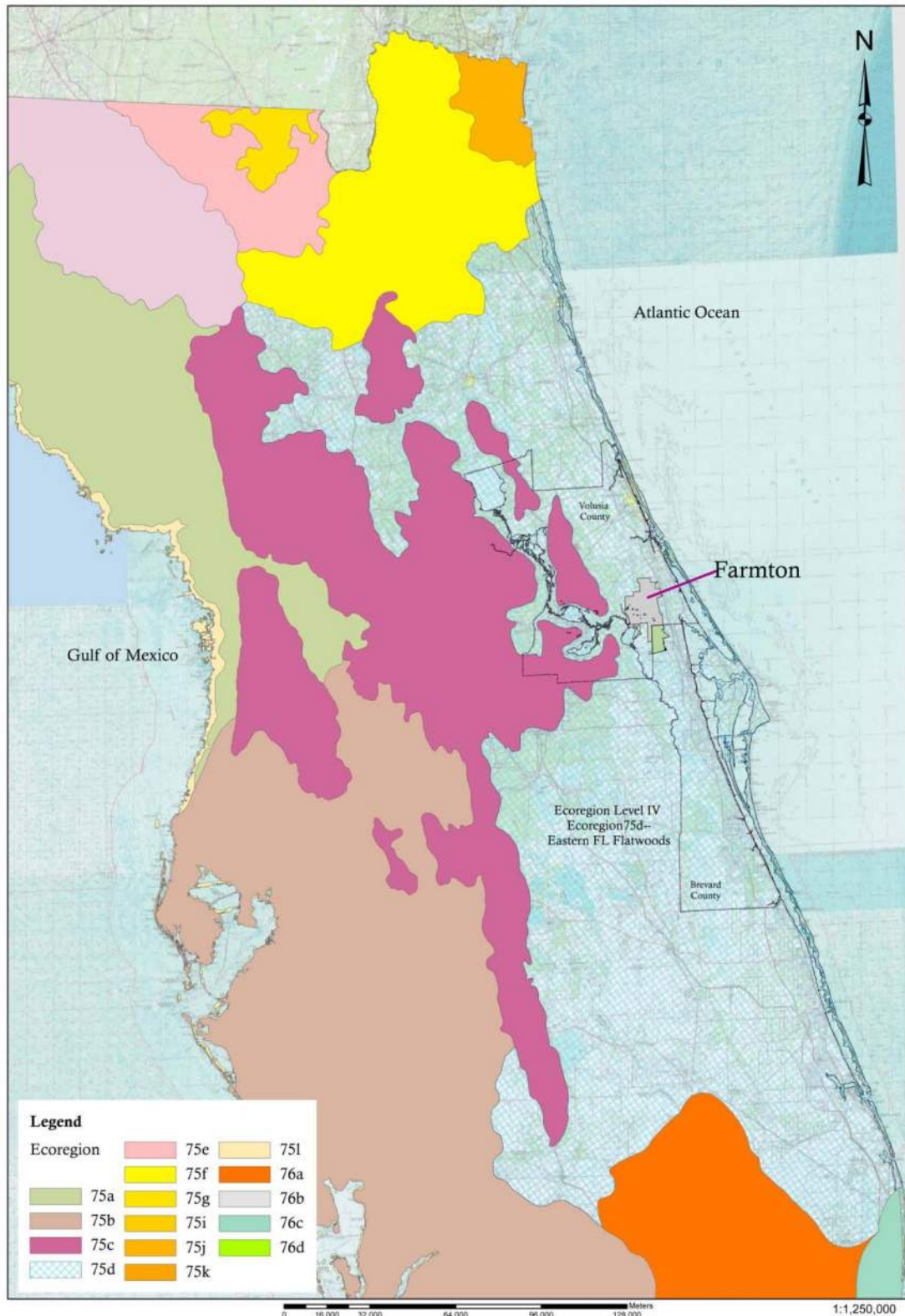
## **2.2 Ecoregion**

The Environmental Protection Agency (EPA) defines an ecoregion as an area of general similarity in ecosystem and in the type, quality, and quantity of environmental resources. They were defined to serve as a spatial framework for management and monitoring of ecosystems. Ecoregions are directly applicable to resource regulation and management by state agencies, including: 1) development of biological criteria and water quality standards; 2) establishment of management goals for non-point-source pollution; and 3) integrated ecosystem management.

North America has been divided into 15 broad, Level I ecological regions and further divided into 50 level II ecological regions that are intended to provide a more detailed description of the large ecological areas nested within the Level I regions. Level III ecological regions describe 182 smaller ecological areas nested within Level II regions. Level IV ecological regions describe additionally separated ecological areas nested within the Level III areas. The Southern Coastal Plain Level III Ecoregion is nested within the Level II Mississippi Alluvial and Southeast USA Coastal Plains Ecoregion which is nested within the Eastern Temperate Forest Level I Ecoregion. Much of Florida, including Volusia County lies within the Southern Coastal Plain Level III Ecoregion.

The Farnton Tract lies within the Southern Coastal Plain Ecoregion. This ecoregion extends from South Carolina and Georgia through much of Florida and along the Gulf coast lowlands of the Florida Panhandle, Alabama, Mississippi, and eastern Louisiana. The ecoregion is characterized as consisting of flat plains, as well as barrier islands, coastal lagoons, marshes, and swampy lowlands along the Gulf and Atlantic coasts. This ecoregion is lower in elevation, with less relief and wetter soils, than the Southeastern Plains Ecoregion to its north. Natural vegetation was once dominated by longleaf pine flatwoods and savannas. This ecoregion also consists of other communities that support slash pine flatwoods, cypress, and mixed forested canopies.

The Farnton Tract more specifically lies within the Eastern Florida Flatwoods Level IV Ecoregion. Volusia County is the southern part of this Ecoregion; the area defined by the St. Johns River, the Intracoastal Waterway, Jacksonville, and Brevard County. A map showing the ecoregions is attached as Figure 5.



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*Volusia Conservation Management Plan--Feb 5 2013*  
*Ecoregion Level IV*  
*Figure 5*

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### **3.0 Farmton Tract Historical Notes**

The Farmton area of Volusia County was opened up with the construction of the first railroad line in East Central Florida in 1885. The railroad connected steamboat landings along the St. Johns River at Enterprise with the Indian River Lagoon at Titusville and New Smyrna Beach to transport agricultural products to market. Along the railroad lines were the small towns of Maytown, Farmton, Pennichaw, and Kalamazoo. During the late 19<sup>th</sup> Century this area saw harvesting of old growth pine and cypress as well as land clearing for row crops, citrus, and pineapple. Early land uses included cattle production, naval stores, citrus groves, and vegetable crops.

### **3.1 Cultural and Archaeological Resources**

A preliminary archaeological report was performed on the Farmton Tract in 2006 by Dana Ste. Claire. The purpose of the report was to establish a predictive model for location of historical, cultural and archaeological resources. According to the Division of Historic Resources there are 11 sites recorded on the Florida Master Site Files within the vicinity of Farmton. Most of these sites are located on in-holdings in the Maytown area associated with the 19<sup>th</sup> Century railroad settlements. Two recorded archaeological sites were listed including the Deep Creek Site (8VO449) and the Hayes Site (VO7063) Deep Creek Conservation Area. The predictive model suggests that it is likely that the property contains unrecorded archaeological sites.

### **3.2 Farmton Timber History**

The Farmton Tract has been owned by Miami Corporation since 1925 and managed primarily as a tree farm. Initially, the primary uses of the land were turpentine and cattle grazing. This was followed by timber harvesting for cross ties and saw timber.

In 1947, the Hudson Pulp and Paper mill opened in Palatka which changed much of the forest products market in North Florida. The Palatka mill, together with other new mills in the Jacksonville area, began to shape the timber markets in Florida. After that, pine was primarily grown for pulp rather than saw timber. Subsequently, Miami Corporation obtained Tree Farm Certification and began managing the tract for sustainable silviculture. Improvements were made including timber roads, fire lines, and fences to better manage the resource. Initial tree planting was completed on the tract in the early 1960's and by the mid 1970's, the first timber contract was sold marking the beginning of a sustainable timber business that continues to the present day.

### **3.3 Hunting History**

Over the decades, the Farmton Tract has been actively hunted. Between the 1950's through 2000, the Farmton Tract was under lease to the Florida Game and Fresh Water Fish Commission (later Florida Fish and Wildlife Conservation Commission (FWCC)) as a Wildlife Management Area (WMA). The area was under significant hunting pressure as a public hunting area. Beginning in 2000, the tract was removed as a WMA and leased to the Miami Tract Hunt Club. The Club limits the number of hunters, employs quality game management techniques, and

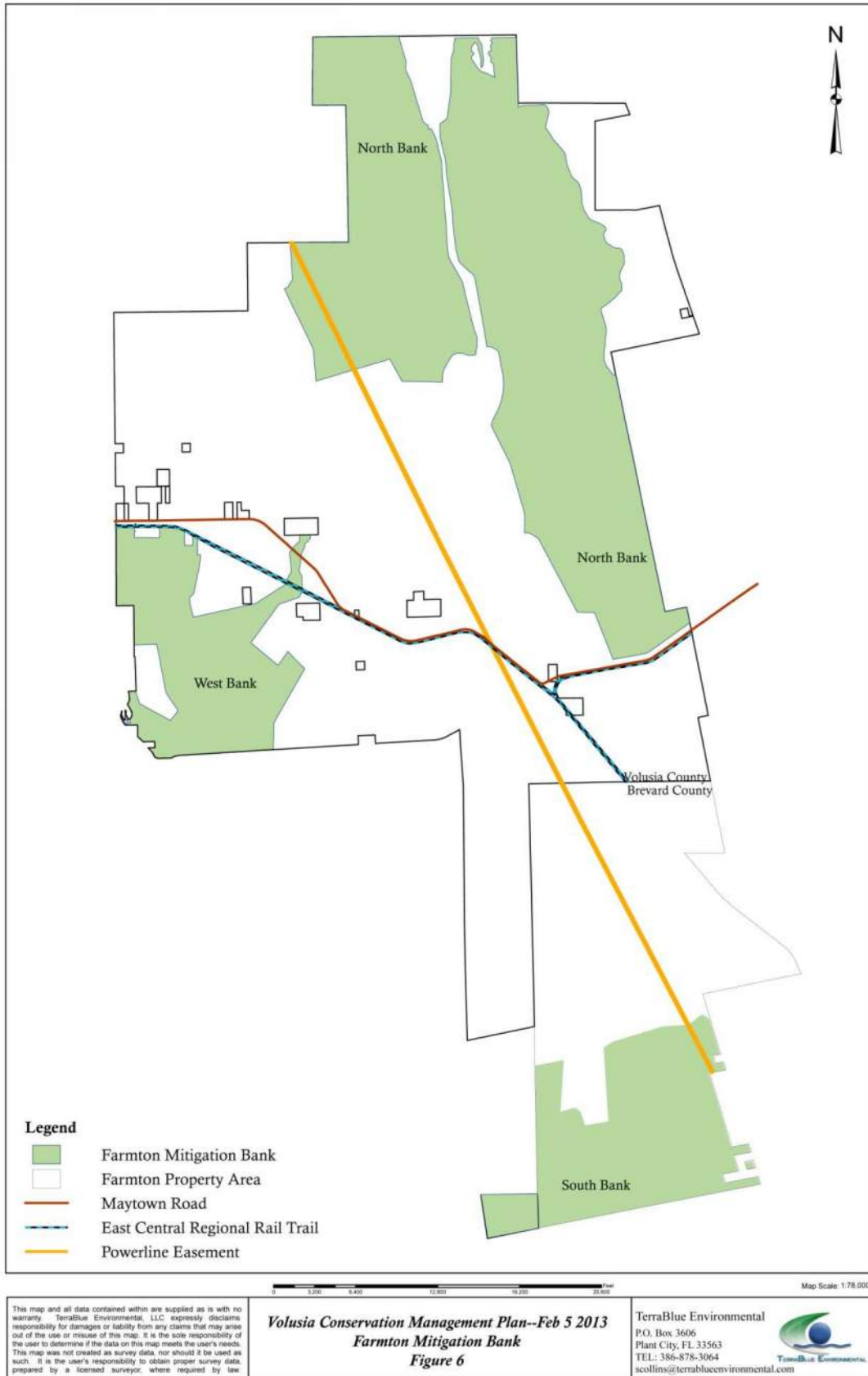
keeps accurate harvest records. A condition of the mitigation bank permit is a Wildlife Management Plan and the hunting leases are required to be in compliance with the plan.

### 3.4 Mitigation Bank

In 2000, the Farnton Mitigation Bank (FMB) received permitting from SJRWMD (permit 4-127-76185-4) and Army Corps of Engineers (USACOE) (permit 199801836), covering approximately 23,922 acres of the Farnton Tract, including 19,102 acres in Volusia County. Currently, the bank is the largest permitted mitigation bank in Florida. FMB provides protection, enhancement and restoration to regionally significant wetlands. The actions and performance standards for the mitigation bank are described within the following which are attached in the Appendix to this CMP: SJRWMD permit (Appendix 2), Mitigation Banking Instrument (Appendix 3), Mitigation Plan (Appendix 4), Forestry Stewardship Plan (Appendix 5) and Wildlife Management Plan (Appendix 6). The Mitigation Bank Permit was modified by SJRWMD in 2011 to remove any conflicts with the SDAs within the FLP. As of this date, the total FMB acreage in Volusia County is approximately 18,966. Per FLP Policy 2.11, all lands within the mitigation bank are to be managed pursuant to the permit conditions. SJRWMD and ACOE have enforcement authority over the bank permits including the specific conditions within SWC area. Two of the provisions of the Mitigation Plan, the Wildlife Management Plan, and exotic species treatment program are currently applied throughout the Farnton Tract and as a result of this CMP will be applied prospectively to GreenKey and MBROS lands.

The FMB is actually three separate sites within Farnton (Figure 6). In the CMP individual sites may be referred to as the North Bank, the West Bank, and the South Bank as depicted in Table 2. There are areas within the Southwest Wildlife Corridor which also are within the West Bank and South Bank. Within these overlap areas more specific conservation management policies, as set forth herein, shall apply. In no event shall they be interpreted to conflict with the requirements of the mitigation bank permit.

<b>Table 2 Farnton Mitigation Bank</b>	
<b>Volusia County</b>	
<b>Mitigation Bank</b>	<b>Approximate Acreage based on GIS</b>
North Bank	15,147
West Bank	3,533
South Bank	286
<b>Total Farnton Mitigation Bank</b>	<b>18,966 acres</b>



### **3.5 Fire History**

Fire is naturally occurring and has shaped Farmton over many decades. On average over the last 30 years, Farmton personnel have responded to 25 to 30 lightning fires each year that burn from 350 to 500 acres. Some of these fires have been catastrophic and include the 1982 Crane Swamp Fire, Central Florida Fires of 1998, and the Iron Horse Fire in 2011. The Crane Swamp fires raged through the muck during most of the summer of 1982. The 1998 Fires were extensive through East Central Florida including over 140,000 acres in Volusia County and nearly 70,000 acres burned in Brevard County. Approximately 15,000 acres of Farmton was burned in 1998. In February 2011, much of the same area was impacted by the Iron Horse Fire. Over 9,000 acres (mostly in Brevard County) were impacted by the fire. These fires, together with the agency fire lines put in place to contain fires, and salvage operations have altered natural communities and timber management.

There is no recent history of prescribed burning on the Farmton Tract. Early timber management techniques included prescribed fire as a tool to aid in protection of the timber resource as well as enhance the quality of native graze and wildlife food sources. Population growth, urbanization of the surrounding area, the construction of I-95 in the 1960s, liability, and the development of timber markets that have a zero tolerance for burned timber became a combined justification to not engage in prescribed burning.

### **3.6 Farmton Local Plan Adoption**

The Farmton Local Plan was adopted as a comprehensive plan text and map remedial amendment by the Volusia County Council on April 7, 2011, and found in compliance by the Florida Department of Community Affairs. The plan became effective on March 29, 2012, upon the issuance of a final agency order by the Florida Department of Economic Opportunity (the successor agency to DCA). On January 8, 2013, the county filed an amendment to the FLP and FLUM to implement recommended changes in the CMP which was adopted as Ordinance 2013-05<sup>4</sup>.

The adjoining 11,500 acres of the Farmton Tract in Brevard County are subject to a comprehensive plan amendment, conservation management plan, and conservation easements which are similar to the Farmton Local Plan for Volusia County. The Farmton Local Plan for Brevard County was adopted by Ordinance 10-27 on December 21, 2010 and found in compliance by the Florida Department of Community Affairs. The Conservation Management Plan and Conservation Easements were approved by the County Commission on July 10, 2012.

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<sup>4</sup> CPA 13-0003 scheduled for adoption on March 21, 2013.

## **4.0 Description of Natural Resource Baseline Conditions**

This section describes the current status of hydrology, geology, soils, vegetative communities, listed species and other natural resources on Farnton.

### **4.1 Hydrology**

The Farnton Tract is part of two of Florida's major drainage basins: the St. Johns River and Indian River Lagoon. Farnton adjoins a small segment of the St. Johns River at the confluence of Deep Creek and most of the tract drains into the St. Johns River. The St. Johns River is one of the most significant river systems in Florida which drains over 8,000 square miles of the Florida Peninsula over its 310 mile length. The SJRWMD divides the 310-mile St. Johns River into three hydrologic basins: Upper (southern), Middle and Lower (northern) Basins each of which has different characteristics. Farnton lies within the Upper and Middle St. Johns River Basins and the Deep Creek Sub-basin forms the boundary between the upper and middle basins. Most of Farnton within Volusia County is in the Middle Basin while all of Farnton within Brevard County is in the Upper Basin. The property drains into the St. Johns River through Deep Creek which drains a significant portion of central Volusia County. Cow Creek is an intermittent stream which drains much of Farnton and empties into Deep Creek. A small isolated part of Farnton within Volusia County drains into Buck Lake which is in the Upper Basin.

Smaller areas of Farnton drain to the coast. Interstate 95 forms the approximate western boundary of the Indian River Lagoon Basin. Culverts under the highway connect isolated parts of Farnton to the lagoon basin. The northern part of Farnton is within the North Coastal Basin with historic drainage from Spruce Creek Swamp flowing north toward Spruce Creek and the coastal estuaries.

The Farnton Tract is located above the Floridan Aquifer. The Floridan Aquifer lies within a permeable limestone unit that begins at a depth of about 90-100 feet below the surface and descends into less permeable limestone reaching depths that exceed 300 feet. The Floridan aquifer system is artesian, and is saturated completely from bottom to top. The surficial aquifer system primarily is composed of sand, shell, and silt deposits. Seasonal water level fluctuations in regional lands are noted to be about 4 feet typically.

The overall topography at Farnton is extremely flat with minor elevation variability averaging approximately 25 feet (NGVD). Elevation ranges from 5 NGVD in the creek systems to 33 NGVD in scrubby flatwoods. The property is so large and flat that surface water flow direction often is determined by individual rainstorm events. It is not uncommon for surface water flows to reverse in direction in response to such events.

A network of maintained roadside ditches has altered the onsite drainage on Farnton. Roadside ditches have been excavated on both sides of the majority of all timber roads. There are a few exceptions where where timber roads bisect the higher elevation uplands. There are a few interior swales and furrows which generally are associated with bedded pine plantations. No large interior ditches or canals drain water offsite or impact localized hydrology significantly.

## 4.2 Geology

Geologic units in Volusia County are considered part of the lower Coastal Plain. The Coastal Plain is composed of four primary sediment types: 1) Holocene sediments; 2) Shelly sediments of the Plio-Pleistocene age; 3) Undifferentiated Quaternary Sediments in the Beach/Dune Ridges of the Holocene/Pleistocene age; and 4) the Anastasia Formation of the Pleistocene age (from St. Johns County southward to Palm Beach County). The Plain is characterized by a young marine plain underlain by Tertiary-age rocks, including very fine grained shale, mudstone, and limestone beds. A sandy marine deposit of Pleistocene age occurs at the surface in most of the area. The predominant landform is a flat, alluvial plain formed by deposition of continental sediments onto a submerged, shallow continental shelf which later was exposed by sea level subsidence.

The Holocene sediments occur near the present coastline at elevations generally less than 5 feet. They include quartz sands, carbonate sands, muds, and organics. Shelly sediments of Plio-Pleistocene age are Tertiary-Quaternary fossiliferous quartz and calcareous sands and carbonates (limestones). These are mollusk-bearing sediments containing abundant and diverse fossil faunas. Clayey sands and sandy clays are present. Undifferentiated Quaternary sediments are beach ridge and dune sediments originating during the Pleistocene/Holocene age. They are, and much of Florida's surface is, siliciclastics, organics and freshwater carbonates. Those sediments found to occur in floodplains have been mapped by others as alluvial and floodplain deposits. The siliciclastics are light gray, tan, brown to black, unconsolidated to poorly consolidated, clean to clayey, silty, unfossiliferous, variably organic-bearing sands to blue green to olive green, poorly to moderately consolidated, sandy, silty clays. Anastasia Formation of the Pleistocene age extends from St. Johns County southward to Palm Beach County. The Anastasia Formation generally is recognized near the coast but extends inland as much as 20 miles in St. Lucie and Martin Counties. The Anastasia Formation is composed of interbedded sands and coquina limestone. Anastasia sediments are likely orangish brown coquina shells in a matrix of sand often cemented by sparry calcite. Sands occur as light gray to tan and orangish brown, unconsolidated to moderately indurated, unfossiliferous to very fossiliferous beds. The Anastasia Formation forms part of the surficial aquifer system.

## 4.3 Soils

Soils are classified by the U.S. Department of Agriculture Natural Resource Conservation Service (USDA-NRCS) and have been identified on Farmland by using NRCS soil databases and the Soil Survey Manual for Volusia County. More specific details regarding the distribution of these soils can be found in the Soils Classification Table (Table 3) as well as on the Soils Maps (Figure 7). Table 3 lists hydric and non-hydric soils identified by ID # from the Volusia County Soil Survey together with approximate acreages from the NRCS database. Soils listed are for non-mitigation bank GreenKey lands.

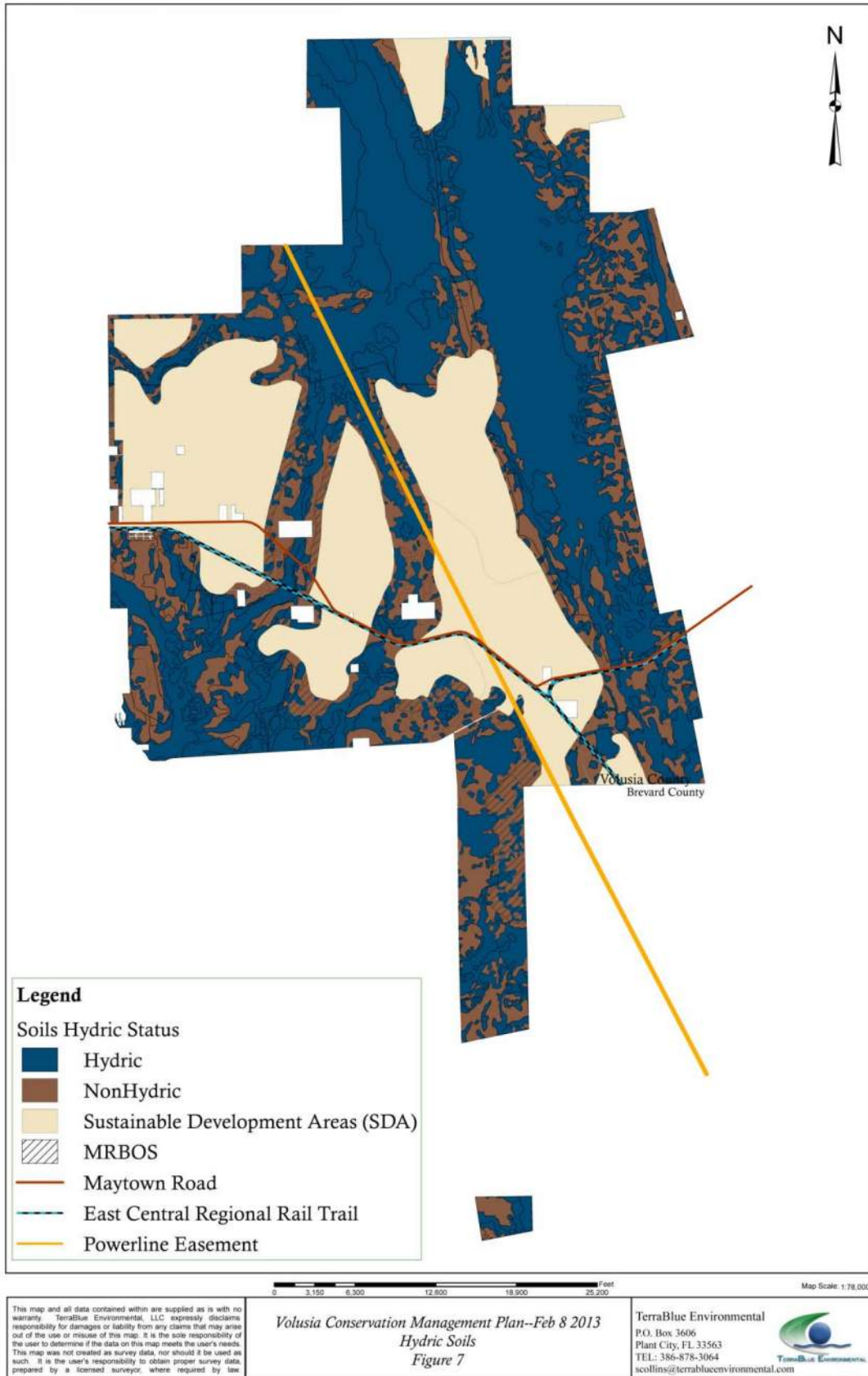


**Table 3a Non-Hydric Soils**  
Farmton Conservation Management Plan Soils --  
GreenKey Volusia Area Including MRBOS (Excluding Bank Area)

Soils Name	Soils ID#	Soils Acres
Cassia Fine Sand	13	102
Daytona Fine Sand	17	67
Eau Gallie Fine Sand	20	257
Electra Fine Sand	22	5
Farmton Fine Sand	23	33
Immokalee Fine Sand	29	258
Myakka Fine Sand	32	1411
Orsino Fine Sand	37	21
Paola Fine Sand	42	1
Pinellas Fine Sand	46	117
Pomona Fine Sand	49	930
Pompano Fine Sand	52	97
Satellite Fine Sand	27	15
Smyrna Fine Sand	60	2571
Wabasso Fine Sand	73	250
Wauchulla Fine Sand	75	130
Total Acres		6265

**Table 3b Hydric Soils**  
Volusia GreenKey Area Including MRBOS (Excluding Bank Area)

Soils Name	Soils ID#	Approx. Acres
Bassinger Fine Sand, Depressional	8	476
Chobee Fine Sandy Loam	14	15
Eau Gallie Fine Sand, Depressional	21	7
Fluvaquentes	24	20
Hontoon Mucky Peat	27	823
Immokalee Sand, Depressional	30	46
Malabar Fine Sand	31	689
Myakka Fine Sand, Depressional	33	424
Myakka-St Johns Complex	34	561
Pineda	45	294
Pomona-St.Johns Complex	51	85
Pomona Fine Sand, Depressional	50	189
Pompano - Placid Complex	53	257
Riviera Fine Sand	55	279
Samsula Muck	56	2960
Scoggin Sand	59	15
St. Johns Fine Sand	61	120
Terra Ceia Muck	65	10
Tequesta Muck	64	197
Valkaria Fine Sand	72	418
Wabasso Fine Sand, Depressional	74	9
Winder Find Sand	77	13
Open Water	99	5
Approximate Acreage Total		7912



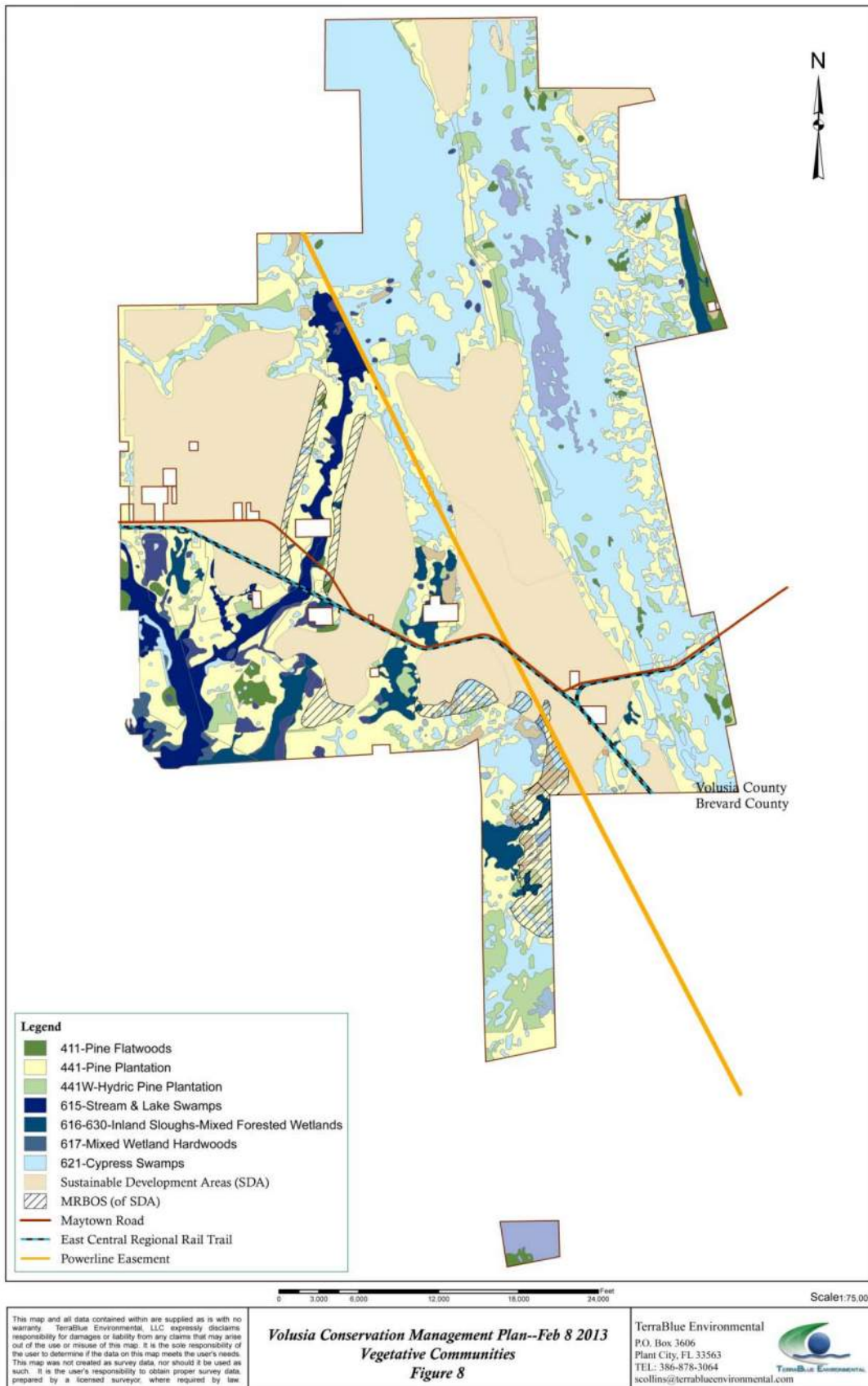
## 4.4 Natural Communities

**4.4.1 Relationship to Habitat Modeling** The Farmton Local Plan was based upon data and analysis which included an Ecological Evaluation Report which was a decision support model built upon multiple GIS data layers to rank habitats based on priority for conservation. The CMP is based upon descriptions and classifications of vegetative communities known as FLUCCS (1999 Florida Department of Transportation's *Florida Land Use, Cover, and Forms Classification System (FLUCCS) Handbook*) and FNAI (Florida Natural Areas Inventory's (FNAI) *Guide to the Natural Communities of Florida.*) Table 4 compares FLP habitat modeling designations derived from the Ecological Evaluation Report (a support document of the FLP) with FLUCCS Code and FNAI vegetative communities. Figure 8 is a map of the Vegetative Communities on Farmton. Figures 16a-16h depicts vegetative communities within each functional management unit of Farmton.

**Table 4 Descriptions of Vegetative Communities**

**Comparison of FLUCCS Codes and FNAI**

<b>Vegetative Communities</b>	<b>FLUCCS Code</b>	<b>FLP Habitat</b>	<b>Applicable FNAI Classification</b>
Stream & Lake Swamps	615	D	Bottomland Forest, Floodplain Swamp, Alluvial Forest
Cypress Swamp	621	A, E, J, O	Basin Swamp, Dome Swamp, and Floodplain Swamp
Mixed Forested Wetlands/Inland Ponds-Sloughs	630/616	A	Basin Swamp, Wet Flatwoods, Floodplain Forest, Dome Swamp
Mixed Wetland Hardwoods	617	I	Hydric Hammock and Floodplain Swamp
Freshwater Marsh/Wet Prairie	641/643	B, F, K	Basin-Depression Marshes, Wet Prairie, Floodplain Marsh
Hydric Pine Plantation	441W	M	Altered Pine Plantation
Upland Pine Plantation	441	N	Altered Pine Plantation
Pine Flatwoods	411	L	Scrubby-Mesic- Pine Flatwoods, Wet Flatwoods
Scrubby Flatwoods (other pines)	419	H	Scrubby Flatwoods
Temperate Hardwoods	425	I	Mesic Hammock, Xeric Hammock, Upland Mixed Forest, and Prairie Hammock



#### 4.4.2 Description of Vegetative Communities

**Stream & Lake Swamps** (FLUCCS 615) - This community also is referred to as bottomland forest or floodplain swamp. The community is found on river and creek systems, as well as extending beyond the footprint of a creek or river and into the bottomland of that riverine system. It is classified by FNAI as Riverine. Within Farmton, Cow Creek, and Deep Creek are the riverine systems with associated forested bottomland wetlands. Cow and Deep Creeks converge into the St. Johns River. Portions of Deep Creek were channelized, changing its natural bottom and slope configuration and flow velocities. The community is dominated by forested hardwood canopies which may include water oak (*Quercus nigra*), red maple (*Acer rubrum*), sweetgum (*Liquidambar styraciflua*), blackgum (*Nyssa sylvatica*), bays (*Persea* spp.), and pignut hickory (*Carya glabra*), as well as cypress (*Taxodium ascendens*), slash pine (*Pinus elliotti*), and dahoon holly (*Ilex cassine*).

**Cypress swamps** (FLUCCS 621) - This community is classified as a forested wetland and by the dominance of pond cypress (*Taxodium ascendens*) or bald cypress (*Taxodium distichum*) within the community structure. The community is classified by FNAI as basin, dome, or floodplain swamps. A cypress dome is named for its shape with older, taller trees in the center and smaller, younger trees on the perimeter. Though cypress dominates, there are other minor assemblages of canopy species which may be present, including hardwoods such as blackgum (*Nyssa sylvatica*), red maple (*Acer rubrum*), American elm (*Ulmus americana*), ash (*Fraxinus* spp.), laurel oak (*Quercus laurifolia*), and pignut hickory (*Carya glabra*), as well as slash pine (*Pinus elliotti*). They are characterized by organic soils and high water tables which allow water and nutrient flows to meander and weave adjacent ecosystems into an integrated landscape. Onsite cypress swamps typically are dominated by a canopy of cypress. Cypress swamps typically provide a diversity of vegetation in shrub and ground cover layers consisting of dahoon holly (*Ilex cassine*), gallberry (*Ilex glabra*), wax myrtle (*Myrica cerifera*), greenbriar (*Smilax auriculata*), poison ivy (*Toxicodendron radicans*), peppervine (*Ampelopsis arborea*), lizard's tail (*Saururus cernuus*), bladderwort (*Utricularia* sp.), butterwort (*Pinguicula* sp.), sawgrass (*Cladium* sp.), St. Johns wort (*Hypericum fasciculatum*), blue maidencane (*Amphicarpum muhlenbergianum*), beakrush (*Rhynchospora* sp.), maidencane (*Panicum hemitomon*), yellow-eyed grass (*Xyris* sp.), pipewort (*Eriocaulon* sp.), bog button (*Lachnocaulon* sp.), spikerush (*Eleocharis* sp.), sundew (*Drosera capillaris*), arrowhead (*Sagittaria lancifolia*), sphagnum moss (*Sphagnum* sp.), softrush (*Juncus effusus*), swamp (*Blechnum serrulatum*) and royal ferns (*Osmunda regalis*), Virginia chainfern (*Woodwardia virginica*), and cinnamon fern (*Osmunda cinnamomea*). This community is the dominate wetland community on the property.

**Mixed Forested Wetlands** (FLUCCS 630) and **Inland Ponds and Sloughs** (616) - Both Mixed Forested Wetlands and Inland Sloughs are classified as forested wetlands and classified by their mix of conifers and hardwoods. Mixed Forested Wetlands are those which do not achieve a dominance by either conifers or hardwoods. Inland Sloughs are typically those forested areas which are not associated with streams or lakes in which cypress and/or hardwood species may dominate. They are classified by FNAI as basin swamps, wet flatwoods, floodplain forest, and dome swamp. The canopies within these wetlands typically consist of black gum (*Nyssa sylvatica*), swamp bay (*Persea palustris*), loblolly bay (*Gordonia lasianthus*), cypress (*Taxodium ascendens*), sweetbay (*Magnolia virginiana*), red maple (*Acer rubrum*), laurel oak (*Quercus laurifolia*), American hornbeam (*Carpinus caroliniana*), dahoon holly (*Ilex cassine*), and water

oak (*Quercus nigra*). Shrub species typically include shiny lyonia (*Lyonia lucida*), gallberry, and wax myrtle (*Myrica cerifera*). Conifer species include slash pine (*Pinus elliotti*). The groundcover layer consists of a variety of ferns such as Virginia chain fern, swamp fern, and cinnamon fern, as well as lizard's tail, soft rushes, waterhoarhound (*Lycopus rubellus*), greenbriar vine, and poison ivy.

**Mixed Wetland Hardwoods** (FLUUCS 617) - This community is a forested wetland dominated by a wide variety and ill-defined mix of hardwood species often are identified as the hydric hammocks(FNAI). This community is characterized by a low and flat topography and relatively poorly drained hydric soils. It is further classified by a well developed hardwood and cabbage palm forest with a variable understory often dominated by cabbage palms as well as fern species. Canopy species typically include cabbage palm (*Sabal palmetto*) and a combination of live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), magnolia (*Magnolia grandiflora*), water oak (*Quercus nigra*), swamp bay (*Persea palustris*), and/or red maple (*Acer rubrum*), as well as red cedar, American elm (*Ulmus americana*), and sweetgum (*Liquidambar styraciflua*). The shrub layer consists of cabbage palm, dahoon holly, wax myrtle, cinnamon and chain ferns, highbush blueberry (*Vaccinium corymbosum*), and the groundcover consists of blue violet (*Viola sororia*), lizard's tail, bog button, yellow-eyed grass, blue flag iris (*Iris virginica*), woodsgrass (*Chasmanthium* sp.), yellow stargrass (*Hypoxis curtissii*), camphorweed (*Pluchea* sp.), sawgrass, swamp milkweed (*Asclepias perennis*), and panicum grasses.

**Freshwater Marshes** (FLUUCS 641) and **Wet prairies** (FLUUCS 643) - Marsh communities are classified by a vegetated, non-forested appearance. They typically are confined to relatively level, low-lying areas. Marsh ecosystems in general include bogs, fens, prairies, wet prairies, and wet savannas. This community is classified by FNAI as basin marshes, depression marshes and wet prairies. Marshes and wet prairies are topographically flat, have high water tables, usually have inundated soils which are organic and nutrient-laden, and include a dominance of herbaceous plants rooted in and generally emergent from shallow water. Marshes are characterized by a diversified, herbaceous vegetative composition, with essentially no canopy or shrub layers. Typically one or more species such as sawgrass, maidencane or rushes may dominate. Wet prairies are similar except that they are higher in the landscape (elevation) and distinguished by having less water and more grasses. Sawgrass (*Cladium* sp.), maidencane (*Panicum hemitomon*), soft rush (*Juncus effusus*.), and cordgrass (*Spartina bakeri*) may dominate some marshes. Other marshes may include these species but also assemblages that consist of St. Johns wort (*Hypericum fasciculatum*), bluestem (*Andropogon* sp.), pickerelweed (*Pontederia cordata*), duck potato (*Sagittaria lancifolia*), narrowfruit horned beaksedge (*Rhynchospora inundata*), soft rush (*Juncus effusus*), beakrush (*Rhynchospora* sp. ), other St. John's-wort species (*Hypericum* sp.), pipewort (*Eriocaulon* sp.), bog button (*Lachnocaulon* sp.), meadowbeauty (*Rhexia* sp.), spikerush (*Eleocharis* sp.), various sedges, Carolina aster (*Aster caroliniana*), blue violet (*Viola sororia*), blue maidencane (*Amphicarpum muhlenbergianum*), water hyssop (*Bacopa* sp.), thin paspalum (*Paspalum setaceum*), tickseed (*Coreopsis leavenworthii*), bladderwort (*Utricularia* sp. ), yellow-eyed grass (*Xyris* sp.), cordgrass (*Spartina bakeri*), smartweed, pluchea (*Pluchea odorata*), coinwort (*Centella asiatica*), redroot (*Lachnanthes caroliniana*), saltbush (*Baccharis halimifolia*), fimbry (*Fimbristylis* sp.), water hoarhound (*Lycopus rubellus*), climbing hempweed (*Mikania scandens*), cattail (*Typha* sp.), chainfern, and cinnamon fern. Wax myrtle, cypress, slash pine (*Pinus elliotti*), cabbage palm



(*Sabal palmetto*), and red cedar may fringe marsh edges. Onsite marshes and wet prairies often are embedded within swamps and pine plantations throughout the property.

**Hydric Pine Plantations** (FLUUCS 441W) - This community is classified as a pine forest which has been artificially generated by planting seedling stock or seeds. The pine stands are characterized by a dense growth of trees per acre and, if not aerially seeded, typically by a uniform appearance (pine rows). This community is classified by FNAI as an altered pine plantation community. Pine Plantations are planted pines which are characterized by a low and flat topography, and relatively poorly drained, hydric, acidic and sandy soils. Much of the hydric pine plantation on Farnton has been bedded. The hydric pine plantations may be more open canopied than upland pine plantations, with less dense slash pine canopies, and which may have minor inclusions of pond pine (*Pinus serotina*), cypress, and loblolly bay, as well as red bay (*Persea borbonia* var. *borbonia*). They may also be savannah-like with variable shrub and groundcover layers consisting of wax myrtle, highbush blueberry (*Vaccinium corymbosum*), gallberry, St. Johns wort (*Hypericum fasciculatum*), saw palmetto, maidencane, redroot, coinwort, rushes, bog buttons, broomsedge, and yellow-eyed grass. These pine plantation communities are scattered throughout the property and are generally those communities between larger swamps and the upland pine plantation communities.

**Pine Plantations—Coniferous Plantations** (FLUUCS 441) - This community is a pine forest which has been artificially generated by planting seedling stock or seeds. The pine stands are characterized by a dense growth of trees per acre and, if not aerially seeded, typically by a uniform appearance (pine rows). This community is classified by FNAI as an altered pine plantation community. These pine plantations are typically associated with nonhydric soils. Farnton's pine plantations are located in areas that were typically historic slash pine and/or longleaf pine (*Pinus palustris*) flatwoods. Pine Plantations are planted pines which are characterized by a low and flat topography, relatively poorly drained, acidic and sandy soils, and which are supported by prescribed burns. The upland pine plantations on the property are typically less open canopied than the wetland plantations, with denser slash pine canopies, and often densely vegetated shrub layers. Pine Plantations typically consist of slash pine canopies with an undergrowth of saw palmetto and gallberry, as well as a groundcover composition of broomsedge (*Andropogon virginicus*), bracken fern (*Pteridium aquilinum*), wiregrass (*Aristida stricta*), maidencane, shiny lyonia (*Lyonia lucida*), St. Peters wort (*Hypericum tetrapetalum*), ferns, shiny blueberry (*Vaccinium myrsinites*), bog buttons and spikerush. Conifer species include slash pine (*Pinus elliotti*), longleaf pine (*Pinus palustris*) and sand pine (*Pinus clausa*),. The dominating uplands within the GreenKey land use designation are the Pine Plantations

**Pine Flatwoods** (FLUUCS 411) - This community is dominated by either slash or longleaf pine, as well as pond pine. Longleaf pines originally were more common on drier sites, while slash pines were more common on less dry sites. Fire control and artificial reforestation have extended the range of slash pine and it is often the dominant species. Pine flatwoods are characterized as an open canopy forest of variably spaced pine trees. This community is classified by FNAI as scrubby, mesic or wet flatwoods. These are pine woodlands, which are characterized by a low and flat topography, relatively poorly drained, acidic and sandy soils, and supported by frequent fires. The understory is typically a mixture of saw palmetto, fetterbush, gallberry, shiny lyonia, flatwoods lyonia, tarflower (*Bejaria racemosa*), beautyberry (*Callicarpa americana*), and shiny

and highbush blueberry, wax myrtle and/or loblolly bay. Groundcover vegetation includes variable densities of wiregrass, bracken fern, pennyroyal (*Piloblephis rigida*), broomsedge, spikerush, sky-blue lupine (*Lupinus diffusus*), blackroot (*Pterocaulon pycnostachyum*), pawpaw (*Asimina reticulata*), sensitive vine (*Mimosa strigillosa*), gopher apple (*Licania michauxii*), maidencane, beakrushes, panicum grasses, St. Johns wort (*Hypericum tetrapetalum*), bottlebrush threeawn (*Aristida spiciformis*), dog fennel, goldenrod, and chalky bluestem (*Andropogon virginicus var glaucus*).

**Scrubby flatwoods (other pines) (FLUUCS 419)** - On Farmton scrubby flatwoods are small isolated areas which occur on slight sandy rises within the flatwoods. The habitats have been planted with slash pine with a dense understory comprised of primarily of scrub oaks and saw palmetto (*Serenoa repens*) due to fire suppression. Historically scrubby flatwoods have an open canopy comprised primarily with longleaf (*Pinus palustris*) and slash pine (*Pinus elliotti*). The understory is dominated by low growing sand live oak (*Quercus geminata*), myrtle oak (*Q. myrtifolia*) and Chapman's oak (*Q. chapmanii*) and palmetto, often interspersed with areas of barren white sand.

**Temperate Hardwoods (FLUUCS 425)** - This is a hammock community, classified by a well-developed hardwood forest with cabbage palm presence, and consists of a wide variety of oaks, other hardwoods such as bays, southern magnolia, and hickory, as well as cedar, holly, and cabbage palm. They are characterized by a low and flat topography and relatively poorly drained soils. Minor assemblages of pine may or may not be present. This community is classified by FNAI as mesic hammock. Canopy species typically include live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), magnolia (*Magnolia grandiflora*), red maple (*Acer rubrum*), cabbage palm (*Sabal palmetto*), red cedar, American elm (*Ulmus americana*), and sweetgum (*Liquidambar styraciflua*). A variable understory is often dominated by cabbage palms, as well as fern species. The understory is generally sparse and consists not only of cabbage palm and ferns but may also consist of wax myrtle, ferns, highbush blueberry (*Vaccinium corymbosum*), common persimmon (*Diospyros virginiana*), blue violet (*Viola sororia*), woodsgrass (*Chasmanthium* sp.), yellow stargrass (*Hypoxis curtissii*), camphorweed (*Pluchea* sp.), and panicum grasses.

#### **4.5 Listed and Imperiled Species**

Extensive habitat studies were included in the the Ecological Evaluation Report reviewed as part of the Farmton Local Plan. That data and analysis noted potential and observed as well as listed and imperiled flora and fauna. Listed species are classified as endangered or threatened under the Endangered Species Act. In Florida, the FWCC independently lists species as imperiled, endangered or threatened, or species of special concern. Other species may be noted by the scientific community as imperiled but not formally listed.

##### **4.5.1 Floral Listed Species**

The following plant species listed as endangered, threatened, species of special concern, and commercially exploited by the Florida Department of Agriculture have been observed on Farmton:

- Florida coontie (*Zamia pumila*) found in hammocks,



- hooded pitcher plant (*Saracenia minor*) found in open wet areas,
- blue butterwort (*Pinguicula caerulea*) found in marshes and hydric pine flatwoods,
- Florida beargrass (*Nolina atopocarpa*) found in scrub uplands,
- hand fern (*Ophioglossum palmatum*) found on cabbage palms in hammocks, and
- celestial lily (*Nemastylis floridana*) found in hydric flatwoods, roadside ditches, marshes, and fringes of cabbage palm hammocks.

These species typically are not found in active silvicultural areas of the tract and thus are not impacted by ongoing silviculture operations.

**Rugel's Pawpaw** (*Deeringothamnus rugeli*) is listed as an endangered species under the Endangered Species Act. It is endemic to pine flatwoods in Volusia County, and has only been found west of I-95. According to the USFWS, Rugel's Pawpaw typically is found in poorly-drained slash pine-saw palmetto flatwoods. According to FNAI, it can be found in open canopies of slash or longleaf pine and wiregrass understory and have a tendency to occur on Immokolee soil. Rugel's Pawpaw was found on conservation lands in the vicinity of Farmton following the wildfires of 1998, but none has been found on Farmton. According to Volusia County Environmental Management, Rugel's Pawpaw was found by Florida Natural Areas Inventory on the Wiregrass Prairie Preserve adjacent to Farmton and on the Deep Creek Preserve west of SR 415. Recent surveys of the adjacent Restoration DRI site have not revealed presence of Rugel's Pawpaw.

#### 4.5.2 Faunal Listed Species

A number of species have protected status by virtue of being listed under the Endangered Species Act, Bald Eagle Protection Act, Migratory Bird Treaty Act, or by the Florida Fish and Wildlife Conservation Commission. For the most part, federally listed species have an approved recovery plan which serves as guidance in management decisions. On the state level, FWCC makes listing decisions based upon its own rules and publishes a threatened and endangered species list. At the FWCC's June 8, 2011 meeting, a number of recommendations regarding species removal from its list or a change in status as to those lists were approved consistent with its Threatened Species Management System. Those recommendations will not become final until management plans for each of the species are approved by the FWCC. A number of the species known to be found on Farmton, together with their current listing status are described below:

**American alligator** (*Alligator mississippiensis*) - After being legally protected for several years, the alligator has made a population comeback, and is now fairly common in areas that will support them. Alligators can be found in most types of wetlands that have standing water and ample food supplies. This species has been observed throughout Farmton in wetland habitats. While the alligator is listed as a threatened species it is subject to regulated hunts in Florida within harvest units established by the FWCC. The area of Farmton adjacent to the St. Johns River including Deep Creek is a management unit within which the FWCC issues alligator harvest permits.

**Eastern indigo snake** (*Drymarchon corais couperi*) - The indigo snake is a habitat generalist, using a variety of habitats from freshwater marsh to xeric uplands. During winter months,

however, it typically can be found in uplands utilizing the burrows of gopher tortoises (*Gopherus polyphemus*) as shelter. These snakes require large tracts of natural, undisturbed habitat. They have been noted on the property. It is a federal-listed threatened species.

**Gopher tortoise** (*Gopherus polyphemus*) - The gopher tortoise is a key component in the determination of habitat suitability for endangered species because of the large number of other animals that use tortoise burrows for one or more of their life requisites. While it is common to find tortoise burrows in most types of upland communities, the preferred habitats of the gopher tortoise are xeric (scrub) uplands and high pine flatwoods. Gopher tortoises, as well as active burrows, have been observed on Farnton, particularly within the scrubby flatwoods and along forest roads. It is state listed as threatened.

**Florida pine snake** (*Pituophis melanoleucus mugitus*) - This snake is another gopher tortoise burrow commensal organism, utilizing both gopher tortoise burrows and the tunnels of pocket gophers (*Geomys pinetis*). Preferred habitat of the pine snake is xeric (scrub) uplands, and to a lesser extent, flatwoods and other mesic uplands. The pine snake has been noted in pine uplands. It is listed as a State species of special concern.

**Gopher frog** (*Rana capito*) - The gopher frog is a gopher tortoise burrow commensal organism, utilizing the burrows for shelter, and breeding in nearby wetlands. Prime gopher frog habitat includes xeric uplands, especially longleaf pine-turkey oak associations, with nearby (within one mile), seasonally flooded marshes or ponds. It is listed as a State species of special concern. FFWCC has recommended its removal from the list. Once FWCC adopts a conservation management plan for the species, management actions on Farnton will be modified to be consistent with that plan.

**Limpkin** (*Aramus guarana*) - The limpkin is a reclusive bird that inhabits forested swamps, mangrove swamps and marshes. The limpkin feeds primarily on the native mollusk (*Pomacea paludosa*) commonly known as the Florida Apple Snail. In recent years, the Limpkin population has increased throughout Florida as it has been able to adapt to increasing numbers of exotic apple snails in the water. Limpkins and apple snails are common to Deep Creek and along the St. Johns River. Currently it is a state listed species of special concern, but the FWCC has recommended its removal from the list.

**Little blue heron** (*Egretta caerulea*), **snowy egret** (*Egretta thula*), **tricolored heron** (*Egretta tricolor*), and **white ibis** (*Eudocimus albus*) - These wading birds all have similar life histories, and inhabit marshes, lakes, rivers, ponds and coastal systems. These species have been observed on Farnton within wetlands and along creeks, but there are no known rookeries. Each is currently state listed as species of special concern. The FWCC has recommended listing little blue heron and tricolored heron as threatened and recommended removal from the list for snowy egret and white ibis.

**Southeastern American kestrel** (*Falco sparverius paulus*) - The Southeastern American kestrel is a small falcon. This resident subspecies is to be distinguished from the larger *Falco sparverius sparverius*, which is a winter migrant to Florida. The Southeastern American kestrel requires three components for optimal habitat: large, open fields for foraging, snags for nesting,

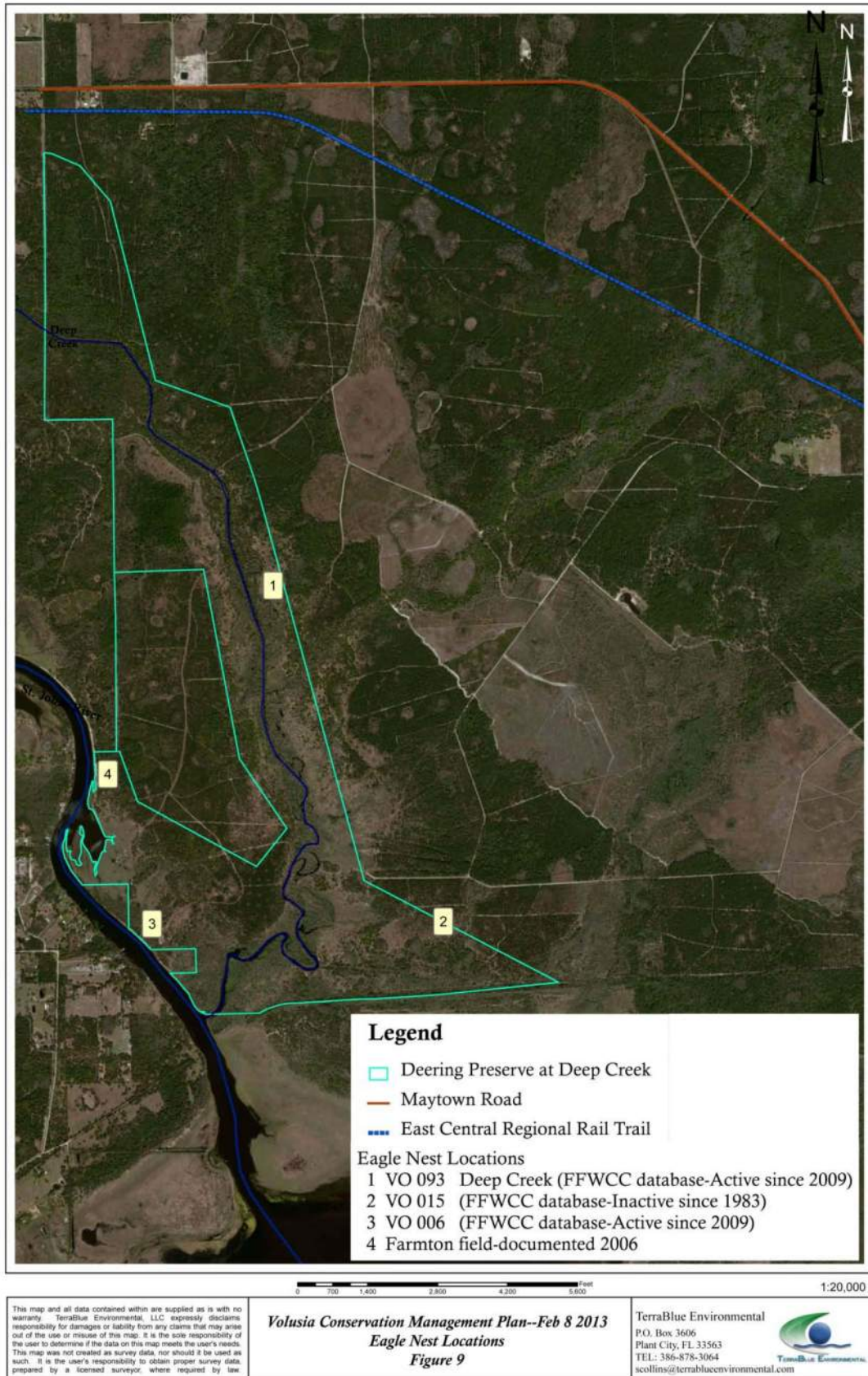
and snags, and other perching sites from which to hunt. This species has been observed onsite, usually associated with power lines. It is a state- listed threatened species.

**Florida sandhill crane** (*Grus canadensis pratensis*) - The Florida sandhill crane is a non-migratory subspecies of *Grus canadensis*. Sandhill cranes nest in shallow marshes and wet prairies, and forage for prey in the marshes and open fields. Sandhill cranes are found throughout Farmton near marsh wetlands and are known to nest on site. It is a state listed threatened species.

**Wood stork** (*Mycteria americana*) -This species requires feeding areas in the form of pools or ditches in which fish congregate and forested swamps for nesting. Wood storks have been seen on the site along the St. Johns River, Deep Creek, and Cow Creek, but no breeding colonies have been reported on Farmton. It is a federal listed endangered species.

**Southern bald eagle** (*Haliaeetus leucocephalus*) - The bald eagle is a species of interest due to its status under the Federal Bald Eagle Protection Act. It is also the most cited example of conservation success because its numbers rebounded resulting in federally de-listing in 2002 and state de-listing by FWCC in 2005. Eagles can be seen flying over many habitat types, but they require water bodies for feeding and large trees near feeding areas for nesting. There are four known eagle nests on Farmton in the Deering Preserve at Deep Creek (DPDC) and they are part of the Bald Eagle Nest Locator database maintained by FWCC. A map of known eagle nests is attached as Figure 9.







**Florida black bear** (*Ursus americanus floridanus*) - The Florida black bear is a unique subspecies of the American black bear and historically ranged throughout Florida. Preferred habitat of the black bear is dense forest, both upland and wetland, but bears are often encountered in other areas during its seasonal movements. Optimal bear habitat in Florida has been described as “a mixture of flatwoods, swamps, scrub oak ridges, bayheads and hammock habitats, thoroughly interspersed.” Forested wetlands and bottomland hardwoods provide their optimal habitat, but any forested areas of large size with diverse food and dispersed cover can support bears. FWCC black bear distribution includes primary and secondary black bear ranges. Secondary bear range is defined as the portion of occupied range in Florida where bears occur outside primary bear range which may contain infrequent/ inconsistent sightings of females or cubs. All of Farnton is within secondary range of what has been identified as the Ocala-St. Johns Sub-population and within the Strategic Habitat Conservation Area for the black bear. Florida black bear have been observed on Farnton in the vicinity of Crane Swamp and large forested swamps in proximity to the St. Johns River. At the time of the adoption of the FLP, the black bear was state listed as threatened. Much of the conservation design for the FLP was based on habitat needs of the black bear and planned in consultation with FWCC. Following the adoption of FLP, the FWCC took action to de-list the Florida black bear. On June 8, 2011, the FWCC took preliminary action to de-list the black bear contingent upon approval of a black bear management plan. On February 9, 2012, FWCC gave preliminary approval to the plan and on June 27, 2012, the FWCC took formal action to adopt the Black Bear Management Plan and Florida Black Bear Conservation Rule 68A-4.009, (F.A.C.). (<http://myfwc.com/bear>). The FLP requires coordination with the Black Bear Management Plan which includes guidelines for Bear Smart Communities.

**Sherman's fox squirrel** (*Sciurus niger shermani*) - The Sherman's fox squirrel is the largest of the three fox squirrel subspecies that occur in Florida. While its population is declining, this squirrel is still fairly common within its optimum habitat of longleaf pine-turkey oak sandhills. This species has been observed Farnton in pine forests as well as forested wetland areas. It is state listed as a species of special concern.

**Florida mouse** (*Peromyscus floridanus*) - The Florida mouse is the only mammal species that is endemic to Florida. It typically lives within gopher tortoise burrows in fire-maintained, xeric uplands. It is listed as a state species of special concern, but the FWCC has recommended its removal from the list. Once FWCC adopts a conservation management plan for the species, management actions on Farnton will be modified to be consistent with that plan.

#### **4.5.3 Non-Listed Imperiled Species**

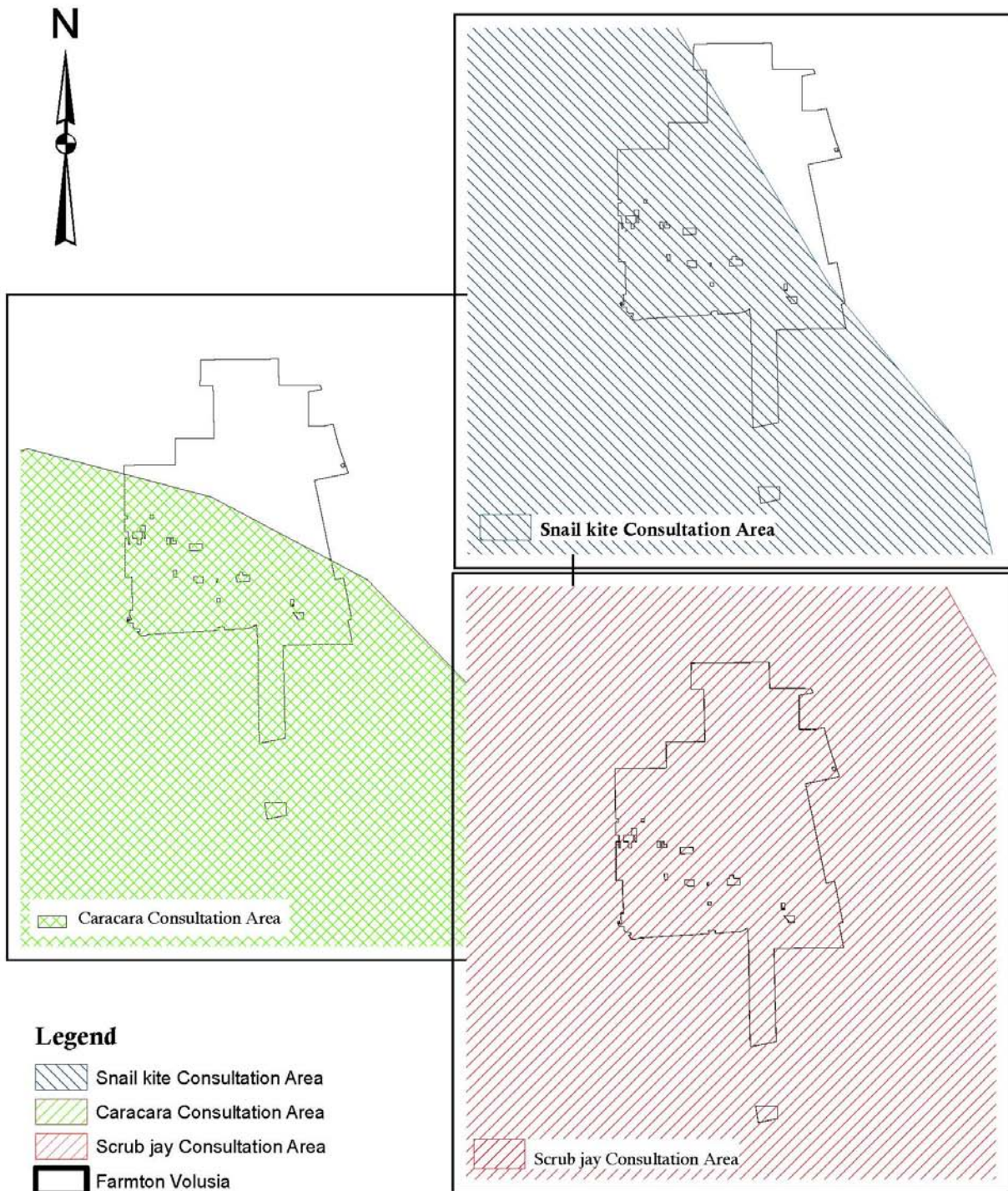
**Swallow-tailed kite** (*Elanoides forficatus*) - The Swallow-tailed kite is not a listed species in Florida but is scientifically recognized as an imperiled species. USFWS recognizes it as a “focal” species making it eligible for conservation funding. USFWS also officially designates it as a species at risk. State programs in South Carolina, Georgia, Texas, Alabama, Louisiana, and Texas provide special conservation status for the kite. Partners in Flight rank it among the highest priorities for immediate management and conservation action. National Audubon Society's Watch List notes it as a species of critical concern. Kites are protected by the

Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712). Swallow-tailed kites are known to nest on Farmton during the breeding months of March-August. Their nesting preferences appear to be mature slash pine in or near forested wetlands.

#### 4.6 USFWS Consultation Areas

Section 7 of the Endangered Species Act requires consultation with the U.S. Fish and Wildlife Service (USFWS) when any action which requires a permit *may affect* a listed endangered or threatened species. USFWS identifies consultation areas for potential habitat of listed species and the FLP requires the CMP to identify consultation areas. USFWS has identified all of Farmton within Consultation Areas for the Florida scrub jay (*Aphelocoma coerulescens*). Further, a large portion of Farmton is included as consultation area for Crested caracara (*Caracara cheriway*), and Everglades snail kite (*Rostrhamus sociabilis plumbeus*). While Volusia County is in the historic range of each of these species, none have been observed onsite. Each of these species has specific habitat requirements which are not present or are far removed from known populations. The closest known population of Crested caracara is Viera and Everglades snail kites have been reported there. Scrub jay populations exist in Deltona, Edgewater, Merritt Island National Wildlife Refuge, and in the I-95/SR-5A interchange in Brevard County. Consultation Areas on Farmton for these species are depicted in Figure 10.





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*Volusia Conservation Management Plan--Feb 8 2013*  
*USFWS Consultation Areas*  
*Figure 10*

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## **5.0 Existing Baseline Management and Conditions**

### **5.1 Current Activities and Practices**

The property currently is managed primarily as a commercial timber operation together with cattle grazing, and hunting leases. This section describes current activities and practices on the property.

#### **5.1.1 Forestry Stewardship/Best Management Techniques**

Forestry practices on Farnton have been certified under the American Tree Farm Program since 1962. Outside the Farnton Mitigation Bank which has its own Forestry Stewardship Plan, silviculture operations comply with the 2010-2015 Standards of Sustainability for Forest Certification established by the American Forest Foundation. One of the conditions of Tree Farm Certification is that forestry practices meet or exceed state BMPs. To that end, Farnton abides with standards set forth in the 2011 Silviculture Best Management Practices Manual as approved by the Florida Department of Agriculture and Consumer Services (DACS). The following sections discuss current sustainable forestry practices.

#### **5.1.2 Harvesting**

Slash pine is the preferred harvest tree and the cycle is clear-cut harvesting, planting, thinning (possibly 2 times) followed by clear-cut (final) harvesting. Decisions on harvesting are market driven based on the market price plus size, age, and health of the forest stand. Pursuant to Best Management Practices, and American Tree Farm Standards, various harvest types have been employed as follows:

Clear cutting is a harvest system employed whereby all merchantable and marketable canopy over story is removed in a single cut. Its application, like all silvicultural tools, is entirely dependent on management goals which may include:

1. Insect or disease control. When insect population densities reach epidemic levels control measures are employed in such a manner to remove host trees for the sake of the health of remaining timber stands.
2. Salvage. When damage occurs from either storm or fire, removal of damaged trees is necessary to reduce threats of disease and allow the regeneration of canopy trees. Removing damaged timber allows the owner some recuperation of financial value and allows the site to be prepared and replanted.
3. Species conversion. If miss-matched site species combinations exist, clear cutting is the most logical harvest system to efficiently convert the site to the appropriate species match.
4. Final harvest. To enable Miami Corporation to meet its financial goals, clear-cut harvesting is employed as needed to deliver and sell forests products to the various markets within the North East Florida area.

Thinning is a silvicultural activity where selected trees are removed thus reducing the overall number of target trees. The practice has many benefits including reduction in tree density so that growing conditions are improved for the residual vegetative community. Thinning has

biological benefits including less competition for water and nutrients, and improved wildlife habitat. Trees may be selected by a number of factors including but not limited to size, crown position, desired spacing, and species. Thinning is one of the most meticulous harvest systems to conduct. Residual trees are protected from mechanical damage and the harvest employed during dryer ground conditions so as not to damage tree roots. Spacing and stocking levels of planted pines are designed to achieve the desired mix and volume at rotation.

Low ground pressure harvesting is the system most readily utilized in wetlands and areas where soft ground conditions pose a mechanical impediment. Low ground pressure equipment is usually tracked and/or outfitted with oversize tires to minimize disturbance to wetland soils.

Seed Tree harvest is both a harvest and regeneration method. The harvest accomplishes the objective of financial returns and leaves a seed source for the next generation of trees. Trees selected as “leave trees” are of the dominant or co-dominant crown class and exhibit good growth and form. Additionally, trees are arranged in a systematic manner with even spacing. A grid type spacing is efficient in evenly distributing seed to the entire stand in the treatment and the final harvest of the seed trees can be removed and cause minimal damage to the residual seedlings and saplings. As with thinning, “leave trees” are protected from mechanical damage and the harvest employed when ground conditions are dry to prevent injury to roots.

### **5.1.3 Site Preparation**

Site preparation techniques vary with the topography, soils, non-target species competition, and past site preparation methods. Options for site preparation include prescribed fire, and mechanical or chemical means to prepare the ground conditions such that seeds reach bare mineral soil to achieve optimal potential for germination.

Herbicides are used for site preparation when it is determined that chemical treatment is the most economical means of creating good stand conditions. It is the preferred method of site preparation when exotic or invasive species are present.

Mechanical treatments have proved to be the most effective site preparation tool. Mechanical treatments include debris piling, disking, bedding, and chopping. Piling logging debris after a harvest is the first of the site prep methods employed to facilitate additional mechanical work. Disking loosens and exposes bare mineral soils and groundcover vegetation, and temporarily can reduce vegetative competition, and allow for machine and hand planting, as well as site restoration. Bedding is a practice of tilling and packing soil prior to planting. It produces a series of elevated rows and swales with a clean planting area, free of air pockets and suitable for machine planting. Chopping is another effective method of reducing competitive vegetative debris for pine seedling establishment. Saw palmetto prairie shrub layers are common on Farmton and, chopping provides for a temporary loss of shrub density, an impediment to planting.

### **5.1.4 Regeneration**

The first goal in the managed regeneration process is matching the proper species for each site. Soils maps, observed timber stand health, and onsite soil borings are necessary to match the

proper species to the site for long-term health and productivity. Soil maps produced by the U.S. Natural Resource Conservation Service (NRCS) are considered an initial step in matching the proper site species. Soil boring is used to verify and properly identify areas of question. Other indicators of proper site species match include matured, healthy canopy trees as well as shrub or groundcover species.

Where practicable, machine planting is the preferred method of managed regeneration. Machine planting offers the most economical and least risk method in southern pine management. Proper spacing and high survival rates are common with the application and is best used on the barest sites which are barren of vegetation due to either a lack of natural groundcover or site preparation activities. Hand planting has its place in silviculture when applied to the proper site. Proper supervision of the planting and seedling handling are the keys to regeneration success. Hand planting is favored when rough sites are harvested, economics drive low intensity site preparation, and residual debris make machine planting a safety risk.

Direct seeding (sometimes called aerial seeding) has been used successfully on Farmon when conditions warrant this approach. Wildfires in pre-merchantable stands that are too costly to clear and site prepare are candidates for direct or aerial seeding. Suitable ground conditions and the use of non-stratified seed have produced adequate regeneration within two years of planting. When areas are direct seeded, it is typical to pre-commercial thin to allow for mechanical operability as well as reduce overstocking.

According to the USDA Soil Conservation Service, the majority of soils found on Farmon are best suited for slash pine when potential productivity is a consideration. Slash pine is the favored species of reforestation unless sand pine or longleaf pine are equal or more productive as determined by site index for a given soil type.

#### **5.1.5 Forestry Stewardship Management for Marketable Habitats by Habitat Type**

For purposes of timber management and production, forested communities can be organized into three core canopy types. These forested communities are classified as: Upland/Hydric Pine Forest, Cypress and Wetland Hardwoods, and Hardwood Hammocks. The management of each is significantly different and described separately.

**Pine Forest** -Longleaf-slash pine forests are primarily managed through thinning which promotes both the health and vigor of forested stands and favors a longer rotation justified economically by higher value forest products, as well as periodic positive cash flow to meet economic objectives.

Once stands are properly established and reach merchantable age and size and before crown closure, thinning may begin. Stands are thinned to create an average basal area stocking (density) of 55 to 80 square feet per acre. Stands are permitted higher basal area stocking so long as a final harvest is scheduled with 5-7 years or less. The basal area range of 55 to 80 square feet per acre promotes good understory growth, timber growth and provides good habitat for wildlife using these forested communities. The average stand on Farmon is considered for thinning anytime the basal area reaches above 90 square feet per acre. Care is taken to protect the

residual stand and reduce the potential for insect infestation due to skinned trees and excessive root damage due to wet conditions.

In order to promote a mosaic of diversified vegetative communities and habitats, consideration for final harvest includes timber growth, timber age, the height of adjoining stands, timber markets, and timber health. It is the purpose of the pine management regime to create a diversity of age classes across the landscape of the conservation area. Thinning and clear-cut harvesting are managed, where practical, to maintain connectivity so that these pine forested areas serve not only as food sources, shelter and vegetative diversity but as travel corridors for a variety of species. Emphasis is placed on irregularly shaped harvest areas that create a mosaic pattern. Pine stands can be categorized into four types based on general age and condition.

1. Regeneration (age 0-10) - This represents a site occupied by pine seedlings/saplings, as well as associated layers of herbs, shrubs and natural grasses. Inter tree competition has not yet resulted in any degradation to the herb and shrub understory. Pines occupy less than half of the site and this young, open forest habitat offers benefit to early successional wildlife species such as quail, rabbits, deer, turkey, and gopher tortoise as well as a variety of bird species.
2. Closed Canopy (age 10-20) - Pines fully occupy the site and form a single main canopy layer. There is little understory development and in addition to the pine canopy, palmetto and gallberry may form dense thickets. This habitat type offers food sources to a variety of species, including white-tailed deer, as well as cover for shelter.
3. Understory (age 21-30) - The overstory layer has been reduced through thinning and the understory initiates regrowth. Adequate light is available through the thinned crown, and ground cover and wildlife benefit from the site disturbance.
4. Mature Forest (age 31-40) - This stand type begins to develop a layered canopy overstory. The understory is a mixture of shrubs, grasses, palmetto, gallberry and an occasional snag. Gopher tortoises, black bear, deer, turkey, bald eagles, and American swallow-tail kite benefit both from the food source as well as from nesting and bedding structure.

**Sand Pine** - Management of sand pine differs from both the longleaf and slash pine management described above. Sand pine is a pine species well adapted to dense even age management which, naturally occurring, originates after a catastrophic event such as wildfire. Sand pine can be either direct seeded or planted by machine or hand to densities in the range of 650 to 800 stems per acre. Depending on markets for sand pine, clear-cut at merchantable size and age is the only harvest option. Sand pine forested habitats on Farmon are managed as part of the overall age class structure since the area is small in relation to other pine species.

**Cypress and Hardwood Wetland** - Outside the mitigation bank, harvesting of pines in wetlands, hardwoods, and cypress has been conducted for many years and will continue subject to Silvicultural BMPs unless specifically restricted in special areas set forth in this CMP. Site sensitivity is a key issue in any wetland harvesting system. Protection of residual seed trees or

leave trees is of primary concern. Proper equipment should be used, and harvesting closely monitored for detrimental impacts, and ceased if conditions warrant.

**Hardwood Hammocks-** Areas noted as Mixed Wetland Hardwoods and Temperate Hardwoods are commonly called hardwood hammocks and contain various species dominated by cabbage palms, live oak, laurel oak, magnolia, bay and cedar. There is no commercial value to the harvest of these areas and they typically have been maintained in their natural condition.

**5.1.6 Harvest Rotation Schedules and Planning for Optimal Vegetative Composition** Harvest planning is on a five-year horizon. A five-year horizon is necessary due to potential adverse weather and market conditions. Stands that fit the age and condition criteria are eligible for harvest. Each stand is inspected and mapped and conditions verified prior to identification for harvest. Geographic Information System mapping depict planned landscape changes, planned harvest size adjacency issues, and potential access concerns.

#### **5.1.7 Forestry Stewardship Management for Catastrophic Events**

Over the years, Farmton personnel have become adept at dealing with catastrophic wildfire, storm events, and insect infestations. Catastrophic events can have detrimental impacts to market conditions, age class diversity, and overall timber health.

**Salvage operations:** No matter the nature of the event, timber salvage operations are time sensitive. There is limited time that forest products can be used by manufacturing facilities once damage occurs. For this reason, a quick response is necessary to remove damaged trees in the event of a natural disaster. Large volumes of dead or severely stressed timber can create conditions detrimental to undamaged stands if harvests and removal are not timely.

In situations where storm, wildfire, or insect outbreak occur, management issues such as adjacency and harvest area size will give way to the protection of the remaining timber asset. High value stands where quality concerns occur should be harvested quickly to preserve economic value and facilitate future reforestation efforts. Older timber left un-salvaged presents safety issues for those tasked with clearing and site preparation. The economic impact is not only loss to the market, but higher than acceptable costs in order to reforest.

**Age Class Impacts:** In addition to the economic and forest health issues above, a diverse age class structure in a managed forest is important to maintain. Fire and salvage operations impact age class, and the lack of age class diversity takes years to overcome and only can be overcome by active management. Reforestation of the affected area is paramount as quickly and economically as possible. Once a stand is established, the suite of harvest types can be used to establish diversity among pine stands.

#### **5.1.8 Forestry Stewardship Applications for Erosion Control**

The silviculture operation provides for age differential stands of 3 to 150 acres. Clear cutting is managed to avoid clear cutting adjoining segments larger than 150 acres in the same time period, thus reducing the opportunity for erosion and maintaining vegetative cover. Erosion control measures for silviculture are identified in the 2011 BMP Manual.

### **5.1.9 Cattle**

Portions of Farmton have been used for cattle leases for many years. Cattle currently are confined to areas east of Lake Harney Road, south of Maytown Road and outside of FMB. A fence separates the South Bank in Brevard County from the FMB. Cattle are stocked at the rate of one cow per 40 acres. Currently, there is no improved pasture on Farmton. There are few cattle pens on the property and hay and feed are routinely distributed at several cattle “feeding” stations onsite.

### **5.1.10 Hunting and Hunt Camps**

Hunting has been a part of the conservation management for many years. From the 1950s until 2000 the property was a Wildlife Management Area designated by the Game and Freshwater Fish Commission (later FWCC) for public hunting. In 2000, the property was leased to hunt clubs with restricted territory and memberships. This includes Miami Tract Hunt Club with 261 members, Rock Island Law Camp with 20 members and Hart Tract Hunt Club with 3 members. The Clubs employ Quality Deer Management techniques and oversee various management responsibilities on the property such as security. The clubs reduce public access, eliminate poaching and trespassing, and limit vehicular use. The clubs also provide regularly scheduled fire watches in the Lake Ashby Tower (which overlooks Farmton), including the 120-day wildfire season which lasts from May through August. Annual hunting (harvest) statistics are recorded, compiled and reported to Miami Corporation. Hunting is authorized throughout Farmton and access is authorized throughout all habitats. As such, there are markers which designate individual hunter’s territories, and numerous tree stands and hunting blinds are scattered throughout Farmton. There are a few pens positioned at timber road intersections which are to accommodate temporarily lost hunting dogs.

The hunt clubs comply with all FWCC regulations and calendars including hunting seasons, bag limits, prohibited or restricted methods of harvesting game, and any requirement for special permits.

A condition of the approval of the Farmton Mitigation Bank was a Wildlife Management Plan (Appendix 6) which is in effect for the entire Farmton Tract. The Plan includes the following specific requirements which are enforced through the hunt clubs:

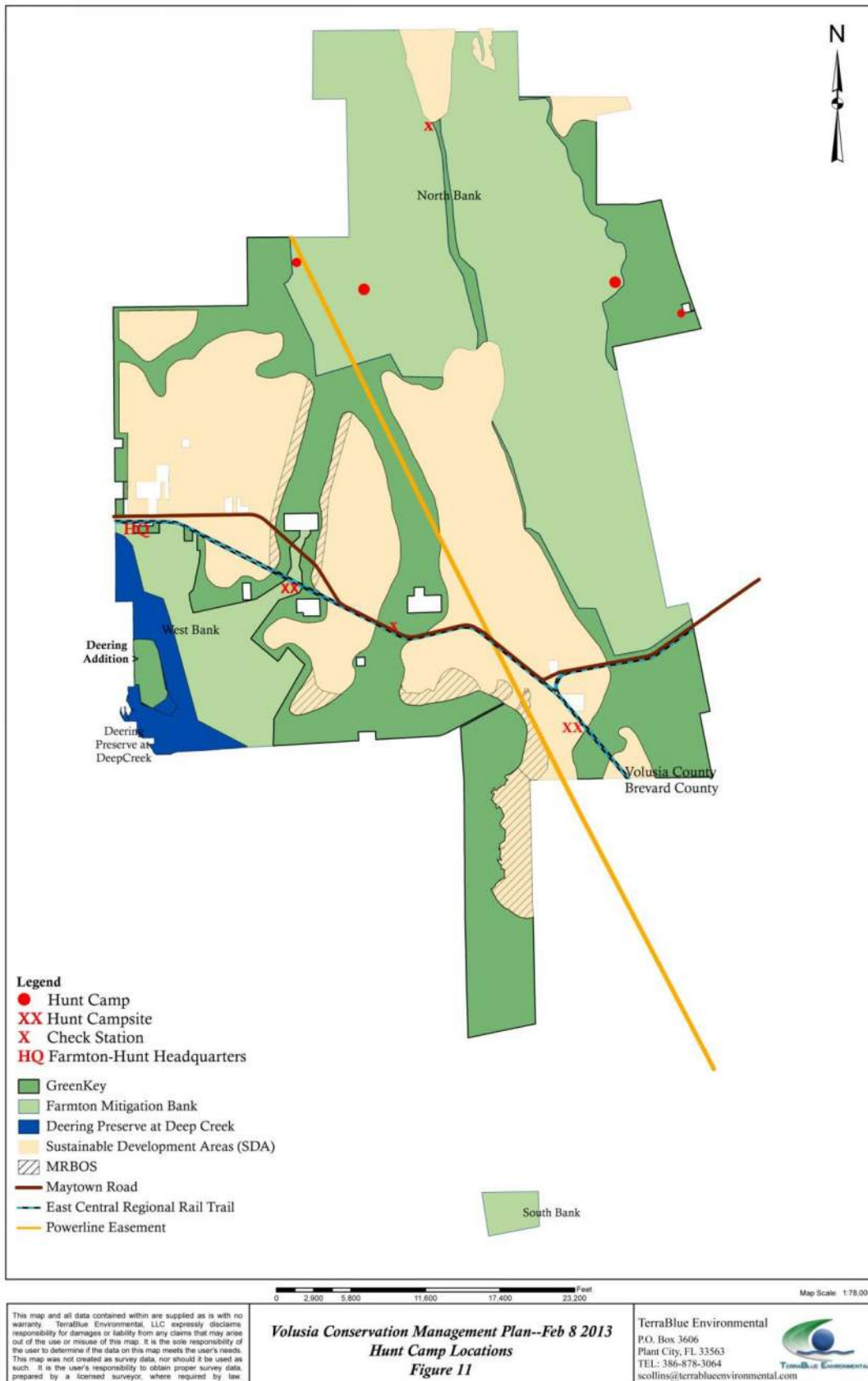
- Daily and possession limits for deer, wild hogs, turkey, gray squirrel, quail, rabbit, bobcat, mink, and otter.
- No limit for raccoon, opossum, armadillo, beaver, coyote, skunk and nutria
- Unlawful to set fires or destroy any protected plant
- Prohibition to take fox or fox squirrel
- No wildlife may be released onto Farmton
- Illegal to bait wildlife, use live decoys, traps, snares, nets, drugs, lights, or recorded game calls.
- Illegal to kill swimming deer

- Prohibition on possession of dogs in closed areas
- Vehicles may be used only on established roads
- Airboats and tracked vehicles are prohibited
- Hunters are required to check all deer, turkey, and hogs at check station

Associated with the hunt clubs are four designated hunt camps, two check stations, and two camp sites. The largest hunt camp is east of the North Bank and contains wood constructed structures, travel trailer structures with installed roofs and porches, and dog holding pens. The camp site areas are open unimproved areas. The check station is the location where harvests are recorded. Hunt camp locations are depicted in Figure 11.





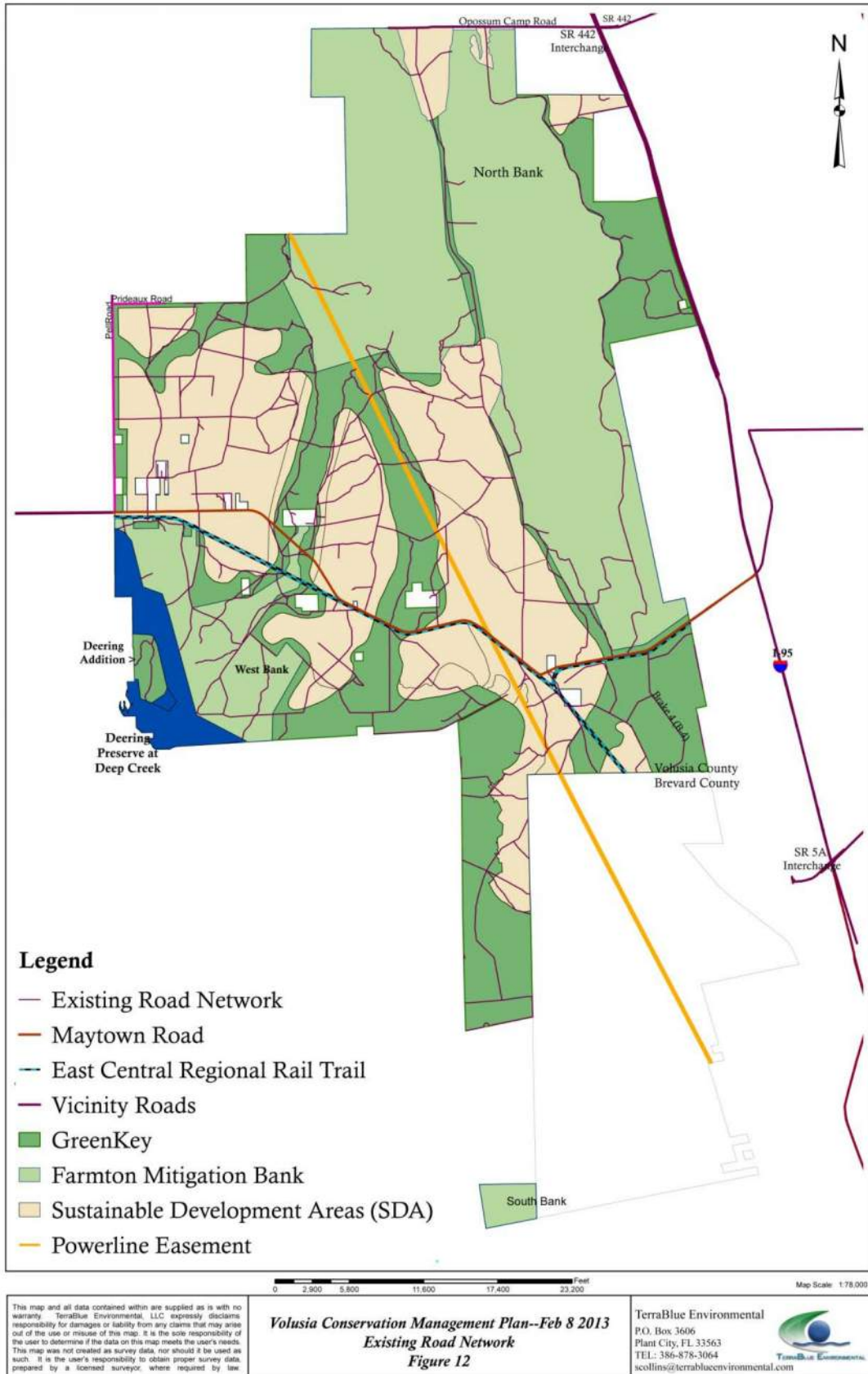


## **5.2 Site Improvements and Alterations**

### **5.2.1 Roads**

Roads are an integral part of the Farmton Tree Farm. Roads are used as firebreaks, timber access for getting forest products to market, and fire fighting access. The road system while adequate, takes at least annual maintenance to serve the purposes mentioned above. In addition to routine maintenance, maintenance must be stepped up in conjunction with logging activities. It is imperative that roads be kept in a condition to allow access for fire fighting. Ditches must be maintained routinely and in conjunction with normal grading activities. Timber stands are managed for set backs to allow direct sunlight during winter and wetter months. Sandy areas are routinely stabilized to keep roads passable during dry times. Roads are maintained to provide 25 feet of road surface to allow safe passage of vehicles and equipment and slightly crowned to allow adequate drainage. The existing road network is depicted in Figure 12.





### **5.2.2 Permanent Fire Lines**

Farmton has a well-established network of permanent fire lines. The lines have been established over time and serve a purpose not only as access corridors, but hold wildfires started by lightning until equipment can be mobilized and the blaze extinguished. Lines are maintained and moved as needed typically in the drier months when fire danger is highest and access with a farm tractor is possible. Fire lines also are established to define prescribed burn areas.

### **5.2.3 Hydrologic Structures**

Farmton has numerous culverts and low water crossing (LWC) areas to allow access in wet weather. The size and construction of culverts depends on up stream drainage, and they were installed consistent with silvicultural BMPs. These structures are maintained and must be replaced as necessary. Combating wildfire, grading activities, age, and heavy truck traffic all take a toll on culverts. LWC's have proven to be a cost effective means of keeping roads passable by allowing excess water to seek its natural drainage course. LWC's are favored when practical and installed with a minimum of 8 inches of rock for a base to allow for normal traffic. Approach angles are critical and allow for heavy trucks with low ground clearance as is the case with many fire fighting transport vehicles. Maintenance can be done in conjunction with routine grading and rock amended as needed. Herbicide spraying around culverts in the spring and summer helps to insure culverts remain free from obstruction, and assure they function properly. Culvert maintenance also assures roads are not destroyed by washouts during heavy rain events

### **5.2.4 Fences**

The entire Farmton Tract is contained by perimeter fencing with fencing along the right of way of I-95, Maytown Road, Maytown Spur, Pell Road, Gobbler's Lodge Road, Possum Camp Road, and Lake Harney Road. There are some interior fences for cattle control. Currently, there is no interior fencing to separate the Farmton Mitigation Bank from other Farmton lands, and there is no interior fencing along the East Central Regional Rail Trail.

### **5.2.5 Utility Easement**

Florida Power & Light holds a permanent 200 foot wide utilities easement across the Farmton Tract. The easement contains a series of concrete and wooden power poles and lines which run from the northwest sector of Farmton in Volusia to Brevard County. The lands within the easement include wetlands and uplands and are cleared with road access for FPL to maintain the lines. Utility power poles often are used by ospreys and can be used by bald eagles as nest sites.

## **6.0 Land Management and Natural Resource Management Objectives**

The following is a list of land management and natural resource management objectives within the area covered by this CMP to protect and/or enhance ecosystem integrity, function and biodiversity, and allow for sustainable forestry:

### **6.1 Goal: Holistic Management**

The goal of the Conservation Management Plan is to provide a framework for holistic land and natural resource management pursuant to professionally accepted principles of sustainable forestry and ecosystem management such that the component parts of Farnton GreenKey and other conservation lands may be managed in a complimentary manner.

This Conservation Management Plan is designed to establish the framework for conservation over GreenKey and MRBOS Lands, future Resource Based Open Space, and coordination with adjacent conservation lands:

- Lands within the Farnton Mitigation Bank are managed pursuant to the SJRWMD Permit (Appendix 2) and Mitigation Banking Instrument (Appendix 3) which require control of nuisance and exotic species, and includes the Forestry Stewardship Plan (Appendix 5), and Wildlife Management Plan (Appendix 6).
- All lands within Farnton shall be subject to the Wildlife Management Plan and the FMB bank requirements for control of nuisance and exotic species.
- Adjacent Farnton agriculture and conservation lands within Brevard County are managed subject to a separate conservation management plan approved July 10, 2012.
- Deep Creek Conservation Area, Southwest Wildlife Corridor, and Mandatory Resource Based Open Space shall be managed as special use areas with more specific management policies applicable within each of these areas.
- There are areas within SWC which also are within the FMB West Bank and South Bank where there are management conditions applicable to the SWC which are more specific than the permit conditions of the bank. These conditions are deemed not in conflict with the FMB permit.
- Resource Based Open Space will be identified in the future as SDAs are planned and developed. RBOS will be subject to site specific conservation management plans complimentary to this CMP which shall be incorporated as an appendix to this CMP.
- Overall, the CMP shall promote consistent management over similar habitats and promote complimentary management among the various component conservation plans and special areas.

### **6.2 Natural Resource Management Objectives**

The following is a prioritized list of natural resource management objectives of the CMP:

- Implement management techniques which trend toward desired future conditions as set forth in the CMP.
- Implement management techniques to promote a functional regional wildlife corridor based upon habitat requirements of the Florida black bear.
- Implement management techniques to foster conservation of listed and imperiled species.

- Implement management techniques to establish forested stands of different vegetative communities and age classes to establish a diverse mosaic of habitats for a variety of plants and animals.
- Implement prescribed burning into ongoing management activities at appropriate times, intervals, and locations to promote ecosystem diversity and fuel reduction subject to overriding safety concerns.
- Implement management techniques consistent with BMPs, to avoid adverse impacts to wetlands.
- Eliminate or reduce populations of invasive and exotic or nuisance species.
- Implement a program of monitoring and evaluating the success of resource management techniques.
- Utilize adaptive management techniques to achieve sustainable forestry and natural resource goals and objectives over time.

### **6.3 Land Management Objectives**

The following is a prioritized list of land management objectives of the CMP.

- Manage timber resources pursuant to a third party certified sustainable forestry standards to generate revenues from forestry, agribusiness, and passive recreational activities in excess of the costs of land management activities.
- Manage hunting, silviculture, and cattle grazing as permitted activities compatible with the Conservation Management Plan.
- Coordinate management activities with adjoining public conservation lands.
- Protect identified cultural, historical, and archaeological resources.

## **7.0 Future Management Strategies and Desired Future Conditions**

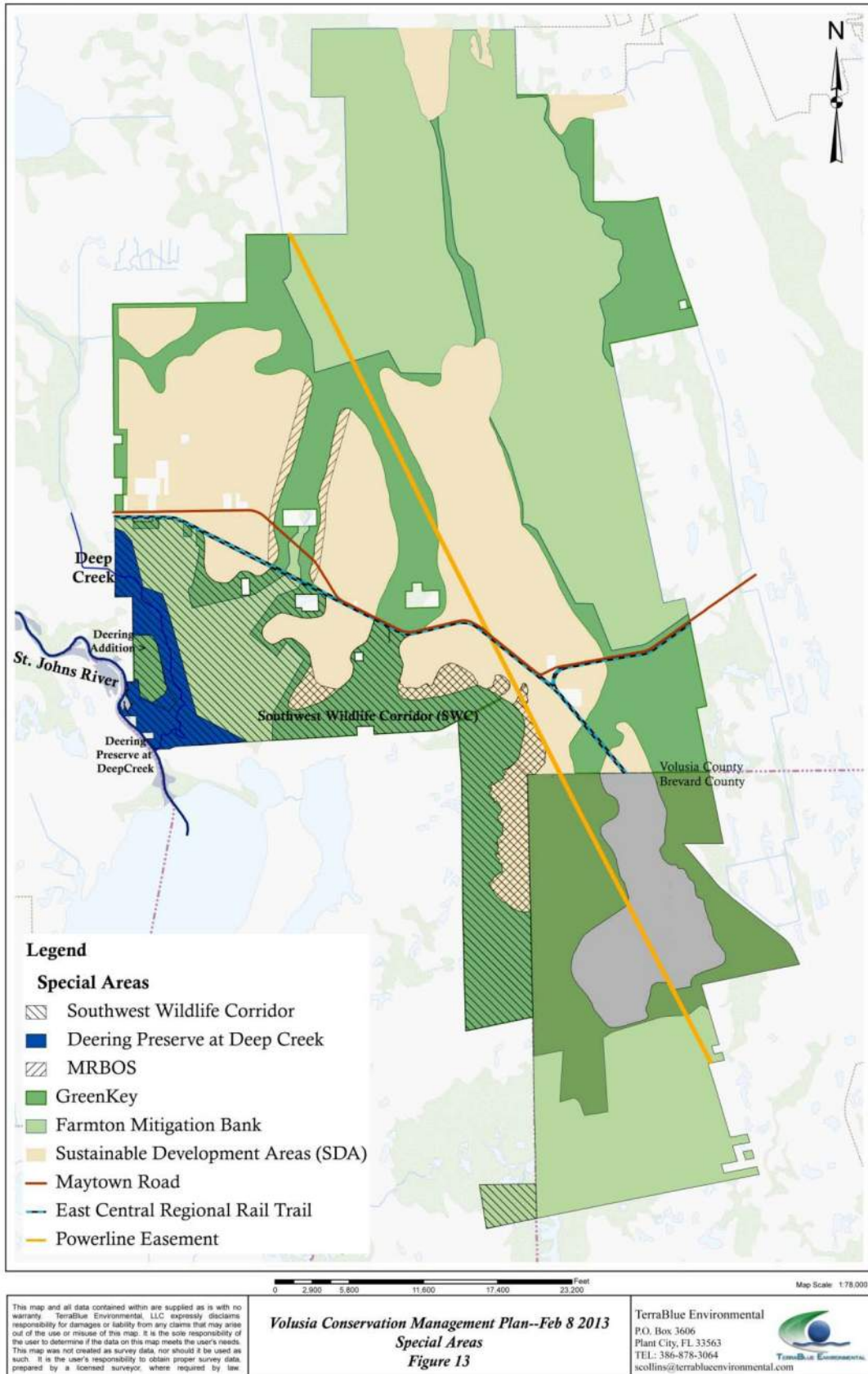
### **7.1 Identification and Protection of Special Areas**

The Farmton Local Plan identified three special planning areas with specific requirements for natural resource protection. Those areas identified as Deep Creek Conservation Area (DCCA), Southwest Wildlife Corridor (SWC), and Mandatory Resource Based Open Space (MRBOS) are depicted on Figure 13. The management for these special areas is described below.

#### **7.1.1 Southwest Wildlife Corridor**

The Southwest Wildlife Corridor (SWC) is a special area identified on the FLP Future Land Use Map (Appendix 1). This area of approximately 9,000 acres is located south of Maytown Road along the southern and western perimeter of Farmton within Volusia County. Lands within the SWC provide a diversified habitat composed of cypress domes and swamps, forested hardwood wetlands, hardwood hammocks, and pine plantations. This area was designated in agreement with Volusia County and state resource agencies and conservation organizations as the area which was most significant as a regional wildlife corridor along the St. Johns River. As designed, the special area protects a buffer of a minimum of one mile between the perimeter of the property and any future development in the SDAs. The SWC contains some lands within the West Bank which are required to be managed pursuant to the permit conditions including the Forestry Stewardship Plan (Appendix 5). The Deering Preserve at Deep Creek and some MRBOS lands also are within the Southwest Wildlife Corridor. The FLP requires that lands within the SWC shall be managed consistent with forestry practices designed to provide prescribed fire, promote dense understory vegetation such as palmetto, and encourage uneven-age management techniques, and also be consistent with the black bear management plan developed in cooperation with FWCC. The protocols which constitute the forestry practices for SWC are set forth in herein for prescribed fire at 7.4.1 and for Black Bear management at 7.5.1.





### **7.1.2 Deep Creek Conservation Area**

The area identified as Deep Creek Conservation Area on the Future Land Use Map (FLUM) and within the FLP has been designated by the county council as the Deering Preserve at Deep Creek (DPDC).. The DPDC consists of approximately 1140 acres of floodplain swamp within the Southwest Wildlife Corridor. It includes a portion of the West Bank above the confluence of Deep Creek and the St. Johns River. The areas were identified in FLP as that portion of the floodplain around Deep Creek which was within the Environmental Core Overlay. The area is identified on the Future Land Use Map (Appendix 1, Figure 1-12N) and the Ecological Corridor Overlay (Appendix 1, Figure 13). During the development of the CMP, Miami Corporation and Volusia County staff conducted several field inspections to ground truth the boundary of DPDC. At its last meeting, the Task Force accepted proposed revisions to the boundary of the preserve. Subsequent to the adjournment of the Task Force, the county staff and Miami Corporation agreed to further revisions to DPDC to better meet long time management needs of the preserve and to provide opportunities for public access (Figure 14).

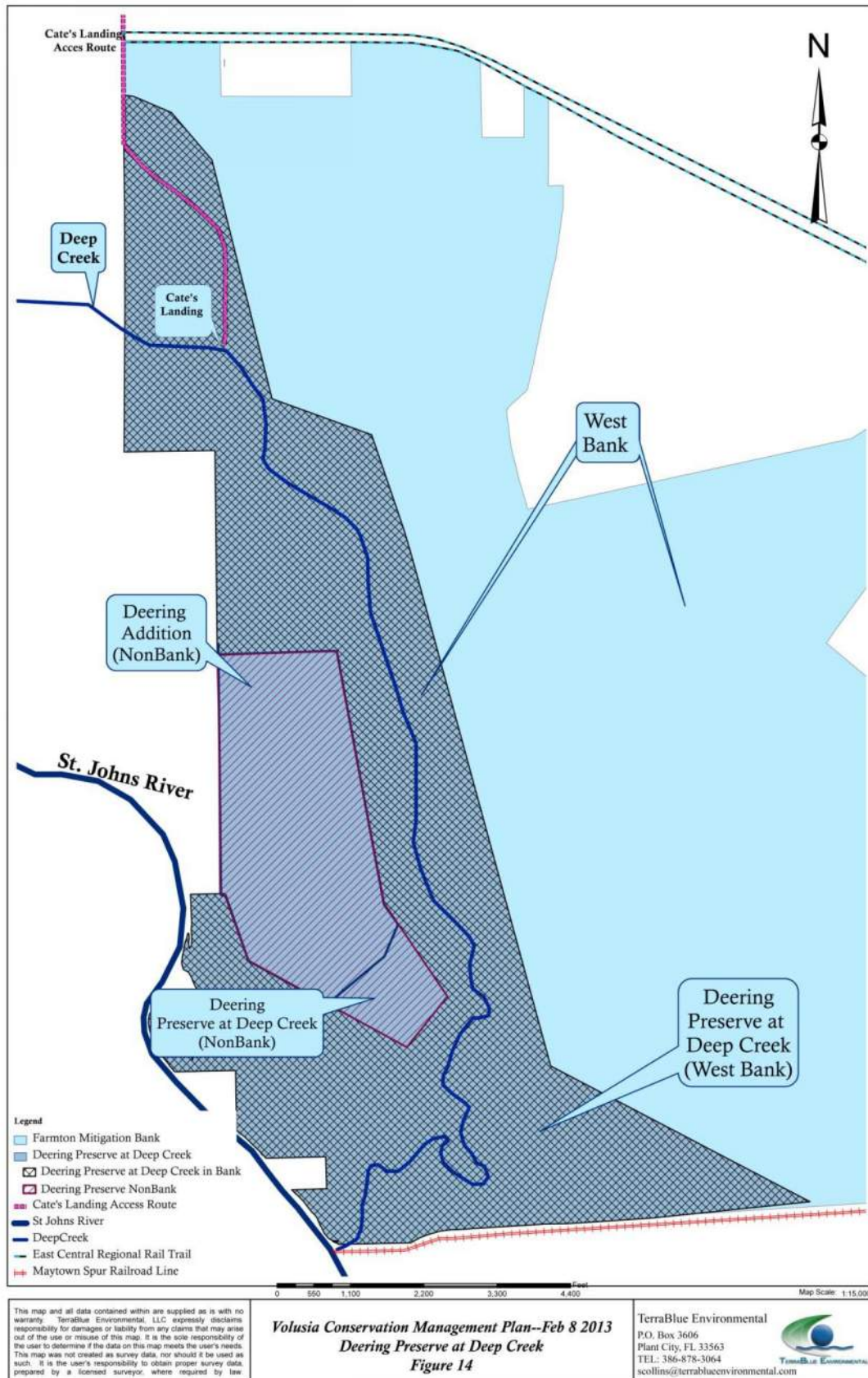
The FLP requires that DPDC have the highest level of natural resource protection. All but 39 acres of the area remains subject to the terms and conditions of the Mitigation Bank Permit (Appendix 3) and Forestry Stewardship Plan (Appendix 5). As such, there shall be no harvesting within wetlands in the DPDC unless it is part of an approved restoration plan. In addition, FLP requires that wetlands shall be protected with an average 300 foot buffer.

The amended Farnton Local Plan calls for the underlying fee interest of the DPDC to be transferred to Volusia County. Within DPDC, passive recreational uses may be allowed as appropriate and designed to have limited impacts on the resource. Within the mitigation bank areas of DPDC, trails, boardwalks and viewing platforms may be allowed if permitted by SJRWMD.

The amended FLP identifies approximately 270 acres adjacent to DPDC as Deering Addition. These lands will be conveyed to Volusia County at the same time as DPDC and be subject to the GreenKey provisions of the FLP and the CMP. Lands within the Deering Addition, together with approximately 39 acres of contiguous lands not within the FMB shall be available for passive recreational uses and public access and subject to a conservation easement in favor of Florida Audubon Society, Inc.<sup>5</sup>

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<sup>5</sup> As required by Ordinance 2013-05.



### **7.1.3 Resource Based Open Space**

Resource Based Open Space (RBOS) are yet to be defined areas within the Sustainable Development Area. At least 25% of each SDA is to include RBOS which may include areas set aside for ecological preservation, enhancement and restoration, nature trails, conservation education programs, observation decks, and similar facilities including lakes used for detention and retention of surface water. RBOS also may include those items listed in FLP 2.12. RBOS may include flood plains, wetlands, mitigation areas, vegetative buffers, specialized habitat for flora or fauna, passive recreation areas, and water resource development areas, and shall be designated during the development review process. Each area designated RBOS lands shall be identified as a separate management unit subject to specific management objectives, policies and desired future conditions. RBOS shall have a public access plan for trails, boardwalks, and environmental education areas, and passive recreational use where appropriate. As set forth in FLP 8.3, the Master DRI shall provide for phases and increments of future development in the SDAs. The development order for each future increment shall provide for the identification of RBOS in a manner to establish the greatest level of connectivity to GreenKey lands. The management plan for each RBOS shall be prepared by the applicant as a required component of its application for development approval pursuant to FLP Policy 8.3(d). Upon the approval by the county council of the Development Order for each increment, the Conservation Management Plan for each increment shall be deemed a new management unit and incorporated as an appendix to this CMP. Each RBOS area shall be protected in perpetuity by a conservation easement.

### **7.1.4 Mandatory Resource Based Open Space**

Mandatory Resource Based Open Space is a special designation of Resource Based Open Space within the Sustainable Development Areas adjacent to GreenKey lands as depicted on the Future Land Use Map (Appendix 1). A portion of the MRBOS lands are within the South West Wildlife Corridor while another portion serves to widen the western conservation corridor which connects Deep Creek and Cow Creek to the North Bank. FLP Policies 2.4 and 2.5 require MRBOS to be subject to the Black Bear Management Plan as set forth herein at 7.5.1. Areas designated MRBOS shall not be subject to public access.

There are areas of overlap within the Special Areas. All of DPDC, some of MRBOS, and some FMB is within SWC. Most of DPDC is within the FMB. There are areas within SWC that also are within the FMB. Some MRBOS is within SWC while other MRBOS is not. Refer to Table 1 for a breakdown of acreages within the CMP.

## **7.2 Management Units**

To implement different land management requirements as established in the FLP and the CMP, separate Management Units are established as follows (Figure 15).





**Table 5 depicts the approximate acreage for each management unit.**

<b>Table 5 Farmton Local Plan Management Units</b>	
Approximate acreage based on GIS	
Farmton Mitigation Bank	18,966
• North Bank	15,147
• West Bank	3,533
• South Bank	286
Southwest Wildlife Corridor (FMB)	3,706
Southwest Wildlife Corridor (non-FMB)	1,169
Cow Creek (MRBOS)	404
Crane Swamp	727
Pell and Prideaux Road Buffer	234
East Central Regional Rail Trail Buffer	270
Deering Addition	270

### **7.2.1 Farmton Mitigation Bank (FMB)**

The North Bank Site, South Bank Site, and West Bank Site shall be managed consistent with the SJRWMD Permit (Appendix 2) and ACOE Mitigation Bank Permit (Appendix 3).

### **7.2.2 Southwest Wildlife Corridor (within FMB)**

Lands identified as SWC which also are within the FMB shall be managed consistent with permit conditions established for FMB together with more specific provisions as set forth in fire policies established in 7.4.1, and Bear Management policies established in 7.5.1. The fire return rates in policy 7.5.1 are more specific than in 7.4.1.

### **7.2.3 Southwest Wildlife Corridor (outside of FMB)**

Lands identified as SWC on the FLUM which are not within the West Bank or South Bank of FMB, together with MRBOS lands south of the East Central Regional Rail Trail shall be managed consistent with 7.5.1, fire policies established in 7.4.1, Bear Management policies established in 7.5.1 and silvicultural practices as set forth in 7.3.

#### **7.2.4 Cow Creek and adjacent MRBOS**

There are additional MRBOS lands identified on FLUM which are located north of the East Central Regional Trail and serve to frame a conservation corridor to link the West Bank and North Bank. Within this corridor are the riverine wetlands and cypress swamps associated with Cow Creek, an intermittent stream. Lands within this area shall be managed consistent with fire policies established in 7.4.1, and silvicultural practices set forth in 7.3. In addition, Silviculture BMPs provide for the establishment of Special Management Zones (SMZ) adjacent to intermittent streams. Farmton will apply a 200 foot SMZ on each side of the defined channel of Cow Creek to prohibit cypress harvesting within the SMZ.

#### **7.2.5 Crane Swamp**

A portion of Crane Swamp south of Maytown Road is not within the FMB. GreenKey lands south of Maytown Road and east of the forestry road known as Break 4 shall be subject to a prohibition on cypress harvesting.

#### **7.2.6 Pell and Prideaux Road**

A boundary buffer with a minimum of 200 feet is identified on FLUM, which is located along the east side of Pell Road and south side of Prideaux Road. The purpose of the boundary buffer is to minimize visual and noise impacts on surrounding landowners. There shall be no encroachment within the buffer except for bike paths, boardwalks, equestrian and walking trails, fire lines, and intersecting roadways. There shall be no clear cutting within the buffer except for forest health and/or safety. Timber resources within this buffer shall be managed through thinning to create an older age structure and more natural appearance.

#### **7.2.7 East Central Regional Rail Trail Buffer**

FLP Policy 2.19e requires a 100 foot vegetative buffer on each side of the trail measured from the edge of the travelled way. Timber resources within this buffer shall be managed through thinning to create an older age structure and more natural appearance. There shall be no clear cutting within the trail buffer except for forest health and/or safety. Addition provisions pertaining to the buffer are found at 9.3.

#### **7.2.8 Deering Addition.**

The amended FLP requires that approximately 270 acres adjacent to DPDC be conveyed to Volusia County and be available for passive recreation including wildlife viewing, camping, horseback riding, ecotourism, hiking, biking, and environmental education, together with pavilions, environmental learning center, improved trails, restrooms, kiosks and boardwalks. Lands within Deering Addition shall be managed consistent with 7.5.1, fire policies established in 7.4.1, Bear Management policies established in 7.5.1 and silvicultural practices as set forth in 7.3.



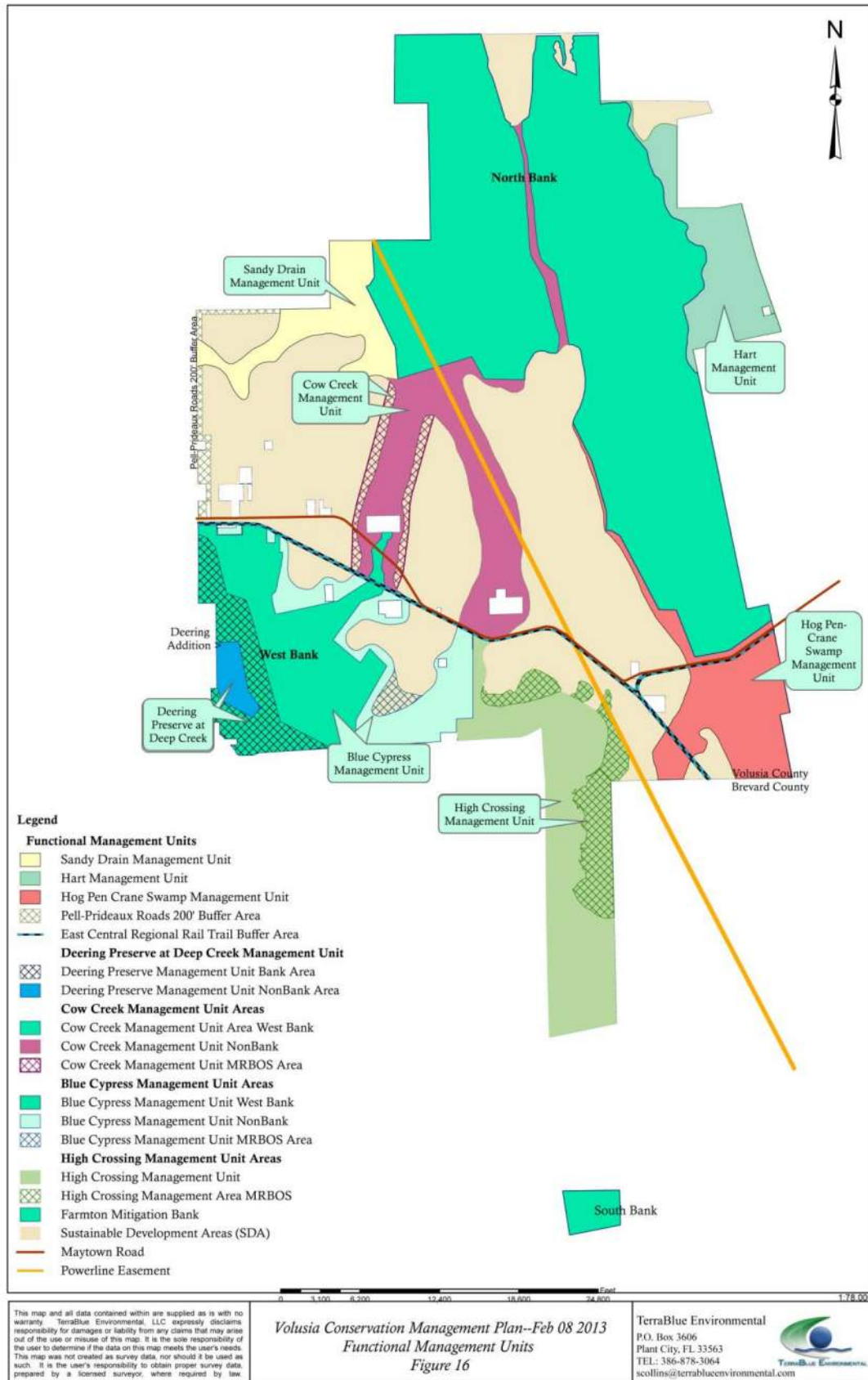
### **7.2.9 Functional Management Units**

To facilitate third party certification of silvicultural operations on Farmton, the tract is divided into functional management units which are identified on Figure 16. All lands within each management unit shall comply with silvicultural practices set forth in 7.3, fire policies set forth in 7.4, and species and habitat policies as set forth in 7.5 together with site specific policies as set forth in 7.2.1 - 7.2.7. Map Series 16a-16h depict vegetative communities for each functional management unit.

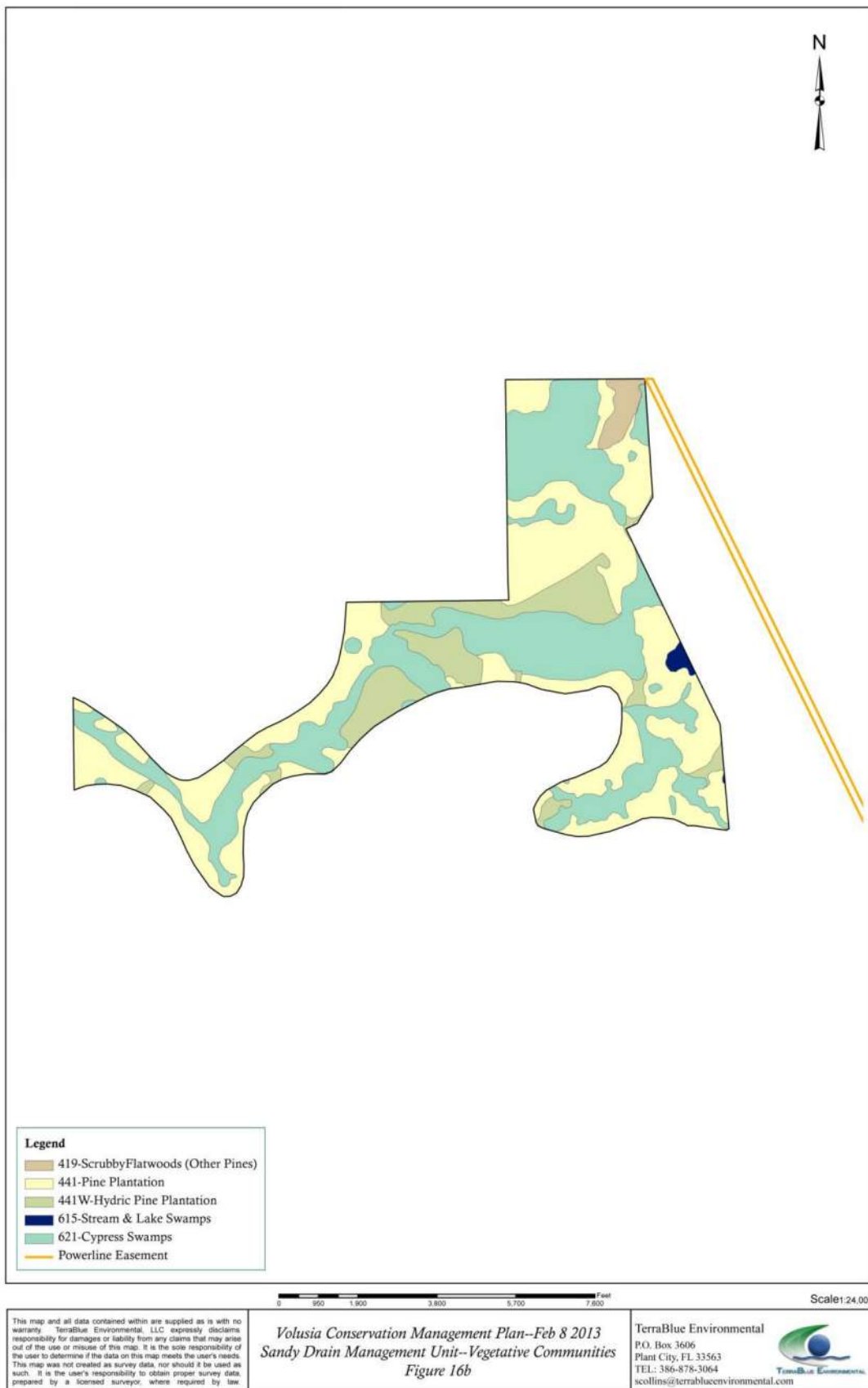
### **7.3 Silvicultural Practices**

The following silvicultural practices shall apply unless specific practices are provided within special areas or management units:

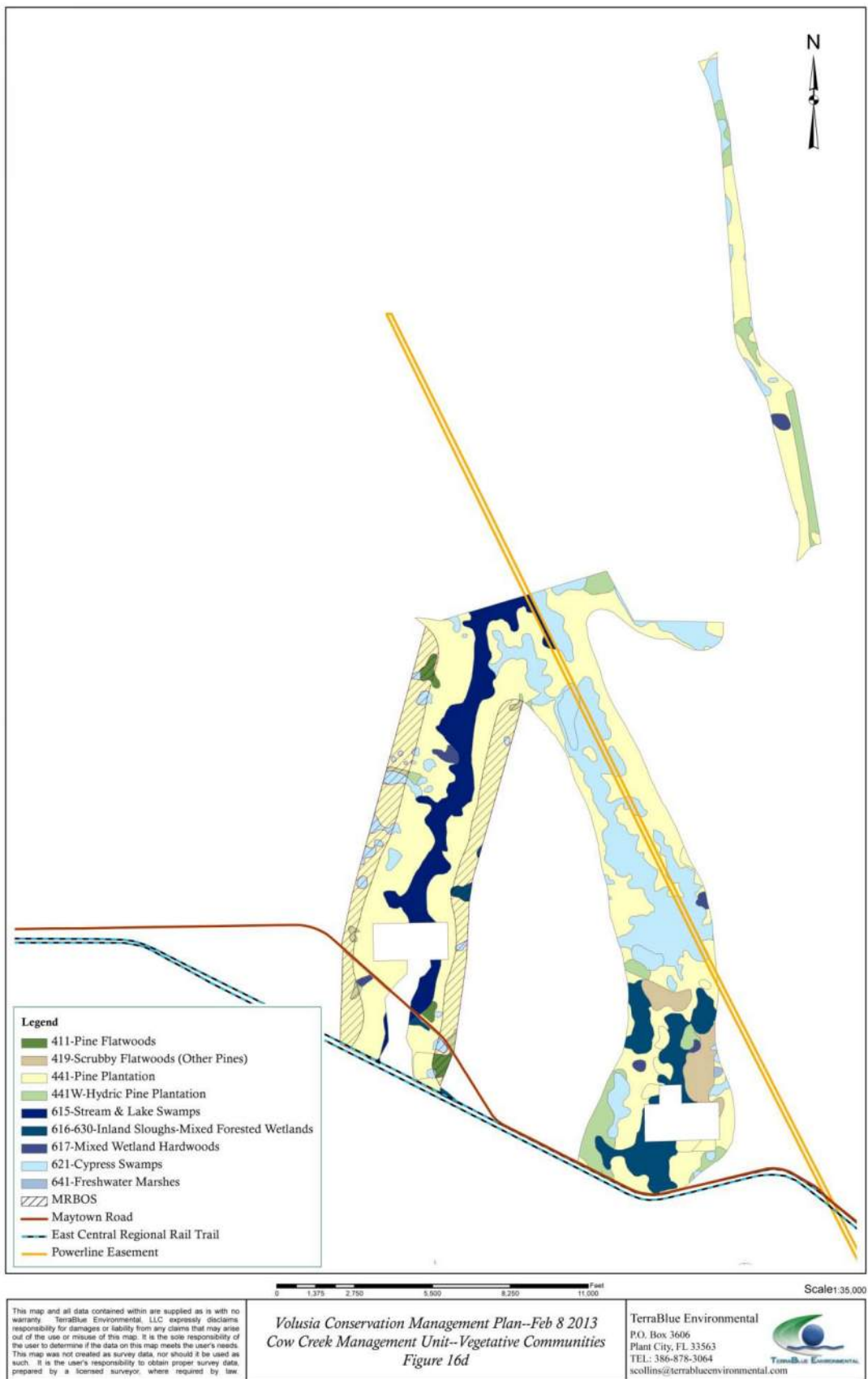
- Farmton shall comply with standards set forth in the most recent edition of the Silviculture Best Management Practices Manual as approved by the Florida of Agriculture and Consumer Services.
- Farmton shall continue to comply with certification standards under the American Tree Farm Program and agrees to maintain Tree Farm Certification pursuant to their standards of sustainability. Farmton shall provide a report of independent review and certification of compliance with American Tree Farm Standards of Suitability no less than every five years.
- For tree density, timber stands should have a range of trees or “surviving stems” from no less than 300 surviving stems per acre and no more than 800 stems per acre.
- Stands shall be considered for thinning anytime the basal area reaches above 90 square feet per acre. Stands shall be thinned to create an average basal area stocking (density) of 55 to 80 square feet per acre. Stands are permitted higher basal area stocking so long as a final harvest is scheduled with 5-7 years or less.
- The goal of silvicultural management on Farmton shall be to keep relatively even numbers of acres in each age class while diversifying the ages through the property.
- Clear cuts shall be limited to no more than 150 acre stand size and no more than 10% of the non-bank GreenKey or MRBOS lands in any given year. Clear cuts shall be planned so that adjoining stands are in the 7-10 year age class or at least 15 feet in height. Clear cuts should be performed to maximize an irregular shape of the stand rather than straight lines.
- In the event of a wildfire, insect or disease epidemic, or other natural catastrophe, a Best Management Practice may be relaxed temporarily to aid fire suppression, to conduct appropriate salvage techniques, and to promote rapid site recovery. In addition to timber resources there are alternative forest products such as cabbage palms, pine straw, biomass fuel, and palmetto berries, which may be harvested subject to Desired Future Conditions (DFCs).



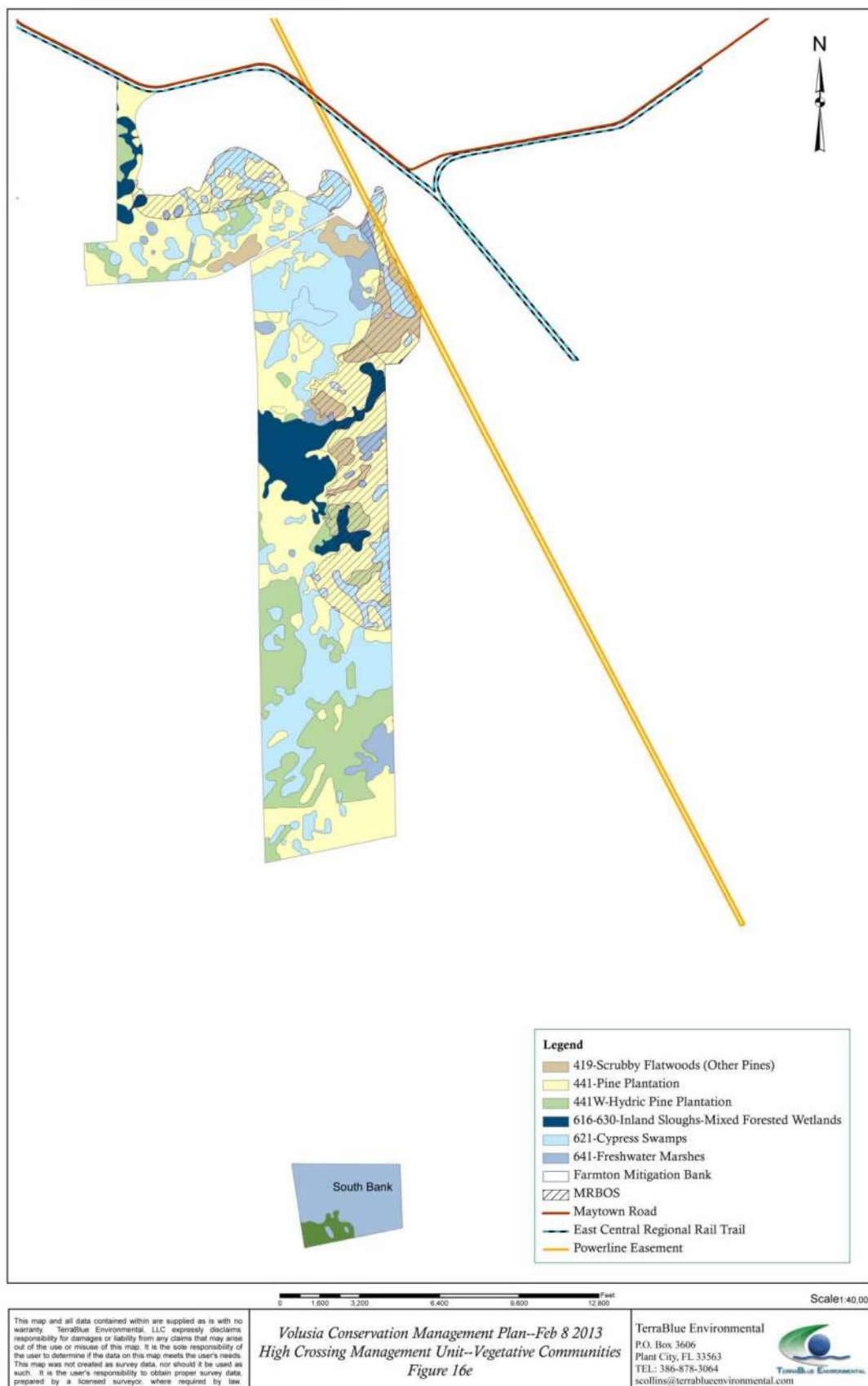


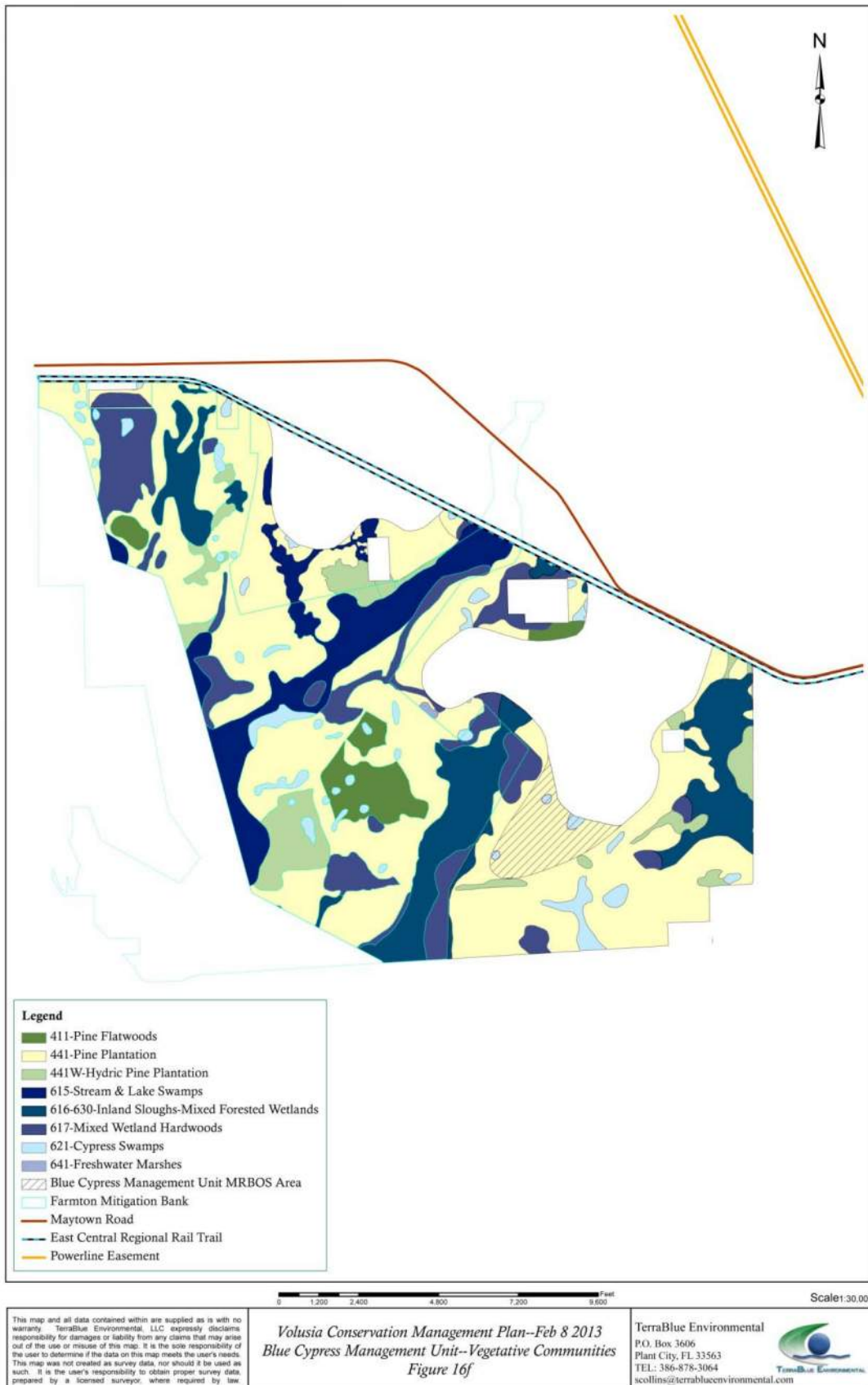


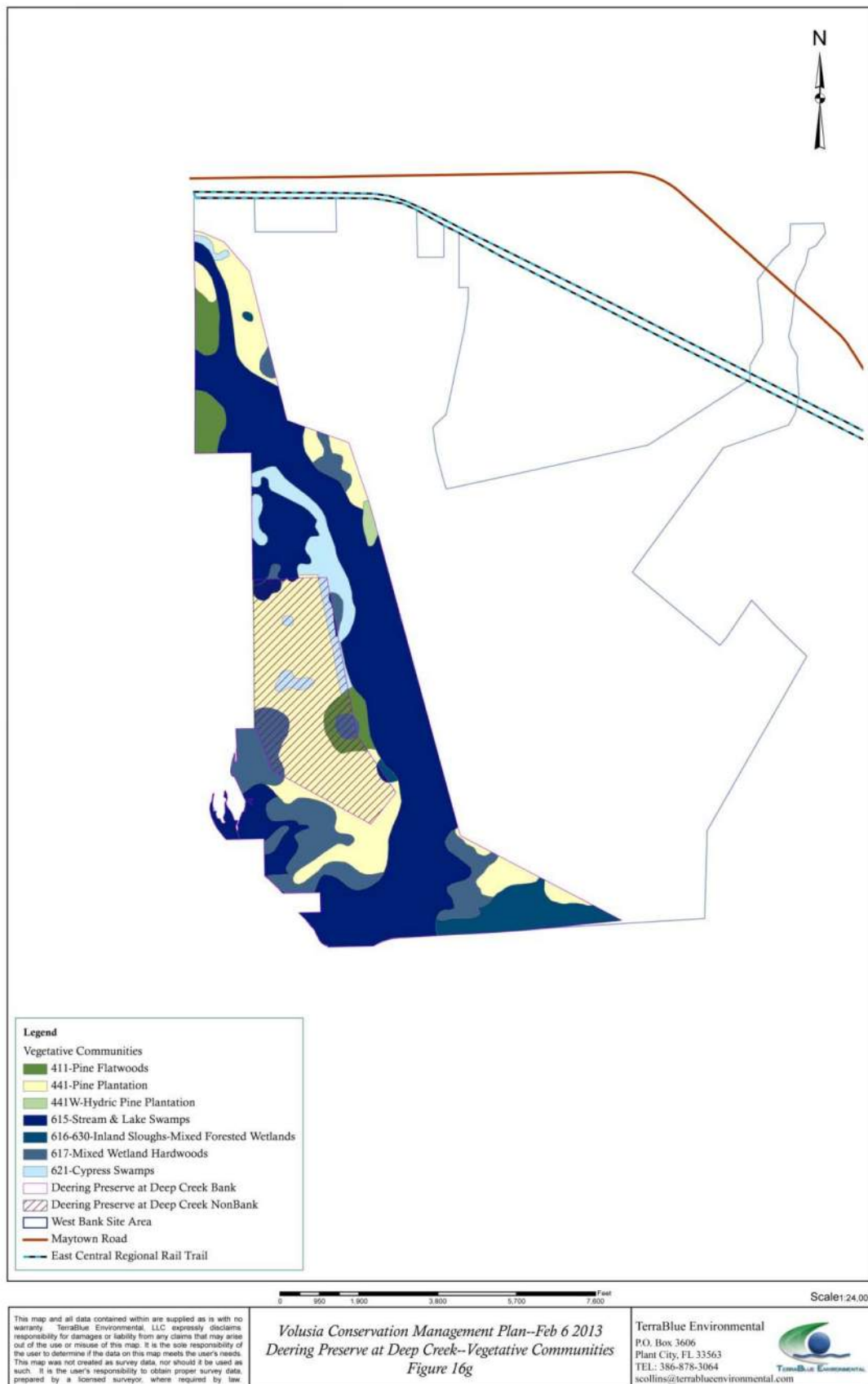


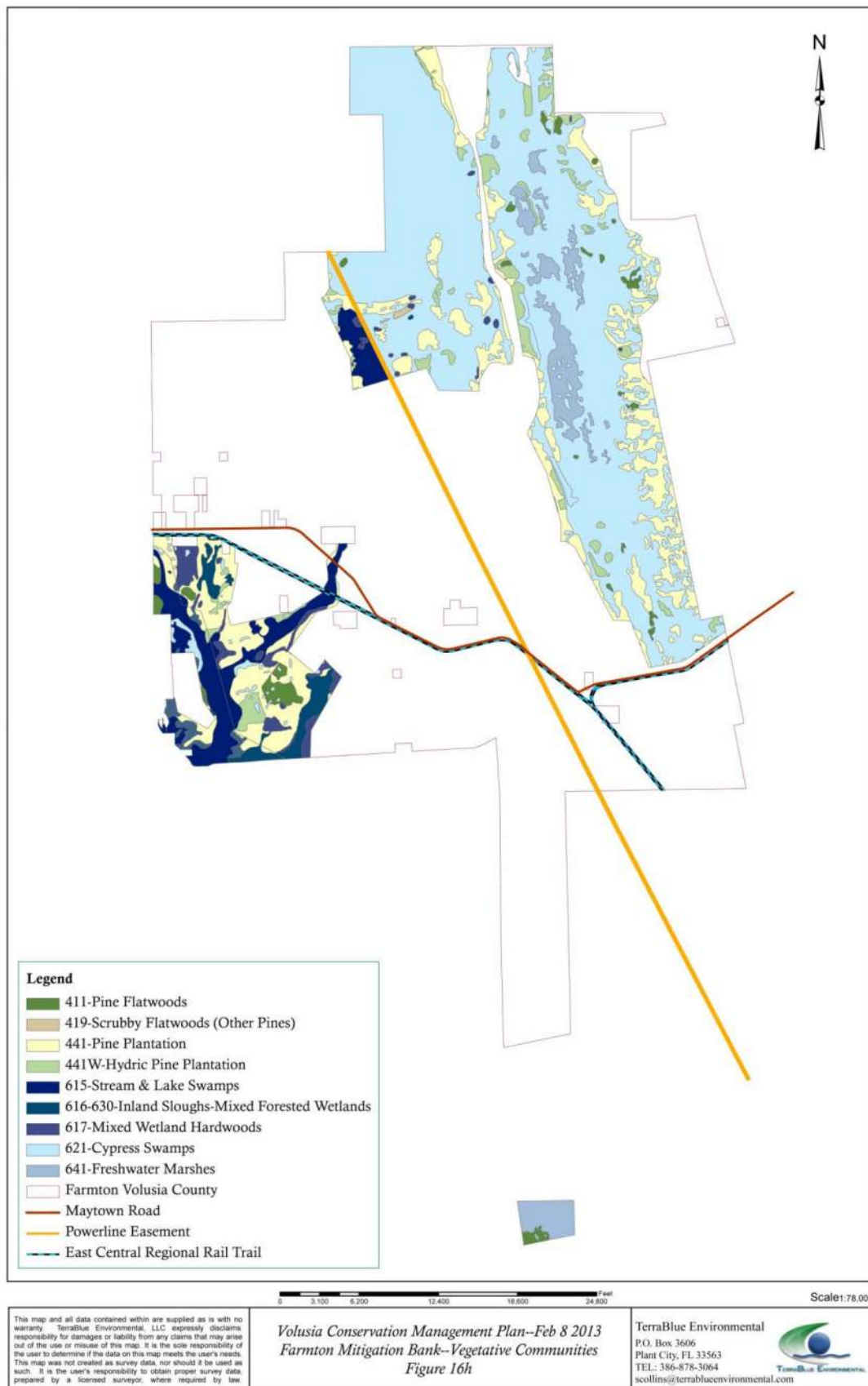












## 7.4 Fire

Fire is an integral part of the Eastern Florida Flatwoods Ecoregion as described in 2.2. It is both naturally occurring from lightning strikes and man-made and essential to the ecology of fire dependent plant communities within the region. Prescribed fire is used extensively in forestry for fuel reduction, brush control, disease and insect control, site preparation, and wildlife habitat improvement. The benefits of prescribed fire include reducing the adverse impacts of wildfire, enhanced biodiversity, and enhanced aesthetics. On the other hand, population growth, urbanization of the surrounding area, the construction of I-95, and rural development along Pell Road, Maytown Road, State Road 46, the areas around Harrison, Aurantia, Blount's Ridge Roads, and the Lake Harney Woods development present challenges to a prescribed burn program.

### 7.4.1 Prescribed Fire specific to Timber Operations

Prescribed fire is an important silvicultural and ecological management tool used to approximate the benefits of natural periodic fire. This management tool is used to maintain fire dependent ecosystems and reduce fuel loads. Prescribed fire has not been used on Farnton in many years but is required under appropriate times, conditions, and locations. FLP Policy 2.5 requires prescribed fire with the SWC and Policy 2.11(n) requires the CMP to address prescribed fire specific to habitat types, Florida Forest Service criteria, with flexibility associated with weather conditions and catastrophic events. All prescribed burns shall be conducted in accordance with applicable Florida statutes and rules by a certified prescribed burn manager.

The vegetation associated with the present and future timber operations is well adapted to fire. Prescribed burning via a written plan, as well as ongoing mechanical manipulation, are critical tools to prevent the excessive buildup of fuel loads that can increase the risk of catastrophic wildfire. The goals for the implementation of a prescribed burn plan include:

1. Protection and enhancement of the timber asset and associated plant communities through:
  - A. Dormant season burns
  - B. Growing season burns once fuel loads are at a level where timber losses are minimized
  - C. Use of fire lines
2. Smoke mitigation.

To achieve these goals, the area will be segmented into manageable burn units such that burn plans can be developed prior to implementation.

#### **Community Types and Fire Return Interval Targets by Vegetative Community**

Pine Flatwoods	2-4 Years
Pine Plantation	2-4 Years
Hammock	Site specific, but infrequent
Sloughs/Strands /Swamps	3-5 years along outer edges

Freshwater Marshes  
Scrubby Flatwoods  
Southwest Conservation Area

Burns with adjacent communities  
8-15 years  
2-4 years for food source and/or  
5-7 years for black bear denning

The majority of pine flatwoods and pine forests on Farmton have been silviculturally altered and are presently planted or seeded slash pine. The area is the most naturally adapted to fire. Implementation of a quality fire program can reduce fuel loads and the loss of revenue due to wildfire. The goal for the pine flatwoods and other habitats is to restore the periodic use of prescribed fire in an effort to promote a more natural understory in species and composition and enhance overall resource protection. The means to this end are clear-cut harvesting, thinning and appropriate site preparation along with prescribed burning at or near the natural targeted fire return interval. Presently, heavy fuel loads occupy a great portion of the flatwoods. For this reason, dormant season burns will be favored initially and specifically stands that have been thinned. The mechanical activity serves to break up fuel loads and facilitate safe access for burn personnel. The primary goal for the initial burn is to reduce fuel loads and protect the timber resource. Over time, growing season burns will be introduced as a means of further opening the burn window and favoring more of the suppressed herbaceous cover.

Hammock areas in the conservation area are not primary targets of prescribed fire management. The natural hammock community grades into the surrounding pine flatwoods community, which is fire dependent. While hammocks are influenced by fire, fire serves more as a deterrent to the expansion of hardwoods and shrubs into adjacent flatwoods.

Sloughs/Strands/Swamps are scattered throughout the conservation area and are fire adapted. Fire may not burn though the entirety of the wetland system but is important in the maintenance of the edge habitats surrounding them. As adjacent areas are burned, fire will be applied to the slough/strand/swamp areas that are on the interior of the conservation area, so long as safety and potential lingering smoke issues do not warrant exclusion.

Freshwater marshes embedded within many of the wetland sloughs/strands/swamps are well suited to fire. As in the Slough/Strands/Swamps areas, fire is important to the maintenance of the edges of freshwater wetland systems. Again, fire will be applied when adjoining areas are burned so long as the marsh area is contained entirely within the conservation area and adequate moisture is present to prevent a muck fire and lingering smoke issues.

Weather conditions and increasing urbanization in the areas surrounding Farmton are important considerations in the implementation of a prescribed fire program. Extended drought conditions and smoke management issues within urban areas as well as smoke sensitive highways may require the owner to modify the program or implement alternative community maintenance activities. Mowing, chopping and herbicide application, or some combination, are alternative methods where fire is deemed a safety or liability risk. The owner will rely on the judgment of a qualified natural resource professional for determination of the use of prescribed fire or appropriate alternative methods for natural community maintenance.



## **7.5 Protection of Specific Species and Habitat**

FLP Policy 2.11(i) requires the CMP to address specific habitat protection for listed or imperiled species. Policy 2.11(e) requires strategies and habitat management plans for threatened or endangered species. FLP Policy 2.5(b) specifically requires the CMP address habitat requirements of the Florida Black Bear within the SWC.

### **7.5.1 Black Bear Management Plan**

All of Farnton is designated by FWCC as Strategic Habitat Conservation Area for Florida black bear but certain areas are more strategic. FLP Policy 2.5(b) requires a black bear management plan be developed in consultation with FWCC for the SWC and Mandatory Resource Based Open Space. The following policies recommended by FWCC constitute the black bear management plan for forestry and land management within the SWC:

1. Promote dense understory vegetation, such as palmetto, oaks, blackberry and other appropriate food sources;
2. Prohibit the harvesting of palmetto fruit;
3. Encourage management techniques that provide timber stands with different characteristics and timeframes for thinning and harvesting;
4. Provide prescribed fire under appropriate conditions to encourage natural food sources and denning habitat;
5. Provide silviculture management activities that reduce impacts to bears during denning season (January through April). Clear-cutting in the denning months must be preceded by some type of silvicultural activity that would reduce understory density and deter bear denning activity, i.e. thinning (pre-logging) or prescribed burning within the two years preceding the planned clear-cut. These pre-cut activities also must be done outside denning season. In the absence of silvicultural activity prior to the denning season, clear-cut harvests shall be avoided from January through April;
6. Configure clear-cut areas so the wildlife corridor is not completely severed;
7. Close and reclaim temporary harvest roads after final harvest;
8. Prohibit hunting of black bear;
9. For those areas within the mitigation bank, the land shall be managed in a manner that is consistent with the Farnton Mitigation Bank permit.

Forestry within the Southwest Wildlife Corridor shall be managed to establish over time a mosaic of habitat types through different harvesting techniques. Within the Deering Preserve [Deep Creek Conservation Area] and South Mitigation Bank, all wetlands shall be protected. Within the Cow Creek Corridor an additional Special Management Zone shall be established to prohibit cypress harvesting and enhance the wildlife corridor. Upland hammock and hardwood forested areas will not be harvested so as to protect Black Bear food sources. Upland areas within the SWC which are also within FMB are subject to a Forestry Stewardship Plan which requires uneven age management through thinning to achieve an older age class. Remaining timber stands within the SWC will be managed by limiting clear cuts and planning adjoining age classes to as to create a patchwork of different age stands. Within the SWC, clear cuts will be limited to no more than 10% of the SWC with individual clear cuts limited to 150 acres in any given year. Clear cuts should be planned so that adjoining stands are a minimum age class of 7-

10 years or 15 feet in height. Clear cuts should be performed to maximize an irregular shape of the stand rather than straight lines. Forestry management within SWC favors older age classes and larger diameter trees.

As described in Section 4.2, fire is a naturally occurring event on Farnton. Prescribed fires will be scheduled within black bear habitat when weather conditions are suitable for their occurrence. Prescribed fires within fire dependent habitats shall be targeted to maintain a mosaic of composition. Fire returns of 2-4 years shall be used to promote production of food sources, and fire returns of 5-7 years shall be used to promote habitat for denning.

The mitigation bank permit requires the control of nuisance and exotic vegetation; therefore, there may be some areas of the Southwest Wildlife Corridor where herbicides are used. It is allowable to use herbicides in stand establishment so long as label instructions are followed. Herbicides will not be used within the Southwest Wildlife Corridor for stand establishment during denning seasons.

As RBOS is designated in the future, additional policies will be developed to address applicable interaction between the black bear and human populations to reduce the chances of human-bear conflicts. These future RBOS policies shall be consistent with the FWCC Black Bear Management Plan in effect at such time.

### **7.5.2 Bald Eagle and Bald Eagle Habitat Protection**

There are documented active bald eagle nests on Farnton (Figure 9). This species is protected under the Federal Bald Eagle Protection Act and protection of areas surrounding bald eagle nests shall be subject to National Bald Eagle Management Guidelines established by the United States Fish and Wildlife Service (USFWS) as they may be modified from time to time. Newly identified nests will be reported to the FWCC for inclusion in the state nesting database. Specific conservations measures are set forth below.

The bald eagle nesting season in Florida is October 1 through May 15 of each year, unless breeding adults return to the nest prior to October 1, or the young fledge after May 15. In areas where land management activities are planned the following practices shall be required:

1. Avoid clear-cutting or removal of overstory trees within 330 feet (100 meters) of both active and alternate nests at any time.
2. Avoid timber harvesting operations, including road construction and chain saw and yarding operations, during the nesting season within 660 feet (200 meters) of the nest. The distance may be decreased to 330 feet around alternate nests within a particular territory, including nests that were attended during the current nesting season but not used to raise young, after eggs laid in another nest within the territory have hatched.
3. Selective thinning and other silviculture management practices designed to conserve or enhance habitat, including prescribed burning close to the nest tree, should be undertaken outside the nesting season.
4. Conduct burns only when adult eagles and young are absent from the nest tree (i.e., at the beginning or end of the nesting season, either before the particular nest is active or after the young have fledged from that nest).

5. Take precautions such as raking leaves and woody debris from around the nest tree to prevent crown fire or fire climbing the nest tree.
6. Avoid construction of log transfer facilities and in-water log storage areas within 330 feet (100 meters) of active and alternate nests.
7. Avoid the use or placement of heavy equipment within 50 feet of the nest tree to avoid potential impacts to tree roots. This does not apply to existing roads, trails, or other linear facilities near an eagle nest.

### **7.5.3 Gopher Tortoise Protection**

Gopher Tortoise protection is regulated by FWCC and Volusia County ordinances which generally exempt silvicultural operations. The Volusia County ordinance does not require a permit for silvicultural operations conducted where gopher tortoises are present, but does require agricultural operations to comply with Appendix 2 of the most recent FWC management guidelines (which is the General Policy Statement concerning agricultural activities pertaining to gopher tortoises). Accordingly, silvicultural activities will not knowingly cause the collapse of any known active gopher tortoise burrow. As SDAs are developed in the future it may be necessary to seek formal designation of appropriate areas within GreenKey for use as gopher tortoise relocation recipient sites. According to current FWCC guidelines, there are several approaches that may be used for the relocation of gopher tortoises and these include FWCC-approved gopher tortoise recipient sites. Designation of an approved Recipient Site on Farnton is subject to completion of gopher tortoise surveys which will document the carrying capacity of gopher tortoises per acre within the surveyed parcel(s). Recipient Sites must meet specific criteria to be eligible for relocation of tortoises, including physical characteristics of the habitat and existing tortoise numbers.

### **7.5.4 Swallow-tail Kite Protection**

Farnton is a known nesting site for Swallow-tail kites which tend to prefer large silviculture areas for nesting between March and August each year. Farnton will cooperate with Florida Audubon Society to allow annual nest surveys and will restrict harvesting around a 132 foot (2 chains) perimeter of any nest tree during the nesting season. In the event that the annual survey indicates kites are nesting in communal groups then harvesting will be restricted around the group of nest trees.

### **7.5.5 Rugel's Pawpaw**

There are a few locations within Farnton where there is the possibility of the presence of Rugel's Pawpaw; those locations should be checked during periodic monitoring and especially after prescribed fire or wildlife. In the event that the species is observed, this information will be coordinated with Volusia County Environmental Management and site specific conservation protocols will be established.

## **7.6 Wildlife Crossings**

The Farnton Local Plan requires any roadway development be designed to avoid and minimize conflicts between motor vehicles and the movement of wildlife. Tools to minimize this conflict

include, but are not limited to, location criteria, landscaping techniques, fencing, speed limits, wildlife underpasses and overpasses, bridging, and elevating roadways. FLP Policy 2.18 provides additional criteria for wildlife overpasses and underpasses for Maytown Road and Arterial "A" (Spine Road), which minimizes impacts to habitat. Maytown Road and Arterial "A" are provided on Figure 14E of the Farmton Local Plan and specifically depicted on Figure 11. A portion of the planned Spine Road splits the North Bank with a 200 foot right of way reservation. This was removed from the bank with permit modifications approved in 2011. FLP Policy 2.19 requires a "no encroachment" 75 foot buffer along arterial roads.

### **7.7 Agricultural Use/Cattle Grazing**

Cattle leases will continue into the future as an authorized agricultural use in the GreenKey lands outside of FMB. Cattle operations are required to comply with Best Management Practices for Cow-Calf Operations as approved by the Florida Department of Agriculture and Consumer Services. Farmton will cooperate with NRCS to develop appropriate cattle stocking rates.

### **7.8 Logging Access**

All of the existing farm roads within the area covered by the CMP, as described in 5.2.1 and shown on Figure 11, may be maintained as they have been prior to the implementation of the CMP. Additional roads associated with the implementation of the CMP may be constructed so long as new construction is in accordance with Florida BMP guidelines and permitted by appropriate state and local regulating agencies.



## **8.0 Significant Water Resources Protection**

This section includes provisions for protection of significant water resources such as streams, creeks, natural drainage ways, floodplains, and wetlands, and includes provisions for protection, enhancement, and restoration and planned hydrological restoration. Figure 17 depicts significant waters.

### **8.1 Deep Creek Sub-Basin**

The Deep Creek sub-basin drains a 274 square mile area and connects Lake Ashby with the St. Johns River. In the 1920s, much of Deep Creek was channelized in order to better drain low lying lands in the central part of the county. The lower sections of Deep Creek, from its confluence with Cow Creek to the St. Johns River, are ecologically valuable lands and contain both floodplains and cypress swamps. All of Deep Creek within Farnton is within the West Bank of the Farnton Mitigation Bank. Accordingly, the area is subject to the mitigation bank permit requirements including the Forestry Stewardship Plan and has benefited from hydrological improvements associated with the permit. No additional hydrological improvements are contemplated or required.

### **8.2 Cow Creek**

Cow Creek is an intermittent stream originating in the northern portion of Farnton and flows south to its confluence with Deep Creek. The lower segment of Cow Creek is within the West Bank of the Farnton Mitigation Bank. Hydrologic and vegetative enhancements were implemented when the West Bank was opened as required by the permit conditions. Cow Creek serves as the central feature of the SWC, which connects conservation lands associated with the West Bank and the St. Johns River with the North Bank and Spruce Creek Swamp. This corridor is an important feature of the Farnton Local Plan. Mandatory Resource Based Open Space was added on both sides of the Cow Creek corridor to enhance its function as a regional wildlife corridor. As set forth above, Farnton will apply a 200 foot SMZ on either side of Cow Creek to prohibit cypress harvesting within the SMZ.

### **8.3 Spruce Creek Swamp**

The Spruce Creek Swamp is the headwater for Spruce Creek, and much of this swamp lies on Farnton. Nearly all of Spruce Creek Swamp is within the North Bank of the Farnton Mitigation Bank and much of it already has been placed under conservation easement. Hydrological improvements required by the FMB permit conditions already have been put into place, and the area will continue to be managed subject to the permit.

### **8.4 Crane Swamp**

Crane Swamp lies immediately east of Spruce Creek Swamp and together they form one of the largest remaining forested swamps in the region. Nearly all of Crane Swamp north of Maytown Road is within the North Bank of the Farnton Mitigation Bank. Hydrological improvements required by the FMB permit conditions already have been put into place and the area will continue to be managed subject to the permit. Much of this area has already been placed under

conservation easement required by the mitigation bank permits. It is the least impacted of all areas within Farnton with only limited disturbances to hydrology, soils, and canopy. A portion of Crane Swamp extends south of Maytown Road and is not within the FMB. That area is defined as east of Brake 4, east of East Central Regional Rail Trail, and extends to the Brevard County line. Within this area, tree harvesting within wetlands shall be prohibited.

## **8.5 St. Johns River**

The Farnton Tract adjoins a small portion of the St. Johns River at the confluence of Deep Creek. The St. Johns River is one of the most significant river systems in Florida draining over 8,000 square miles of the Florida Peninsula over its 310 mile length. Management and conservation of the St. Johns River is focused within specific basins. Each of these basins has specific management plans associated with them adopted by the St. Johns River Water Management District. Most of Farnton in Volusia County is within the Middle Basin but southern portions of the tract are within the Upper Basin. The St. Johns River carries various designations, including designation as an American Heritage River, signed by President Clinton in 1999. Portions of the St. Johns River are classified as Outstanding Florida Waters and designated under the Surface Waters Improvement and Management (SWIM) Program. That portion of Farnton which is contiguous to the St. Johns River is within the West Bank of the Farnton Mitigation Bank. It already is under conservation easement and managed subject to the terms and conditions of the mitigation bank permit.

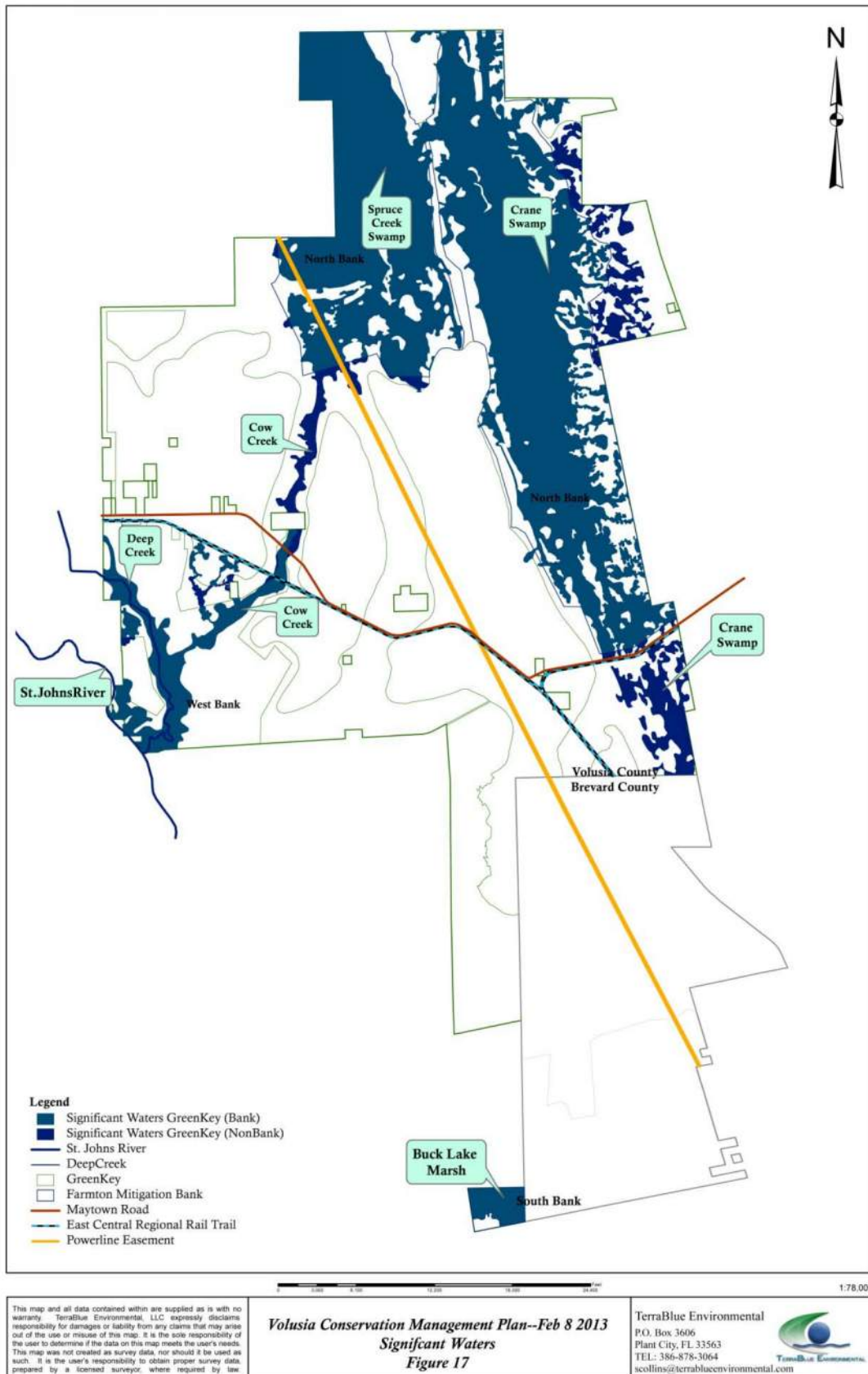
## **8.6 Buck Lake Marsh**

Located within the southwest corner of Farnton is Buck Lake and Buck Lake Marsh. Buck Lake is located wholly in Brevard County while a small portion of Buck Lake Marsh is within Volusia County. All of Buck Lake Marsh is within the South Bank of the Farnton Mitigation Bank and managed subject to its permit conditions. Buck Lake Marsh is somewhat unique in that it is an interior site which contains both freshwater and saltwater marsh. Adjacent to Farnton is the 9600 acre Buck Lake Conservation Area managed by the St. Johns River Water Management District.

## **8.7 Floodplain and Wetland areas**

There are floodplains on Farnton associated with the St. Johns River, Deep Creek and Cow Creek. There are large, hydrologically connected forested and herbaceous wetlands on Farnton, as well as isolated and smaller wetlands as described above. All wetlands and floodplains within the Farnton Mitigation Bank are protected consistent with permit requirements. All significant remaining wetlands and floodplains within Farnton areas lying outside of the mitigation bank shall be managed to avoid adverse impacts pursuant to Volusia County Minimum Standards and the Wetlands Protection Ordinance. Wetland buffers within Farnton shall be protected pursuant to the Wetlands Protection Ordinance but shall have enhanced buffers required by the FLP to protect an average upland buffer of 100 feet but no less than 75 feet from any development. Silviculture activities within these areas shall be managed according to the most recent edition of Silvicultural Best Management Practices, as approved by the State of Florida Department of Agriculture and Consumer Services.





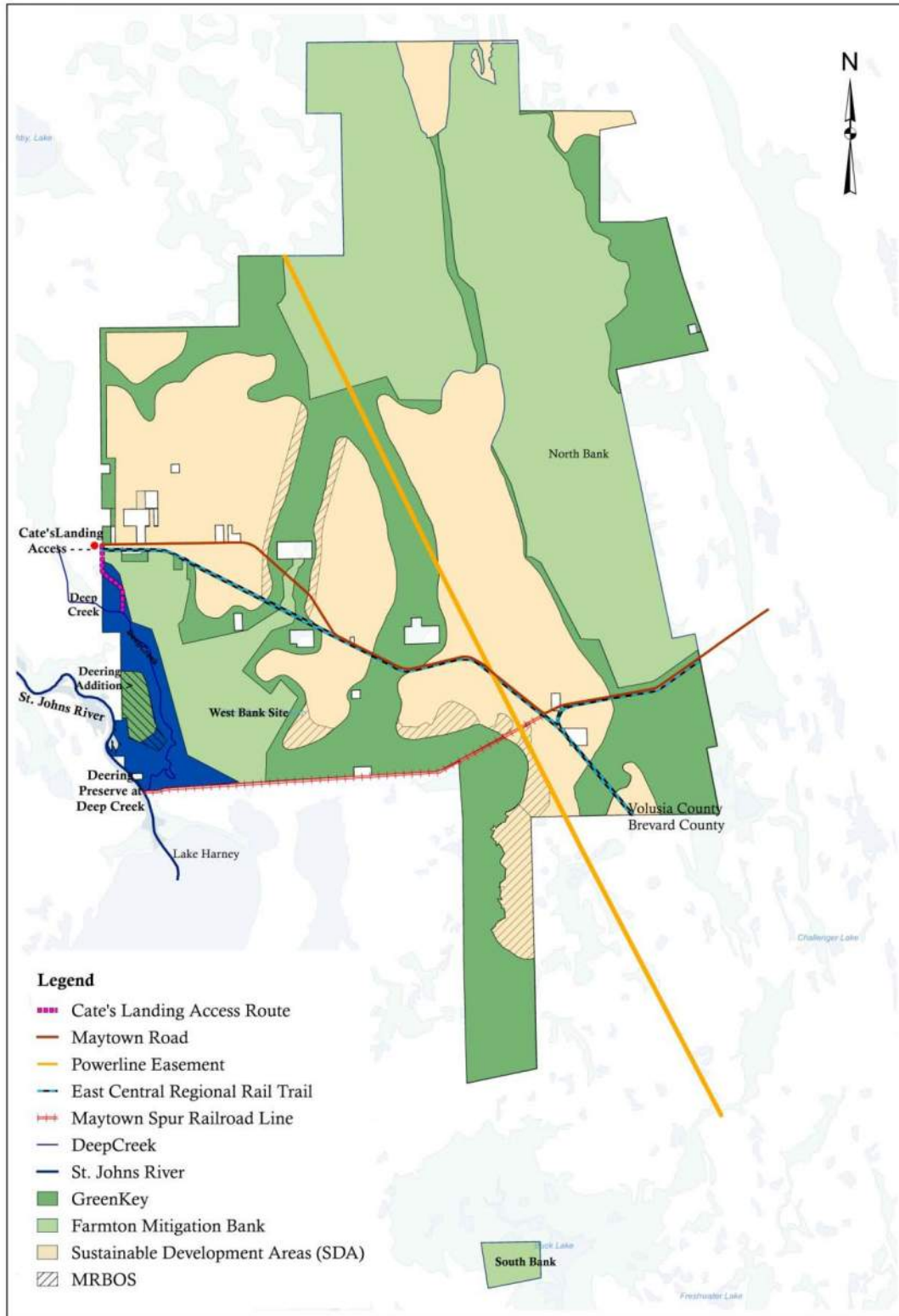
## **9.0 Provisions for Passive Recreational Use, Environmental Education, and Public Access**

FLP Policy 2.2 provides that trails, boardwalks, passive recreation, and environmental learning centers are permitted land uses within GreenKey. FLP Policy 2.11(l) sets forth a requirement of the CMP for "appropriate public access and the development of trails, boardwalks, and interpretive facilities." FLP Policy 2.11(u) requires coordination with the East Central Regional Rail Trail.

Except as specifically set forth in this plan, GreenKey lands are not appropriate for unbridled public access as they have been set aside for wildlife habitat and agricultural use. The most appropriate public access in the future will be associated with the development and opening of the East Central Regional Rail Trail. This trail will provide nearly 16 miles of public access through Farmton once it is complete. In addition, a road and parking area along the western perimeter of the Farmton Tract south of Maytown Road, to the point it reaches Deep Creek, at Cate's Landing will provide public access for canoe or kayak. This road and parking area shall be made available within three years of the approval of this plan or upon modification of the FMP permit as more fully provided in 9.1. The design and construction of this road and associated improvements is the sole responsibility of Volusia County.

Upon permitting and development of the SDA's, additional trails may be developed within GreenKey and Resource Based Open Space lands. The FLP authorizes appropriate passive recreation and trails within RBOS and also authorizes bike paths, boardwalks, and equestrian and pedestrian trails within the 200 foot boundary buffer. In addition, a short loop trail from the planned OGT trail head near the Farmton Office, a connecting hiking and equestrian trail between the two planned trail heads, connectivity to other public conservation lands, and a trail connection to the Wiregrass Prairie Preserve shall be provided. Another future opportunity for public access may be the abandoned Maytown Spur railroad right of way which runs from near the intersection of Maytown Road and Maytown Spur Road to just east of the confluence of Deep Creek and St. Johns River. Maytown Spur also intersects with Lake Harney Road. The Maytown Spur is owned by Florida Department of Transportation. Options and concepts for public access are depicted on Figure 18.





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**Volusia Conservation Management Plan--Feb 8 2013**  
**Opportunities for Public Access**  
**Figure 18**

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## **9.1 Deering Preserve at Deep Creek**

The Deering Preserve at Deep Creek is an environmentally sensitive and fragile gem. The amended FLP, requires that the 1140 acre DPDC be conveyed to Volusia County together with the 270 acre Deering Addition. DPDC remains in the Farmton Mitigation Bank while the addition is outside the bank. The FLP permits passive recreational uses to have limited impacts on the resource including primitive trails, boardwalks, and viewing platforms consistent with the mitigation bank permit. FLP Policy 2.5(a) also states "controlled upland access by canoe or kayak to Deep Creek is an allowed passive recreation use," and Cate's Landing, identified on Figure 18, has been identified as the most appropriate location for access to the creek. While the DPDC will remain subject to the mitigation bank permit conditions. The county and permit holder will cooperate to seek modification of the mitigation bank permit conditions to authorize appropriate public access. Hunting is currently authorized within DPDC but pursuant to agreement between Miami Corporation and Volusia County, it will be phased out over eight years.

The Deering Addition lands will also be conveyed to Volusia County. These lands, together with contiguous lands that are not within the mitigation bank, may be developed by the county for passive recreational uses that include wildlife viewing, hiking, biking, equestrian use, camping, and environmental education facilities.<sup>6</sup>

## **9.2 East Central Regional Rail Trail**

The East Central Regional Rail Trail traverses a portion of the Farmton Local Plan's conservation area south of Maytown Road. The State of Florida Board of Trustees of the Internal Improvement Trust Fund own a 100-200-foot wide corridor with the planned trail more or less centered within the right of way. The property is leased to the Florida Department of Environmental Protection, Office of Greenways and Trails (OGT), and sub-leased to Volusia County for 50 years as long term local trail managers. A Management Plan for the East Central Florida Regional Trail was adopted by Volusia and Brevard Counties and approved by OGT in 2009. Farmton will continue to cooperate with the planning and design of East Central Regional Rail Trail. Farmton will continue to cooperate with OGT and Volusia County to locate appropriate public access points including parking and trailheads. OGT has identified two potential trailheads on OGT lands adjacent to Farmton.

FLP Policy 2.19(e) requires a vegetative buffer of 100 feet on each side of the trail as measured from the edge of the traveled way and CMP 7.2.7 sets forth timber practices for the vegetative buffer. Harvests in the buffer will be conducted at the time when harvests are scheduled on adjoining managed timber stands. Areas of the trail adjacent to wetland areas that are not part of the forestry management plan will remain in a natural state. Where infrastructure such as power lines, water mains, and trail crossings are present, the surrounding landscape will be managed in such a manner as to provide for safety, reliability, and function of the infrastructure. Natural grasses and shrubs that do not interfere with visibility in such a way as to create an unsafe condition or interruption of power and water transmission will be favored and allowed to

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<sup>6</sup> As authorized by Ordinance 2013-05.

naturally inhabit these sites. Maintenance and protection activities also will be a part of the management of the Buffer Area. In order to protect the trail and adjacent timber resources, annual activities within the buffer area will include maintenance of fire lines and treatment of nuisance and exotic plants. In the event of a catastrophic storm or wildfire, dead or damaged timber will be harvested within the buffer area so as not to endanger trail users or nearby unaffected timber stands. Farnton shall communicate with Brevard and Volusia Counties to assist in the coordination of Farnton's silviculture operations with the Counties' planning, development, operations, and maintenance of the East Central Regional Rail Trail.

Once development is initiated in the Sustainable Development Areas, the Trail system potentially may be expanded utilizing the East Central Regional Rail Trail as the spine for an enhanced Trail system that connects all Sustainable Development Areas and Farnton Mixed Use areas. This may allow for potential expansion of the trail system, provided such trails do not negatively impact the mitigation bank, conservation area ecosystems, or Farnton's forestry operations.

### **9.3 Fencing**

The perimeter of the Farnton Tract and areas adjoining Maytown Road and Lake Harney Road shall continue to be fenced for the purpose of security and containing cattle. Internal cross fencing and segmenting of parcels shall be minimized to encourage unfettered movement of wildlife. Some internal fencing may be necessary to control cattle. Fencing along the East Central Regional Trail shall be permitted.

### **9.4 Hunting**

The area subject to the CMP shall continue to allow hunting consistent with the Farnton Mitigation Bank Wildlife Management Plan as a form of passive recreation subject to the following management goals:

1. Hunting methods and harvest limits will be in accordance with the Florida Wildlife Code and Hunting Regulations, as amended, and further limited by the FMB Wildlife Management Plan.
2. Quality Deer Management guidelines will be implemented targeting harvest of mature age classes of game animals.
3. Hunter density will be set with safety as the primary objective and shall not exceed one hunter per 67 acres.
4. Hunting activity will be structured in such a manner as not to pose a safety issue with East Central Regional Rail Trail or other trail users.
5. Hunting leases will favor multi year agreements to promote a static membership. The authorized hunting clubs shall be responsible for enforcing wildlife management plan requirements.
6. Annual harvest data will be recorded, compiled and reported annually. Data will include species, sex, and weight and size (antler size, bearding length, etc.).
7. Hunting groups will be allowed to maintain check stations in pre-determined locations for the collection of game data.
8. Camping will be allowed at hunt camps and campsites identified on Figure 11.

9. Site specific hunting policies and prohibition shall apply within the Deering Preserve at Deep Creek as follows:
- Hunting with dogs shall be prohibited after March 28, 2013.
  - Hunting in the DPDC shall continue consistent with the existing hunting lease(s) with Miami Corporation until April 30, 2016, and public access will not be allowed during that time except for controlled access by organized groups on Wednesdays coordinated with Miami Corporation.
  - For the following five years, licensed public access to the Deering Preserve lands will be allowed, pursuant to provisions in the mitigation permit modification, and except that the property would be closed to the public during general gun and spring turkey seasons as those seasons are annually determined by the Florida Fish and Wild Conservation Commission (“FWC”). During this time lands will also be open to the public on Wednesdays throughout the year.
  - The time, date, and manner for all hunting related to feral hog mitigation will be coordinated specifically with the county. Legal methods of taking game shall be consistent with Florida Fish and Wildlife Commission rules and regulations and shall be coordinated with the County during such events.
  - All Miami Corporation lessee hunting rights on Deering Preserve lands other than feral hog mitigation will be terminated subsequent to spring turkey season eight years after the date of transfer to the county.

## **9.5 Water Resource Development**

FLP Policy 2.2 authorizes water resource development within GreenKey. FLP Policy 2.11(j) requires the CMP to address water resource development, well fields, and protection of well fields. Farmton Services LLC has applied to SJRWMD for a consumptive use permit for potable water wells which would be located on lands governed by the CMP. The applicant will comply with permit conditions such as vegetative and hydrological monitoring. Farmton Services will comply with local and state wellhead protection ordinances, statutes, regulations and engineering design. A map showing the proposed locations of the well fields is on file with SJRWMD.

Additionally, the Farmton Local Plan contemplates the potential development of alternative water supply sources. Any future alternative water supply project or water resource development projects would be subject to permitting and approval by SJRWMD as part of its District Water Supply Plan.

## **9.6 Erosion Control**

Farmton has little topographic relief; therefore, erosion control typically is not an issue. Some future silviculture activities may require the application of erosion control measures as listed in the BMPs for silviculture. In addition, future activities in the CMP such as ditch maintenance, trail construction, or construction of an environmental learning center may require additional erosion controls.



## 9.7 Identification of Exotic Species and Plan for Treatment/Control

The identification and treatment of nuisance and exotic vegetation and wildlife on Farmton is a necessary and vital activity in maintaining ecosystem health and function. Control of nuisance and exotic vegetation is a condition of the Farmton Mitigation Bank permit but to be effective requires control of exotic species across the entire Farmton Tract. Nuisance and exotic vegetation are listed as Category I and Category II “Invasive Species” as determined by the Florida Exotic Pest Plant Council (FLEPPC). Nuisance and exotic species which have the potential to occur and which have been previously noted and treated on Farmton include Lygodium (*Lygodium japonicum*), cogon grass (*Imperata cylindrica*), Brazilian pepper (*Schinus terebinthifolius*), and Chinese tallow (*Sapium sebiferum*). Since 2000, the entire Farmton Tree Farm has been subject to an aggressive nuisance and exotic species control program. Invasive species shall be treated as they are identified on Farmton to maintain less than a 10% overall coverage. Currently, invasive plant species are less than 1% of Farmton. Treatment regimes outlined by the various invasive plant management plans maintained by the FLEPPC have been and should continue to be used. Annual inspections shall be conducted and invasive plants mapped. A permanent reference data base including mapping of the location, plant identification, treatment dates and effectiveness of control measures, shall be maintained for monitoring purposes. Nuisance and exotic wildlife is currently managed per agreements with the hunt clubs.

## 9.8 Summary of Desired Future Conditions by Vegetative Communities

What follows is a general description of desired future conditions of the vegetative communities described in 4.4.2 as further modified by specific protocols established within Special Areas and Management Units identified in 7.1.

**Stream and Lake Swamps:** The desired future conditions within bottomlands generally should match the description in 4.4.2. Barring catastrophic events, the desired future condition should be 80-100% closed canopy. Management activities shall be designed to maintain the baseline conditions within bottomlands by leaving them in a natural state. Bottomland ecotones should be burned in rotation with adjacent areas. Use of heavy mechanical equipment which would cause adverse impact to soils should be avoided. Most of this vegetative community is within the Deering Preserve and West Bank and already has seen the benefit of permitted hydrological improvements. Pursuant to the FMB permit conditions, hydrological structures will be maintained.

**Cypress Swamps:** Most of the cypress swamps within Farmton have been subject to harvesting for decades. Except for certain special areas and management units, harvesting within cypress swamps will continue subject to silviculture BMPs. At the time of harvest, protection of residual seed trees or leave trees is of primary concern. Depending upon the site, representative trees should be left at 3-5 per acre or 10% of the stand. Site sensitivity is a key issue in any wetland harvesting system. Proper equipment should be used and harvesting closely monitored for detrimental impacts and ceased if conditions warrant. Ecotones of cypress swamps should be burned in rotation with adjacent areas. Within the Cow Creek MRBOS and Crane Swamp Management Areas, the SMZ restrictions should result in desired future conditions for cypress swamps to match the description in 4.4.2 and management activities should be designed to

maintain baseline conditions by leaving them in a natural state. Barring catastrophic events the desired future condition should be 80-100% closed canopy within those management units.

**Mixed Forested Wetlands, Inland Ponds, and Sloughs:** Most of the mixed forested wetlands within Farnton have been harvested for slash pine and cypress subject to silviculture BMPs. Site sensitivity is a key issue in any wetland harvesting system. Protection of residual seed trees or leave trees is of primary concern. At least 3-5 leave trees or 10% of the parent stand should be left per harvested wetland acre. Proper equipment should be used and harvesting closely monitored for detrimental impacts and ceased if conditions warrant. Ecotones of basin swamps should be burned in rotation with adjacent areas. Within these vegetative communities the hydrology shall not be artificially manipulated by Farnton or successors.

**Mixed Wetland Hardwoods:** The desired future conditions within hydric hammocks should generally match the description in 4.4.2. Management activities shall be designed to maintain the baseline conditions within hammocks by leaving them in a natural state. Hammock ecotones should be burned in rotation with adjacent areas. Use of heavy mechanical equipment which would cause impact to soils should be avoided. The desired future condition for hydric hammocks should approach a closed canopy condition. Barring catastrophic events the desired future condition should be 80-100% closed canopy.

**Freshwater Marshes:** The desired future conditions within marshes should generally match the description in 4.4.2. Management activities shall be designed to maintain the baseline conditions within marshes by leaving them in a natural state. Marshes should be included when adjacent areas are burned. Within this vegetative community the hydrology shall not be artificially manipulated by Farnton or successors.

**Hydric Pine Plantation, Pine Plantation and Pine Flatwoods:** The desired future conditions for each of these vegetative communities will be treated as the same. Each is subject to continued harvesting subject to silvicultural BMPs and Silvicultural Practices as set forth in CMP 7.3. Habitat will be enhanced through modification of existing silviculture practices so as to create a mosaic of different age classes across the tract. Tracts will be evaluated for thinning after approximately 15 years. Tracts with greater than 100 sq ft basal area will be evaluated for thinning based upon market conditions and shall be thinned to an average basal area stocking density of 55-70 square feet per acre with 60 as the target. Clear cuts shall be limited to no more than 150 acre stand size and no more than 10% of the tract in any given year. Clear cuts shall be planned so that adjoining stands are in the 7-10 year age class or 15 feet in height. Clear cuts should be performed to maximize an irregular shape of the stand rather than straight lines. The desired future condition across the vegetative community is smaller patches of even age trees in irregular shapes adjacent to patches of different age classes in order to create a mosaic of timber stands across the tract. Further, the introduction of prescribed fire at return rates of 2-4 years will control understory vegetation and enhance biodiversity.

**Scrubby Flatwoods:** The areas identified as scrubby flatwoods are small upland areas with a canopy of slash and longleaf pines and a mixed understory of scrub oaks. These areas no longer resemble their natural state due to planting slash or longleaf pine and fire suppression. The desired future condition for scrubby flatwoods is a return of long leaf pine and prescribed fire

into the areas. Slash pine or sand pine will be harvested at the appropriate time and market conditions and regeneration will be with longleaf pine. Prescribed fire will be used at 8-15 year returns to control sand pine and understory vegetation.

**Temperate Hardwoods:** The desired future conditions within temperate hardwoods generally should match the description in 4.4.2. Management activities shall be designed to maintain the baseline conditions within hammocks by leaving them in a natural state. Hammock ecotones should be burned in rotation with adjacent areas. Use of heavy mechanical equipment, which would cause impact to soils, should be avoided. The desired future condition for temperate hardwoods should range from 50% canopy to 100% .

## **9.9 Cultural and Archaeological Resources**

A phase 1 cultural resource assessment shall occur prior to initiating project related land clearing or ground disturbing activities that are not agriculturally related. The purpose of the survey is to locate and assess the significance of any historic properties present. In the event that a new historical or archaeological site is uncovered in the future, silvicultural operations will be ceased within a 200 foot radius until the area can be inspected and surveyed by a registered public archaeologist. The RPA will prepare a report with findings and recommendations which will be submitted to the Volusia County Historic Preservation Officer. The VCHPO will coordinate the development of a mitigation and conservation plan.



## **10.0 Miscellaneous Items**

### **10.1 Coordination of Management Plan with Adjacent Conservation Lands**

In Volusia County, the GreenKey areas adjoin the Colbert Cameron Mitigation Bank, Wiregrass Prairie Preserve, and the Buck Lake Conservation Area as depicted on Figure 4. Farmton also is contiguous to the Volusia Conservation Corridor Florida Forever Project. Each of these conservation lands has conservation management plans adopted by the managing entities. Placing GreenKey into permanent conservation allows for the connection of adjoining lands and the creation of a conservation corridor. Farmton will continue to cooperate with agencies managing adjacent conservation lands to support regional connectivity.

### **10.2 Coordination with City of Edgewater/Restoration DRI Natural Protection Areas**

To the north of Farmton is the City of Edgewater/Hammock Creek DRI commonly called Restoration. This DRI project is located on the north side of Possum Camp Road and the planned extension of SR 442 (Figure 4). Pursuant to the terms of the Development Order and Future Land Map, approximately 3,700 acres is to be subject to a Comprehensive Mitigation Management Plan which includes hydrologic restoration of impacted wetlands. One of the goals of the plan is restoration of historic hydrologic flow of Spruce Creek Swamp whose headwaters occur on Farmton Tract. Currently Possum Camp Road serves as a hydrologic barrier to sheet flow for Spruce Creek Swamp. As development activities are planned within Farmton's northern Gateway SDA and transportation planning occurs concurrently with the extension of SR 442, efforts shall be made to coordinate this conservation management plan with the ongoing conservation efforts at Restoration to limit barriers for wildlife connectivity and encourage hydrologic connection.

### **10.3 Identification of Ownership, Management Responsibilities, and Financial Responsibility**

The conservation land is subject to conservation easements and covenants and is to be managed in accordance with this Conservation Management Plan. The Farmton Tract presently is owned by Miami Corporation, a privately held corporation, with portions owned by its subsidiary, Swallowtail LLC. The Conservation Management Plan shall be implemented by Miami Corporation, as well as its assigned affiliates and subsequent owners. Miami Corporation or its successors in interest shall manage the conservation lands in accordance with this Conservation Management Plan, or where applicable, in accordance with the Farmton Mitigation Bank mitigation plan, forestry stewardship plan, and wildlife management plan and issued permitted criteria. The Conservation Easement will acknowledge a continuing duty of care by Miami Corporation and its successors in interest to the Grantees under the easement to carry out the intent and purpose of this Conservation Management Plan. However, any transfer from Miami Corporation or Swallowtail LLC to a third party shall include a statement of affirmance of the third party's duty to assume all management obligations associated with the Conservation Covenants and easements and this Conservation Management Plan.

Amendments to this CMP or increases in management obligations, if any, beyond those consistent with the Farmton Local Plan will not compel expenditures or financial responsibility

on the part of Miami Corporation or its successors in interest. All income, royalties, proceeds, and other revenues from the Farnton conservation lands shall be and remain the sole property of Miami Corporation.

Pursuant to the amended FLP, Deering Preserve at Deep Creek and Deering Addition will be conveyed to Volusia County. These lands shall continue to be managed subject to this CMP and lands subject to the FMB shall be managed consistent with the permit conditions.<sup>7</sup>.

Upon sale or other transfer of any part or all of the Farnton conservation lands, such transfer shall be subject to the conservation easement(s) and/or conservation covenants placed on the property, and their terms and conditions, including this CMP, and the rights and responsibilities there under shall run with the land.

#### **10.4 Security and Maintenance**

The conservation areas are easily accessed via the St. Johns River, Deep Creek and Maytown Road. Protecting the Farnton Tract from trespassers and other criminals or parties who are capable of damaging Farnton's environmentally sensitive landscape has been a critical component to the stewardship of the Farnton Tract. During the years that the property was leased to the state for hunting, the property was inundated with a numerous public, and the onsite ecosystems suffered. Miami Corporation now leases the hunting rights to a private non-profit corporation (Miami Tract Hunt Club, Inc.) with strict membership standards and requirements to assist in the security for the property and enforce the rules promulgated by Miami Corporation consistent with the requirements of the Farnton Local Plan. The Hunt Club will continue to provide security in all areas of Farnton and, to avoid potential injury to invitees, Miami Corporation will continue to require specific permission and coordination with the Farnton property manager to enter its lands. There is an extensive series of connecting fences and security gates that prohibit unauthorized access onto all areas of the property where structures are feasible and legally allowable.

#### **10.5 Timetable for Implementation**

This CMP will be implemented no later than two years after the effective date of the Farnton Local Plan or as provided herein for public access. Every ten years, the land owners, together with the Community Stewardship Organization, and Grantees under the conservation easement and declarations shall review this CMP to determine whether amendments are required.

#### **10.6 Monitoring and Reporting**

One year after the effective date of this CMP on each anniversary thereafter, the owner shall supply to Volusia County Growth and Resource Management Department an annual report in an electronic, digital, or document format acceptable to the county setting forth the owner's compliance with the CMP for the preceding year including the owner's activities within the area covered by the CMP, and providing for proposed activities upon such lands for the upcoming calendar year. The owner shall provide electronic or digital copies of all monitoring reports

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<sup>7</sup> As required by Ordinance 2013-05.

required by other natural resource permitting agencies relating to the Farmton Mitigation Bank or consumptive use permits which were supplied during the preceding calendar year. On the tenth anniversary the owner shall provide a report which shall set forth the progress toward achieving desired future conditions as set forth in this CMP. At such time the owner may make recommendations for amendments to the CMP.

## **10.7 Amendment**

The Conservation Management Plan may be amended at any time subject to agreement of the land owners at the time and all grantees under the conservation covenants and conservation easement. The landowner, any grantee, or the Volusia County Council may initiate an amendment, which shall be in writing and shall be submitted via certified mail to each of the parties. An amendment may be proposed based upon a good faith understanding of changes in law, change in conditions on the property, natural disaster, change in conservation principles over time, or need for adaptive management. The parties shall meet within 60 days of receipt of notification to discuss the proposed amendment unless the amendment is unanimously agreed to at an earlier date. Every amendment shall be approved in writing and executed by an authorized representative of the landowners and grantees and incorporated into an amended and restated version of the CMP, to be titled by numeric version and most recent amendment date. A duty of good faith shall be imposed on all parties upon review of a proposed amendment and the parties should make all reasonable effort to communicate with each other, exchange ideas, refine proposals, and submit revisions. In the event the parties cannot reach agreement within 60 days, or a unanimously agreed to extension of time, any party may seek mediation as a means to reach agreement among the parties. Mediation shall take place at the Volusia County Thomas C. Kelly Administration Center; 123 W. Indiana Avenue, DeLand, Florida within 30 days of any party's declaration of impasse after the 60 day negotiation period described herein has expired. An amendment shall become effective when it is agreed to by all land owners, grantees and the County Council. Should the parties fail to agree on a revised Conservation Management Plan, the existing version of the plan in effect at that time shall continue in effect. Any amendment to the Conservation Management Plan must be consistent with the Declaration of Restrictive Covenant or Conservation Easement. To the extent the possible changes in conditions listed herein also require amendment to the covenant or easement; the parties agree to pursue such amendment in good faith.

In addition, the CMP may be amended by the addition of Resource Based Open Space lands. At such time in the future as Sustainable Development Areas are planned and approved, RBOS lands will be designated as part of the development order for each increment of SDA. Conservation Management Plans for RBOS within each increment of SDA shall be added to the Appendix of this CMP, as amended, at such time as they are approved by the County Council.



## Appendix 1 Farmton Local Plan

## 14. FARMTON LOCAL PLAN

### Background:

Farmton consists of approximately 47,000 acres in southeast Volusia and 12,000 acres in northern Brevard Counties. The tract has been under the single ownership of Miami Corporation for more than 80 years and has been under development pressure due to its access to SR 442 and SR S5A interchanges along I-95. The Farmton Local Plan sets forth a common 50 year vision for this portion of Volusia and Brevard Counties with a plan for conservation and sustainable development.

The Farmton Local Plan establishes two innovative land use designations called GreenKey (GK) and Sustainable Development Area (SDA). The Plan also establishes a planning framework to implement the County's smart growth initiatives and further the regional vision for conservation of corridors promoted by MyRegion.org. The central feature of the plan is the land use designation called "GreenKey" which identifies the conservation areas and other green infrastructure which shall be protected in perpetuity. The boundaries of the GreenKey designation were created based on sound science, ground truthing and a thorough analysis of the natural surroundings. Its purpose is to protect an interconnected network of green space including wildlife corridors, landscape linkages, conservation areas, and restoration sites.

The Farmton Local Plan emerged from two years of meetings with conservation stakeholders to gain input on the framework of the greenprint plan. Two facilitated public workshops among a broader group of stakeholders in late 2008 developed a consensus for key components of the plan. After the plan was filed, it was reviewed by a Peer Review Panel convened by Florida Atlantic University and the Collins Center for Public Policy which made a series of recommendations which are included in the plan. The central recommendation of the Peer Review Panel was the need to "ground the plan in a clear vision" supported by guiding principles and measurable performance standards. The Panel also called for refining the Greenprint and making the policies for the urban form as strong as the Greenprint. The revised policies incorporate these recommendations.



The GreenKey land use designation is the cornerstone of the plan. GreenKey designates at least two-thirds of the Farmton Local Plan for permanent conservation. GreenKey consists of approximately 11,000 acres of Environmental Core Overlay (ECO) lands, substantially all lands designated Environmental Systems Corridor, and other areas identified as regional wildlife corridors. These GreenKey lands are contiguous to other public lands and conservation areas so as to contribute to a vast interconnected system of conservation lands. Other open space requirements in the SDA designation will ultimately ensure protection of at least 75% of the entire 47,000 acres. Upon the adoption of the Farmton Local Plan, the ECO map will be amended to include all GreenKey lands.

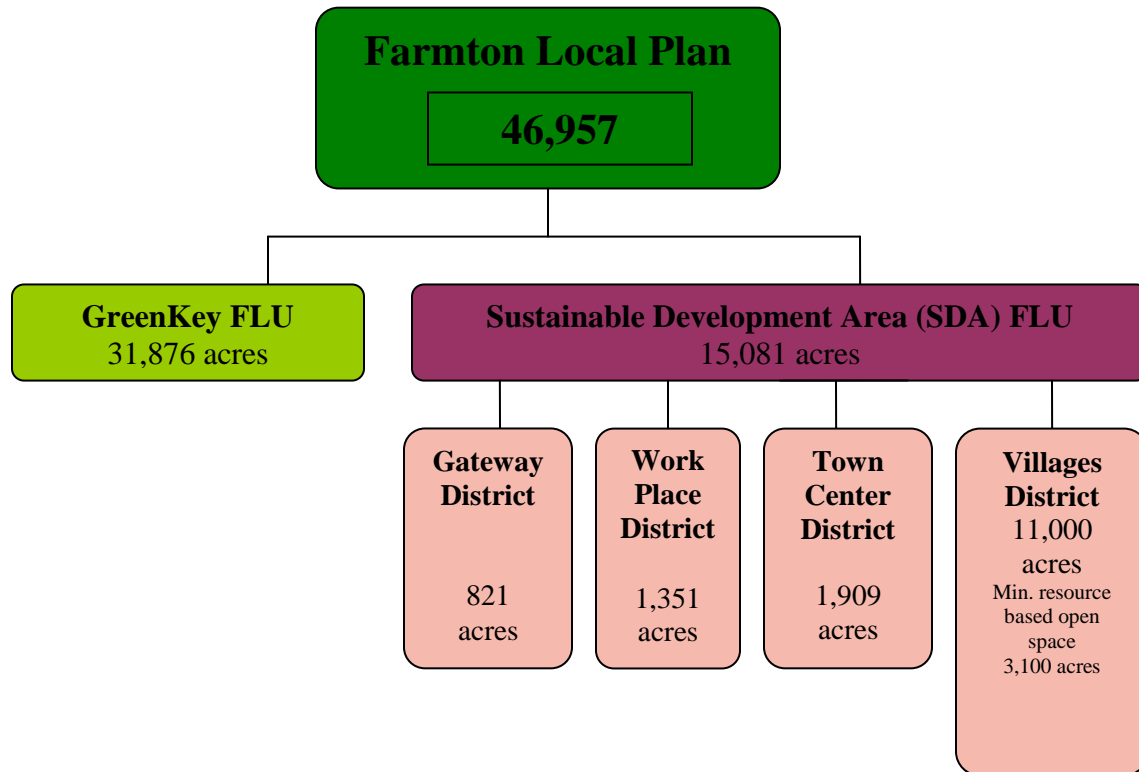
The Farmton Local Plan is a long term vision with a 50 year planning horizon coupled with an intermediate plan tied to an internal transfer of development rights. On the adoption of the plan, underlying densities from the GreenKey area will be transferred to the Gateway district at SR 442 and I-95. As a result, there will be no overall increase in residential densities based on the current underlying land use for the Farmton Local Plan through 2025. Development will proceed through a Master Development of Regional Impact (DRI) for the Sustainable Development Area districts through 2060. Development will be reviewed through the Master DRI process complying with financial feasibility and infrastructure requirements as they may be required in the future. Fiscal neutrality provisions of the Farmton Local Plan require future developers to pay for the costs of required infrastructure.

The Farmton Local Plan's 50 year vision provides for the permanent protection of regionally significant conservation lands coupled with the creation of sustainable new communities, subject to very high standards of sustainability including: environmental protection and energy and water conservation, economic development, diversity of homes, jobs creation, education and agriculture to create a place where people can live, work, learn, and play within the built environment that coexists with the natural environment.

The county finds that the vision of the Farmton Local Plan is consistent with the Natural Resource Management Area because the plan permanently conserves 75% of the site as regional wildlife corridor and that urban land use is compatible with the character of the area because the proposed Sustainable Development Area is sufficiently compact, and that a range of services can be planned for the area. Further, the county finds that allocation of future population growth to this planned area is better than continuing to encourage low density ranchette style development.



## Descriptions of Future Land Use Designations and Districts:



### 1. GreenKey (GK) future land use designation:

GreenKey (GK) is a new land use designation for high quality environmental resource lands consisting of current ECO lands, ESC lands, wetlands, and associated uplands, which function as integrated habitat. On the adoption of the land use, the underlying density shall be zero and permitted uses shall include agriculture pursuant to best management practices, trails, boardwalks, passive recreation, utilities and elevated road crossings, and environmental learning centers. Ultimately, GreenKey lands will be subject to a conservation easement and management pursuant to a conservation management plan developed in collaboration with the owner, county, St. Johns River Water Management District (SJRWMD), and Florida Fish and Wildlife Conservation Commission (FFWCC). On the adoption of the land use, the Environmental Core Overlay (ECO) map shall be amended to include all GreenKey lands within the Farmton Local Plan.

### 2. Sustainable Development Area (SDA) future land use designation:

The SDA designation defines the areas within the Farmton Local Plan designated on the Future Land Use Map for future development. Within the SDA are four land use districts which define the uses, densities, and intensities planned for each district:

### **A. Gateway District**

The Gateway district is a distinct geographic area of approximately 821 acres at the northern end of the Farmton Local Plan near SR 442 and I-95. It is separated from the other lands to the south by significant wildlife corridors and ECO lands and will be planned to connect to the other SDA districts via a 200 foot transportation corridor. The district is designed to be mixed use allowing residential, retail, office, hotel, employment and business parks, and institutional uses which would be appropriate near a major interstate interchange. A full range of residential uses including single family, townhouse, and multi-family are permitted in order to provide diversity of housing types and price points, promote walkability, and encourage more compact development. Examples of development models encouraged to be applied with Gateway district are as follows:



### **B. Work Place District**

The Work Place district is intended to provide and promote employment centers as well as provide work force housing in close proximity. The Work Place district consists of approximately 1,351 acres in Volusia County. Permitted uses include office, warehousing, light manufacturing, research and development, retail, multi-family, hotel, recreational, and institutional uses and may include educational facilities. Examples of development models encouraged to be applied within Work Place district are as follows:



### **C. Town Center District**

The Town Center district is intended to be the social, economic, and educational hub of the Farmton Local Plan. The Town Center district includes approximately 1,909 acres. The Town Center district shall abut the Work Place district. Permitted uses include office, retail, single family and multi-family residential, hotel, educational facilities, medical



facilities, religious facilities, active and passive recreational facilities. Examples of development models encouraged to be applied within Town Center district are as follows:



#### **D. Villages District**

Approved uses within a village include single and multi-family residential, office, retail, institutional, open space, bed and breakfast. Non-residential uses are limited to the village center. Examples of development models encouraged to be applied within the Villages district are as follows:



### **GOAL, OBJECTIVES AND POLICIES**

#### **GOAL:**

The Farmton Local Plan provides a framework for a 50 year planning horizon utilizing transfer of development rights during the first 15 years, establishing regional wildlife corridors to be preserved immediately and reserving future development areas to be developed after 2025 upon certain conditions, subject to the following overarching guiding principles of sustainability:

- Protection of regionally significant conservation lands up front so as to preserve the majority of the site as integrated habitat.
- Planning, design, and construction shall meet the highest standards of sustainability as those standards shall evolve over time.
- Planning, design, and construction shall achieve high levels of energy and water conservation.



- The urban form shall be designed with principles of Smart Growth, Traditional Neighborhood Design (“TND”), or Transit Oriented Development (“TOD”) promoting walkability and multi-modal transportation.
- The urban form shall promote diversity and choice through a mixture of housing types and price points using higher density, compact development patterns and variety to limit sprawl.
- Sustainable Development Area (SDA) shall provide opportunities throughout all phases of the development for residents to work in the community they live in, thereby reducing automobile dependence.
- Planning for future development shall include opportunities for a range of educational facilities so as to promote lifelong learning.

#### OBJECTIVE:

FG 1            Final development plans, including Land Development Regulations, Planned Unit Development provisions, Master Plans, and Development of Regional Impact Development Orders, which implement this plan shall utilize innovative land use techniques, creative urban design, highest levels of environmental protection, and the judicious use of sustainable development principles as they may evolve over time.

#### POLICIES:

FG 1.1        There shall be two planning horizons within the Farmton Local Plan. The initial planning horizon shall be 2025 and shall constitute phase one of the plan. The operation of two planning horizons over a 50 year period allows for greater opportunities to provide a long term plan for a more sustainable outcome as articulated in this objective. It is recognized that build out will necessarily extend beyond the county's current planning horizon as is consistent with other DRIs and Activity Centers provided for in this comprehensive plan. There shall be no increases in the density or intensity of development during phase one beyond what is allowed by the future land use plan in effect at the time of adoption of this amendment. The second planning horizon for the Farmton Local Plan shall be from 2026 to 2060. Any increases in density and intensity allowed by adoption of the Farmton Local Plan will be applicable to the second phase only. The initial density in phase one shall be 2,287 units and any increase to the currently allowable maximum density of 4,692 units will be effective only upon a finding of school adequacy from the Volusia County School District.

FG 1.2        The Future Land Use Map shall identify two land uses within the Farmton Local Plan: GreenKey and Sustainable Development Area. GreenKey areas shall be wildlife corridors and subject to the Environmental Core Overlay (ECO). Sustainable Development Area shall be designated for future development. The Sustainable Development Area will have designated districts with distinct policies as set forth herein.

- FG 1.3 The Farmton Local Plan shall designate at least sixty-seven percent of the total area as GreenKey. These lands shall include substantially all ECO and ESC lands together with buffers and designated uplands so as to establish interconnected wildlife corridors.
- FG 1.4 The Farmton Local Plan shall utilize an internal system of transfer of development rights to establish densities and intensities through 2025. For the purposes of this plan, GreenKey shall be designated sending areas and the Gateway district within the Sustainable Development Area shall be designated as the receiving area. The transfer of densities from the sending areas to the Gateway district is sufficient to authorize the mix of residential and non-residential uses set forth for the Gateway district. The underlying densities and intensities for the planning area are based upon existing maximum development potential plus densities, intensities, and bonuses authorized for conservation development and rural cluster provisions set forth in the Future Land Use Element. Upon the adoption of the Farmton Local Plan, the density and intensity in GreenKey shall be zero and the residential density in the Gateway district will be no more than 2,287 units, and the non-residential intensity shall not exceed 820,217 square feet. The residential density for the Gateway district shall not exceed 4,692 units and any increase in density for Gateway district above 2,287 units and up to 4,692 units shall not be effective until such time as the school district has issued a finding of school adequacy. An equivalency matrix is established in Objective 8 to convert residential density units to non-residential intensities established for the Gateway district. There shall be no increases in net external trips based upon current land uses in effect at the time of the adoption of this amendment.
- FG 1.5 Any densities or intensities transferred to the Gateway district prior to 2025 that have not been constructed or approved as part of a development order may be transferred to other districts after 2025 upon application and approval as set forth in this plan. Any densities or intensities transferred to other districts shall still be subject to mix of use requirements and jobs to housing ratio required of the receiving districts and a finding of school adequacy.
- FG 1.6 The Sustainable Development Area districts within the Farmton Local Plan:
- a. are located within the areas deemed most suitable for urban development based on the characteristics and limitations of the land;
  - b. are designed in a compact form and utilize the keystone standards for smart growth including sustainable development planning and building techniques as more fully set forth herein; and
  - c. shall contain Resource Based Open Space to protect substantially all wetlands and associated buffers and other areas such that when combined with GreenKey lands more than 36,000 acres or 75% of the area within the Farmton Local Plan shall be preserved.
- FG 1.7 Any vested exempt subdivision of the Farmton property shall expire on the effective date of the ordinance adopting this Local Plan.

- FG 1.8 Development shall not interfere with the continued use and operation of the existing regional electrical distribution lines running north to south through the Farmton property.
- FG 1.9 Implementation of appropriate "firewise" community planning practices as recommended by the Florida Division of Forestry shall be incorporated into any master development plan and established in the Master DRI or equivalent development order. As part of the development review process, a covenant shall be placed on properties within the SDA districts to notify those property owners and residents that the nearby conservation areas may be managed by prescribed fire as part of a conservation management plan. In addition, the master development plan shall coordinate with the Division of Forestry a Wildfire Prevention and Mitigation Plan based upon National Fire Protection Association Standards to reduce wildlife risk factors.

OBJECTIVE:

- FG 2 GreenKey, and designated Resource Based Open Space, shall be managed for natural resource protection and preservation of interconnected regional wildlife corridors, and conserved in perpetuity.

POLICIES:

- FG 2.1 The Farmton Local Plan is wholly within the Natural Resource Management Area (NRMA) Overlay. The policies contained within this Local Plan provide a greater level of natural resource protection than the existing NRMA policies of the comprehensive plan. These policies are supplemental to the NRMA and ECO overlay provisions. To the extent of any conflict between these policies and NRMA, the more specific or restrictive policies shall apply.
- FG 2.2 Land uses allowed within GreenKey include Mitigation and Conservation Banks, Agriculture and Silviculture pursuant to Best Management Practices, roads which may be elevated where practicable and utility crossings, trails, boardwalks, passive recreation, water resource development, solar energy facilities, and environmental learning centers. As more particularly set forth herein, GreenKey lands will ultimately be subject to a perpetual conservation easement and managed pursuant to a conservation management plan.
- FG 2.3 ECO lands have been identified by Volusia County as an area of interconnected natural systems of environmentally sensitive lands, including public and private conservation areas and lands linking these areas (including but not limited to agricultural/rural lands, scenic vistas, habitat buffers, and other open space connections) where possible to achieve wildlife and habitat connectivity. Upon the adoption of the GreenKey Land Use, the ECO overlay Map shall be amended to include all GreenKey lands.
- FG 2.4 **Resource Based Open Space.** Resource Based Open Space shall be designed within Sustainable Development Area districts to protect and enhance environmental systems. Resource Based Open Space shall not include parcels identified for

development (including, but not limited to individual yards), active open space, or civic open space. Resource Based Open Space lands may include areas set aside for ecological preservation, enhancement and restoration, nature trails, conservation education programs, observation decks and similar facilities including lakes used for detention and retention of surface water. Resource Based Open Space may include, flood plains, wetlands, mitigation areas, vegetative buffers, specialized habitat for flora or fauna, passive recreation areas, and water resource development areas, and shall be designated during the development review process. All such lands shall be subject to a conservation management plan, as set forth in FG 2.10 and FG 2.11, and protected in perpetuity by conservation easements. At least 25% of the SDA districts as a whole shall be Resource Based Open Space and the Mandatory Resource Based Open Space shall be included in the calculation of the 25% requirement. Resource Based Open Space shall have a public access plan for trails, boardwalks, and environmental education areas, for passive recreational use where appropriate and shall be consistent with the conservation management plan. Lands designated on Map Figure 1-12N as Mandatory Resource Based Open Space shall not be subject to the public access and shall be subject to the Black Bear Management Plan as set forth in FG 2.5b.

**FG 2.5 Southwest Wildlife Corridor.** The Southwest Wildlife Corridor is indicated on the Farmton Local Plan map in black cross hatch on the Farmton Local Plan – Future Land Use Map Figure 1-12N. This area includes portions of the GreenKey land and Mandatory Resource Based Open Space located within the SDA. These lands combined create an undulating corridor that is approximately one mile in width. Lands within the Southwest Wildlife Corridor shall be managed consistent with a forestry management plan designed to provide prescribed fire, promote dense understory vegetation such as palmetto, and encouragement of uneven-age management techniques and consistent with the black bear management plan. Within the Mandatory Resource Based Open Space portions of the Southwest Wildlife Corridor lands shall be managed to protect wildlife habitat through conservation, enhancement and restoration. These Mandatory Resource Based Open Space portions of the Southwest Wildlife Corridor may include wetlands, flood plains, mitigation areas, vegetative buffers, and specialized habitat for flora or fauna which shall qualify as the minimum 25% requirement set forth in FG 2.4. Within the Southwest Wildlife Corridor the following additional policies shall apply:

- a. Deep Creek Conservation Area.** Within the Southwest Wildlife Corridor is a special management area called the Deep Creek Conservation Area as depicted on the Farmton Local Plan - Future Land Use Map Figure 1-12N. The Deep Creek Conservation Area shall be subject to a site specific conservation management plan with the highest level of natural resource protection within the Farmton Local Plan. The Deep Creek Conservation Area shall be managed subject to the Mitigation Bank Permit and Forestry Stewardship Plan. Within the Deep Creek Conservation Area harvesting within wetlands shall be prohibited except as part of an approved restoration plan and wetlands shall be protected with a 300 foot buffer. Controlled upland access by canoe or kayak to Deep Creek shall be an allowed passive recreation use. Other passive recreational uses may be allowed by permit (as granted by the Community Stewardship Organization established in FG 2.16), consistent with the management plan, and designed to have limited impacts on the resource. Boardwalks and viewing platforms may be allowed within the Deep Creek

Conservation area if permitted by SJRWMD. Protection of areas surrounding Bald Eagle nests shall be subject to National Bald Eagle Management Guidelines established by United States Fish and Wildlife Service (USFWS).

- b. **Black Bear Management.** The conservation management plan within the Southwest Wildlife Corridor shall specifically address habitat requirements of the Florida Black Bear. The black bear management plan shall be developed in consultation with the Florida Fish and Wildlife Conservation Commission consistent with their Black Bear Habitat Management Guidelines and best available science.

- FG 2.6 As Sustainable Development Area districts are planned for future development, and shall employ Greenprinting decision support models to identify wetlands, flood plains, mitigation areas, vegetative buffers, specialized habitat for flora and fauna, and under-represented natural communities, water resource development areas and trails. When establishing Resource Based Open Space priority shall be given to lands on the perimeter of the SDA, which are contiguous to GreenKey lands.
- FG 2.7 Resource Based Open Space shall, to the greatest extent practicable, be designed to eliminate or minimize fragmentation and promote habitat connectivity and the formation of linked networks to adjacent properties managed for conservation purposes.
- FG 2.8 The identification of areas to be designated as Resource Based Open Space shall be approved in consultation with the Florida Fish and Wildlife Conservation Commission, Florida Department of Environmental Protection, St. Johns River Water Management District, and by all entities that are parties to the conservation easements required by FG 2.12. The County may seek consultation with The Nature Conservancy, Audubon of Florida or other established and knowledgeable conservation organization.
- FG 2.9 Landowners shall coordinate with appropriate county agencies to implement an ecological monitoring program to monitor the quality and quantity of habitat type as well as target species number and diversity within the Farmton Local Plan. This information shall be used in preparation of the conservation management plans and the landowner shall not undertake management practices which diminish the quality of habitat within the area.
- FG 2.10 **Conservation Management Plans.** GreenKey lands and Resource Based Open Space shall be designated, permanently protected, and maintained as undeveloped conservation or agriculture areas or for natural resource protection and passive recreational uses and shall be subject to a conservation management plan enforced through the conservation covenants or easements. The management plan shall establish management objectives, outline procedures, and define the roles and responsibilities for managing GreenKey and Resource Based Open Space. The plan shall also provide for the protection of species listed by FFWCC and USFWS.
- FG 2.11 A conservation management plan shall be adequately funded by the owner, or its successors in interest, to meet the requirements of the plan over time. The conservation management plan shall set resource protection standards and management protocols designed to ensure the long-term maintenance of the ecology

and restoration of the GreenKey and Resource Based Open Space of the site. The owner shall develop the plan through a task force appointed by the county within one year of the recording of the initial conservation easement. The county shall establish the task force which will be made up of representatives of the owner and grantees under the conservation easement, the community stewardship organization (CSO), as described in FG 2.16, and others with expertise in the area of ecosystem conservation and wildlife ecology to review the management plan. The task force shall present their recommendation to the County Council for approval. The approved management plan shall be incorporated into the conservation covenants and easement and made enforceable.

Areas that have been formally opened as a mitigation bank shall be managed subject to the permit conditions, financial responsibility provisions, and terms of the conservation easement pertaining to the mitigation bank.

The conservation management plan shall establish conservation goals and objectives for diversified habitats within the Farmton Local Plan which are consistent with respective habitat requirements, ecological communities, and other natural resources and resource requirements, as well as conditions associated with public access and passive recreational use.

The conservation management plan shall address at a minimum, the following matters:

- a.** A prioritized list of natural resource management objectives for the site and implementation methods that protect and enhance ecosystem integrity, function, and biodiversity.
- b.** Identification of special areas, including but not limited to the Deep Creek Conservation Area, Southwest Wildlife Corridor, and USFWS consultation areas.
- c.** Identification of natural and cultural resources in need of protection and discussion on how those resources will be protected.
- d.** Description of natural communities and establish desired future conditions by specific habitat type.
- e.** Identification of known threatened or endangered plants and animals occurring on site and strategies and habitat management plans as identified in the best available scientific literature.
- f.** Identification of exotic species and a plan for control/removal.
- g.** Forestry stewardship provisions consistent with Best Management Practices for silviculture, including location and logging road access management plan.
- h.** Provisions for significant water resources (such as streams, creeks, natural drainage ways, floodplains, and wetlands) protection, enhancement, and restoration and planned hydrological restoration.



- i. Provisions for protection of habitat of listed or imperiled species and other indigenous species which may require special habitat protection.
- j. Provisions for water resource development, well fields, and protection of wellfields
- k. Erosion control.
- l. Fencing, appropriate public access, and development of trails, boardwalks, and interpretive facilities.
- m. Provisions for elevated roadways or wildlife crossings.
- n. Prescribed fires specific to habitat types, Division of Forestry criteria, and addressing flexibility associated with climatic conditions and catastrophic events.
- o. Coordination of management plans with adjacent conservation lands and mitigation banks.
- p. Identification of ownership and management responsibilities including financial responsibility.
- q. Coordination of the management plans with the City of Edgewater so as to be consistent with the natural resource protection measures within the Resource Based Open Space and Conservation Areas of the Restoration Sustainable Community Development District.
- r. Establishment of a timetable for implementation of the conservation management plan and development of a monitoring and reporting program to track the implementation.
- s. Provisions for passive recreational use, environmental education, and public access where appropriate.
- t. Provisions for security and maintenance.
- u. Coordination of conservation management plans with management plan of the East Central Florida Regional Trail.

FG 2.12 No development shall occur within Resource Based Open Space except for development directly associated with the following uses, provided that impacts to environmental resources are minimized, required permits are obtained, and for the area permitted as a mitigation bank the uses are allowed by the permit and the conservation easements established for that area:

- a. Bicycle, pedestrian, and equestrian trails and rest areas for trails to include restrooms, water fountains, government initiated parking facilities for trail users, shelters to provide protection/ relief from the weather.
- b. Utility easements and lines.

- c. Solar energy facilities to provide all, or portions of, the power source for illumination of on-site signage or on-site security.
- d. Roads, which cross GreenKey lands.
- e. Fencing if specifically directed by Florida Fish & Wildlife Conservation Commission.
- f. Agricultural or silvicultural activities using BMPs.
- g. Replacement of existing structures.
- h. Environmental education or interpretation facilities.
- i. Wellfields, water resource development or approved alternative water supply projects.

FG 2.13 Within 60 days of the effective date of this local plan the applicant shall draft, (1) a conservation covenant and (2) a conservation easement in a format acceptable to the County and consistent with the provisions of Section 704.06, Florida Statutes. The covenant and easement shall be conveyed to at least two multiple grantees, which shall include the County, and at least one qualified conservation organization acceptable to the County and experienced in holding and maintaining conservation easements subject to their acceptance after review and approval of the easement as to form and content. Additional public agencies may be included as grantees. The covenant and easement shall provide that any grantee may act to enforce the terms of the covenant or easement.

FG 2.14 The Conservation covenant and easement shall incorporate provisions for a conservation management plan which shall include conservation objectives and outcomes and a financial plan for meeting the obligations of the program over time.

FG 2.15 Conservation easements for all areas permitted as Farnton Mitigation Bank within GreenKey shall be recorded with the Clerk of the Circuit Court within twelve months from the effective date of the Farnton Local Plan amendment and shall provide for perpetual conservation of such lands.

For the remaining GreenKey lands, a conservation covenant shall be recorded within one year of the effective date of the Farnton Local Plan. Such conservation covenant shall be consistent with the conservation purposes set forth in Sec. 704.06(1) Florida Statutes, except that its term shall run with the land for an initial term of ten years, which shall automatically be renewed every ten years thereafter so long as the maximum densities and intensities established in the Farnton Local Plan Objective 3 shall remain in effect; provided that a voluntary reduction in such densities and intensities sought by the applicant, grantor or its successors shall not affect the continued existence of the covenant. The terms of the conservation covenant shall provide for conservation restrictions to set forth limitations on the right to use the land and conserving or preserving land or water areas predominantly in their natural, scenic, open, agricultural, or wooded condition and as suitable habitat for fish, plants, and wildlife. At such time as the Master Development of Regional

Impact equivalent Master Plan as provided in Objectives 8 is approved consistent with the densities and intensities as set forth in Objective 3 in effect at the time of the adoption of this plan, a perpetual conservation easement shall be recorded within 60 days.

Conservation easements encompassing the Resource Based Open Space shall be recorded before any development in an SDA district is authorized. The conservation easements and covenants may initially provide for a GIS based legal description to be amended within two years to provide a legal description based upon survey. This period of time for an amended legal description based on survey data may be extended for an additional six months in the event of hurricane, flood, wildfire or other such natural event which would disrupt field surveys.

All conservation easements and covenants shall be subject to a conservation management plan as set forth in FG 2.10-11 and enforceable by the county.

FG 2.16 A Community Stewardship Organization or other tax exempt not for profit conservation organization (CSO) pursuant to Sec. 170(h)(3) I.R.C. shall have perpetual existence and be established for the purpose of conservation of areas of significant ecological integrity through fee acquisition of natural sites, acceptance or creation of conservation easements, development of managed and interpretive public access to areas of special ecological, aesthetic, and educational value. The owner/applicant shall fund and facilitate the creation of the CSO, but its governance shall be independent from the owner/applicant. The CSO shall be governed by a board of directors of seven individuals. At least four of the members of the board shall be representatives of statewide or national non-profit environmental/conservation organizations in existence at the time of the adoption of the Farmton Local Plan such as the Nature Conservancy, Florida Audubon Society, Trust for Public Lands, and Florida Wildlife Federation. The owner shall be represented on the board and other board members may include representatives of public agencies, stakeholders, and other interested citizens who participated in the development of the plan. The CSO may take title to designated GreenKey and/or Resource Based Open Space, or co-hold a conservation easement over such lands and shall participate in the development of the conservation management plan. The CSO may enter into contracts with the landowner or public agencies to undertake management responsibilities set forth in the conservation management plan and may manage and operate environmental or interpretive facilities associated with the site. Within one year of the effective date of the Farmton Local Plan, the Articles of Incorporation for the CSO shall be filed and the approximately 400 acres of the initial phase of the Deep Creek Conservation Area shall be conveyed by deed to the CSO. As credits are sold in the West Mitigation Bank, remaining lands within the Deep Creek Conservation Area shall be conveyed by deed to the CSO.

FG 2.17 The conservation easement shall accommodate the spine transportation network, as described in the Farmton Local Plan, and existing county maintained roads, with no access to the spine network permitted within the GreenKey land use designation area except for connection to an approved trail head. Roads and utilities shall share crossings unless the utility is pre-existing.

**FG 2.18      Transportation Policies and Natural Resource Protection.**

- a.** The Spine Network as it traverses GreenKey lands shall be designed to avoid and minimize conflicts between motor vehicles and the movement of wildlife. Tools to minimize this conflict include, but are not limited to location criteria, landscaping techniques, fencing, speed limits, wildlife underpasses or overpasses, bridging, and elevating roadways. Transportation corridors shall be designed to avoid the areas permitted for mitigation banking.
- b.** As Maytown Road and Arterial A are improved as required by the Farmton Local Plan to accommodate the long term regional transportation needs of the area they shall be designed consistent with the following additional design guidelines:
  - 1. Promotes “parkway” look with appropriate natural buffer between the roadways and the adjacent areas;
  - 2. Minimizes any impacts to habitat and species conserving habitat connectivity by innovative measures;
  - 3. Follows, where feasible, existing road alignments through environmentally sensitive areas although alignments may be re-aligned to provide for greater public safety or natural resource protection;
  - 4. At a minimum, the road design will mitigate for adverse impacts or maintain the existing habitat connectivity levels for wildlife afforded by the current road and traffic levels to the maximum extent practicable under the best available science as determined by FWCC.
- c.** The design of Maytown Road and Arterial A as required by the Farmton Local Plan should include the following criteria for features and construction:
  - 1. Consideration of re-alignment of the existing right of way in locations which would reduce impacts on natural resources and/or enhance public safety;
  - 2. Include provisions for wildlife underpasses or overpasses for an appropriate width across the Cow Creek and powerline Wildlife Corridors to encourage safe passage of wildlife;
  - 3. Design storm water treatment facilities to minimize habitat loss and promote restoration of impacted sites and assure capture and treatment of runoff from bridges;
  - 4. Provide non-intrusive roadway and bridge lighting;
  - 5. Incorporate safety and access design features to allow for the continuation of prescribed burning in the area;
  - 6. Incorporate appropriate speed controls through sensitive areas.

FG 2.19     **Minimum buffers and setbacks:**

- a.     **Boundary buffer:** There shall be a boundary buffer to minimize visual and noise impacts on surrounding land owners. The boundary buffer around Sustainable Development Area districts shall be a minimum of 200 feet. There shall be no encroachment within the buffer except for bike paths, boardwalks, equestrian and walking trails, fire lines and intersecting public roadways. The boundary buffer, where practicable, shall connect to other Resource Based Open Space. A boundary buffer in the Gateway district is not required adjacent to SR 442 and I-95, but shall be provided along all other district lines.
- b.     **Arterial buffer:** The purpose of buffers and setbacks on arterial roads shall be to minimize visual intrusion of development activity on the traveling public. A minimum 75 foot “no encroachment” buffer is required on arterials except through the Town Center district. The buffer prohibits intrusion of any kind, excepting intersecting roadways and one monument project signage at such intersections intended for project identification and way finding. Lakes exceeding four acres may also encroach into this buffer. However, in such an event, any building setback shall be 200 feet from the arterial right of way.
- c.     **Collector buffer:** For roads that are functionally classified as “collector” by the County, an applicant shall provide a “no encroachment” buffer of 50 feet.
- d.     **Wetland buffer:** All preserved wetlands within an SDA district shall have an average 75 feet but no less than 50 feet buffer. Wetlands within GreenKey shall have an average 100 feet but no less than 75 feet buffer. If different buffer widths are required by a permitting agency, the wider buffer shall apply.
- e.     **East Central Regional Rail Trail Buffer:** A rail trail corridor ranging in width between 100 and 200 feet extends through the area of the Farmton Local Plan and will ultimately be developed as a public access multi-use trail. A 100 foot vegetative buffer shall be maintained on each side of the trail measured from the edge of the traveled way, so as to minimize encroachments on the trail and enhance the experience of the trail user.

FG 2.20     Proposed activities within the Farmton Local Plan shall be planned to avoid adverse impacts to wetlands and the required buffers as described in FG 2.19(d). Land uses which are incompatible with protection and conservation of wetlands shall be directed away from wetlands. However, it is recognized that the development of educational facilities and clustering of development in the Town Center and Work Place districts, necessary to ensure a compact development pattern within the urban core, may result in the loss of some wetlands. If these wetland impacts cannot be avoided, the developer shall impact only those wetlands which are determined through applicable regulatory review to be of low ecological significance to the overall integrity of the larger wetland regime. Impacted wetlands shall be evaluated through the applicable federal, state and county regulatory review, with the goal of avoiding wetland impacts to the fullest extent practicable. Where land uses are allowed to occur, mitigation shall be considered as one means to compensate for loss of wetlands function, so as to ensure that there is no overall net loss in wetland function and value. In cases where the alteration of the buffer is determined to be unavoidable, appropriate mitigation shall be required. It is also recognized that

impacted or isolated wetlands may be enhanced or restored as part of water resource development or an approved alternative water supply project.

- FG 2.21 **Floodplains.** Impacts to the 100-year floodplain shall be minimized. Any impacts must be fully mitigated by providing compensatory storage on-site.
- FG 2.22 **Activity Based Open Space.** Activity Based Open Space includes areas such as walkways, bikeways, trails, picnic areas, playgrounds, tot lots, and sports parks (baseball, tennis, swimming, soccer facilities, lakes, boardwalks and the like). Activity Based Open Space shall be provided within the Sustainable Development Area districts.
- FG 2.23 Unless modified by a development order or Conservation Management Plan adopted as part of a Conservation Easement, agricultural activities may take place within GreenKey lands so long as the activities are consistent with Best Management Practices approved by the Florida Department of Agriculture and Consumer Services.
- FG 2.24 A phase I cultural resource assessment survey shall occur prior to initiating any project related land clearing or ground disturbing activities that are not agriculturally related within the project area. The purpose of this survey will be to locate and assess the significance of any historic properties present. The resultant survey report must conform to the specifications set forth in Chapter 1A-46, Florida Administrative Code, and be forwarded to the Division of Historical Resources for comment and recommendation in order to complete the process of reviewing the impact of the proposed project on historic resources. Should significant resources be present, additional archaeological testing may be necessary, and/or protection and preservation of significant sites may be required.

*Footnote:* A map exhibit titled Farmton Conservation Areas was reviewed by Council at adoption hearing that indicated the mitigation bank areas in cross hatch, the Deep Creek Conservation Area in blue and the remaining GreenKey lands in green. The map will be provided as support documentation to the Farmton Local Plan.

#### OBJECTIVE:

- FG 3 Establish principles of sustainability and land use standards for the Sustainable Development Area (SDA).

#### POLICIES:

- FG 3.1 **PRINCIPLES OF SUSTAINABILITY.** The following guiding principles shall be applied throughout the planning process:
- a. Sustainable Development Area (SDA) districts shall contain a mixture of uses that provide for a balance of commercial, residential, recreational, open space (active and passive), resource protection, educational and other supporting uses.



- b. SDA districts shall be designed with principles of Smart Growth, Traditional Neighborhood Design (“TND”), and/or Transit Oriented Development (“TOD”) including walkability, compact development patterns, quality architecture and urban design and a hierarchy of street systems to foster connectivity and pedestrian mobility as well as alternate modes of travel, including transit.
- c. SDA districts shall promote diversity and choice through a mixture of housing types and price points using higher density, compact development patterns and variety to limit sprawl.
- d. SDA districts shall provide opportunities throughout all phases of the development for residents to work in the community they live in, thereby reducing automobile dependence.
- e. SDA districts shall utilize selected sustainable development techniques that promote the reduction of greenhouse gases and efficient and effective use of infrastructure.

FG 3.2 For the purposes of calculating residential density and floor area ratio (FAR) within the SDA districts, the density and FAR provisions provided in the policies of Objective 3 of this Local Plan shall be calculated based on net SDA Buildable Area. Net SDA Buildable Area shall equal the total SDA district reduced by the minimum 25% Resource Based Open Space area and then by the minimum 40% mandatory Civic Space. Civic Space includes streets, stormwater systems, parks, buffers, water, access easements, and other public infrastructure. Where practicable to Resource Based Open Space shall be located adjacent to Civic Space and GreenKey.

FG 3.3 **SDA Districts.** The Sustainable Development Area (SDA) future land use designation consists of four districts; Gateway district, Work Place district, Town Center district and the Villages district. Development standards are created for each distinct district in the following policies. The maximum allowable units and non-residential uses for all SDA districts combined at buildout are set by FG 3.9 subject to the limitations described in FG 3.10 and FG 6.1.

- a. The Farmton Local Plan Future Land Use Map depicts sustainable development areas that are larger than necessary to accommodate the maximum development program anticipated for the Farmton vision, due to the minimum Resource Based Open Space, Civic Open Space, and wetland protection policies within the Farmton Local Plan. The application of these policies requires SDA to promote more compact development and reduce the size of the developed area to the maximum extent possible.
- b. In order to establish the entitlements as set forth in FG 3.9, the property owner shall be required to make application for a Master Development of Regional Impact through the process set forth in FG 8.

FG 3.4 **SDA Gateway District.** The Gateway district is a distinct geographic area located at the northern end of the Farmton Local Plan which is the closest tract to SR 442 and the I-95 Interchange. It is separated from the lands to the south by significant wildlife corridors, and connected to other SDA districts via a 200 foot wide transportation

corridor. Permitted uses include single family, townhome, and multi-family residential to create a diversity of residential types and price points. Non-residential permitted uses include retail, office, warehousing/light industrial, hotel and institutional. The most appropriate uses are those that would benefit by proximity to an interstate interchange, e.g. warehousing, light manufacturing, hotel, office, retail. Multi-family is an approved use in order to provide workforce housing for the area.

Gateway district development shall adhere to the following development guidelines:

- a. Development must be compatible with and complement the development and conservation management plans of the Restoration Sustainable Development District within the City of Edgewater adjacent to the Gateway district. All infrastructure planning and capital improvements in the Gateway district shall be coordinated with the Restoration DRI and the City of Edgewater.
- b. Williamson Boulevard extension through Gateway district should be aligned as far eastward as practicable.
- c. All non-residential development shall be concentrated within an area of 120 acres or less.
- d. Development will target the interstate commerce market as well as local markets.
- e. Single use development is permitted, although mixed use, vertical construction development is encouraged.
- f. Big box retail is permitted subject to compatibility requirements to be established by the land development code.
- g. Connection and continuation of the Restoration DRI transit ready corridor system is a high priority.

The maximum floor area ratio (FAR) for the Gateway district is:

Office	0.5 FAR
Retail	0.3 FAR
R&D/L Manuf.	0.7 FAR

The target density for the Gateway district is 12 units per acre. The minimum residential density is 4 units per acre.

The Gateway district is the receiving area for the transfer of dwelling units and non-residential square footage as they existed at adoption of the Farmton Local Plan. There shall be no more than 4,692 residential units and no more than 820,217 square feet of non-residential within Gateway district through 2025. However, in order to plan for school capacity, there shall be no more than 2,287 dwelling units unless there is a finding of school adequacy issued by the school district.

An equivalency matrix is provided in Objective 8 to convert transferred dwelling units to non-residential square footage so long as the net p.m. peak hour external trips do not exceed 6,821.

**Mixed Use Requirements.** To ensure a sustainable mix of uses the following minimums per use are required for the Gateway district:

Use	Minimum % of Gateway district acreage
Office	20
Retail	10
R&D/ Manu	15
Residential	20

FG 3.5 **SDA Work Place District.** The Work Place district is intended to provide and promote employment centers as well as provide work force housing in close proximity. Permitted uses include office, warehousing, light manufacturing, research and development, retail, multi family, hotel, recreational, and institutional uses and may include universities, colleges, community colleges, or other educational facilities.

Work Place district development shall adhere to the following development guidelines:

- a. Primary location within the Farmton Local Plan for Corporate Headquarters, Campus Office Parks and Research Parks.
- b. Primary location for higher education level learning centers such as colleges, universities, high schools, and technical institutes.
- c. Locate workforce housing within close proximity to employment centers.
- d. Big box and strip retail are discouraged unless proper design guidelines are established and compatibility may be achieved.

**Density and Intensity.** The Work Place district shall have a minimum density of eight units per acre and a target density of 18 units per acre. The minimum floor area ratio (FAR) for the non residential uses-shall be 0.3 FAR.

The Master DRI or equivalent development order as provided in Objective 8 of the Farmton Local Plan shall provide a mix of uses, including maximums and minimums for the Work Place district.

FG 3.6 **SDA Town Center District.** There shall be a Town Center district intended to be the social, cultural, economic, civic, and educational hub of the Farmton Local Plan. Permitted uses include office, retail, single family and multi family residential, hotel,

educational facilities, medical facilities, religious facilities, active and passive and active recreational facilities.

Town Center district development shall adhere to the following guidelines:

- a. Development of the Town Center district will reflect the characteristics of a traditional downtown centered around a Town Square.
- b. The Town Square shall be the focal point of the Town Center district. It shall be centered around active open space and the highest concentration of residential and non-residential uses shall front on the open space.
- c. Design standards for the Town Center district will create a sense of place and identity for the Farmton Local Plan through its horizontal and vertical features.
- d. The Town Center district will house the majority of the civic uses within the Farmton Local Plan including, but not limited to, cultural amenities, art, museums, theater, public safety, government offices, gathering/meeting places, regional parks, day care centers, educational facilities, and similar type uses.
- e. A system of interconnected system of streets, pedestrian paths and bikeways will be incorporated in the design.
- f. Williamson Boulevard extension should be oriented to one side of the Town Center district.
- g. Standards for narrower streets, on-street parking, block sizes and intersection spacing shall be established in the land development regulations to slow traffic through the Town Center district and Town Square.
- h. A transit station shall be located within the Town Center district, with an adjacent park and ride lot.

The minimum floor area ratio (FAR) for the non residential uses within the Town Center district is 0.3 FAR and .5 FAR within the Town Square. The maximum floor area ratio for the non residential uses within the Town Center district is 1.5 FAR.

The minimum density for Town Center district is eight dwelling units per acre, with a target residential density for the Town Center district of 15 units per acre, and a target residential density for the Town Square of 24 units per acre.

The Town Square shall be a maximum of 180 acres.

Land Development Regulations for the Town Center district shall establish parameters parameters/criteria for locating convenience retail and office centers to serve the neighborhoods throughout the rest of the Town Center district.

**Mixed Use Requirements.** To ensure a sustainable mix of uses the following minimums per use are required for the Town Center district:

Use	Minimum % of Town Center district
Office	20
Retail	20
Parks/Civic	10
Residential	25
Light Ind	5

FG 3.7

**SDA Villages District.** Villages are compact residential areas containing a mix of residential housing types to encourage affordability for a wide range of economic levels. Villages shall be supported by internally designed mixed use village centers which provide key goods and services and public facilities at the neighborhood level. Villages shall be surrounded by large expanses of Resource Based Open Space that are designed to protect the character of the rural landscape.

Villages shall adhere to the following basic guidelines:

- a. Villages shall include compact design that includes a system of land subdivision and development which links one neighborhood to another.
- b. Villages shall include interconnected streets that are designed to balance the needs of all users, including pedestrians, bicyclists and motor vehicles, and which are built with design speeds that are appropriate for Neighborhoods.
- c. Villages shall include alternatives for pedestrians and bicyclists through the provision of sidewalks, street trees and on-street parking which provide distinct separation between pedestrians and traffic, spatially define streets and sidewalks by arranging buildings in a regular pattern that are unbroken by parking lots; and provide adequate lighting that is designed for safe walking and signage which has a pedestrian orientation.
- d. The majority of all housing in a village shall be within one half mile of the village center.
- e. Each village shall contain a village center, the purpose of which is to provide key goods and services at the neighborhood level (vs. regional level).
- f. The village center shall be located approximately in the center of a designated village and shall not exceed 90 acres in size (excepting wetlands and educational facilities).
- g. The village center should have a focus towards the residential areas within one mile. In addition to commercial uses, village centers should include civic and recreational uses as well as Activity Based Open Space in the form of greens, commons, parks, squares and recreation areas.
- h. The transportation system within a village shall consist of collector and neighborhood streets and pedestrian and bike systems that provide linkages to other land use components of the Farmton Local Plan.

- i. Each village center shall provide for a transit stop to facilitate transition from bicycling or walking to bus or trolley. Therefore, the transit stop should include bicycle racks.
- j. The village center should be located near the juncture of two collector roads, but may, depending on environmental constraints, be located near the juncture of a collector and local road.
- k. Each village shall contain a mix of housing types to encourage affordability for a wide range of economic levels.
- l. Standards for narrower streets, on-street parking, block sizes and intersection spacing shall be established in the land development regulations.

Approved uses within the Villages district include single and multi family residential, office, retail, institutional, open space, bed and breakfast. Non-residential uses are limited to the village center.

The minimum floor area ratio for non-residential development in a village center shall be 0.30, but shall not exceed 200,000 square feet per each village center. No single retail use/retail entity shall exceed 50,000 square feet.

**Mixed Use Requirements.** To ensure a sustainable mix of uses the following minimums and maximums per use are required for the village center:

Use	Minimum % of village center acreage
Office	10
Retail	15
Parks/Civic	20
Residential	25

FG 3.8 Residential neighborhoods within SDA districts shall include a variety of dwelling types and lot sizes to provide opportunities for different age and income groups within an integrated and diverse community so as to avoid rigid segregation of dwelling types by price point within the community and to promote affordable housing. The target density for each Villages district is as follows:

- a. Minimum 3 dwelling units per acre.
- b. Target density for each Villages district overall of 6 dwelling units per gross acre.
- c. Target density for each village center of 10 dwelling units per gross acre.

FG 3.9 Notwithstanding other limitations set forth in these policies, overall densities within the Farmton Local Plan beyond 2025 shall not exceed the maximum allowable



23,100 residential units and 4.7 million square feet on non-residential, excluding educational facilities and other institutional uses.

- FG 3.10 The Farmton Local Plan shall develop and implement a program designed to ensure an adequate number of jobs per residential dwelling unit exist in the SDA districts. At buildout of the Farmton Local Plan, a jobs-to-housing balance of 1:1 job per residential unit shall be achieved. During development phases, the jobs/housing balance shall be measured at no less than annual intervals as required in a Master DRI or equivalent development order and the results shall be reported to the county, the ECFRPC and the Department of Community Affairs. The Gateway district is phase one and is exempt from the ratio requirement. In phase two and subsequent phases, the development order shall require milestones for achieving the jobs to housing target ratio. In the event that the jobs to housing ratio drops below 0.65, residential development approvals shall be suspended until a remedial plan can be developed and approved as set forth in an accompanying development order.
- FG 3.11 Proposed development shall provide for an on-site naturalist to provide environmental education and uphold the environmental and sustainability standards for any proposed development. Environmental education shall focus on the following:
- a. Landscaping activities.
  - b. Monitoring of environmental conditions and sustainability performance such as energy consumption, greenhouse gas emissions, water consumption, water quality on site and biodiversity.
  - c. Analysis and education on community performance standards for energy and water use efficiency and facilitation of carbon credit sales for energy efficiency.
  - d. Distribution of educational materials for home buyers that include landscape plans/lists of plants installed on their lots and basic maintenance requirements of any home features that received credits under the ENERGY STAR® or Florida Water StarSM certification programs.
  - e. Distribution of educational and interpretive materials on bikeways and trail systems, wildlife and habitat protection issues.
- FG 3.12 Institutional uses (e.g. churches, meeting halls, libraries, educational facilities, recreation facilities, government buildings, police/fire/emergency medical services, water and sewer plants) shall be allowed in all SDA districts, but shall not be allowed in GreenKey designation. Water resource development or approved alternative water supply projects are permitted within SDA and GreenKey.
- FG 3.13 Future agricultural operations may be allowed within SDA districts as provided for in the Master DRI or equivalent development order.

## OBJECTIVE:

- FG 4        Development within the Farmton Local Plan shall promote high standards for water conservation, and energy efficiency.

## POLICIES:

- FG 4.1        SDA districts shall promote protection of green infrastructure, natural resource protection, water and energy conservation, and low impact compact development. Higher density, mixed use, and compact development will be an integral part of any future development as it is recognized to reduce trip lengths, promote walking, support regional mass transit and reduce the development foot print. It also is recognized to provide tangible social and cultural benefits by encouraging more connected social support systems and a stronger sense of community.
- FG 4.2        SDA districts shall undertake the physical development of the community using a whole systems approach to the design, development, construction and operation of the community and to do so in a way where defined benchmarks and metrics can be used to measure its success. The details for these standards will be developed in cooperation with the University of Florida Program for Resource Efficient Communities (PREC) and will be set forth in a Master DRI or equivalent development order during the master planning process and will implement the following goals of sustainability:
- a.    Landscape design shall encourage biodiversity using native vegetation with a goal of reducing water usage and treating groundwater.
  - b.    Energy design shall focus on incorporating green development practices in building design, construction and operation. Proposed development shall meet the requirements of a certification program from either USGBC LEED for Neighborhood Development, FGBC Green Development Designation Standard, or another third party program deemed comparable by University of Florida Program for Resource Efficient Communities (PREC) and Volusia County.
  - c.    Water design shall incorporate conservation measures and water reuse so that as nearly as possible it incorporates water neutrality into the construction and operation of the development such that potable water supply would equal water saved through conservation and reuse. Water neutrality shall mean that potable and nonpotable sources of water are provided solely within the boundaries of the Farmton Local Plan and sources outside the boundaries of the Farmton Local Plan are not needed to support new development.
  - d.    Community design shall promote walkability with linkages to employment centers and developing around multi-use compact cores so that the community can coexist harmoniously with the natural, social and economic environment.
  - e.    Detailed provisions for personal electronic vehicle (PEV) recharging stations within the SDA are included in Objective 5.

- f. Coordination with the school district to promote alternative travel modes for school children.
- FG 4.3 Outdoor lighting in the community shall achieve the standards of the International Dark-Sky Association. Particularly effective best practices established in cooperation with the PREC or other credible agency will be integrated as prerequisites or established as minimum community standards such as solar powered street and pathway lighting.
- FG 4.4 Infrastructure within GreenKey shall promote water and energy conservation and shall promote solid waste neutrality through recycling and composting.
- FG 4.5 All residential and nonresidential development shall be served by central utilities for potable and nonpotable water uses including irrigation.
- FG 4.6 ENERGY STAR® and Florida Water Star<sup>SM</sup> standards shall be met for all residential development.
- FG 4.7 Watering of lawns or other landscape areas shall be provided by sources other than potable water.
- FG 4.8 A distribution system shall be planned and installed as a component of the utility system to provide non-potable water, including storm water, surface water and reclaimed water, to meet the landscape irrigation and other nonpotable water demands for all development within the Farmton Local Plan. All irrigation systems shall be designed to accept nonpotable water. A nonpotable water system infrastructure shall be installed concurrent with all other water and wastewater infrastructure.
- FG 4.9 Multi-family residential development shall use sub-meters for all individual residential units with all uses within the Farmton Local Plan individually metered.
- FG 4.10 Solar panels are allowed and encouraged on all buildings and in all districts, in adherence to design guidelines that may adapt to changing technologies.
- FG 4.11 Waterwise and Florida Friendly principles shall be applied in the design of all landscape areas.
- FG 4.12 The Farmton Local Plan shall promote carbon neutrality through energy conservation, use of development standards to reduce energy consumption, promote walkability and compact design so as to reduce automobile use, promotion of solar power and other alternatives to achieve overall reduction in production of greenhouse gases.
- FG 4.13 It is recognized that the standards and protocols which define sustainability are constantly evolving such that what is determined to be acceptable today may be unacceptable in the future and that supportive programs may emerge tomorrow that more adequately accomplish the goal of the Farmton Local Plan. For the purpose of achieving sustainability goals, adaptive management will be employed over the life of the plan so as to ensure that the most current programs, policies, and protocols are

used throughout the life of the community which shall be consistent with other comprehensive plan policies in effect in the future.

- FG 4.14     **Water Resources.** Farmton Water Resources LLC and the City of Edgewater are the authorized water providers to the Farmton Local Plan area. Farmton Water Resources LLC is a utility certified by the Florida Public Service Commission and serves most of the area of the Farmton Local Plan. Farmton Water Resources, through extensive well placement and stress testing, has determined that significant groundwater resources exist within its jurisdiction perimeter that are far in excess of the water needs required by buildout under the Farmton Local Plan. Farmton Water Resources shall apply for a Consumptive Use Permit (CUP) from SJRWMD to supply groundwater to the areas and the proposed development allowed by the Farmton Local Plan. In the event SJRWMD deems the existing groundwater insufficient to serve buildout of the Farmton Local Plan, then any additional water supply needed shall be provided by an alternative water supply source identified in the SJRWMD's District Water Supply Plan. The landowner and/or developer shall coordinate with Farmton Water Resources LLC and City of Edgewater to develop an integrated water resources plan (including a long range waste water plan) for expeditious implementation of water supply projects, which meet the needs of the landowner and local utilities and shall enter into such agreements as are necessary to accommodate that plan for up to 50 years.
- FG 4.15     Farmton Water Resources shall coordinate with the City of Edgewater and county to revise their 10-year water supply facilities work plans to include Farmton Water Resources service area and descriptions of projects needed to provide potable and nonpotable water to the service area. Farmton Water Resources, LLC shall coordinate with the County, the municipalities in the southeast and southwest part of Volusia County, and St. Johns River Water Management District (SJRWMD) to propose additions to the District Water Supply Plan to provide for water resource development and alternative water supply plans including storage of water, and acceptance of reuse or storm water, and augmentation or wetlands restoration.
- FG 4.16     The county, Miami Corporation and/or Farmton Water Resources LLC, and municipalities located in the southeast and southwest part of Volusia County shall coordinate to plan short term and long term water resources.
- FG 4.17     The proposed ground water supply within the authorized Farmton Water Resources, LLC area shall serve development within the Farmton Local Plan. In the event that the SJRWMD deems the existing ground water insufficient to serve buildout of the Farmton Local Plan, then any additional water supply needed shall be provided by an alternative water supply source as identified on the District Water Supply Plan.
- FG 4.18     Farmton Water Resources, LLC is responsible for providing onsite and offsite infrastructure improvements necessary to provide potable and nonpotable water and waste water to development within the Farmton Local Plan area. Infrastructure improvements shall include wells, surface water intake facilities, pumps, raw water transmission lines, water treatment plants, waste water treatment plants (meeting public access reclaimed water standards), finished water transmission lines, reclaimed water transmission lines, potable and nonpotable water storage facilities. As the infrastructure projects are identified and approved by the County and the

SJRWMD, those projects shall be included in the County's Water Supply Work Plan and Capital Improvements Element during the annual update.

FG 4.19     **Gateway District.**     The Gateway district is within the City of Edgewater Utility Service Area and the City of Edgewater provides potable water to the County pursuant to an interlocal agreement. Prior to any development approval within the Gateway district, the owner shall enter into an agreement with the City of Edgewater to set forth terms and conditions upon which the City of Edgewater may establish a wellfield in order to provide potable water and wastewater to the Gateway district and provide additional potable water to the City to meet its obligations to the County.

FG 4.20     The County shall not issue any development orders or development permits for any development within the Farmton Local Plan until:

- a.     A Consumptive Use Permit is issued to Farmton Water Resources, LLC, or the City of Edgewater receives a revised Consumptive Use Permit by the SJRWMD to meet the projected demand for potable water.
- b.     The water supplier certifies it has facilities and capacity to serve the development.
- c.     Adequate wastewater infrastructure shall be planned to serve the new development and shall be available no later than the anticipated date of issuance of building permits.

FG 4.21     Consistent with Policy 7.1.3.1 of the Potable Water Element, Farmton Water Resources LLC shall provide the county with sufficient support documentation for its Water Supply Facilities Work Plan and provide data to the SJRWMD for the District Water Supply Plan to address water supply facilities necessary to meet the existing and projected demand within the County's water supply planning areas to ensure that adequate water supplies exist to serve the new development and will be available no later than the anticipated date of issuance of building permits. The information provided to the County and SJRWMD in support of the Farmton Future Land Use Map amendment will be updated to support the application for a Master DRI. After a Master DRI is approved, updates will be provided by DRI increment. At a minimum, information to be provided includes:

- a.     Existing potable and non potable demand based on the phasing schedule.
- b.     Five year projection of potable and non potable demand.
- c.     Assumptions used for calculating the demand such as level of service standards and adjustments for water conservation and reuse.
- d.     Water conservation measures that have been implemented.
- e.     Water conservation measures that are to be implemented in the next phase.
- f.     Identification of water supply sources currently being used.

- g.** Identification of water supply sources needed to accommodate the next proposed phase.
- h.** Location and pumping rates of any wells added to the Farmton Local Plan since the last update.
- i.** Permit numbers obtained for wells in operation or pending before the SJRWMD.
- j.** The onsite and offsite infrastructure improvements necessary to provide potable and nonpotable water and waste water service to development within the Farmton Local Plan area. Infrastructure improvements shall include wells, surface water intake facilities, pumps, raw water transmission lines, water treatment plants, wastewater treatment plants (meeting public access reclaimed water standards), finished water transmission lines, reclaimed water transmission lines, and potable and nonpotable water storage facilities.

#### OBJECTIVE:

**FG 5** The Farmton Local Plan shall be developed in a manner to promote a transportation system, both on-site and off-site, consistent with the goals of providing mobility that is energy efficient includes green development principles and is financially feasible. A key component shall be a shift in emphasis from providing for the movement of vehicles to the provision of mobility of people. The Farmton Local Plan shall also identify the procedures for determining transportation needs, identifying funding mechanisms, the protection of transportation corridors and the monitoring of transportation impacts.

#### POLICIES:

**FG 5.1** The Farmton Local Plan shall implement the concept of transportation mobility in all aspects of the transportation network design. This emphasis is consistent with the concepts of reduced energy requirements, reduced greenhouse emissions and reduced transportation facility expenditures. The Farmton Local Plan shall promote transportation efficiency, including reduced vehicles miles, promote walking by providing safe, appealing and comfortable street environments. All development within the Farmton Local Plan shall implement these design concepts.

**FG 5.2** The Farmton Local Plan shall be developed consistent with walkable community design standards to encourage walking as a means of transportation, recreation and social interaction.

- a.** A mix of land uses, multi-modal transportation stations and transit stops shall be provided in close proximity to each other to foster walking as a viable means of transportation.
- b.** Shade shall be provided in the form of tree canopy or man-made structures in Town Center, Villages and the Gateway districts to accommodate walking by providing relief from direct sunlight.



- c. Sidewalks of not less than 8 ft. in width shall be provided on both sides of the streets in Town Center and Villages districts.
- d. Safely lit sidewalks with physical separation from adjacent roadways (via curbing or otherwise adequate spatial separation) shall be provided to encourage night-time use.
- e. Woonerfs, or streets designed to be shared with pedestrians, shall also be encouraged in appropriate locations in the design of neighborhoods.

**FG 5.3**

The Farmton Local Plan shall include a network of interconnected multi-use paths designed to accommodate pedestrian, bicycle and low speed electric vehicles. The path network shall connect neighborhoods to reasonably proximate destinations including public and commercial land uses.

- a. Multi-use paths shall be provided connecting neighborhoods with the Town Center, Villages, Work Place, and Gateway districts, as well as recreational centers, schools and parks.
- b. Multi-use paths shall not be less than 12 ft. in width.
- c. Multi-use paths shall accommodate walkers, bicyclers, skaters, rollerbladers, skateboarders, motorized wheel chairs, motorized scooters, Segways and low speed electric vehicles.
- d. Rest areas, including parking areas, water fountains, restroom facilities, shelter from the weather, shall be provided for trail users with access from public roads.
- e. Employment centers shall provide showering facilities and lockers to encourage employees to bike to work.
- f. The Farmton Local Plan shall coordinate connections between the multi-use path and the East Central Regional Rail Trail as administered by Volusia County.

**FG 5.4**

Accommodation of electric vehicles shall be provided in the development of residential units and at significant public, recreational, educational and commercial destinations.

- a. Use of low speed electric vehicles on local streets and on multi-use paths shall be permitted.
- b. Major public and commercial destinations as well as multi-modal stations and village centers shall provide for parking spaces specifically designed and designated for electric vehicles.
- c. An electric vehicle charging station shall be provided for each residential unit within the Farmton Local Plan and shall be located at each Villages, Town Center, Gateway and Work Place district for personal electric vehicles (PEV).

**FG 5.5** The Farmton Local Plan shall incorporate the features of transit-oriented development in the Town Center, Villages, Work Place and Gateway districts.

- a.** The Town Center district shall incorporate a multi-modal station accommodating transit adjacent to the core area.
- b.** The Villages district shall incorporate transit stops adjacent to the core area.
- c.** Transit stops shall be provided within 1/4 mile of the majority of residential units in each neighborhood.
- d.** Bicycle racks for the temporary, secure storage of bicycles shall be provided at all transit stops and at major public facilities, commercial destinations, recreational facilities, multi family buildings and schools. Detailed requirements shall be included in the land development regulations.
- e.** Designated bicycle lanes shall be provided on all arterial roads.
- f.** The Farmton Local Plan shall accommodate a transit system design within its major transportation corridors connecting on-site transit stops and stations to external transit line routes to be designed and approved during the Master DRI review process.
- g.** A park and ride lot shall be provided within the Farmton Local Plan to encourage ride-sharing and transit utilization. The park and ride lot shall be located within the Town Center district and adjacent to the transit station.

**FG 5.6** Each SDA within the Farmton Local Plan shall include an efficient road network designed to safely accommodate access to the external road network and the internal road network for all modes of transportation.

- a.** A hierarchy of roads shall be developed that accommodates local transportation needs as well as access to the external road network. An approved plan providing for a hierarchy of transportation facilities will be required to accommodate this goal prior to the development of each SDA.
- b.** Internal access within each district shall consist of interconnected local streets and collectors meant to disperse traffic and avoid funneling traffic to a reduced number of collectors and arterials. This design requires a pattern of mixed uses, commercial and residential in proximity to each other. Cul-de-sacs shall be prohibited except in perimeter areas. The interconnected network of local streets shall be designed at lower, bicycle/pedestrian friendly speeds (30 mph or less). On-street bicycle use shall be encouraged on local streets.
- c.** Access between the Town Center, Villages, Work Place and Gateway districts, as well as access to the external road network, shall be provided by a system of collectors and arterials. However, this access shall not be provided within the GreenKey land use designation area. Access connections within the GreenKey land use designation area is limited to the spine transportation network and approved trailheads only.

- d. Local roads shall be relatively narrow, shaded by trees and interconnected to disperse traffic efficiently and shall allow on street parking.
- e. The on site collector and local roads that may be approved during the planning process for development within an SDA are necessary to accommodate the Farmton Local Plan buildout and the construction of the internal hierarchy network and are not subject to transportation impact fee credits.

#### FG 5.7

**Spine Transportation Network.** The Farmton Local Plan establishes a transportation spine network of arterial roads upon adoption of the Farmton Local Plan that identifies approximate alignments and right-of-way widths of the arterials and interchanges consistent with the needs of access between major uses on-site and access to the external transportation network, as generally depicted in Figure 2-10 of the Transportation Map Series. The final alignment shall be determined during the Master Planning process and may be impacted by such factors as wetland avoidance, final design criteria, and utility impacts. Construction of the spine transportation network is the sole responsibility of the owner/developer. The following identifies the minimum right-of-way widths and connections of the spine transportation network:

- a. **Maytown Road.** A 200 ft. multi-modal right-of-way shall be preserved through the Farmton Local Plan area. Direct access from Maytown Road to SR 415 shall be required within five-years of the commencement of any development within the Farmton Local Plan occurring on, or accessing, Maytown Road. The improvement of Maytown Road shall provide for adequate path crossings, wildlife crossings, elevated roads, and utility crossings, as set forth in FG 2.18.
- b. **Maytown Road/ I 95 Interchange.** A future interchange access to Interstate 95 at the existing Maytown Road underpass shall be constructed in potential, partial mitigation of over-capacity conditions at adjacent interchange(s), subject to the procedural requirements set for by Florida Department of Transportation (FDOT) for interstate connections. Adequate setback from the proposed interchange shall be required to protect the traffic-handling capacity of the proposed interchange.
- c. **Williamson Boulevard.** A 200 ft. multi-modal right-of-way shall be preserved for the proposed Williamson Boulevard Extension from the SR 442 Extension, through the Farmton Local Plan in Brevard County, with access to the existing Interstate 95 interchange at SR 5A.
- d. **SR 5A Interchange.** Proposed Williamson Boulevard shall connect to the existing SR 5A interchange at I-95. Development setback from the proposed interchange shall be required to protect the traffic-handling capacity of the proposed interchange.
- e. **Proposed Arterial A.** This arterial shall provide a 200 foot multi-modal right of way for a new northwest quadrant connection between Williamson Boulevard and Maytown Road and its location is generally depicted on the Farmton Local Plan map.

- FG 5.8 The ultimate location and design of the spine network shall be approved by the county and constructed to county arterial standards. However, construction costs for these improvements will not be paid for with impact fees, mobility fees or other fee credits, as this spine network is considered the minimum necessary improvements for development of the 2060 Farmton Local Plan.
- FG 5.9 Given the potential for innovation in transportation, provision should be made for accommodating state-of-the-art travel modes (both for on-site facilities and access to off-site facilities) as they evolve throughout the development of the Farmton Local Plan. At such time as it is practicable, the Developer shall extend the transit ready corridor along Williamson Boulevard from Restoration DRI at SR 442 to SR 5A in Brevard County.
- FG 5.10 The transportation mobility focus for the Farmton Local Plan represents a change from the historic approach to providing for mobility which previously focused on the personal automobile. This new focus emphasizes reduced vehicle miles of travel, increased vehicle occupancy, reduced energy costs and reduced greenhouse gas emissions while increasing the mobility of the traveling public. A byproduct of this approach will be a reduction in the rate of trip generation on a per vehicle basis. This is a necessary goal given the prevalent and growing deficits in the public's ability to fund new roads. Transportation goals are now focused on reducing travel demand while preserving existing transportation facilities.
- FG 5.11 Transportation modeling and monitoring of the Farmton Local Plan shall be completed one year prior to the County's Evaluation and Appraisal Report (EAR) preparation, occurring every seven years unless otherwise required by the County, as a means to incrementally update the transportation needs and trip allowances through the 50 year build out. Before commencement of a modeling and monitoring analysis, the County shall require a methodology meeting with all agencies responsible for the development of transportation systems and services adjacent to the Farmton Local Plan area.
- FG 5.12 Cumulative development permitted within the Farmton Local Plan prior to December 31, 2025 shall be limited to 6,821 external two-way p.m. peak-hour trips.
- FG 5.13 For off-site transportation improvements, if a development needs to pay proportionate fair-share or proportionate share toward a needed improvement to meet concurrency and the remainder of that improvement's cost is not programmed for funding in either the 5 year Capital Improvements Element or the 10-year Concurrency Management System, then the sum of those proportionate share dollars shall be directed to improve specific facilities (pipe-lining) on a priority basis as determined by the county, except as it relates to the FDOT Strategic Intermodal System (SIS) facilities wherein FDOT will determine how funds will be directed. The County will consult and coordinate with all impacted roadway maintaining agencies (including FDOT and the Cities) regarding priorities on other than SIS facilities. The development will be approved if an agreement is executed on how the funds will be directed. The county reserves the right to condition the approval of development on the availability of funding for all necessary infrastructure to support and provide capacity for the proposed development. In the event the developer is responsible for off-site impacts, off-site county roads constructed by the developer with proportionate share dollars may be eligible for transportation impact fee and/or

mobility fee credits. However, any said credit shall not exceed the amount of impact fee and/or mobility fees actually generated by the development. The spine transportation network, on and off-site, as indicated on the Farmton Local Plan map shall be the sole responsibility of the developer(s) of the Farmton Local Plan and are not eligible for transportation impact fee and/or mobility fee credits.

- FG 5.14     **Monitoring and Modeling.** Prior to undertaking the Monitoring and Modeling effort, a meeting will be held with all affected agencies, including FDOT, to develop an acceptable Monitoring and Modeling methodology. The Monitoring effort shall include a comparison between actual trip generation and the projected trip generation based on ITE Trip Generation Rates and the Model. This Monitoring effort will indicate whether or not reduced trip generation due to reduced travel is resulting from the green design principles. In addition, projected levels of reduced VMT, increased auto occupancy and increases in mode split will be identified based on national data combined with planned increases in transit service. Modeling of future transportation system impacts due to the Farmton Local Plan shall be required at least every seven years during the county's EAR based amendment cycle, following commencement of construction of the first SDA within the Farmton Local Plan. The modeling period shall address, at a minimum, a five-year and a 10-year future analysis development period from the date of the modeling effort. The modeling effort shall address transportation impacts for a study area inclusive of transportation facilities impacted by proposed Farmton Local Plan cumulative development at five percent or greater of each facility's capacity at the adopted level of service (significant impacts) as established by the governing body of the facility's jurisdiction. The modeling effort shall be documented in a written report detailing the analysis procedure, results, recommendations and funding sources necessary to mitigate any transportation deficiencies whereon the trip generation caused by the Farmton Local Plan is significant and results in total traffic volumes exceeding the established capacity (adverse impacts) of the facility.
- FG 5.15     Transportation impact analyses of the Farmton Local Plan shall be coordinated with adjacent jurisdictions including Seminole County, and FDOT, as well as significantly impacted municipalities and towns within Brevard and Volusia Counties (significance shall be determine consistent with procedures identified in Ch 380.06, F.S.).
- FG 5.16     An external two-way p.m. peak-hour trips is established for each horizon year that distributes projected trips through buildout. The trip cap will be reevaluated every seven years coinciding with Volusia County's Evaluation and Appraisal Report (EAR) process and the transportation planning horizon and the trip cap will be adjusted with the County's EAR-based Comprehensive Plan Amendments based on a financially feasible plan in accordance with the following table:

Planning Horizon Year	P.M. Peak-Hour Two-Way Trip Generation				
	Gross Trip Generation		Internal Capture	Net External Trip Generation	
	Horizon Year	Cumulative		Horizon Year	Cumulative
2025	8,526	8,526	20%	6,821	6,821
2030	2,815	11,341	25%	2,111	8,932
2035	2,815	14,156	30%	1,971	10,903
2040	2,815	16,971	35%	1,830	12,733
2045	2,815	19,786	40%	1,689	14,422
2050	2,815	22,601	45%	1,548	15,970
2055	2,815	25,416	50%	1,408	17,377
2060	2,818	28,234	55%	1,268	18,645

These trip cap numbers shall be reviewed by the County concurrently with the EAR schedule. Should the County determine that existing and anticipated development within the Farmton Local Plan will exceed the trip cap number to the extent that mitigation is insufficient to accommodate the transportation impacts; the County and developer shall reduce the development plan to a level consistent with the available mitigation.

The companion EAR and EAR-based amendment must include a financially feasible roadway improvement plan consistent with proportionate share mitigation to accommodate the growth/development corresponding to the trip cap numbers.

#### OBJECTIVE:

FG 6 School Planning and Concurrency. The Sustainable Development Area districts shall be designed and planned to ensure that the educational facilities are integral components within the community and that adequate school capacity can be timely planned and constructed to serve the anticipated population.

#### POLICIES:

FG 6.1 The School District has sufficient capacity to serve 2,287 residential dwelling units within the Farmton Local Plan. Any change in land use designation, zoning classification or the issuance of a development order allowing for increased residential density or residential units exceeding 2,287 shall require a finding of school adequacy. The County specifically finds that these 2,287 residential units are planned for under the Public School Facilities Element and do not constitute an increase in residential density.

FG 6.2 At the time of adoption of the Farmton Local Plan, the Interlocal Agreement for Public School Facility Planning (ILA) recognizes that there is no school capacity within the Central School Concurrency Service Area in which the Farmton Local Plan is located

for the purpose of increasing residential densities or constructing new schools; therefore, no finding of school adequacy can be issued until and unless the Interlocal Agreement is amended to allow school capacity to be provided within the concurrency service area in which the Farmton Local Plan is located. The School District shall not be required to consider any request for adequate school capacity beyond the 2,287 units and the County shall not authorize development of residential units in excess of the 2,287 unless the ILA is amended.

- FG 6.3     **Finding of School Adequacy or Adequate School Capacity.** In the event that the School District reports that there is not adequate school capacity to serve the proposed increase in residential density then the County shall not approve the rezoning unless and until such time as the School District can issue a finding that adequate school capacity will exist.
- FG 6.4     In order to ensure fiscal neutrality and to issue a finding that adequate school capacity will exist the School Board reserves the right to condition a finding of adequate school capacity on the Developer's ability to provide funding necessary to ensure that adequate school capacity can be timely planned and constructed to serve the anticipated students and require terms and conditions for an executed agreement that will provide funding which has the effect of actually increasing capacity. The Developer's commitment to fund adequate school capacity will be set forth in a development agreement between the Developer, County and School District and identified in the Capital Improvement Element and School Facilities Element. Identified improvements located within the Farmton Local Plan shall not be paid for with impact fees or credits.
- FG 6.5     Applications for rezoning for proposed residential housing within the SDA districts shall be coordinated with the Volusia County School District to determine if adequate school capacity can be timely planned and constructed to meet the requirements of the new development pursuant to the standards and procedures as more fully set forth in the Interlocal Agreement for Public School Facility Planning (ILA), the Public School Facilities Element (PSFE) and Section 206 of the Volusia County Charter.
- FG 6.6     A full range of educational facilities such as public and private schools, universities, colleges, community colleges, or other post secondary educational facilities, or research facilities, including environmental educational facilities are permitted throughout the SDA districts.
- FG 6.7     When school sites are designated within the Farmton Local Plan, each site shall co-locate with park facilities, other civic uses and/or other public open space. Any and all co-location sites shall be coordinated and approved by the School District and shall require approval and acceptance by the School District prior to designation.
- FG 6.8     Educational facilities, especially elementary schools, shall be within walking distance of residential areas and designed with high standards of sustainability and green design, provided such standards do not conflict with state requirements for public school facilities or School Board of Volusia County standards.



OBJECTIVE:

- FG 7      Adopt general development guidelines and standards for Sustainable Development Areas which provide for delivery of services and provision for infrastructure and fiscal neutrality.

POLICIES:

- FG 7.1      **Fiscal Neutrality.** Each development within the SDA districts shall provide adequate infrastructure that meets or improves the levels of service standards adopted by the County and be Fiscally Neutral or results in a fiscal benefit to the county, school district, and municipalities outside that development. Fiscal Neutrality means the costs of additional school district and local government services and infrastructure that are built or provided for the SDA districts shall be funded by properties within the approved SDA districts.
- FG 7.2      Landowners, developers, or Community Development Districts shall demonstrate Fiscal Neutrality as part of the Master DRI approval process set forth in Objective 8 of this plan, and for each phase of each development, according to the procedures established by the County and School District. Such procedures shall require that Fiscal Neutrality be determined for each development project on a case-by-case basis, considering the location, phasing, and development program of the project. For off-site impacts, the procedures will require that the total proportionate share cost of infrastructure be included and not simply the existing impact fee rates. Notwithstanding the provisions of the Concurrency Management System, this shall include, but not be limited to, both localized and countywide impacts on county, city, state, and federal transportation facilities (such as roads, intersections, sidewalks, lighting, medians, etc.), public transit, schools, water supply and delivery, sewage transmission and treatment, solid waste, storm and surface water management.
- FG 7.3      The County requires that these procedures for measuring Fiscal Neutrality be reviewed and certified by independent advisors retained by the County at the expense of the landowner, developer or Community Development District prior to acceptance by the County.
- FG 7.4      Each development within SDA districts shall have a financial strategy approved by the County to construct and maintain all required infrastructure. Community Development Districts are identified as the preferred financing technique for infrastructure needs.
- FG 7.5      To ensure the provision of adequate public facilities that are fiscally neutral and avoid inequitable burdens on parties outside of the Farmton Local Plan, public infrastructure for developments may be funded and maintained by a Community Development District (CDD) formed in accordance with chapter 190, Florida Statutes, or such other financial mechanisms that are not dependent upon a budgetary allocation of Volusia County or the School Board of Volusia County.
- FG 7.6      The County reserves the right to condition the approval of development on the availability of funding for the necessary infrastructure to support the proposed development.

- FG 7.7 Prior to development approval, the county shall amend its Capital Improvements Element to include the timing and funding of public facilities required by the Farmton Local Plan.

OBJECTIVE:

- FG 8 Establish an implementation strategy and development review process.

POLICIES:

- FG 8.1 The Farmton Local Plan allows for development over an extended period of time. The land owner/developer is required to apply for and receive a master development approval for the entire project pursuant to section 380.06(21)(b), Florida Statutes (2009). No development shall take place within the SDA districts until the Farmton Local Plan is processed as a Master Development of Regional Impact (DRI) in accordance with section 380.06(21)(b), Florida Statutes (2009) and the development review procedures established herein. No building permit shall be issued for new development within the SDA districts within five (5) years of the effective date of the Farmton Local Plan. No development order for new construction shall be issued prior to the approval by the county council of the Conservation Management Plan (CMP) described in policies FG 2.10 and 2.11 and the recording of a perpetual conservation easement over all Green Key lands as set forth in policy FG 2.15 with the specific exception of essential public utilities or communication structures. Phase one, located in the Gateway district, will be the first increment to be reviewed and will be reviewed concurrently with the application for master development approval. All other increments will be submitted and approved subsequent to and in accordance with the master development order. The developer shall provide for the timing and review of phases, increments, and issues related to regional impacts of the proposed development and any other considerations that must be addressed in the application for master development approval required by paragraph 380.06(21)(b), Florida Statutes (2009). The development agreement shall be entered into by the land owner/developer, the East Central Regional Planning Council, and the county. The review of subsequent incremental applications shall be as prescribed in paragraph 380.06(21)(b), Florida Statutes (2009).
- FG 8.2 The intent of these policies is to mirror and augment state law controlling DRIs and these policies are to be construed together with the Master DRI process. In the event the DRI provisions of Florida Statutes are eliminated, development within the SDA districts shall be processed and reviewed as if the DRI regulations were applicable. All development within the SDA districts shall be processed as a part of a Master DRI or increment regardless of size thresholds and the impacts of all individual development projects shall be cumulative.
- a. The county shall submit the Master DRI and increment applications to VGMC for review and determination of consistency per Section 90-37 Code of Ordinances County of Volusia.

- b. The county shall submit the Master DRI and increment applications to the School District for a finding of school adequacy and determination of site location, configuration and suitability.

FG 8.3

**Master Plan Process:** Development activity within the SDA districts shall be planned through the Master DRI and in accordance with these policies and process that integrate development, Resource Based Open Space, and infrastructure. The application and development order shall include the following for each increment at the time of development review as set forth in the master development order:

- a. Specific form based Design Guidelines for the development.
- b. Provisions relating to implementation of the Principles of Sustainability.
- c. Fiscal Neutrality Plan and Procedure for Monitoring Fiscal Neutrality.
- d. Conservation Management Plan for GreenKey and Resource Based Open Space.
- e. Proposed Conservation Covenants/Easements for GreenKey and Resource Based Open Space.
- f. Increment and Phasing Plan for development, including timing and amount and phasing of residential and non-residential development.
- g. Provisions for public infrastructure including transportation, schools, stormwater, and water supply.
- h. Provisions that a finding of school adequacy has been made by Volusia County School District.
- i. Provisions to implement water and energy conservation measures.
- j. Provisions relating to implementation of jobs to housing ratio.
- k. Site Analysis of natural features including floodplains, drainage, wetlands, soils, habitat types, and a biological inventory.
- l. Block layout, street classification and layout, and recreational space and landscaping plans.
- m. Location of Resource Based Open Space, and Activity Based Open Space.
- n. Land Use Mix.
- o. Density and intensity of land uses proposed.
- p. Multi-modal Transportation Plan showing road network, transit, bike routes, and pedestrian plans including circulation routes.

- q. Integrated Water Plan showing provision for stormwater, water resource development, wellfields, and wastewater.
- r. Infrastructure Analysis on-site and off-site (e.g., water supply, sewer, stormwater, transportation, and schools).
- s. A Master Transportation Planning Study (MTPS) of a representative buildout development program for the Farmton Local Plan that identifies the required transportation corridors needed to serve the development. A separate study will be required with the application for a development within any SDA identifying a feasible financial plan for transportation facilities needed to support that SDA and demonstrating that those facilities are consistent with the long term build out needs of the MTPS.
- t. A conceptual master stormwater plan.

#### FG 8.4

**Standards for Review.** On review of the Master DRI, the County shall ensure that the development conforms to the principles of sustainability and demonstrates the following:

- a. The development complies with all applicable federal, state, and county environmental rules and regulations.
- b. The development complies with the principles of sustainability and substantive requirements of the Farmton Local Plan.
- c. The location of the developed areas on the site permits the most density and intensity in areas that are most suitable for development and respects existing natural and environmental features on the site.
- d. The location of the Resource Based Open Space areas on the site provides the greatest level of connectivity to GreenKey.
- e. The integrity of the Farmton Local Plan is not compromised by allowing extensive single-uses. The land use mix shall be phased to provide an adequate mix of nonresidential uses to serve residential development within each development phase or sub-phase.
- f. The required on-site and off-site infrastructure will be available to serve each development phase as it is constructed.
- g. Jobs to housing ratio is met or exceeded.
- h. The transit elements of the multi-modal transportation plan shall be developed in accordance with VOTRAN's Transit Development Guidelines as may be amended from time to time.
- i. Potable and nonpotable water supplies will be available to serve each development phase as it is constructed.

- j. Appropriate school sites, acceptable to and approved by the Volusia County School District, are designated within areas in close proximity to residential uses and outside of flood prone areas and are dedicated to the School Board of Volusia County.
- k. The conservation covenant, conservation easements, and conservation management plan requirements of Objective 2 have been met.

FG 8.5      **SDA Re-Zoning Process.** Development within the SDA districts shall be rezoned to planned unit development (PUD) in accordance with the PUD rezoning provisions of the county zoning code. The PUD development agreement shall include design guidelines which include, at a minimum, architectural standards, street design, transit friendly design requirements, bicycle provisions such as bike locker and shower facility requirements, landscaping, lighting, access and circulation, parking, lot development standards, parks and internal recreational space and facility requirements that will exceed current county standards. In addition, innovative resource conservation measures will also be included to address water conservation, non-potable water usage and other resource conservation measures including, but not limited to, solid waste management/recycling, materials and energy. No development except the Master DRI or equivalent development order may be approved or permitted until these regulations are adopted. No rezoning shall be approved without a finding of School adequacy.

FG 8.6      **Increments and Phasing.** Development within the Farmton Local Plan shall be phased according to the plan approved in the Master DRI or equivalent development order, which shall establish the timing and conditions upon which future phases will be approved.

- a. In order to plan for school capacity, no more than 2,287 residential dwelling units may be constructed on site unless there is a finding of school adequacy issued by the school district.
- b. Equivalency matrices for traffic impacts are established to convert residential density units to commercial intensities established for the pre2025 maximum development potential. See tables below.

**Farmton Generalized Trip Matrix (Based on P.M. Peak-Hour Two-Way Traffic)**

From	To									
	Single-Family	Multi-Family	Hotel	Hospital	School	Retail/ Commercial	Office	Business/ Flex-space	Light Industrial	Warehouse/ Distribution
Single-Family	-	1.772	1.712	0.886	6.886	0.269	0.678	0.783	1.041	3.156
Multi-Family	0.564	-	0.966	0.500	3.886	0.152	0.383	0.442	0.588	1.781
Hotel	0.584	1.035	-	0.518	4.023	0.157	0.396	0.457	0.608	1.844
Hospital	1.129	2.000	1.932	-	7.773	0.304	0.765	0.884	1.175	3.563
School	0.145	0.257	0.249	0.129	-	0.039	0.098	0.114	0.151	0.458
Retail/Commercial	3.713	6.579	6.356	3.289	25.568	-	2.517	2.907	3.866	11.719
Office	1.475	2.614	2.525	1.307	10.159	0.397	-	1.155	1.536	4.656
Business/ Flex-space	1.277	2.263	2.186	1.132	8.795	0.344	0.866	-	1.330	4.031
Light Industrial	0.960	1.702	1.644	0.851	6.614	0.259	0.651	0.752	-	3.031
Warehouse/ Distribution	0.317	0.561	0.542	0.281	2.182	0.085	0.215	0.248	0.330	-

\* Multiply previous land use units by factor to determine desired land use units  
Keeps total p.m. peak-hour traffic constant

Example: To go from 250 KSF Retail/Commercial to Business/Flex-space, multiply 250 by 2.907 = 726.75 KSF Business Park  
Example: To go from 100 Single-Family Dwelling Units to School, multiply 100 by 6.886 = 688 Students

**ITE Average Trip Rates (8th Edition)**

Land Use	Units	P.M. Peak- Hour Rate	Percent Enter	Percent Exit
Single-Family	Dwelling Units	1.01	63%	37%
Multi-Family <sup>1</sup>	Dwelling Units	0.57	66%	34%
Hotel	Rooms	0.59	53%	47%
Hospital	1,000 Sq. Ft.	1.14	42%	58%
School <sup>2</sup>	Students	0.15	48%	52%
Retail/Commercial	1,000 Sq. Ft.	3.75	48%	52%
Office	1,000 Sq. Ft.	1.49	17%	83%
Business/ Flex-space	1,000 Sq. Ft.	1.29	23%	77%
Light Industrial	1,000 Sq. Ft.	0.97	12%	88%
Warehouse/ Distribution	1,000 Sq. Ft.	0.32	25%	75%

<sup>1</sup> Multi-family trip rate and directional distribution is an average of Condominium/Townhouse and Apartment rates

<sup>2</sup> School trip rate and directional distribution is an average of elementary school, middle school, and high school

Through 2025 the Traffic Impact analysis will be based upon existing land uses and the mix of uses authorized for the pre-2025 maximum development potential. There shall be no increases in net external traffic based upon current land uses in effect at the time of the adoption of this amendment prior to 2025.

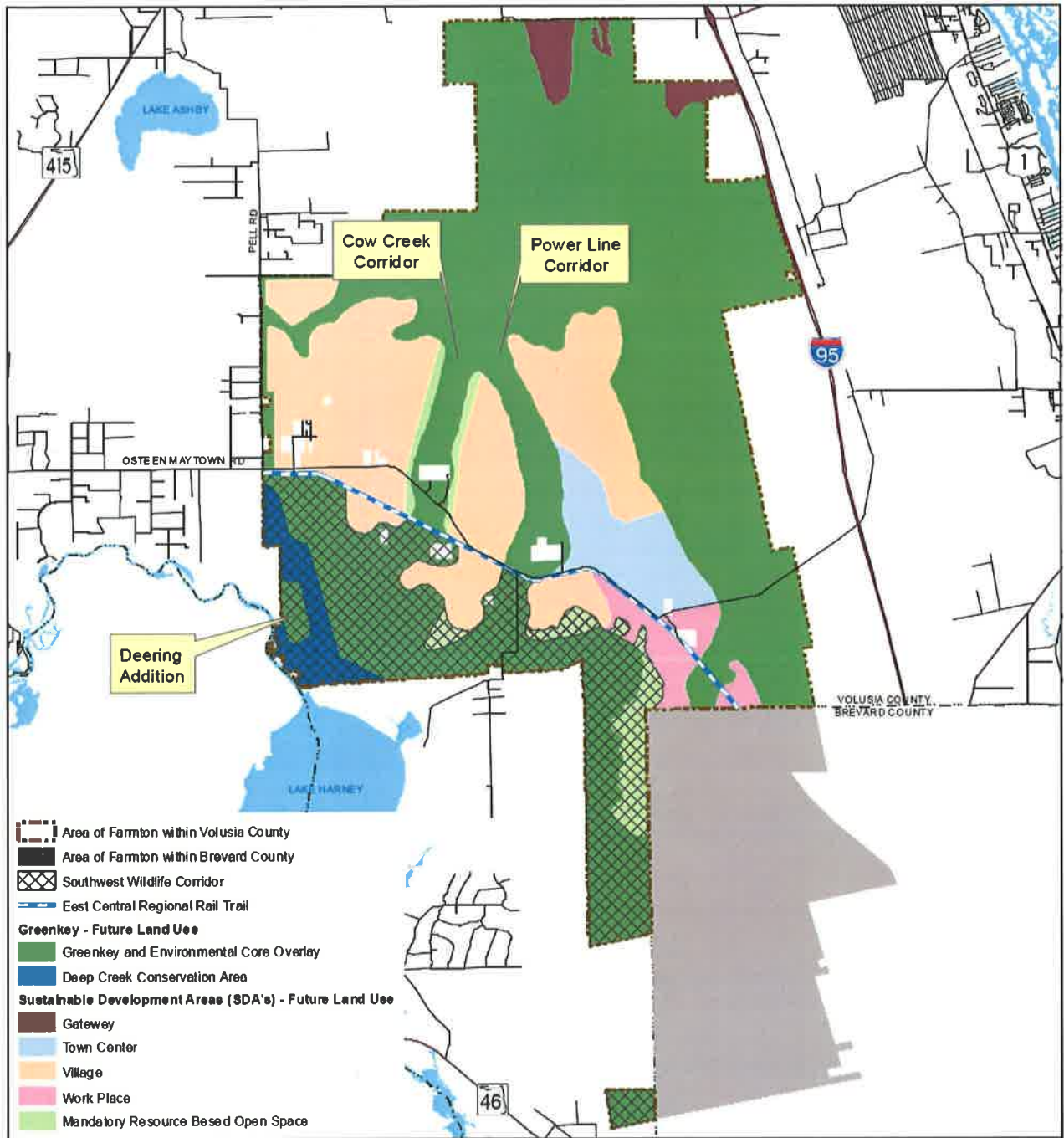
- c. Within the Work Place and Town Center districts the implementation of the jobs to housing ratio shall guide the phasing of development.
- d. To limit the maximum amount of residential development that may be approved, the Villages districts shall not be approved through the rezoning and master development plan process if such approval would cause the potential dwelling unit supply for development within the unincorporated County to exceed 150 percent of the forecasted housing demand for the projected population of the subsequent 20-year planning period; provided however that this limitation may be adjusted in order to achieve or maintain the required jobs to housing ratio. The projected housing demand shall be calculated by the county and shall consider the medium range population projections of the University of Florida's Bureau of Economic and Business Research for Volusia County, or any other professionally accepted population projection methodology consistent with the Future Land Use Element. This policy does not apply to the Gateway, Work Place or Town Center districts because the potential for residential development is limited by the minimum job to housing ratio provisions of policy FG 3.10.

- FG 8.7      **Facilities Capacity.** The increments and phasing conditions of each development shall address at a minimum:
- a.    The requirement that adequate public facilities and services be available to accommodate the development and maintain or improve the adopted level of service standards. The School Board and County reserve the right to condition the approval of development on the availability of funding for the necessary infrastructure to support the proposed development.
  - b.    The spine transportation network that shall be constructed by the developer as needed to support the development projected to 2060, and described in Objective 5 of this Local Plan.
  - c.    The availability of water supply to serve the development. The availability of water supply shall be demonstrated through:
    1.    A demand analysis for the proposed development extended throughout buildout and thereafter;
    2.    A list of potential, permittable supply sources and the capacities thereof;
    3.    A comparison of the demand vs. supply capacity of all sources on the list throughout buildout and thereafter;
    4.    The availability of reclaimed water and stormwater for irrigation use within the developments and the quantity of potable water these sources will offset; and
    5.    The potential for water conservation practices to reduce demand, such as installation of high-efficiency plumbing fixtures, appliances, and other water conserving devices in households, as well as public and commercial restroom facilities and the use of waterwise and Florida Friendly principles in all landscaped areas, where ecologically viable portions of existing native vegetation shall be incorporated into the landscape design to the greatest extent practicable so as not to require irrigation.
- FG 8.8      **Monitoring Program.** To ensure efficient planning for public infrastructure, the County shall annually monitor the actual growth within the County, including development within the SDA districts, and adopt any necessary amendments to the Farmton Local Plan in conjunction with the update of the Capital Improvements Program. Any amendments to the Capital Improvements Program will be made consistent with the requirement for Fiscal Neutrality for SDA districts.
- FG 8.9      **Land Use and Entitlements.** Approval of development within the SDA districts is contingent upon the applicant demonstrating that any increase in density above the maximum potential development as of the time of the adoption of this plan can be accommodated with infrastructure at the time of the application for the increment under the Master DRI, to include road, utility and school capacity as well as meeting concurrency requirements which meet the requirements for fiscal neutrality.



- FG 8.10     **Review by State agencies.** Given the very large acreage involved in the Farmton Local Plan, it is necessary to ensure that future impacts are identified and ameliorated. The following shall specifically apply:
- a.    The Farmton Local Plan provides no exemptions from reviews otherwise required by law, to include the Development of Regional Impact process (Chapter 380.06, Florida Statutes). In the event the legislature abolishes the DRI process, at minimum, an analysis equivalent to the 2009 DRI process requirements shall be completed prior to the approval of any and all developments in the Farmton Local Plan.
  - b.    Approval of the county, with concurrence of DCA, that any development proposed has adequately addressed potential impacts to the availability of affordable housing using a methodology approved by F.A.C. or such other methodology that may be approved by the County and the East Central Florida Regional Planning Council.
- FG 8.11     The Cities of Deltona, Edgewater, Oak Hill, and New Smyrna Beach shall receive notice and copies of all applications and submittals of the Master DRI and increments simultaneously with application or submission of all submittals or responses to the East Central Florida Regional Planning Council to insure the opportunity for comment and consultation on all land use and transportation issues.

1 **EXHIBIT B**



**MAP FIGURE 1-12N**  
**FARMTON LOCAL PLAN - FUTURE LAND USE MAP**



1/7/2013  
 Prepared by: Volusia County Growth and Resource Management Department

## Appendix 2 Farmton Mitigation Bank SJRWMD Permit



# St. Johns River Water Management District

Kirby B. Green III, Director • David W. Fisk, Assistant Executive Director

4049 Reid Street • P.O. Box 1429 • Palatka, FL 32178-1429 • (386) 329-4500  
On the Internet at [floridaswater.com](http://floridaswater.com).

September 29, 2011

Miami Corporation  
421 South Nova Road  
Daytona Beach, FL 32114-4513

SUBJECT: Permit Number 4-127-76185-4  
Farmton Mitigation Bank Modification

Dear Sir/Madam:

Enclosed is your permit as authorized by the St. Johns River Water Management District on September 29, 2011.

This permit is a legal document and should be kept with your other important documents. The attached MSSW/Stormwater As-Built Certification Form should be filled in and returned to the Palatka office within thirty days after the work is completed. By so doing, you will enable us to schedule a prompt inspection of the permitted activity.

In addition to the MSSW/Stormwater As-Built Certification Form, your permit also contains conditions which require submittal of additional information. All information submitted as compliance to permit conditions must be submitted to the Palatka office address.

Permit issuance does not relieve you from the responsibility of obtaining permits from any federal, state and/or local agencies asserting concurrent jurisdiction for this work.

In the event you sell your property, the permit can be transferred to the new owner, if we are notified by you within thirty days of the sale. Please assist us in this matter so as to maintain a valid permit for the new property owner.

Thank you for your cooperation and if this office can be of any further assistance to you, please do not hesitate to contact us.

Sincerely,

A handwritten signature in black ink, appearing to read 'Victor Castro'.

Victor Castro, Division Director  
Division of Regulatory Support

Enclosures: Permit with EN Form(s), if applicable

cc: District Permit File

Agent: Sharon Collins  
Terrablue Environmental LLC  
PO Box 3606  
Plant City, FL 33563

---

#### GOVERNING BOARD

W. Leonard Wood, CHAIRMAN  
FERNANDINA BEACH

John A. Miklos, SECRETARY  
ORLANDO

Maryam H. Ghyabi, TREASURER  
ORMOND BEACH

Douglas C. Bournique  
VERO BEACH

Lad Daniels  
JACKSONVILLE

Chuck Drake  
ORLANDO

Richard G. Hamann  
GAINESVILLE

**ST. JOHNS RIVER WATER MANAGEMENT DISTRICT**  
**Post Office Box 1429**  
**Palatka, Florida 32178-1429**

**PERMIT NO.** 4-127-76185-4

**DATE ISSUED:** September 29, 2011

**PROJECT NAME:** Farnton Mitigation Bank Modification

**A PERMIT AUTHORIZING:**

Modification to a previously approved Mitigation Bank authorizing the removal of 1,116.35 acres from the North Bank Site, reducing the project acreage to 22,805.41 acres, resulting in a reduction of 240.20 credits. Additionally, this modification approves a revised Mitigation Plan document which adjusts the acreage and figures for consistency with this modification approval.

**LOCATION:**

Section(s):	1, 2, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36 7, 18, 19, 20, 29, 30, 31, 32 13, 24 1, 2, 3, 6, 12, 13, 16, 18, 19, 20, 21, 28, 29, 30, 31, 32, 33 5, 6, 7, 8, 17, 18, 19, 20, 21, 29 36 1	Township(s):	18S 18S 19S 19S 19S 20S 21S	Range(s):	33E 34E 32E 33E 34E 33E 33E
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Volusia County

**ISSUED TO:**

Miami Corporation  
421 South Nova Road  
Daytona Beach, FL 32114-4513

Permittee agrees to hold and save the St. Johns River Water Management District and its successors harmless from any and all damages, claims, or liabilities which may arise from permit issuance. Said application, including all plans and specifications attached thereto, is by reference made a part hereof.

This permit does not convey to permittee any property rights nor any rights or privileges other than those specified herein, nor relieve the permittee from complying with any law, regulation or requirement affecting the rights of other bodies or agencies. All structures and works installed by permittee hereunder shall remain the property of the permittee.

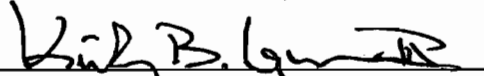
This permit may be revoked, modified or transferred at any time pursuant to the appropriate provisions of Chapter 373, Florida Statutes:

**PERMIT IS CONDITIONED UPON:**

See conditions on attached "Exhibit A", dated September 29, 2011

**AUTHORIZED BY:** St. Johns River Water Management District

By:

  
Kirby B Green, III  
Executive Director

**"EXHIBIT A"**  
**CONDITIONS FOR ISSUANCE OF PERMIT NUMBER 4-127-76185-4**  
**MIAMI CORPORATION**  
**DATED SEPTEMBER 29, 2011**

1. The mitigation bank shall be implemented according to the updated "Mitigation Banking Plan for Farmton Mitigation Bank", labeled 3rd Revision April 30, 2010, received by the District on May 26, 2010.
2. The removal of 1,116.35 acres from the North Bank site of the Farmton Mitigation Bank, as authorized by this permit, shall result in the reduction of the total potential mitigation credits for the North Bank site by 240.20 credits, to an adjusted value of 2,884.60 credits. Accordingly, the total potential credits for the entire mitigation bank shall be revised to 4,345.10 credits.
3. All conditions of permit 4-127-76185-1, except as modified by the conditions of this permit, shall remain in effect.
4. Prior to construction within the removal area or the request for a credit release from any phase adjacent to the removal area, whichever occurs first, permittee shall submit a boundary survey of the removal area signed and sealed by a land surveyor licensed and registered in the State of Florida. If the boundary survey yields a removal area with an acreage that differs from 1,116.35 acres, the remaining mitigation bank acreage and associated total potential mitigation credit allocation for the mitigation bank shall be adjusted by the District accordingly.
5. The permittee shall grant the District an easement to access, operate, and maintain the hydrologic structures in perpetuity. The easement shall include language received by the District on September 21, 2011 and subsequently approved by the District, in writing. Within 120 days of permit issuance, the permittee shall record the approved easement in the public record.
6. The permittee shall continue to operate and maintain the hydrologic structures as required under the permit, to include those structures located on property not included in the Bank as shown on Exhibits 5 and 8 of the Technical Staff Report.
7. The permittee shall maintain sufficient legal or equitable interest in the property where each permitted hydrologic structure for the mitigation bank is located.
8. All activities shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit.
9. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications, shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.
10. Activities approved by this permit shall be conducted in a manner which do not cause violations of state water quality standards.
11. Prior to and during construction, the permittee shall implement and maintain all erosion and sediment control measures (best management practices) required to retain sediment on-site and to prevent violations of state water quality standards. All practices must be in accordance with the guidelines and specifications in chapter 6 of the Florida

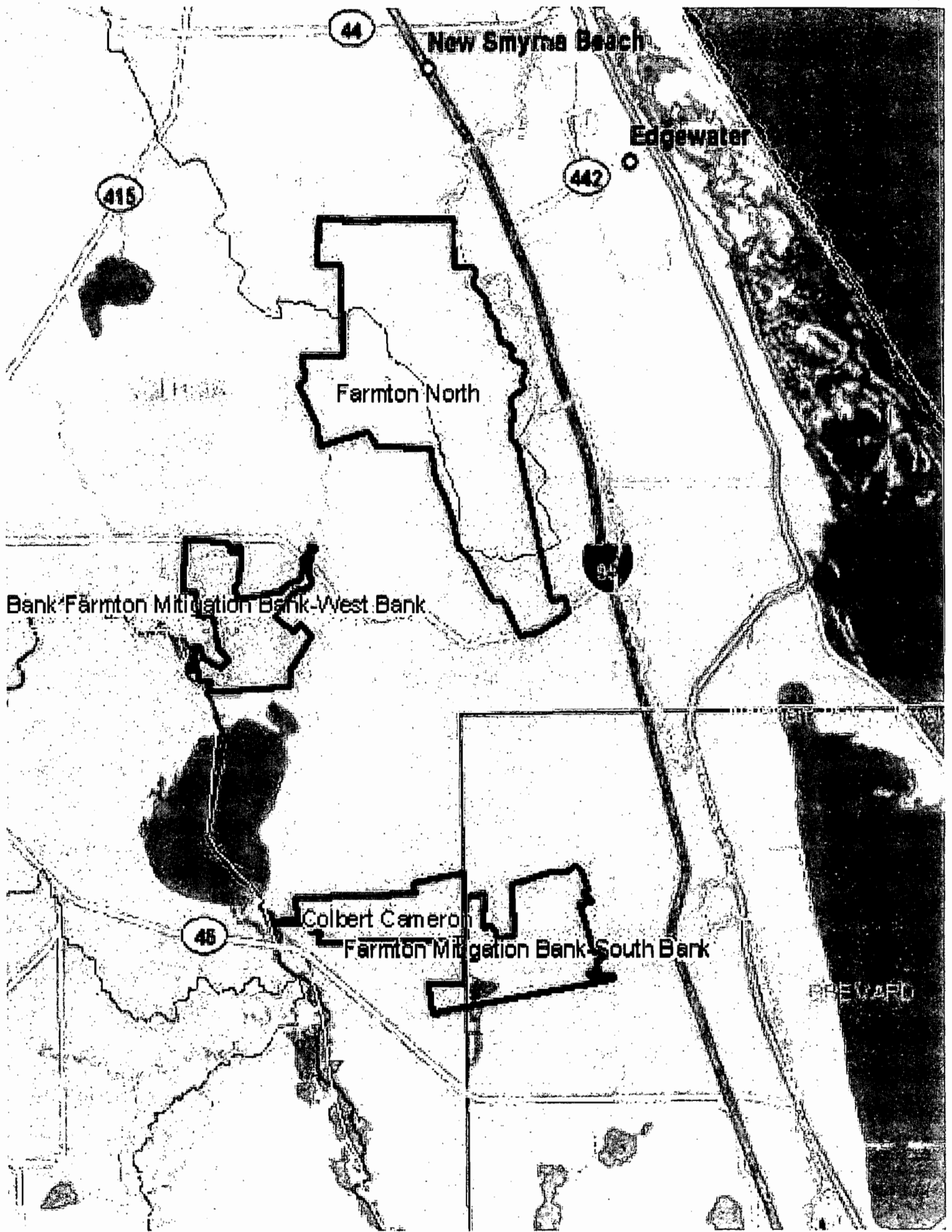
Land Development Manual: A Guide to Sound Land and Water Management (Florida Department of Environmental Regulation 1988), which are incorporated by reference, unless a project specific erosion and sediment control plan is approved as part of the permit, in which case the practices must be in accordance with the plan. If site specific conditions require additional measures during any phase of construction or operation to prevent erosion or control sediment, beyond those specified in the erosion and sediment control plan, the permittee shall implement additional best management practices as necessary, in accordance with the specifications in chapter 6 of the Florida Land Development Manual: A Guide to Sound Land and Water Management (Florida Department of Environmental Regulation 1988). The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.

12. Stabilization measures shall be initiated for erosion and sediment control on disturbed areas as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased.
13. For those systems which will be operated or maintained by an entity which will require an easement or deed restriction in order to provide that entity with the authority necessary to operate or maintain the system, such easement or deed restriction, together with any other final operation or maintenance documents as are required by subsections 7.1.1 through 7.1.4 of the Applicant's Handbook: Management and Storage of Surface Waters, must be submitted to the District for approval. Documents meeting the requirements set forth in these subsections of the Applicant's Handbook will be approved. Deed restrictions, easements and other operation and maintenance documents which require recordation either with the Secretary of State or the Clerk of the Circuit Court must be so recorded prior to lot or unit sales within the project served by the system, or upon completion of construction of the system, whichever occurs first. For those systems which are proposed to be maintained by county or municipal entities, final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local governmental entity. Failure to submit the appropriate final documents referenced in this paragraph will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system.
14. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by the portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of that phase or portion of the system to local government or other responsible entity.
15. Should any other regulatory agency require changes to the permitted system, the permittee shall provide written notification to the District of the changes prior implementation so that a determination can be made whether a permit modification is required.
16. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and chapter 40C-4 or chapter 40C-40, F.A.C.

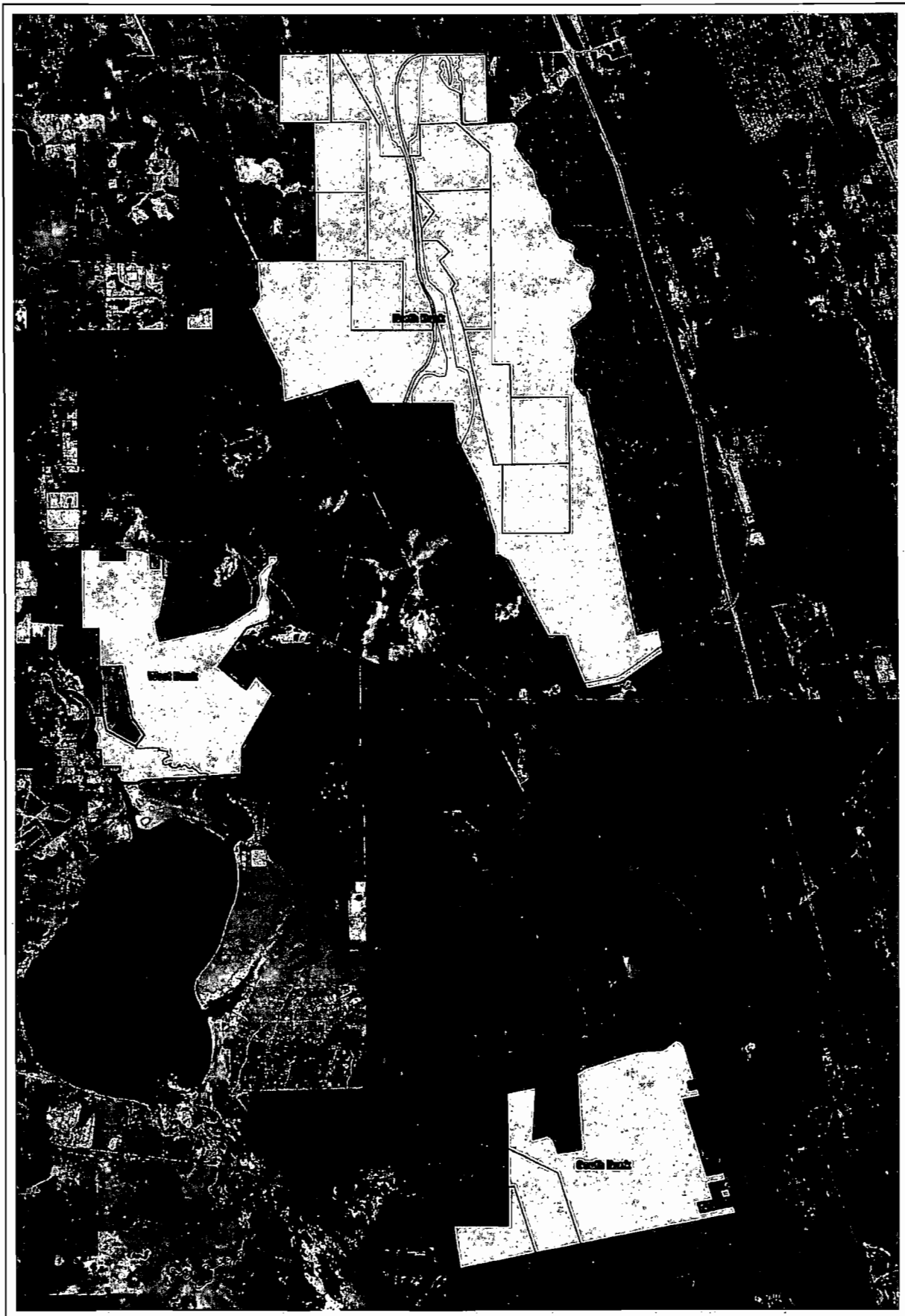


17. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the activities authorized by the permit or any use of the permitted system.
18. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this permit or a formal determination under rule 40C-1.1006, F.A.C., provides otherwise.
19. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of the permitted system or the real property at which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of rule 40C-1.612, F.A.C. The permittee transferring the permit shall remain liable for any corrective actions that may be required as a result of any permit violations prior to such sale, conveyance or other transfer.
20. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.
21. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the District.
22. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.

## 1 - Location Map with Roads



## 2 - Location Map Aerial



0 7000 Feet 14000 21000

Image: IR 2004

Map Scale: 1:50,000

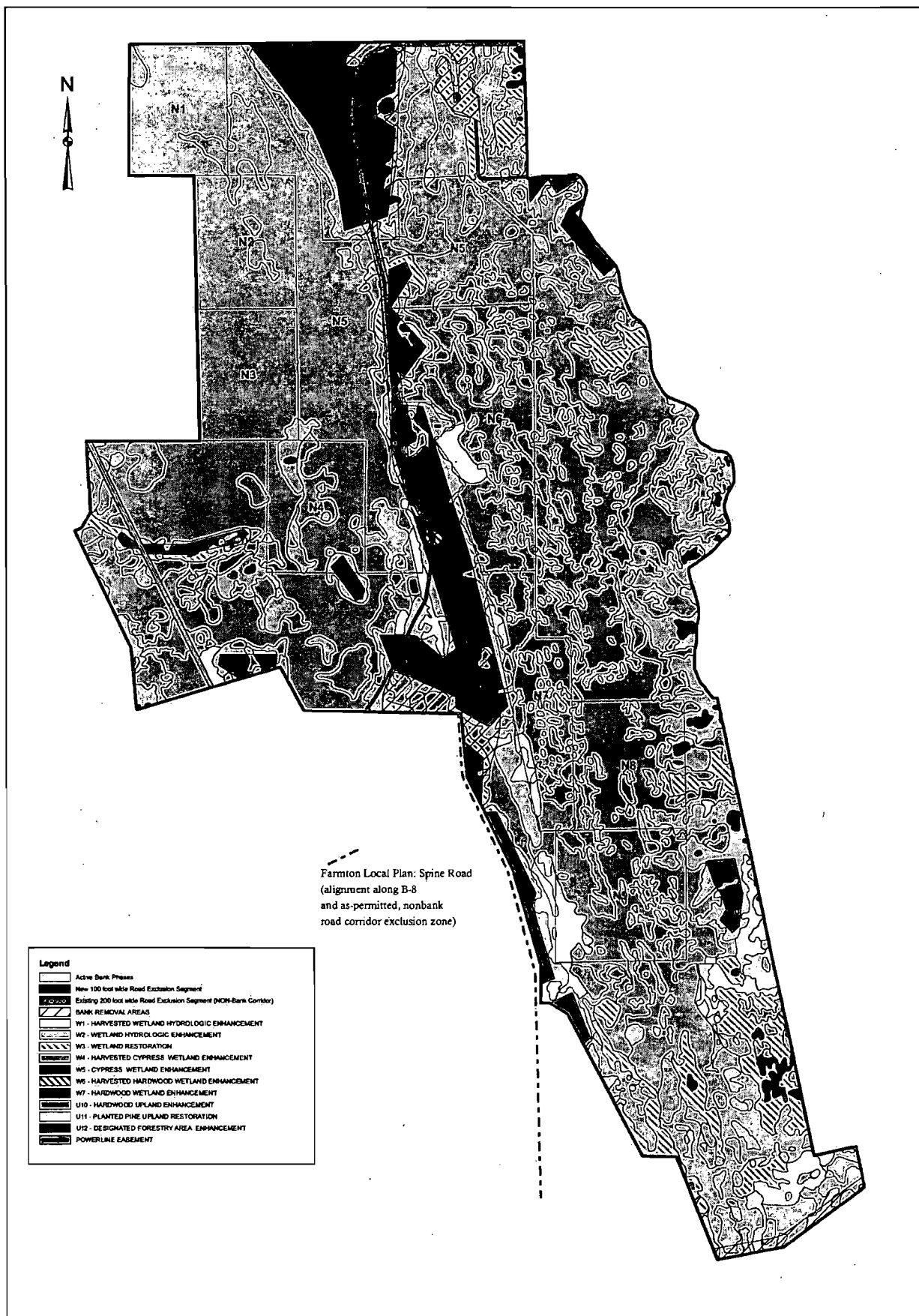
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**FARMTON MITIGATION BANK - June 2011**  
**NORTH-WEST-SOUTH BANK SITES**  
*Figure 1*

TerraBlue Environmental  
P.O. Box 3606  
Plant City, FL 33563  
TEL: 386-878-3064  
scollins@terrablueenvironmental.com



### 3 - Northern Bank Assessment Areas



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FARMTON MITIGATION BANK - JUNE 2011  
NORTH BANK SITE  
WITH BANK REMOVAL AREAS

Figure 5A-1M

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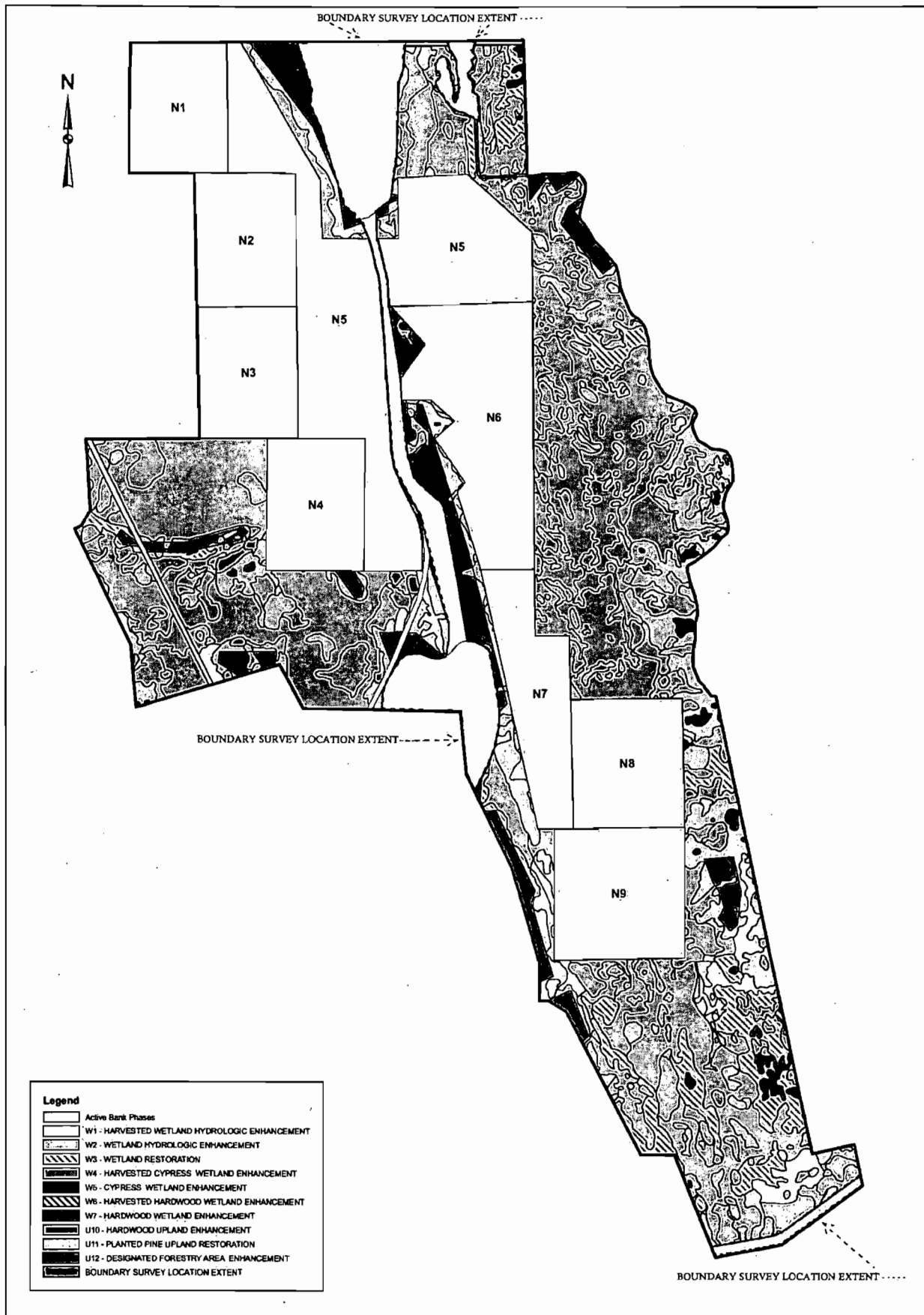
P.O. Box 3606  
Plant City, FL 33563  
TEL: 386-878-3064

scollins@terrablueenvironmental.com





#### 4 - Northern Bank Active Phases & Removal Area



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**FARMTON MITIGATION BANK - JUNE 2011**  
**NORTH BANK SITE REMOVAL AREAS**  
**BOUNDARY SURVEY LOCATION MAP**

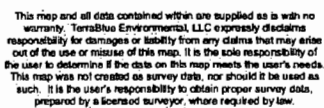
**TerraBlue Environmental**

P.O. Box 3606  
 Plant City, FL 33563  
 TEL: 386-878-3064

scollins@terrablueenvironmental.com



## 5 - Existing Structures to be Maintained: North Bank Site



## FIGURE A

scollins@terrabiueenvironmental.com



## 6 - Original Acreages and Credit Allocation Table

Table 1A. Permitted SJRWMD Mitigation Acres for Credit Release--North, West and South Bank Sites.

Mitigation Category	Ratio	North Bank		West Bank		South Bank	
		Acres	Credit	Acres	Credit	Acres	Credit
W-1 (Forested Systems) Harvested Wetland Hydrologic Enhancement	8:1	488.95	61.1	255.02	180.2	218.54	181.7
W-1 (Non-Forested Systems) Harvested Wetland Hydrologic Enhancement	13:1	16.74	1.3	0.65	5.3	2.32	47.7
W-2 (Forested Systems) Wetland Hydrologic Enhancement	8:1	10,220.17	1277.5	1186.21		1234.87	--
W-2 (Non-Forested Systems) Wetland Hydrologic Enhancement	13:1	1245.18	95.8	67.72		617.46	--
W-3 Wetland Restoration (Restored Forested Wetlands)	1:1	875.98	876.0	174.34	174.3	99.53	99.5
W-4 Harvested Cypress Wetland Enhancement (Enhanced Cypress Wetlands)	10:1	48.18	4.8	11.65	1.2	25.35	2.6
W-5 Cypress Wetland Enhancement (Enhanced Cypress Wetlands)	10:1	210.10	21.0	34.43	3.4	22.19	2.2/
W-6 Harvested Hardwood Wetland Enhancement (Enhanced Hardwood Wetlands)	9:1	10.18	1.1	0.0	--	1.23	0.1
W-7 Hardwood Wetland Enhancement (Enhanced Hardwood Wetlands)	9:1	44.04	4.9	82.92	9.2	245.68	27.3
W-8 Inland Salt Marsh Preservation (Preserved Inland Salt Marsh)	14:1	0.00	0.0	0.0	0.0	20.20	1.4
U-9 Harvested Hardwood Upland Restoration (Enhanced Hardwood Upland)	2.67:1	0.00	0.0	556.94	208.6	0.0	0.0
U-10 Hardwood Upland Enhancement (Enhanced Hardwood Upland)	2.67:1	72.93	27.3	73.19	27.4	14.56	5.5
U-11 Planted Pine Upland Restoration (Enhanced Pine Plantation)	3:1	1784.87	595.0	292.16	97.4	413.09	137.7
U-12 Designated Forestry Area Enhancement	8:1	1271.75	159.0	845.47	105.7	1,136.97	142.1
<b>Totals</b>		<b>16289.1</b>	<b>3124.8</b>	<b>3580.70</b>	<b>812.7</b>	<b>4,051.99</b>	<b>647.8</b>
<b>Total Mitigation Bank Credits</b>		<b>4,585.3</b>					

## 7 - Revised Acreages and Credit Allocation Table



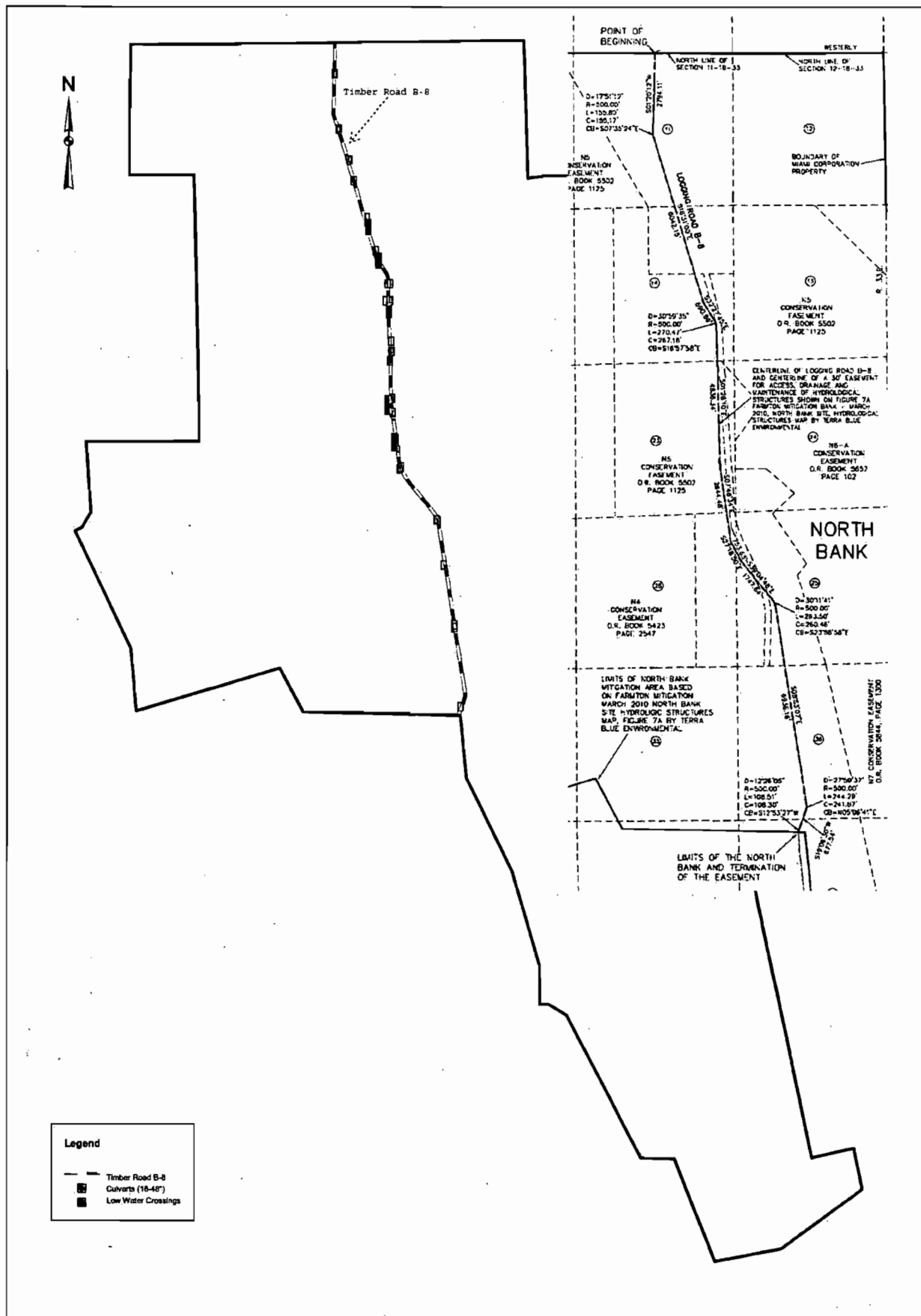
**Table 4. Mitigation Credit Calculations (As Modified April 2010--North Bank Site acre removals)**

Mitigation Category	Ratio	North Bank		West Bank		South Bank	
		Credit Acres	Credit	Credit Acres	Credit	Credit Acres	Credit
W-1 (Forested Systems) Harvested Wetland Hydrologic Enhancement	8:1	485.87	60.7	255.02	31.9	218.54	27.3
W-1 (Non-Forested Systems) Harvested Wetland Hydrologic Enhancement	13:1	16.74	1.3	0.65	0.1	2.32	0.2
W-2 (Forested Systems) Wetland Hydrologic Enhancement	8:1	10,049.12	1,256.1	1186.21	148.3	1234.87	154.4
W-2 (Non-Forested Systems) Wetland Hydrologic Enhancement	13:1	1,245.18	95.8	67.72	5.2	617.46	47.5
W-3 Wetland Restoration (Restored Forested Wetlands)	1:1	784.51	784.5	174.34	174.3	99.53	99.5
W-4 Harvested Cypress Wetland Enhancement (Enhanced Cypress Wetlands)	10:1	40.67	4.1	11.65	1.2	25.35	2.6
W-5 Cypress Wetland Enhancement (Enhanced Cypress Wetlands)	10:1	132.98	13.3	34.43	3.4	22.19	2.2/
W-6 Harvested Hardwood Wetland Enhancement (Enhanced Hardwood Wetlands)	9:1	3.97	0.4	0.0	0.0	1.23	0.1
W-7 Hardwood Wetland Enhancement (Enhanced Hardwood Wetlands)	9:1	25.71	2.9	82.92	9.2	245.68	27.3
W-8 Inland Salt Marsh Preservation (Preserved Inland Salt Marsh)	14:1	0.00	0.0	0.0	0.0	20.20	1.4
U-9 Harvested Hardwood Upland Restoration (Enhanced Hardwood Upland)	2.67:1	0.00	0.0	556.94	208.6	0.0	0.0
U-10 Hardwood Upland Enhancement (Enhanced Hardwood Upland)	2.67:1	72.30	27.1	73.19	27.4	14.56	5.5
U-11 Planted Pine Upland Restoration (Enhanced Pine Plantation)	3:1	1,674.83	558.3	292.16	97.4	413.09	137.7
U-12 Designated Forestry Area Enhancement	8:1	640.84	80.1	845.47	105.7	1,136.97	142.1
<b>Totals</b>		<b>15,172.72</b>	<b>2,884.6</b>	<b>3,580.70</b>	<b>812.7</b>	<b>4,051.99</b>	<b>647.8</b>
<b>Total Modified Mitigation Bank Credits</b>		<b>4,345.1</b>					

\* Note that by SJRWMD permit W1 & W2, W4 & W5, and W6 & W7 are combined pairs, not separated. Not all areas within perimeter bank boundaries are bank acres, and not all bank acres receive credits. Safe line, outparcel, and powerline easement acres are excluded from credit acres. Bank acres that receive credits are labeled bank credit acres (Table 4).

Considering that a total of 4,345 credits are proposed to be obtained from 22,805 **bank credit acres** (excluding outparcels, **safe line areas**, and proposed county roadway easement), that yields an overall credit ratio of **5.2:1**.

## 8 - Existing Structures to be Maintained (Blank Map)



March 2010

Map Scale: Not to Scale

This map and all data contained within are supplied as is with no warranty. TerraBlue Environmental, LLC expressly disclaims responsibility for damages or liability from any claims that may arise out of the use or misuse of this map. It is the sole responsibility of the user to determine if the data on this map meets the user's needs. This map was not created as survey data, nor should it be used as such. It is the user's responsibility to obtain proper survey data, prepared by a licensed surveyor, where required by law.

# FARMTON MITIGATION BANK - MAR 2010 NORTH BANK SITE HYDROLOGIC STRUCTURES MAP

Figure 7A

TerraBlue Environmental

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## Appendix 3 Farmton Mitigation Banking Instrument ACOE

MIAMI CORPORATION  
FARMTON MITIGATION BANK

ENABLING INSTRUMENT

Revised 6/24/99  
2<sup>nd</sup> Revision 12/29/99  
**3<sup>rd</sup> Revision 6/7/00**

PURPOSE: To provide an instrument for the establishment and use of the  
Farmton Mitigation Bank (FMB)

AN AGREEMENT GOVERNING THE USE OF  
THE FARMTON MITIGATION BANK BETWEEN:

MIAMI CORPORATION

THE U.S. DEPARTMENT OF THE ARMY

THE U.S. ENVIRONMENTAL PROTECTION AGENCY

AND

THE U.S. FISH AND WILDLIFE SERVICE

EFFECTIVE DATE: \_\_\_\_\_

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### **PART I - PREAMBLE**

## ***A. MITIGATION BANKING REVIEW TEAM (MBRT) AND PURPOSE OF BANK***

The purpose of this document is to provide an instrument for the establishment and use of the Farnton Mitigation Bank (FMB). It provides background information and a project description for creating a wetland mitigation bank within the Farnton Tree Farm (Figure 1), owned by the Miami Corporation. The Farnton Tree Farm consists of 57,000 acres, and the proposed Mitigation Bank would include nearly half of the total property (24,323 acres). This would make the Farnton Tree Farm the largest mitigation bank in the United States.

The Farnton Mitigation Bank will be segmented into three distinct, but hydrologically connected sites (Figure 2). The South Site (4,391 acres) is located along the southern sections of the Farnton property and is immediately north of the SJRWMD Buck Lake conservation lands. The West Site (3,595 acres) is adjacent to the St. Johns River, and contains Cow Creek and Deep Creek, which are tributaries of the St. Johns River. The North Site (16,493 acres) includes Crane Swamp and the headwaters of Spruce Creek, which combine to form the largest remaining hardwood swamp on the east coast of Florida.

Habitat restoration, enhancement and preservation provided by this Bank will be used as the basis for establishing credit units. As a result of these efforts, the project will be permanent and self-perpetuating. Upon signature and permit issuance by the appropriate agencies, this instrument will be used to offset project impacts within the geographic service area described herein (Figure 3).

Although implementation of the mitigation plan will commence upon permit issuance, credit withdrawal from each of the three bank sites will occur in phases due to the magnitude of the project. Conservation Easements covering lands within each phase will be recorded prior to the request for credit withdrawal from that phase. The first three phases for each bank site are identified in Figures 11A, 11B, & 11C.

The Federal Mitigation Banking Review Team (MBRT) is comprised of the Corps, the U.S. Environmental Protection Agency, and the U. S. Fish and Wildlife Service. The overall goal of the MBRT and Farnton Mitigation Bank (the Bank) as taken from the “Federal Guidance for the Establishment, Use and Operation of Mitigation Banks,” 60 Fed. Reg. 58, 605-58, 614 (Nov. 28, 1995), is to provide economically efficient and flexible mitigation opportunities, while fully compensating for wetland and other aquatic resource losses in a manner that contributes to the long-term ecological functioning of the watershed within which the bank is located. The specific goal of the Bank is to provide compensatory mitigation in advance of unavoidable adverse impacts to similar aquatic resources, which may be authorized by the U. S. Army Corps of Engineers Regulatory Program. Such compensatory mitigation will be considered where, after accepted mitigation sequencing, standard mitigation practices have been determined to be impracticable or not ecologically beneficial.

The MBRT for the Bank consists of the following individuals:

Mr. Mark Evans	USACOE
Mr. Don Palmer	USFWS
Mr. Haynes Johnson	USEPA
Mr. Todd Gipe	SJRWMD

Technical consultants for FMB include:

Mr. Steve Nielsen, Ph.D., Ms. Sharon Collins, Mr. Stuart Bradow, Mr. Jim Bassett - Environmental Management Systems, Inc.

Landowner's Representatives:

Ms. Barbra Goering	Miami Corporation
Mr. Earl Underhill	Miami Corporation
Mr. Glenn Storch, esq.	Storch, Hansen & Morris, P.A.

Permittee's Representatives:

Ms. Barbra Goering	Miami Corporation
Mr. Earl Underhill	Miami Corporation
Mr. Glenn Storch, esq.	Storch, Hansen & Morris, P.A.

## ***B. PROJECT DESCRIPTION***

From the late 1800's to around 1960, the land which comprises the Farmton Tree Farm was cleared and used for cattle grazing. Since the early 1950's the majority of lands suitable for planting have been planted with slash pine. These pine plantations are currently harvested at 20 - 40 year rotation intervals. As a stand of timber is cut, or as new land is cleared, the land is replanted with slash pine. Other timber considered as merchantable has been harvested within some of the temperate hardwood areas and these areas were replanted with slash pines. The logging of cypress and removal of pine from within forested wetlands has also been a part of the harvesting program. Excessive hunting, hydrologic alterations, and cattle grazing have also contributed to environmental impacts on the land.

The attached Functional Analysis (Appendix I) describes the existing conditions in detail.

The goal of the mitigation plan is to provide restoration, enhancement, and preservation of wetlands and uplands within each of the three bank sites. Specific objectives include re-establishing surface water flows and wetland hydroperiods, allowing the regeneration of converted and previously harvested wetlands and uplands, improving the quality of habitat, greatly reducing the amount of hunting, phasing out cattle grazing, and preservation of ecosystems. A summary of the proposed mitigation is found in Part II - A of this document. A detailed mitigation plan is included in the Functional Analysis (Appendix I).

In addition to the self-contained ecological value of the Farmton Mitigation Bank, the bank is a



valuable component of the natural corridor system that is being established along the St. Johns River. It is significant to the regional ecosystem not only because of its large size, but also because it is adjacent to other conservation lands, including the Buck Lake property owned by the St. Johns River Water Management District, and the Colbert-Cameron Mitigation Bank. The property also lies near the Lake Monroe Mitigation Bank and South Lake Harney Conservation Areas. It consists of a major network of wildlife corridors extending from the east side of the St. Johns River to Crane Swamp and Spruce Creek Swamp (the headwaters of Spruce Creek). Numerous Listed Species (endangered and threatened) have been identified within each of the Bank sites. Much of the value of the bank lies in this fact: without the bank, most of the land could be used in perpetuity for either forestry or development.

The Functional Analysis (Appendix I) provides a detailed description of the anticipated ecological changes associated with project activities.

### ***C. LOCATION, SIZE, OWNERSHIP, TYPE OF BANK AND IDENTITY***

The proposed 24,323 acre Farnton Mitigation Bank is wholly owned by the Miami Corporation, and is located in southeast Volusia County and northern Brevard County, between SR 44 to the north, SR 46 to the south, SR 415 to the west and I-95 to the east (Figure 1). The North Site is located in Sections 10 - 15, 22-28, 34-36, Township 18S, Range 33E, Sections 18-20, 29-32, Township 18S, Range 34E, Sections 1, 12, Township 19S, Range 33E and Sections 5-8, 17-21, & 29, Township 19S, Range 34E. The West Site is located in Sections 16-21, 28-33, Township 19S, Range 33E. The South Site is located in Sections 6-8, 11-13, 24-27, of the Bernardo Sequi Grant, Indian River Park, P.B. 2, p.33, Brevard County (located in Township 20S, Range 34E, AI) and in Section 37, Township 20S, Range 33E, AI, Volusia County.

This bank is intended to serve the mitigation requirements for various development projects in the geographic service area surrounding the bank sites.

### ***D. BASELINE CONDITIONS***

There are over 17,000 acres of wetlands on the three bank sites (Figures 4A-4C), with the North Bank site containing the highest percentage of wetlands. The remaining lands consist primarily of pine flatwoods, with lesser amounts of hardwood and live oak hammocks, sand pine/scrub, and other minor communities. Virtually all of the bank area has been mapped as forestry stands, and over 60% of the total bank area is considered to be readily harvestable (slash pines and cypress stands), with another 35% harvestable depending on seasonal or climatic conditions.

The overall topography at the Farnton Tree Farm is extremely flat, and it is difficult to divide the site into well-defined drainage basins. After 1950, a network of well-maintained forestry roads and the FPL powerline easement were constructed at elevations above the existing grade, and these have altered the historic drainage patterns and hydrology of the site. The existing placement of culverts under the roads is insufficient to support the historic movement of surface water. During times of heavy rainfall, there are prolonged periods where in some areas surface water levels are almost 2'

higher on one side of the road as compared to the other side. The roads are frequently over-topped, and large washouts occur - sometimes cutting new waterway channels.

All bank sites currently have some cattle, although the stocking rate is very low. Hunting activities may have contributed to the loss of animal species diversity, as well as some degradation of vegetative habitat due to vehicular access. Fencing will be installed to prevent cattle from entering each conservation area.

The Functional Analysis (Appendix I) for the Farmton Mitigation Bank provides a detailed description of the existing baseline conditions on the site.

#### ***E. ESTABLISHMENT AND USE OF CREDITS***

Because the Farmton Mitigation Bank is such a large area, and future demand for mitigation credits within the service area is unknown, Conservation Easements will be used to define bank phases, and these will be placed in increments based on the implementation of that phase and anticipated need for credits. With the exception of removal of bedding and removal of cattle, all mitigation tasks and programs will be implemented before placement of Conservation Easements.

It should be noted that this is expected to be a very long-term bank. Credits may be sold or used over a 100 year period or more. Some of the mitigation categories include success criteria to be demonstrated through monitoring, and the credits will not be requested until the monitoring program has shown that 100% success has been achieved.

When a phase is to be implemented (based on anticipated credit need), a GIS map with the phase boundaries identified will be forwarded to SJRWMD and the ACOE. Acreages for each mitigation category within the phase will be obtained by GIS, and indicated on the map. A table of credits to be released upon placement of the Conservation Easement, and upon meeting success criteria, will be included. The proposed first three phases in each bank are shown in Figures 11A, 11B, & 11C. Subsequent phases in each bank site average approximately 500 acres, and will be contiguous to the original phase (or previous phase) so that the area under Conservation Easement will continually increase in an incremental fashion.

The fact that Farmton Mitigation Bank is such a large bank, and is expected to operate over a very long time, places a level of uncertainty that all credits will eventually be sold. If the market demand for credits is inadequate for any reason, the Miami Corporation reserves the right to remove unused portions of the bank (those areas without Conservation Easements in place) from the bank.

A GIS map of each bank site, and a running total of credits and debits, will be maintained by Miami Corporation and reported following every transaction. Each permit application proposing to use the Farmton Mitigation Bank sites will contain the latest balance sheet on credits available, credits used up to that time, and the number of credits proposed to offset the project impacts. Simultaneously with issuance of the permits authorizing wetland impacts and the use of Farmton Mitigation Bank as mitigation, the SJRWMD and the ACOE will verify all changes to the credit balance and process the

credit debit from the Farmton Mitigation Bank permit.

Since phases will be defined based on anticipated demand for credits, the acreage of each mitigation category in future phases will not be known until the phases have been identified as described above.

A WRAP will be calculated over each of the three bank sites in their entirety. To calculate the available credits in any phase, the same overall WRAP will be used (per the October 1998 Manual) and credits adjusted based on acreage and buffer size. Using GIS, the acreage for each mitigation category within each phase can be readily calculated, and the appropriate WRAP delta score can then be multiplied times the acreage for each category.

There are 8 different wetland mitigation categories, not all of which occur in all bank sites. In the category descriptions listed below, “harvested” refers to areas that have been harvested within the last 3 years, or are currently under contract to be harvested during 1999. These categories are listed with FLUCFCS codes which may (but do not always) occur in each category shown in parentheses. The locations of the mitigation type categories are shown in Figures 9A-9C. The calculated WRAP scores and credits available for each category within each bank site are presented below in Tables 1 and 2.

**Table 1.** Wetland Rapid Assessment Procedure Calculations and Available Credits (Per ACOE 10/98 Manual)

W - 1. Harvested Wetland Hydrologic Enhancement (610, 620, 621, 624, 630, 641, 646)

Includes all hydrologically enhanced harvested wetlands.

W-1	TASK & SUCCESS CRITERIA	% CREDITS
	Place Conservation Easement	15%
	Removal of cattle, fencing	5%
	Implement/complete hydrologic enhancement activities - complete installation of low-water crossings and culverts	10%
	Hydrologic enhancement success criteria met - provide documentation of water elevation balance and no washouts via monitoring for second year	10%
	Implement Forestry Stewardship Plan - document existing baseline conditions	15%
	Implement Wildlife Management Plan - document that hunting leases and restrictions have changed to limit number of hunters	5%
	Preservation/Enhancement areas show $\leq$ 5% exotic vegetation infestation	2%
	Release of buffer credits when 2 project phases adjoin existing phase	8%
	Year 3: Document hydrologic enhancement success criteria met, ie- water elevation balance and no washouts continue(5%), document continuing forestry stewardship conditions via aerial photos (5%). 10% total	10%
	Year 4: Document hydrologic enhancement success criteria met, ie- water elevation balance and no washouts continue(5%), document continuing forestry stewardship conditions via aerial photos (5%). 10% total	10%

Year 5: Document hydrologic enhancement success criteria met, ie- water elevation balance and no washouts continue(5%), document continuing forestry stewardship conditions via aerial photos (5%). 10% total	10%
---	-----

W - 2. Wetland Hydrologic Enhancement (610, 613, 617, 620, 621, 624, 630, 641, 646)

Includes all hydrologically enhanced non-harvested wetlands.

W-2	TASK & SUCCESS CRITERIA	% CREDITS
	Place Conservation Easement	15%
	Removal of cattle, fencing	5%
	Implement/complete hydrologic enhancement activities - complete installation of low-water crossings and culverts	10%
	Hydrologic enhancement success criteria met - provide documentation of water elevation balance and no washouts via monitoring for second year	10%
	Implement Forestry Stewardship Plan - document existing baseline conditions	15%
	Implement Wildlife Management Plan - document that hunting leases and restrictions have changed to limit number of hunters	5%
	Preservation/Enhancement areas show $\leq 5\%$ exotic vegetation infestation	2%
	Release of buffer credits when 2 project phases adjoin existing phase	8%
	Year 3: Document hydrologic enhancement success criteria met, ie- water elevation balance and no washouts continue(5%), document continuing forestry stewardship conditions via aerial photos (5%). 10% total	10%
	Year 4: Document hydrologic enhancement success criteria met, ie- water elevation balance and no washouts continue(5%), document continuing forestry stewardship conditions via aerial photos (5%). 10% total	10%
	Year 5: Document hydrologic enhancement success criteria met, ie- water elevation balance and no washouts continue(5%), document continuing forestry stewardship conditions via aerial photos (5%). 10% total	10%

W - 3. Wetland Restoration (411)\* - Removal of bedding in buffer areas.

\*Technically, the tops of the beds are upland and bottoms are wetlands, but the consensus of the MBRT was to ignore this minor discrepancy.

W-3	TASK & SUCCESS CRITERIA	% CREDITS
	Place Conservation Easement	15%
	Removal of cattle, fencing	5%
	Removal of bedding - document & demonstrate evidence of wetland hydrology within one year of bedding removal per ACOE 1987 manual	20%
	Implement Forestry Stewardship Plan - document existing baseline conditions	15%
	Implement Wildlife Management Plan - document that hunting leases and restrictions have changed to limit number of hunters	5%
	Release of buffer credits when 2 project phases adjoin existing phase	8%
	Preservation/Enhancement areas show $\leq 5\%$ exotic vegetation infestation	2%
	Years 2-4: Removal of bedding - demonstrate evidence of wetland hydrology Year 2 (10%) Year 3 (10%) Year 4 (10%) = 30% total	30%

W - 4. Harvested Cypress Wetland Enhancement (621)

Includes all harvested cypress wetlands which are ecologically enhanced.

W-4	TASK & SUCCESS CRITERIA	% CREDITS
	Place Conservation Easement	15%
	Removal of cattle, fencing	5%
	Implement Forestry Stewardship Plan - document existing baseline conditions	15%
	Implement Wildlife Management Plan - document that hunting leases and restrictions have changed to limit number of hunters	5%
	Preservation/Enhancement areas show $\leq 5\%$ exotic vegetation infestation	7%
	Release of buffer credits when 2 project phases adjoin existing phase	8%
	Year 2: Forestry Stewardship Plan - document existing conditions that natural regeneration is occurring via aerial photography	10%
	Year 3: Forestry Stewardship Plan - document existing conditions that natural regeneration is occurring via aerial photography	10%
	Year 4: Forestry Stewardship Plan - document existing conditions that natural regeneration is occurring via aerial photography	10%
	Year 5: Forestry Stewardship Plan - document existing conditions that natural regeneration is occurring via aerial photography	15%

W - 5. Cypress Wetland Enhancement (621)

All cypress wetlands which are ecologically enhanced.

W-5	TASK & SUCCESS CRITERIA	% CREDITS
	Place Conservation Easement	15%
	Removal of cattle, fencing	5%
	Implement Forestry Stewardship Plan - document existing baseline conditions	15%
	Implement Wildlife Management Plan - document that hunting leases and restrictions have changed to limit number of hunters	5%
	Preservation/Enhancement areas show $\leq 5\%$ exotic vegetation infestation	7%
	Release of buffer credits when 2 project phases adjoin existing phase	8%
	Year 2: Forestry Stewardship Plan - document existing conditions that natural regeneration/no harvesting is occurring via aerial photography	10%
	Year 3: Forestry Stewardship Plan - document existing conditions that natural regeneration/no harvesting is occurring via aerial photography	10%
	Year 4: Forestry Stewardship Plan - document existing conditions that natural regeneration/no harvesting is occurring via aerial photography	10%
	Year 5: Forestry Stewardship Plan - document existing conditions that natural regeneration is occurring via aerial photography	15%

W - 6. Harvested Hardwood Wetland Enhancement (624, 630, 646)

Harvested hardwood wetlands which are ecologically enhanced.

W - 6	TASK & SUCCESS CRITERIA	% CREDITS
	Place Conservation Easement	15%
	Removal of cattle, fencing	5%
	Implement Forestry Stewardship Plan - document existing baseline conditions	15%
	Implement Wildlife Management Plan - document that hunting leases and restrictions have changed to limit number of hunters	5%
	Preservation/Enhancement areas show $\leq 5\%$ exotic vegetation infestation	7%
	Release of buffer credits when 2 project phases adjoin existing phase	8%
	Year 2: Forestry Stewardship Plan - document existing conditions that natural regeneration is occurring via aerial photography	10%
	Year 3: Forestry Stewardship Plan - document existing conditions that natural regeneration is occurring via aerial photography	10%
	Year 4: Forestry Stewardship Plan - document existing conditions that natural regeneration is occurring via aerial photography	10%

Year 5: Forestry Stewardship Plan - document existing conditions that natural regeneration is occurring via aerial photography	15%
--	-----

W - 7. Hardwood Wetland Enhancement (610, 620, 624, 630, 641, 646)

Non-harvested hardwood wetlands which are ecologically enhanced.

W - 7	TASK & SUCCESS CRITERIA	% CREDITS
	Place Conservation Easement	15%
	Removal of cattle, fencing	5%
	Implement Forestry Stewardship Plan - document existing baseline conditions	15%
	Implement Wildlife Management Plan	5%
	Preservation/Enhancement areas show $\leq 5\%$ exotic vegetation infestation	7%
	Release of buffer credits when 2 project phases adjoin existing phase	8%
	Year 2: Forestry Stewardship Plan - document existing conditions that natural regeneration/no harvesting is occurring via aerial photography	10%
	Year 3: Forestry Stewardship Plan - document existing conditions that natural regeneration/no harvesting is occurring via aerial photography	10%
	Year 4: Forestry Stewardship Plan - document existing conditions that natural regeneration/no harvesting is occurring via aerial photography	10%
	Year 5: Forestry Stewardship Plan - document existing conditions that natural regeneration is occurring via aerial photography	15%

W - 8. Inland Salt Marsh Preservation (642) - Rare and Unique Habitat

Rare inland salt marshes (South Bank only)

W - 8	TASK & SUCCESS CRITERIA	% CREDITS
	Place Conservation Easement, removal of cattle, no forestry practices	100%

Using GIS, the acreage of each mitigation category for each bank site has been calculated, and the total credits available for each bank site are provided in the following section. The credits were obtained using the Wetland Rapid Assessment Procedures (WRAP) developed by the South Florida Water Management District (SFWMD). WRAP is used to rank the functional attributes of a habitat and to provide an evaluation of that habitat. The WRAP matrix variables include Wildlife Utilization, Vegetative Overstory and Groundcover Compositions, Adjacent Habitat, Field Indicators of Wetland Hydrology, and Water Quality. According to these methods, a total of **5,656.64** credit units should be granted for this project. This amounts to a total of 4,233 credit units from the North Bank site, 554.04 credit units from the West Bank site, and 869.60 credit units from the South Bank site. Credits are derived according to the criteria listed below.

**Table 2.** Wetland Rapid Assessment Procedure Calculations and Available Credits (Per ACOE 10/98 Manual).

Mitigation Category	North Bank			West Bank			South Bank		
	Acres	Delta	Credit	Acres	Delta	Credit	Acres	Delta	Credit
W-1 Harvested Wetland Hydrologic Enhancement	505.69	0.47	237.67	255.67	0.47	120.16	220.86	0.49	108.22
W-2 Wetland Hydrologic Enhancement	11,465.35	0.30	3,439.61	1,268.29	0.24	304.39	2,191.18	0.27	591.62
W-3 Wetland Restoration	875.98	0.44	385.43	174.34	0.44	76.71	99.53	0.44	43.79
W-4 Harvested Cypress Wetland Enhancement	48.18	0.61	29.39	11.65	0.30	3.49	25.35	0.30	7.61
W-5 Cypress Wetland Enhancement	210.10	0.53	111.35	34.43	0.42	14.46	22.19	0.42	9.32
W-6 Harvested Hardwood Wetland Enhancement	10.18	0.61	6.21	--	--	--	1.23	0.30	0.40
W-7 Hardwood Wetland Enhancement	44.04	0.53	23.34	82.92	0.42	34.83	245.68	0.42	103.19
W-8 Rare Inland Salt Marshes Preservation	--	--	--	--	--	--	20.20	0.27	5.45
<b>Totals</b>	13,159.52	--	<b>4,233.00</b>	1,827.3	--	<b>554.04</b>	2,826.22	--	<b>869.60</b>
<b>TOTAL MITIGATION BANK CREDITS</b>	<b>5,656.64</b>								



Using the same methods as described above, the credits for the first phase in each bank site have been calculated and are presented in Table 3.

**Table 3.** Phase One

Mitigation Category	North Bank			West Bank			South Bank		
	Acres	Delta	Credit	Acres	Delta	Credit	Acres	Delta	Credit
W-1 Harvested Wetland Hydrologic Enhancement	--	--	--	--	--	--	--	--	--
W-2 Wetland Hydrologic Enhancement	508.04	0.30	152.41	227.39	0.24	54.57	395.86	0.27	106.88
W-3 Wetland Restoration	--	--	--	--	--	--	--	--	--
W-4 Harvested Cypress Wetland Enhancement	--	--	--	--	--	--	--	--	--
W-5 Cypress Wetland Enhancement	--	--	--	6.96	0.42	2.92	--	--	--
W-6 Harvested Hardwood Wetland Enhancement	--	--	--	--	--	--	--	--	--
W-7 Hardwood Wetland Enhancement	--	--	--	35.92	0.42	15.09	2.86	0.42	1.20
W-8 Rare Inland Salt Marshes Preservation	--	--	--	--	--	--	--	--	--
<b>Totals</b>	508.04	--	152.41	270.27	--	72.58	398.72	--	108.08

A total of **333.07** credit units should be granted for **Phase One**. This amounts to a total of 152.41 credit units from the North Bank site, 72.58 credit units from the West Bank site, and 108.08 credit units from the South Bank site.

Credits for Phases 2 and 3 can be readily calculated using GIS polygon acreages and applying approved deltas as above. Credit matrices and phase maps will be forwarded to all agencies prior to implementation of each subsequent phase.

## **PART II - ESTABLISHMENT OF THE BANK**

### ***A. MITIGATION PLAN SUMMARY***

The project goal is to enhance, restore and protect wetlands and uplands, ultimately creating conditions similar to those that existed historically. Specific objectives include reestablishing the natural surface water flows and hydroperiod of the watershed, conservation, enhancement and preservation of habitat, forestry stewardship management including selective conversion of pine plantations to native habitat, implementing hunting restrictions, phasing out of cattle grazing and preservation of rare ecosystems and archaeological sites. To achieve these objectives, 4 specific mitigation programs will be implemented. These are:

- Hydrologic Enhancement
- Wildlife Management
- Forestry Stewardship
- Preservation

These mitigation programs are discussed in detail in the attached Functional Analysis, Appendix I, and are summarized below.

#### **Hydrologic Enhancement**

The elevated farm roads throughout the three bank sites contain inadequate culvert crossings and bridges to allow unimpeded surface water passage. Culverts, low-elevation water crossings (Figure 7D), and bridge extensions will be placed at strategic locations (Figures 7A-7C) to restore historic surface water flows. The restoration of historic sheet flow will provide enhancement to downstream wetlands by allowing a closer approximation to the natural hydroperiod. Increased water elevations in these wetlands for a longer duration will produce a correlated increase in aquatic species. There may also be a shift toward more obligate wetland vegetation, although this is expected to be almost immeasurable. By the same token, upstream wetlands have been forced to retain water longer than they historically had. These waterlogged wetlands will drain more quickly, as they did historically. The Hydrologic Enhancement program is described in greater detail in the Functional Analysis.

#### **Wildlife Management**

Wildlife management consists primarily of reducing the number of hunters to approximately 1/5 the historic level by entering into a User Pay Type I Wildlife Management Area lease with FFWCC.

The Farnton Mitigation Bank can contribute to the maintenance of a large and diverse gene pool among wildlife in both Volusia and Brevard Counties. The site is big enough that large mammalian species which require large territories will be able to survive in perpetuity. The integrated nature of the wetlands and uplands is especially beneficial to species which require mixed habitats for breeding or feeding. Although a greater number and diversity of animal species are expected to

occur as a result of implementation of the Wildlife Management Plan, this is not proposed to be verified through monitoring, nor are credits proposed to be released as a result of any specific success criteria. The Wildlife Management Plan is located in Appendix III.

### **Forestry Stewardship**

The goals of the Forestry Stewardship program are:

1. Allow the preservation of existing wetlands, and regeneration of harvested wetlands
2. Increase the availability of wildlife food source habitats
3. Protect wetlands by an average 300' upland buffer
4. Increase age and species diversity in trees to improve habitat value
5. Allow the regeneration of upland and wetland hardwood areas
6. Limit clear-cutting as specified in the Forestry Plan

These goals will be achieved by the implementation of specific programs, as detailed in the Forestry Stewardship Plan, Appendix II.

### **Preservation**

All of the mitigation methods listed above will be implemented following issuance of a permit. Conservation Easements will be first placed on the Phase One sites only, and subsequently in increments as each phase is implemented, and prior to any request for credits. The Grantee of the Conservation Easements will be the St. Johns River Water Management District.

As mentioned earlier in this document, there are numerous platted lots and roads which lie within the mitigation bank sites. Phase by phase, Miami Corporation will relinquish the opportunity to develop the county approved platted communities and roads by vacating the plats (as allowed by Volusia and Brevard Counties) prior to recording the Conservation Easements.

An area in the northeast corner of the North Bank site, known as Compartment D (Figure 10A), contains mineral rights owned by others. Negotiations are underway to acquire the mineral rights. Before placing any Conservation Easements on the area, the mineral rights will be acquired by the Miami Corporation.

### ***B. IMPLEMENTATION TIMETABLE***

The schedule of implementation for the proposed mitigation activities will commence upon issuance of the appropriate permits. Task implementation for Phase One will be completed within 5 years of permit issuance. The tasks to be implemented for Phase One include the installation of culverts and low-water crossings, implementation of the Wildlife Management Plan, and adoption of the Forestry Stewardship Plan. The implementation timetable is found in Table 4 below. Since all construction tasks (with 2 exceptions: see Table 4) will be completed within 5 years, this timetable will be applicable for Phase One and all subsequent phases.

Note that a User Pay Type I Wildlife Management Area lease has already been implemented in anticipation of issuance of a bank permit, so that it would be in place for the 1999/2000 hunting season.

**Table 4.** Implementation timetable.

Tasks & Success Criteria	Implementation Date	Completion Date
Place Conservation Easement	Year One of Phase Implementation	Year One of Phase Implementation
Removal of cattle	Year One of Phase Implementation	Year Five of Phase Implementation
Removal of bedding	Within 2 Years After Harvesting	Within 5 Years After Harvesting
Implement hydrologic enhancement - complete installation of low-water crossings and culverts *	Within 1 Year After Permit Issuance	Within 5 Years After Permit Issuance
Hydrologic enhancement success criteria met - provide documentation of water elevation balance and no washouts via monitoring for one year	-	Within 6 Years After Permit Issuance
Implement Forestry Stewardship Plan - document existing baseline conditions	Within 1 Year After Permit Issuance	Year One of Phase Implementation
Implement Wildlife Management Plan - document that hunting leases and restrictions have changed to limit number of hunters	Within 1 Year After Permit Issuance	Year One of Phase Implementation
Preservation/Enhancement areas show $\leq 5\%$ exotic vegetation infestation	-	Year Five of Phase Implementation
Release of buffer credits when 2 project phases adjoin existing phase	-	Upon Implementation of Adjacent Phases

\* For Cow Creek Bridge replacement and Deep Creek piling removal, these tasks will be completed within 5 years of implementation of the phases in which they occur.

### ***C. REAL ESTATE INTEREST BY SPONSOR***

The entire property is owned by Miami Corporation and encompasses about 57,000 acres, approximately 24,323 acres of which has been sectioned out for use as a mitigation bank. Miami Corporation holds title to the property and will retain property ownership.

### ***D. FINANCIAL ASSURANCES***

One of the major contemporary land use management goals is that preservation lands should be managed in an environmentally sensitive manner, and yet generate enough income to be self-sustaining with respect to long-term management costs.

To achieve this goal, the Miami Corporation is dedicated to establishing the bank as a mixed-use conservation area by retaining enough low-impact forestry and hunting to provide management funding for the bank in perpetuity. The Miami Corporation will be the responsible entity for all management activities. Under the mitigation banking rule, a permittee who successfully completes phases of a mitigation bank can receive credit for the completed component(s) without the need for a bond or trust fund. To attain credits, Farmton will execute conservation easements and implement the hydrologic and vegetative manipulations. Upon successful completion of preservation, enhancement or restoration, credits attributable to those activities will be requested. Therefore, only earned credits will be released and the agencies will have the needed assurance that the mitigation is in place and functioning as planned.

### ***E. AS-BUILT REPORTS***

The status of restoration activities will be reported annually as detailed in the attached Functional Analysis.

## **PART III - OPERATION OF THE BANK**

### ***A. SERVICE AREA***

The service area includes all or significant freshwater portions of the Upper (Lake Poinsett, Tosohatchee & Puzzle Lake Units), Middle (Econlockhatchee River, Deep Creek Unit, Lake Jessup & Lake Monroe Unit) and Lower St. Johns River Basins (Crescent Lake), Lake George Basin (Lake Woodruff & Lake George Units), and the Northern Coastal Basin (Halifax River Unit). Figure 3 shows the location of the bank and the geographic area it will serve.

### ***B. TYPES OF PROJECTS***

It is anticipated that most of the mitigation credits will be used to offset impacts associated with private and public projects within the geographic service area. Use of the Farmton Mitigation Bank will not affect the application of normal USACOE permitting criteria dealing with wetland impact avoidance and minimization.

### ***C. ASSESSMENT METHODOLOGY***

The purpose of this mitigation bank is to provide up-front mitigation credit to the Miami Corporation to be used to offset impacts to wetland systems from private and public development projects. Habitat restoration and enhancement will be provided by this bank, which will be converted to wetland impact credits. When Miami Corporation requires the withdrawal of credits from the bank to mitigate for wetland impacts, mitigation credits will be withdrawn in accordance with project needs. The WRAP was used to calculate credit yield for the bank as a whole, and will be used to determine the credit yield of each phase. Therefore, the number of credits required to compensate for a project's wetland impacts can be determined by applying WRAP to the wetlands proposed to be impacted.

### ***D. SUCCESS CRITERIA***

Overall, the Mitigation Banking Plan focuses on the preservation and enhancement of the natural function of the communities within the bank by accomplishing objectives such as hydrological enhancement, habitat enhancement, and preservation. Credits are proposed to be released through a combination of implementation of specific tasks or programs, and meeting specific success criteria (Table 1). All construction and mitigation activities will be provided by the Miami Corporation or its designated contractors.

Farmton Mitigation Bank is unlike any other mitigation banks that have been permitted in Florida, since credit sell-out is not expected to occur until 50-100 years after permit issuance. Most mitigation banks are designed for credit sell-out in 5 years, perhaps 10 years at the most, and their success criteria and monitoring plans are designed to support their intent. With the Farmton Mitigation Bank, there is the unprecedented opportunity to observe the regeneration of natural ecosystems, including wetland and upland hardwood forests, from slash pine plantations. No success

criteria, and no additional credit release, are tied to this long-term process of ecosystem regeneration, since it is understood that - given enough time - the process will occur. It is an ecological fact that when human-induced perturbations (mainly forestry, in this case) are removed, ecosystems revert to their original condition.

The tasks, programs, and success criteria tied to credit release are listed in Table 5. The Miami Corporation understands that unless implementation of the mitigation plan commences upon issuance of the permit, new background data and new calculations of credits would be required (probably done through a permit modification as each phase is implemented). As a result, most of the work and programs will be implemented as described in this mitigation plan within 5 years after issuance of the permit. Exceptions include: bedding removal (which will occur after one-time clearing of planted pines), cattle removal (which will occur within 5 years after placement of a conservation easement on a phase), Cow Creek bridge replacement and Deep Creek piling removal (which are tied to the phases in which they occur).

If credits are to be sold during the first year, the status of the mitigation program will be documented in interim reports to the regulatory agencies prior to placement of Conservation Easements. Achievement of these task implementation and success criteria will also be subsequently documented in the annual monitoring reports.

#### ***E. PROCEDURES FOR RELEASE OF FINANCIAL ASSURANCE***

Procedures for release of financial assurance are not required, since the required work will be completed before credit release.

#### ***F. SCHEDULE OF CREDIT AVAILABILITY***

The schedule of implementation for the proposed management activities will commence upon issuance of the appropriate permits. The first phase will be implemented simultaneously in each of the three bank sites. The timetable for the first phase is shown in the Table 5 below. The timetable for subsequent phases will depend on the rate at which credits are sold.

**Table 5.** Schedule of Credit Availability

Schedule of Credit Availability	Completion Date	Credit Release Date
Place Conservation Easement	Year One of Phase Implementation	Upon Completion
Removal of cattle	Year Five of Phase Implementation	Upon Completion
Removal of bedding	Within 5 Years After Harvesting	Upon Completion
Implement hydrologic enhancement - complete installation of low-water crossings and culverts	Within 5 Years After Permit Issuance	Upon Completion
Hydrologic enhancement success criteria met - provide documentation of water elevation balance and no washouts via monitoring for one year	Within 6 Years After Permit Issuance	3 Years After Completion
Implement Forestry Stewardship Plan - document existing baseline conditions	Year One of Phase Implementation	Upon Implementation
Implement Wildlife Management Plan - document that hunting leases and restrictions have changed to limit number of hunters	Year One of Phase Implementation	Upon Implementation
Preservation/Enhancement areas show $\leq 5\%$ exotic vegetation infestation	Year Five of Phase Implementation	Year Five of Phase Implementation
Release of buffer credits when 2 project phases adjoin existing phase	Upon Implementation of Adjacent 2 Phases	Upon Placement of Conservation Easement of Adjoining 2 Phases

***G. PROVISIONS FOR SITE AUDITS BY MBRT***

Representatives from the MBRT will be allowed to access the bank site to verify existing conditions and to inspect authorized activities at any time deemed necessary.

***H. CONDITIONS ON DEBITING***

The Miami Corporation will be permitted to withdraw Farmton Mitigation Bank credits to offset wetland impacts from private and public development projects within the geographic service area described herein. The credits necessary to offset specific wetland impacts will be based upon the type and quality of wetlands being impacted by the associated projects. Sufficient credits will be debited to balance out or offset the value of wetlands being impacted, using the WRAP method. A running total of credit and debits will be kept by the Miami Corporation and reported with every monitoring event. Each permit application proposing to use the Farmton Mitigation Bank will



contain the latest balance sheet on credits available, credits used up to that time and the number of credits proposed to offset the project impacts. Simultaneous with issuance of the permit authorizing wetland impacts and the use of FMB as mitigation, the ACOE will verify all changes to the credit balance and process the modification to the FMB permit.

#### ***I. PROVISIONS COVERING USE OF LAND***

The Mitigation Bank area has been set aside from all uses other than silvicultural operations, conservation and hunting, as described herein, and upon placement of a conservation easement, will be preserved in perpetuity. There is no material fact which would affect the contemplated use of the property.

## **PART IV - MONITORING AND MAINTENANCE**

### ***A. MONITORING***

The monitoring program for Farnton Mitigation Bank is divided into two phases: short-term and long-term monitoring. These are described in the attached Functional Analysis.

### ***B. MAINTENANCE***

The Miami Corporation will be permitted to maintain property boundary fences and logging roads within the banks (see Road Map, Appendix IV). All new culverts and low-water crossings, as well as existing culverts, will be maintained on an as-needed basis. Fire breaks will be maintained within the Designated Forestry Areas. Because of the large size of the bank and the minimum amount of construction to be done, maintenance is expected to be minimal.

### ***C. REPORTS AND RECORD KEEPING***

Annual monitoring reports will be submitted and will consist of panoramic photographs, periodic water measurements at piezometer/staff gauges and aerial photographic monitoring results. Wildlife monitoring data, if collected by FFWCC, will be presented as it becomes available.

### ***D. ACCOUNTING PROCEDURES***

A running total of credit and debits will be kept by the Miami Corporation and reported with every monitoring event. Each permit application proposing to use the Farnton Mitigation Bank will contain the latest balance sheet on credits available, credits used up to that time and the number of credits proposed to offset the project impacts. Simultaneous with issuance of the permit authorizing wetland impacts and the use of the FMB as mitigation, the ACOE will verify all changes to the credit balance and process the modification to the FMB permit.

### ***E. CONTINGENCY PLANS/REMEDIAL ACTIONS***

In the event that some portion(s) of the mitigation area does not meet the applicable success criteria during the initial five-year monitoring phase, the Miami Corporation will revise the mitigation plan as necessary or accept a reduction in credits. It is the responsibility of the permittee to demonstrate that the credit area granted meets the above success criteria.

### ***F. LONG-TERM MANAGEMENT RESPONSIBILITIES***

All land management will be the responsibility of the Miami Corporation or their successors. The Mitigation Bank will be managed to minimize human impacts, and to verify that the mitigation plan is being correctly implemented. The Bank sites will be monitored to assure success of the project.

## **PART V - PROVISIONS PERTAINING TO VALIDITY, MODIFICATION, AND TERMINATION OF THE BANKING INSTRUMENT**

### ***A. VALIDITY - MODIFICATION***

This MBI will become valid following: Issuance of the St. Johns River Water Management District and Department of Army permits and execution of this MBI by the members of the MBRT. Mitigation credit release will be conditioned upon execution of the approved Perpetual Management Trust Fund Agreement. This MBI may be amended, altered, released or revoked only by written agreement among the parties hereto or their heirs, assigns or successors-in-interest, which amendment shall be filed in the public records of Volusia and Brevard Counties, Florida.

The terms and conditions of the MBI remain in effect throughout the operational life of the Bank. As taken from the "Federal Guidance for the Establishment, Use and Operation of Mitigation Banks," 60 Fed. Reg. 58, 605-58, 614 (Nov. 28, 1995), with the exception of arrangements for long-term management and protection in perpetuity of the wetlands and/or other aquatic resources, this period terminates at the point when the following occur:

- 1) Compensatory mitigation credits have been exhausted or banking activity is voluntarily terminated with written notice by the bank sponsor provided to the Corps.....and other members of the MBRT, and
- 2) It has been determined that the debited bank is functionally mature and/or self-sustaining to the degree specified in the banking instrument.

### ***B. INDEMNIFICATION***

The Sponsor hereby agrees to indemnify the United States, its agencies, employees, representatives, agents, including the members of the MBRT, and to hold it free from liability for any claims of personal injury or property damage or loss attributable to activities by or on behalf of the Bank or occurring on the Property.

IN THE TESTIMONY WHEREOF the Miami Corporation, have hereunto set their hands and official seal this \_\_\_\_\_ day of \_\_\_\_\_, 2000, the U. S. Department of the Army, have set their hands and official seal this \_\_\_\_\_ day of \_\_\_\_\_, 2000, the U. S. Fish and Wildlife Service have set their hands and official seal this \_\_\_\_\_ day of \_\_\_\_\_, 2000, and the U. S. Environmental Protection Agency have set their hands and official seal this \_\_\_\_\_ day of \_\_\_\_\_, 2000.

**Miami Corporation**

\_\_\_\_\_  
Witness

\_\_\_\_\_

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Title

**U. S. Department of the Army**

\_\_\_\_\_  
Witness

\_\_\_\_\_

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Title

**U. S. Fish & Wildlife Service**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

**U. S. Environmental Protection Agency**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

IN THE TESTIMONY WHEREOF the Miami Corporation, have hereunto set their hands and official seal this \_\_\_\_\_ day of \_\_\_\_\_, 2000.

**Miami Corporation**, a Delaware Corporation

by \_\_\_\_\_  
Charles E. Schroeder, President

\_\_\_\_\_  
Attest \_\_\_\_\_, title \_\_\_\_\_

IN THE TESTIMONY WHEREOF the U. S. Department of the Army, have set their hands and official seal this \_\_\_\_\_ day of \_\_\_\_\_, 2000.

**U. S. Department of the Army**  
Jacksonville District

---

James G. May  
Colonel, U.S. Army  
District Engineer

Bank Enabling Instrument Signature Page - Farmton Mitigation Bank

IN THE TESTIMONY WHEREOF the U. S. Fish and Wildlife Service have set their hands and official seal this \_\_\_\_\_ day of \_\_\_\_\_, 2000.

**U. S. Fish & Wildlife Service**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title



IN THE TESTIMONY WHEREOF the U. S. Environmental Protection Agency have set their hands and official seal this \_\_\_\_\_ day of \_\_\_\_\_, 2000.

**U. S. Environmental Protection Agency**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

Bank Enabling Instrument Signature Page - Farmton Mitigation Bank

## Appendix 4 Farmton Mitigation Plan

**MITIGATION BANKING PLAN**

for

**FARMTON MITIGATION BANK**

Submitted to:

St. Johns River Water Management District  
P.O. Box 1429  
Palatka, Florida 32078

Submitted by:

*Ms. Sharon Collins*  
Environmental Management Systems, Inc.  
393 Whooping Loop, Suite 1483  
Altamonte Springs, Florida 32701

10/23/98 (Revised 7/13/99)

**Revised with changes pursuant to  
Issued Permit Conditions 4/11/00 (4-127-0363-ERP)**

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## I. PROJECT OVERVIEW

### A. INTRODUCTION

The purpose of this document is to provide an instrument for the establishment and use of the Farmton Mitigation Bank (FMB). It provides background information and a project description for creating a wetland mitigation bank within the Farmton Tree Farm (Figure 1), wholly owned by the Miami Corporation. The Farmton Tree Farm consists of 57,000 acres, and the proposed mitigation bank would include nearly half of the total property (24,323 acres). This would make the Farmton Tree Farm the largest mitigation bank in the United States. ***Except for minor changes, this Plan was approved by the SJRWMD as presented and dated 7/13/99. Where modifications have been requested they are shown in bold italics to reflect the issued permit 41270363-ERP conditions.***

The Farmton Mitigation Bank will be segmented into three distinct, but hydrologically connected sites (Figure 2). The South Site (4,391 acres) is located along the southern sections of the Farmton property and is immediately north of the SJRWMD Buck Lake conservation lands. The West Site (3,595 acres) is adjacent to the St. Johns River, and contains Cow Creek and Deep Creek, which are tributaries of the St. Johns River. The North Site (16,337 acres) includes Crane Swamp and the headwaters of Spruce Creek, which combine to form the largest remaining hardwood swamp on the east coast of Florida.

The purpose of this Mitigation Bank is to provide up-front mitigation credit to the Miami Corporation to be used to offset impacts to wetland systems from private and public development projects. When the withdrawal of credits from the bank is required to mitigate for wetland impacts from development construction, mitigation credits will be withdrawn in accordance with project needs. Habitat restoration, enhancement and preservation provided by this Bank will be used as the basis for establishing credit units. Upon permit issuance by the appropriate agencies, the credits generated will be used to offset project impacts within the geographic service area described herein (Figure 3).

Although implementation of the mitigation plan will commence upon permit issuance, credit withdrawal from each of the three bank sites will occur in phases due to the magnitude of the project. Conservation Easements covering lands within each phase will be recorded prior to the request for credit withdrawal from that phase. The first phases for each bank site are identified in Figures 11A-C.

### B. LOCATION

The proposed Farmton Mitigation Bank (Figure 1) is located in southeast Volusia County and northern Brevard County between SR 44 to the north, SR 46 to the south, SR 415 to the west and I-95 to the east. The North Site is located in Sections 10-15, 22-28, 34-36, Township 18S, Range 33E, Sections 18-20, 29-32, Township 18S, Range 34E, Sections 1, 12, Township 19S, Range 33E and Sections 5-8, 17-21, & 29, Township 19S, Range 34E. The West Site is located in Sections 16-21, 28-33, Township 19S, Range 33E. The South Site is located in Sections 6-8, 11-13, 24-27 of the Bernardo Sequi Grant, Indian River Park, P.B. 2, Page 33, Brevard County, Florida (located in Township 20S Range 34E, AI) and Section 37, Township 21S, Range 33E,



Al, Volusia County.

### **C. SUMMARY OF EXISTING CONDITIONS**

From the late 1800's to around 1960, the land which comprises the Farmton Tree Farm was cleared and used for cattle grazing. Since the early 1950's the majority of lands suitable for planting have been planted with slash pine (Photos 1&2). These pine plantations are currently harvested at 20 - 40 year rotation intervals. As a stand of timber is cut, or as new land is cleared, the land is replanted with slash pine. Other timber considered as merchantable has been harvested within some of the temperate hardwood areas and these areas were replanted with slash pines. The logging of cypress and removal of pine from within forested wetlands has also been a part of the harvesting program. The result of the long-standing forestry program is that some of the pine plantations, along with some cypress wetlands and upland temperate hammocks within the three bank sites have been recently harvested or thinned.

There are over 17,000 acres of wetlands on the three bank sites (Figures 4A-4C), with the North Bank containing the highest percentage of wetlands. The remaining lands consist primarily of pine flatwoods, with lesser amounts of hardwood and live oak hammocks (Photos 3&4), sand pine/scrub, and other minor communities. Virtually all of the bank area has been mapped as forestry stands, and over 60% of the total bank area is considered to be readily harvestable (slash pines and cypress stands), with another 35% harvestable depending on seasonal or climatic conditions.

The overall topography at the Farmton Tree Farm is extremely flat, and it is difficult to divide the site into well-defined drainage basins. After 1950, a network of well-maintained forestry roads and the FPL powerline easement were constructed at elevations above the existing grade, and these have altered the historic drainage patterns and hydrology of the site. The existing placement of culverts under the roads is insufficient to support the historic movement of surface water. During times of heavy rainfall, there are prolonged periods where in some areas surface water levels are almost 2' higher on one side of the road as compared to the other side. The roads are frequently over-topped, and large washouts occur - sometimes cutting new waterway channels (Photos 5&6).

The Florida Fish and Wildlife Conservation Commission (FFWCC) has for decades leased approximately 52,000 acres of land in Farmton for public hunting purposes. It is estimated that during some periods of the hunting season, as many as 2,500 hunters may be on the land. Since only about 35,000 acres are readily accessible, this results in a density of about one hunter per 14 acres. FFWCC has also estimated that there are about 500 deer on the property (about one deer per 120 acres of suitable habitat). The FFWCC believes that the deer population at Farmton is below carrying capacity. This is due to the low wildlife carrying capacity inherent in pine plantations as well as historic hunting pressure. Hunting activities may have contributed to the loss of animal species diversity, as well as some degradation of vegetative habitat due to vehicular access (Photo 7). There are semi-permanent hunting camp sites scattered throughout Farmton, some of which have been there for decades.

All bank sites currently have some cattle, although the stocking rate is very low. As a result, only minimal damage to the ecosystems has been observed. Cattle are often seen along the

banks of Cow Creek in the West Bank site, in the uplands near the powerline easement in the North Bank site, and in the cleared pine flatwoods areas in the South bank site. Fencing will be installed to prevent cattle from entering each conservation area.

#### ***D. SUMMARY OF PROPOSED MITIGATION***

The goal of the mitigation plan is to provide restoration, enhancement, and preservation of wetlands and uplands within each of the three bank sites. Specific objectives include re-establishing surface water flows and wetland hydroperiods, allowing the regeneration of converted and previously harvested wetlands and uplands, improving the quality of habitat, greatly reducing the amount of hunting, phasing out cattle grazing, and preservation of ecosystems.

Surface water flows have been affected by existing logging roads, built to access the pine stands. Many of the wetlands have been forced to retain water longer than they have historically. Surface water flows will be re-established by adding a large number of culverts and low-water crossings under the existing logging roads. The water in the 9000-acre Crane Swamp area will be allowed to move westward into Spruce Creek Swamp (Figure 6A), which should make a significant contribution to the restoration of historic flows in Spruce Creek. Many other wetlands have been forced to retain water longer than they have historically, and these will be restored to their historic hydrology (Figures 6B & 6C). Locations of culverts and low water crossings to be added are shown in Figures 7A-7C.

One of the primary objectives of the mitigation plan is habitat enhancement and protection. Habitat enhancement will occur by the cessation of clearing, planting, and harvesting of upland and wetland hardwood forests. Enhancement and protection will also occur from no harvesting in wetlands and uplands that would otherwise be harvested, bedded, and replanted in slash pine. Hardwood forests which have been previously planted in pine will be cut once, then allowed to regenerate naturally. Without further harvesting, hardwood seedlings will eventually prevail and the areas will return to their original ecosystems.

A Forestry Stewardship Plan has been developed which calls for limited forestry activities within designated areas of the bank sites (See Forestry Stewardship Plan, Appendix IV).

Wildlife management will occur through forestry management and reduction of hunting. The Wildlife Management Plan is included in Appendix V. A copy of the hunting lease agreement for the Miami Corporation property is found in Appendix VI.

#### ***E. SUMMARY OF ECOLOGICAL BENEFITS OF BANK***

The importance of this proposed bank is that it will preserve in perpetuity a very large amount of habitat - large enough for species which require large territories, such as bear, deer, bobcat, and possibly the Florida panther, to maintain genetically stable populations. Restoration, enhancement and preservation of such a large amount of environmentally sensitive lands within the surrounding landscape will allow the proliferation of a wide variety of flora and fauna, including many endangered and threatened species. It will also preserve and protect large watersheds which are major contributors to Spruce Creek and the St. Johns River. Areas with

high ecological value will not be subject to residential, commercial or agricultural development, but will be retained. Sufficient legal interest and financial responsibility exist to ensure perpetual protection. Much of the value of the Bank lies in this fact: without the bank, most of the land could be used in perpetuity for either forestry or development.

In addition to the self-contained ecological value of the Farmton Mitigation Bank, the bank is a valuable component of the natural wildlife corridor system that is being established along the St. Johns River. It is significant to the regional ecosystem not only because of its large size, but also because it is adjacent to or near other conservation lands, including the Buck Lake property owned by the St. Johns River Water Management District and the Colbert-Cameron Mitigation Bank. The property also lies near the Lake Monroe Mitigation Bank and the South Lake Harney Conservation Areas. It consists of a major network of wildlife corridors extending from the east side of the St. Johns River to Crane Swamp and Spruce Creek Swamp (the headwaters of Spruce Creek). Numerous Listed Species (endangered and threatened) have been identified within each of the Bank sites.

Land development is rapidly approaching the Farmton property. However, the adjacent lands will not adversely affect perpetual viability of the bank sites, since these lands are either under governmental conservation or uses not in conflict with the proposed Farmton Bank sites.

Hydrologic restoration within the North Bank will allow a closer approximation to the natural hydroperiods of the Spruce Creek headwaters and Crane Swamp. Water which has been impounded in Crane Swamp will be allowed to flow into Spruce Creek Swamp (Figure 6A) at its historic rate. Although the volume of water entering Spruce Creek is expected to be only slightly greater, the flow rate following rainfall events should be greater, so that flushing will be improved. Increased water elevations in these wetlands for a longer duration will produce a correlated increase in aquatic species. There may also be a shift toward more obligate wetland vegetation, although this is expected to be almost immeasurable. By the same token, upstream wetlands have been forced to retain water longer than they historically had. These waterlogged wetlands will drain more quickly, as they did historically. Similar benefits are expected from the West Bank, which discharges directly into the St. Johns River (Figure 6B), and the South Bank, which discharges into Buck Lake (Figure 6C).

The Forestry Stewardship plan will allow the regeneration of diverse forest ecosystems, which will in turn provide a significant increase in wildlife food sources. This, combined with a 5-fold reduction in hunting pressure, will improve habitat value of both game and non-game species. Allowing tree species to reach old age will allow some endangered and threatened species which rely on old trees (red-cockaded woodpeckers and some wetland dependent birds) to re-colonize the area.

## **II. DESCRIPTION OF EXISTING CONDITIONS**

### **A. EXISTING VEGETATIVE COMMUNITIES**

#### **1. General**

Wetlands make up most of the land on the three bank sites. The North Bank site is dominated by the cypress and hardwood wetlands which form the Spruce Creek headwaters and Crane Swamp. The West Bank site includes mixed forested wetlands and cypress sloughs associated with Cow Creek and Deep Creek. The South Bank site includes extensive wet prairies, cypress sloughs and rare non-tidal salt marshes, all surrounding the northern portion of Buck Lake.

The bank areas contain a diversity of upland habitats, including pine flatwoods, temperate hardwood hammocks, oak hammocks and scrub communities. The most prevalent upland communities are the pine plantations which are dominated by slash pine in varying stages of growth. In addition to these pine areas, relic temperate hardwoods, oak hammocks, and a few sand pine/xeric oak sites are found within the bank sites.

Many of the natural plant communities listed above were considered to be suitable for pine plantations, were cleared and replanted with pine. The vegetation (FLUCFCS) maps (Figures 4A-4C) show the boundaries of the original ecosystems. The GIS basemap was prepared using SJRWMD GIS files, and was refined using infrared aerial photos taken in 1984 and 1997. Easily identifiable features were verified using submeter DGPS. As a result, the maps are highly accurate. Since those maps were prepared (early 1998), significant harvesting has occurred. Areas harvested during the past 3 years, or under contract to be cut in 1999, are shown in the "harvested" categories in the mitigation plan maps (Figures 9A-9C). The vegetative descriptions below refer to pre-harvest conditions.

#### **2. North Bank Site**

##### *Wetlands*

Wetlands in the North Bank site are dominated by extensive cypress swamps associated with Crane Swamp and Spruce Creek Swamp (Figure 4A). These wetlands are comprised of mature cypress trees, with lesser densities of black gum, bay trees, maple, sweetgum, and scattered pockets of slash pine and oaks (Photo 8). Ground cover consists of a variety of herbaceous species typically found within cypress swamps, including St. Johns wort, beak rushes, sawgrass, hat pins and sedges. Many other species, such as red cedar, cabbage palm, southern magnolia and ash are also found within (on hummocks) or adjacent to the cypress swamps. Open sawgrass marshes, substantial communities of swamp bay and black gum, and islands of slash pine and bay species are also found nested within the cypress swamps. Subcanopy and ground cover in areas of mixed hardwood and hydric pine flatwoods consist of species such as dahoon holly, gallberry, myrtle-leaf holly, wax myrtle, wild coffee, bog buttons, broomsedge, scattered wiregrass, fetterbush, yellow-eyed grass, and St. Johns wort. A single gum swamp is found near the north border. It is dominated by mature black gums and vegetated further with loblolly bays, maples and a variety of wetland ferns. In the North Bank site there are approximately 8,557 acres of cypress, 1,267 acres of freshwater marshes, 857

acres of mixed forested wetlands, 761 acres of cypress/pine, 362 acres of wetland coniferous forest, and 156 acres of wetland hardwood forest.

### *Uplands*

The majority of the uplands in the North Bank are pine plantations (Figure 4A). Planted slash pines dominate the canopy with an understory of saw palmetto, gallberry, wiregrass, wax myrtle, pennyroyal, shiny blueberry, dwarf huckleberry, broomsedge and other typical pine flatwood species. Some oak hammocks are located within the site, a few of which were previously cleared for conversion to pine plantations. The largest of the relic oak hammock areas is located in the western portion of the site and has been cleared, limiting vegetation to ground cover growth with some shrub species. Additional uplands include a sand pine/xeric oak community (also previously cleared for planting), and a few hardwood/conifer mixed forested areas. A Florida Power & Light easement is included in the bank lands, but no credit is requested for this land. The upland acreage totals approximately 3,933 acres of pine flatwoods, 27 acres of live oak hammocks, 27 acres of sand pine/xeric oak community, 10 acres of hardwood/conifer mixed, and 10 acres of temperate hardwoods.

## **3. West Bank Site**

### *Wetlands*

The West Bank site (Figure 4B) is composed of numerous mixed forested wetlands associated with Cow Creek, Deep Creek, and the St. Johns River (Photos 9&10). Mature maples, sweetgums, oaks, cabbage palms, cypress, slash pines, and bays line the perimeters of both creeks. Subcanopy often consists of young canopy species, and groundcover includes a variety of wetland ferns and grasses, as well as most of the species listed for the North Bank site. Several cypress communities are interspersed throughout this site, but are not dominant. Mixed forested wetland areas make up 1193 acres of this bank site, with 109 acres of freshwater marshes, 332 acres of cypress, and 6 acres of wetland scrub/shrub communities.

### *Uplands*

There are a higher percentage of uplands than on the North Bank site, and most of these are relic temperate hardwood hammocks (now planted in pine). Many of the planted slash pine areas were formerly temperate oak hammocks. Approximately half of the remaining non-cleared oak hammock areas are located along the banks of the Cow and Deep Creeks. In the relic oak hammocks, some oak regeneration is occurring among the planted pines. The remaining non-harvested temperate hardwood hammocks are dominated by live oak, with a mix of cabbage palm, southern magnolia, yaupon holly, red maple, saw palmetto, and wax myrtle. Within the relic temperate hardwood hammocks (now planted in slash pine) there is an understory of live oak, cabbage palm, saw palmetto, a variety of ferns, pignut hickory and various native upland grasses. Pine flatwoods make up the remaining uplands within the bank site and consist primarily of planted pine forests. The pine flatwoods in this site have an understory dominated by saw palmettos, gallberry and grasses. There are 1312 acres of pine flatwoods, 390 acres of temperate hardwood hammocks, and 241 acres of relic temperate hardwood hammocks.

#### **4. South Bank Site**

##### *Wetlands*

Much of the South Bank site (Figure 4C) is dominated by freshwater sawgrass and scrub/shrub marshes. These fresh water marshes surround Buck Lake (Photos 11&12) and also occur throughout the bank site. The marshes are dominated by large expanses of sawgrass, and scrub/shrub areas consisting of St. Johns wort, pickerelweed, yellow-eyed grass, cordgrass, beakrush, spikerush, bog-buttons, spider lilies, white-top sedges, and a mosaic of other wetland sedges, grasses and rushes.

A number of rare inland salt marsh communities (Photos 13&14) are found in the ecotonal areas adjacent to the sawgrass and scrub/shrub marshes. These community types are the result of an upwelling of salt water from subsurface geological salt deposits. The 21 acres of salt marshes have experienced minimal forestry disturbances, since slash pines will not grow within them, but they are a favorite spot for hunters to test 4-wheel drive vehicles. The vegetation consists of saltwort, seashore paspalum, black rush, cordgrass, sea myrtle, flat sedge, seashore dropseed, glasswort, baldrush, marsh-mallow, saltmarsh false-foxglove, water hyssop and sea-purslane.

Natural and relic mixed hardwood wetlands are also found in the South Bank site. Although these areas are wetlands, slash pines will grow very well within them. Because leaf litter from the broadleaf wetland species result in relatively fertile soil, these areas are desirable for pine plantations. The remaining non-harvested hardwood wetlands are dominated by a mix of water and laurel oaks, dahoon holly, red maple, bays, cabbage palms, with a few slash pines. Areas recently cleared for conversion to pine plantation are currently vegetated with herbaceous wetland species, young natural canopy species, and planted pine. There are approximately 760 acres of wetland forested mixed, 900 acres of freshwater marshes, 485 acres of wetland shrub, 135 acres of cypress, 148 acres of cypress/cabbage palm areas, 216 acres of Buck Lake, and 63 acres of wetland coniferous forests.

##### *Uplands*

In the South Bank site the upland areas are dominated by lands which were historically pine flatwoods. The pine flatwoods are mostly planted slash pine with an understory of saw palmetto, broomsedge, scattered gallberry and upland grasses. Three live oak hammocks are situated in the north-central area of the bank site and consist of live and laurel oaks, cabbage palms, a mixture of ferns, including shoestring fern, saw palmetto, red cedar, grape vine, greenbriar, poison ivy, wax myrtle and yaupon holly. There are approximately 1,650 acres of pine flatwoods, and 15 acres of live oak hammocks within the South Bank site.

#### **5. Habitat Descriptions**

A brief description of habitats found on the Farnton Mitigation Bank pursuant to the classification by the 1985 FDOT land use publication is provided below:

411 Pine Flatwoods - These areas are dominated by slash pine and saw palmetto. There are considerable stands of this plant community within the three bank sites, and they are generally found in the least hydric soils. Other plant species, such as wild persimmon, wiregrass and live oak seedlings can be found in these areas, along with an understory which may consist of a mixture wax myrtle, saw palmetto, broomsedge, gallberry, yellow-eyed grass, beak rush, hatpins, St. Johns wort, cinnamon fern and coinwort. The soils are generally gray and sandy, underlain by a spodic horizon

421 Xeric Oak - Sand live oaks are the dominant trees in this dry upland community. Numerous sand live oak seedlings are currently recolonizing these North Bank site areas, some previously cleared of oak. Saw palmettos are the dominant understory species, and some sand pine and a few longleaf pine seedlings are present. Gallberry and winged sumac are common in these well-drained areas, as is prickly pear and other xeric, groundcover species. The soil is deep white sand that percolates very rapidly. The potential for gopher tortoises is extremely high in these areas.

425 Temperate Hardwood Forest - Most of this community is located in the South and West Bank sites with relatively little in the North Bank. This forest cover type consists of a wide variety of oaks, red bay, sweetbay, magnolia, sweetgum, hickories, cabbage palm, hollies and cedar. The dominant vegetation within is the live oaks, laurel oaks, saw palmetto, and cabbage palms.

425R Relic Temperate Hardwood Forest - This community is only located in the West Bank site and vegetation consisted of the same vegetation noted above except that the forest has been cleared. These areas are recolonizing with species typical of temperate hardwood forests or have been replanted with slash pine. In the areas replanted with slash pine the understory consists of live and laurel oak seedlings, cabbage palm seedlings, saw palmetto, wiregrass and broomsedge.

427 Live Oak Hammock - The live oak hammocks onsite are located in the North and South Bank sites. The hammocks consist of pure or predominant live oak with an understory of saw palmetto, wiregrass, yaupon holly and some laurel oak.

434 Hardwood/Conifer Mixed - A transitional area between the scrub and forested wetlands, this area contains a nearly even mixture of slash pines, sand live oaks and laurel oaks. The understory is dominated by saw palmetto, wax myrtles and gallberry. The hardwood/conifer mixed area is probably distinguished from the pine/mesic oak community due to the slightly higher elevation of this area.

510/520 Water - Streams, Waterways & Lakes - This designation represents Buck Lake and associated waterways and other lakes in the South Bank site and a tributary of the St. John River in the West Bank site.

610 Wetland Hardwood Forest - This forest community is dominated by wetland hardwood species. The forests are only located in the North Bank site and are vegetated with a mixture of red maple, bays, sweet gum, slash pine, cabbage palm, black gum, ash, maidencane, swamp fern, cinnamon fern, cordgrass, saw grass, and other grasses.

613 Gum Swamp - This forested community is located near the northern boundary of the North Bank site. Vegetation almost exclusively consists of black gum followed by some cypress, sweetgum, hickory, swamp fern, saw grass, and various sedges.

617 Mixed Wetland Hardwoods - This area contains a mixture of black gum, bay, slash pine, water oak and cabbage palm. The shrub layer and groundcover are varied, containing scattered saw palmetto, wax myrtles, cinnamon and swamp ferns, and grape vines. These areas are generally found in association with wetland hardwood forest and the freshwater marshes on the site.

620 Wetland Coniferous Forest - These wetland coniferous forests are found in the interior sloughs of predominantly the North Bank site, but found in all three bank sites. Vegetation consists of a mixture of cypress, bay and slash pine. The understory and remaining trees include red maple, St. Johns wort and sawgrass.

621 Cypress - These are extensive cypress sloughs and domes that have a canopy characterized by a near monoculture of cypress, with a few slash pine and bays near the perimeter. The shrub layer is sparse, consisting of few wax myrtles and dahoon hollies. Ground cover is sawgrass, sedges, and St. Johns wort. Portions of the cypress systems have been previously harvested and in these areas cypress have recolonized and contain a wide variety of grasses, sedges and rushes. The logged areas are found adjacent to the undisturbed cypress strands. The soils are hydric and there is good evidence of regular inundation.

624 Cypress/Pine-Cabbage Palm - The cypress/pine-cabbage palm communities are incorporated within the extensive cypress sloughs and form boundaries between the more hydric pine flatwoods and the cypress in the North Bank site. This community is dominated by cypress with slash pine and cabbage palm mixed in. The understory is dominated by bay, gallberry, wax myrtle, and St. Johns wort.

630 Wetland Forested Mixed - This cover type also comprises a large percentage of the forested wetlands on the site. Cypress, bay, slash pine, pond pine, red cedar, cabbage palm, sweet gum, red maple, carolina ash, dahoon holly, laurel and water oak make up the diverse canopy. Saw palmetto, cinnamon and swamp ferns, sawgrass, grape vines, wax myrtle buttonbush and maidencane comprise the lower strata. These areas have well-developed hydric soils, with significant organic composition in lower areas.

641 Freshwater Marshes - Many and extensive stretches of freshwater marshes exist on the three bank sites. These areas are dominated by sawgrass and in much lesser densities chain fern, button bush, St. Johns wort, cypress seedlings, pickerel weed, maidencane, blue maidencane, arrowhead, water hyssop, and various other grasses and sedges. A few black gums can generally be found scattered within these systems. The soils are depressional muck.

642 Salt Marsh - The vegetation in these isolated islands of saltmarsh includes saltgrass, seashore paspalum, black rush, cordgrass, cabbage palm, flat sedge, wiregrass, seashore dropseed, glasswort, baldrush, marsh-mallow, saltmarsh false-foxglove, water hyssop, sea-purslane.



643 Wet Prairie - In this community the dominant species is grassy vegetation and includes St. Johns-wort, maidencane, blue maidencane, yellow-eyed grass, saltbush, spike rushes and small sedges. The soil varies from sandy on the perimeter to a shallow muck layer in the interior of the wetlands.

646 Wetland Shrub - This type of community consists of willow and wax myrtle. Historically, these areas were large, open, wet prairies that have changed vegetative structure.

700 Outparcel - There is an outparcel located in the South Bank site. This outparcel will be excluded from the Farmton Mitigation Bank project.

832 Power Line Easement - A raised FP&L power line roadbed easement extends from near the northwestern Farmton property corner to the southeastern property corner. A section of the easement is included within the North Bank site. The easement is partially elevated and somewhat vegetated with a mixture of grasses, wax myrtle, aster and dog fennel. It is subject to flooding during storm events.

## ***B. WILDLIFE***

Prior to submittal of this permit application, wildlife investigations were conducted on the project site by EMS. Surveying efforts involved field observations and concentrated on determining the presence of suitable habitat for Listed Species, and the likelihood of occurrence of Listed Species. Because of the large size of the bank sites and difficulty of access to many areas, it was not practical to conduct a detailed survey. Species investigated included black bear, red-cockaded woodpeckers, bald eagles, sandhill cranes, wood storks, fox squirrels, and other species. Bird rookeries and other communal nesting areas were also investigated. Several Listed plant and animal species were identified during these field observations as well as during vegetational mapping field studies, confirming that the three bank sites are utilized by a variety of Listed Species. The following species were observed or have the potential to occur within the bank sites:

According to "Closing the Gaps in Florida's Wildlife Habitat Conservation System" (FFFWCC, 1994) Farnton is part of a black bear corridor extending along the St. Johns River and into forested areas in Volusia, Brevard, Flagler and St. Johns counties. This corridor is actually linked to the Ocala National Forest. In addition, portions of the property represent a Strategic Habitat Conservation Area for fox squirrels, American swallow-tailed kites, snowy egrets, great egrets, wood storks, little blue herons and southern bald eagles. Black bear tracks were observed within each of the three bank sites, but no bears were directly observed. Fox squirrels, wood storks, bald eagles, sandhill cranes, and indigo snakes are among the Listed Species observed. Other species recorded in the area include wild turkey, limpkin, mottled duck, scrub holly, fall-flowering ixia, Curtiss' sandgrass, nodding pinweed, large-flowered rosemary, and Rugel's pawpaw.

In addition to the Listed Species described above, many rare species have been observed in the mitigation bank sites. During the early spring, vast numbers of neotropical migratory birds stop to feed and rest in the wetland and transitional areas. A wide variety of wetland-dependent birds, such as egrets, limpkins, and herons, have been observed throughout the sites. Local knowledge indicates that an egret rookery has existed in the North Bank site, but it was never observed.

The Wildlife Management Plan (Appendix V) further describes existing conditions such as hunting estimates and deer populations.

## **C. HYDROLOGY**

### **1. General**

General hydrological maps for the bank sites are shown in Figures 6A-6C. The Farnton Mitigation Bank sites are located within the middle and the northern section of the Upper St. Johns River Basins. The property is so large and flat that surface water flow direction is often determined by individual rainstorm events. It is not uncommon for surface water flows to reverse in direction in response to such events. The SJRWMD drainage basin boundaries are shown superimposed on the property in Figure 7. The basin boundaries do not correlate with actual onsite data and observations, so their accuracy and meaning is questionable. For example, one basin boundary cuts across the center of Crane Swamp, where the flow is typically northward.

Each of the three bank sites has different hydrological characteristics. The North Bank site is dominated by Crane Swamp, which flows westward - impeded by road B-8 - into Spruce Creek Swamp. The water then flows primarily into Spruce Creek, and to a lesser extent, into Cow Creek and the St. Johns River. The West Bank site drains via Cow Creek and Deep Creek into the St. Johns River. The South Bank site drains into Buck Lake toward the south.

Staff gauges were installed in July of 1997 on either side and adjacent to the elevated roads throughout the bank sites (Figures 7A-7C). Gauges were monitored beginning in July 1997 and ending in August 1998. The data collected in the monitoring program are included in Appendix VI.

Note that the readings are from top down, so that the higher numbers are lower elevations.

## **2. North Bank Site**

Surface water flows within the North Bank site are shown in Figure 6A. The primary watershed breaks occur along the elevated north/south road beds of roads B-8, located in the center of the site, and B-5 located on the eastern boundary. Flow in the northeast corner is to the southwest under B-5, where a combination of small bridges and metal culverts carry the runoff under the road. The east central section flows south and east under B-5. West of road B-5 flow continues to the west toward B-8. The western runoff in the North Bank flows through a series of 18" to 42" metal culverts under road B-8. These culverts have been placed at strategic locations during the history of the property in areas that continually wash out during intense rainfall events. Staff gauge data show that Road B-8 continues to cause a significant blockage of the surface water flows from east to west. High flows stage to an elevation where they overtop the road causing erosion and transport of sediment into the adjacent wetlands (Photo 5). The most significant restriction in the North Bank occurs at road B-8 at the Crane Swamp and Spruce Creek Swamp connection. The existing culverts are of insufficient size to accommodate historic flows, and much of the natural connection at this point has been severed. The southern section of Crane Swamp flows south into the drainage along Maytown Road. On the western boundary of the Bank, the elevated maintenance road on the power line easement partially blocks runoff to the west, limiting sheet flows to the watershed areas of Cow Creek and Sandy Drain.

## **3. West Bank Site**

The West Bank site (Figure 6B) is a north-to-south watershed for Deep Creek in the western section, Cow Creek in the central section, and a cypress slough on the eastern boundary. Runoff also enters from the north under the abandoned railroad grade. In the western section, the remains of the old bridge where road B-9 crossed Deep Creek has trapped debris and vegetation until the flow at this point is significantly restricted. North and south of road B-9 much of Deep Creek has been channelized. The channel returns to its natural state at its confluence with Cow Creek. A narrow bridge carries road B-91 into the central section over Cow Creek. The existing bridge opening is narrow, and the effects of scour have required periodic maintenance of the crossing. Major washouts have occurred as the flow diverted around the bridge, and new creek bypasses have formed (Photo 6). Other metal culverts carry the flow southwest under road B-91 and B-12. These east/west roads and the undersized culverts block and restrict the flow toward the southwest. During heavy rainfall events, the flow exceeds the capacity of the culverts and overtops the roads causing washouts to form, and rendering the roads impassible.

## **4. South Bank Site**

Surface water flow in the South Bank (Figure 6C) is north to southwest toward Buck Lake in the southwest corner. Surface water flow in the northwest corner along road B-101 meets channelized flow on the western boundary to enter the wetlands north of Buck Lake. Central flow is along road B-10, through a metal culvert under road B-102 and then under B-10 into the wetlands on the east side of Buck Lake. Surface water also flows in the opposite direction, to the northeast from the wetlands adjacent to Buck Lake under road B-10, to the wetlands located within the southern loop of the road. Road B-10 is the primary obstruction to surface water flows originating in the north and east, then flowing southwest. Numerous roadway washouts have

occurred on roads B-101, B-102, and B-10 within the South Bank site. Heavy rainfall events and subsequent surface water buildup on the upstream sides of these east/west roads often wash out the low areas of the road, transporting sediment into the adjacent wetlands.

#### ***D. FORESTRY***

Pine plantations within the mitigation bank sites total approximately 8,400 acres. The ages of the individual stands vary from one year to approximately 35 years old. The timber stands are located mostly in historic pine flatwoods areas, but are also in habitats which were historically upland mixed hardwood forests, oak hammocks, and mixed forested wetlands. Existing forestry techniques and conditions are further described in the attached Forestry Stewardship Plan (Appendix IV).

#### ***E. DEVELOPMENT POTENTIAL***

The Farmton Mitigation Bank sites have an excellent potential for future development, since it lies midway between the urban areas of Orlando, Daytona Beach, and Cocoa (Figure 1). It would be feasible for residents to commute to work in any of these three areas. Interstate-95 lies immediately east of Farmton, and would allow rapid access to Daytona Beach and Cocoa. The newly constructed Central Florida Greenway (SR 417) connecting Sanford to Orlando would allow easy access to the Orlando area, and would avoid the heavy Interstate-4 traffic.

Numerous platted subdivisions and platted roads are present throughout the Farmton property and many of these areas are within the three bank sites (Figures 10A-10C). Within the three bank sites an estimated 8,000 acres of uplands could be readily converted to residential or uses other than forestry.

At one time, members of the Volusia County Council were interested in building a 4-lane road through Farmton to connect Howland Boulevard in Deltona to SR 442 in Edgewater. It was suggested that the road should cross through the middle of Spruce Creek Swamp and Crane Swamp. In order to avoid this disruptive influence on these major wetland systems, the Miami Corporation gave the County an option to obtain a donated 200'-wide easement, but defined the location of the easement so that the road would pass through Farmton with the least possible environmental impact (Figure 4A). The corridor easement (155 acres) is excluded from the North Bank credit calculations.

An area in the northeast corner of the North Bank, known as Compartment D, contains mineral rights owned by others (Figure 10A). Negotiations are underway to acquire the mineral rights. Before placing any Conservation Easements on the area, the mineral rights will be acquired by the Miami Corporation.

The City of Edgewater has recently annexed westward to the boundary of the North Bank site, and is in a position to offer utilities. SR 442, which is the northern boundary of the North Bank site, is scheduled to be widened to 5 lanes between Farmton and US 1. The intersection of SR 442 and I-95 is about 1 ½ mile east of the NE corner of the North Bank site, and commercial development is certain to increase in that vicinity in the future.

### **III. PROPOSED MITIGATION METHODS**

#### **A. GOALS AND OBJECTIVES**

The project goal is to enhance, restore and protect wetlands and uplands, ultimately creating conditions similar to those that existed historically. Specific objectives include reestablishing the natural surface water flows and hydroperiod of the watershed, conservation, enhancement, and preservation of habitat, forestry stewardship management, including selective conversion of pine plantations to native habitat, implementing hunting restrictions, phasing out of cattle grazing and preservation of rare ecosystems and archaeological sites. To achieve these objectives, 4 specific mitigation programs will be implemented. These are:

- C Hydrologic Enhancement
- C Wildlife Management
- C Forestry Stewardship
- C Preservation

These mitigation programs are discussed in detail below.

#### **B. HYDROLOGIC ENHANCEMENT**

##### **1. General**

The elevated farm roads throughout the three bank sites contain inadequate culvert crossings and bridges to allow unimpeded surface water passage. Culverts, low-elevation water crossings (Figures 7D&E), and bridge extensions will be placed at strategic locations (Figures 7A-7C) to restore historic surface water flows. The restoration of historic sheet flow will provide enhancement to downstream wetlands by allowing a closer approximation to the natural hydroperiods. Increased water elevations in these wetlands for a longer duration will produce a correlated increase in aquatic species. There may also be a shift toward more obligate wetland vegetation, although this is expected to be almost immeasurable. By the same token, upstream wetlands have been forced to retain water longer than they historically had. These waterlogged wetlands will drain more quickly, as they did historically.

Topographic and hydrologic information was gathered through the review of historic aerials, USGS Quadrangle Maps, USDA- SCS Soil Survey Maps, interviews with site personnel, and numerous field investigations. Site investigations have been made following many rainfall events, and much information has been gathered through direct observations of the drainage patterns on site, and through local knowledge based on years of observation by Mr. Earl Underhill, forester for the Miami Corporation. From this information, the areas which will be affected by the proposed hydrological enhancements have been delineated and are denoted as mitigation categories having "hydrologic enhancement" in Figures 9A-9C.

##### **2. North Bank Site**

Staff gauge readings (Appendix VI) on both sides of road B-8 have shown that the road blocks a

significant amount of surface water flows to the west, where flows historically entered the Spruce Creek Swamp. The data confirm that the existing metal culverts are incapable of passing heavy rainfall event runoff. These culverts will be supplemented with a series of new corrugated metal culverts, allowing historic flows to again cross road B-8. New culverts will be set at elevations to maintain adequate hydrology to the east of road B-8 in the dry season. Additionally, a series of low-elevation roadway sections will be constructed where Crane Swamp connects to Spruce Creek Swamp. These roadway sections will be constructed to match existing grade on either side of the road, and will act as broad crested weirs capable of passing base and peak flows. The weirs will be constructed of stone to provide heavy vehicle support and stability when submerged during the wet season. Roadway stabilization at these critical locations will also prevent future erosion and sediment transport into adjacent wetland areas.

The anticipated locations of culverts and low-elevation roadway sections are shown in Figure 7A. These will be constructed, and the water levels on each side of the road monitored. If water levels do not equilibrate to within 1" on each side of the road, additional culverts and low-elevation roadway sections will be constructed until that goal is achieved.

The result will be the elimination of road B-8's effect on the site's hydrology, returning original sheet flows to the wetland systems, and providing for an unimpeded connection of Crane and Spruce Creek Swamps. Staff gauge readings also indicate some blockage of traditional flows at the power line easement on the western edge of the North Bank site. Two additional culverts are proposed where monitoring has indicated additional conveyances are required. These culverts will help restore natural sheet flows to the wetlands adjacent to Cow Creek (Figure 7A).

### **3. West Bank Site**

Proposed hydrologic enhancements to the West Bank site are shown in Figure 7B. Most of the work will be completed within 5 years after permit issuance of the permit. The exceptions are: (1) The remains of the B-9 bridge over Deep Creek (Photo 13) and the accumulated debris within the channel will be removed when that phase is implemented. The flow restricting vegetation that has grown in will be allowed to dissipate with the restored flow velocities. (2) The bridge on road B-91 over Cow Creek (Photo 14) will be lengthened to seventy-five feet when that phase is implemented. The intent is to more closely match the historic channel opening. No channel modifications are proposed. However, the increased bridge span will allow Cow Creek to reestablish the channel cross section through natural erosion processes. Historic flows will be returned to the wetlands to the southwest where they have been somewhat depleted due to restrictions at the existing bridge. An additional 24" metal culvert will be installed under road B-1W near the intersection with B-13 where runoff often bypasses the existing single 30" culvert and overtops the road. This will eliminate the restriction and restore historic sheet flows into the eastern section of the site. Finally, additional 24" culverts will be added at both existing culvert locations on road B-12 where staff gauge readings have indicated the need for additional hydraulic capacity. These culverts will provide hydrologic enhancement to the south area of the West Bank site.

### **4. South Bank Site**

Figure 7C shows the proposed hydrologic enhancements to the South Bank site. Road B-10

has caused the most significant blockage of sheet flows within the South Bank site. An additional metal culvert will be added under Road B-10 adjacent to each of the three major eastern slough culverts to provide additional conveyance capacity, restore historic sheet flows, and enhance the hydrology of the transitional area northeast of Buck Lake. These culverts will also accommodate the flows from Buck Lake, northeast to the wetland area located inside the southern loop of road B-10. The added hydraulic capacity will accommodate surface water flows and allow the permanent stabilization of the roadway, preventing erosion and sediment deposition. Similarly, two additional 24" culverts will be added at the southeastern arm of the slough under B-10. Flow restrictions will be eliminated toward the transitional area on the eastern side of Buck Lake.

### ***C. WILDLIFE MANAGEMENT***

Wildlife management consists primarily of reducing the number of hunters to approximately 1/5 of the historic level by entering into a User Pay Type I Wildlife Management Area lease with FFWCC. The Farmton Mitigation Bank can contribute to the maintenance of a large and diverse gene pool among wildlife in both Volusia and Brevard Counties. The site is big enough that large mammalian species which require large territories will be able to survive in perpetuity. The integrated nature of the wetlands and uplands is especially beneficial to species which require mixed habitats for breeding or feeding. Although a greater number and diversity of animal species are expected to occur as a result of implementation of the Wildlife Management Plan, this is not proposed to be verified through monitoring nor are credits proposed to be released as a result of any success criteria. Details of the plan are addressed in the Wildlife Management Plan, Appendix V.

#### ***D. FORESTRY STEWARDSHIP***

The goals of the Forestry Stewardship program are:

1. Allow the preservation of existing wetlands, and regeneration of harvested wetlands
2. Increase the availability of wildlife food source habitats
3. Protect wetlands by an average 300' upland buffer
4. Increase age and species diversity in trees to improve habitat value
5. Allow the regeneration of wetland and upland hardwood areas
6. Limit clear-cutting to Designated Forestry Areas (Figures 8A-8C)

Methods to achieve these goals are detailed in the attached Forestry Stewardship Plan, Appendix IV.

#### ***E. PRESERVATION***

All of the mitigation methods listed above will be implemented following issuance of a permit. Conservation Easements will be placed in increments as each phase is implemented, and prior to any request for credits. This incremental approach is necessary due to recent concern over the effect of the regulatory agency rules on the viability of mitigation banks. It is possible that the cumulative impacts rule, for example, may eventually prevent the sale of mitigation credits outside of the immediate basins in which the bank sites occur, which would severely limit the available market. In other words, there is no guarantee that the bank will be economically feasible in the future. In that case, the applicant will need to have the ability to terminate the banking program in a partially completed state.

As mentioned earlier in this document, there are numerous platted lots and roads which lie within the mitigation bank sites. Phase by phase, Miami Corporation will relinquish the opportunity to develop the county approved platted communities and roads by vacating the plats (as allowed by Volusia and Brevard Counties) prior to recording the Conservation Easements.

An area in the northeast corner of the North Bank site, known as Compartment D (Figure 10A) contains mineral rights owned by others. Negotiations are underway to acquire the mineral rights. Before placing any Conservation Easements on the area, the mineral rights will be acquired by the Miami Corporation.



## IV. PROPOSED MITIGATION CREDITS

### A. CREDIT RELEASE METHOD

Because the Farmton Mitigation Bank is such a large area, and future demand for mitigation credits within the service area is unknown, Conservation Easements will be used to define bank phases, and these will be placed in increments based on the implementation of that phase and the anticipated need for credits. With the exception of removal of bedding and removal of cattle, all mitigation tasks and programs will be implemented before placement of Conservation Easements. Therefore, the Miami Corporation will use the “prior completion” provision of the SJRWMD rule to provide financial assurance for construction.

It should be noted that this is expected to be a very long-term bank. Credits may be sold or used over a 100 year period or more. Some of the mitigation categories include success criteria to be demonstrated through monitoring, and the credits will not be requested until the monitoring program has shown that 100% success has been achieved.

***The specific release of credits is addressed in the issued SJRWMD permit, Permit Number 4-127-0363 ERP (see Specific Condition No. 23). Note that the total acreages of the three bank sites are greater than the acres that will receive credit release. Credits will not be authorized from sovereign lands associated with Buck Lake and the un-channelized segment of Deep Creek.***

When a phase is to be implemented (based on anticipated credit need), a GIS map with the phase boundaries identified will be forwarded to SJRWMD and the ACOE. Acreages for each mitigation category within the phase will be obtained by GIS, and indicated on the map. A table of credits to be released upon placement of the Conservation Easement, and upon meeting success criteria, will be included. The proposed first three phases in each bank site are shown in Figures 11A, 11B and 11C. Subsequent phases in each bank site average approximately 500 acres, and will be contiguous to the original phase (or previous phase) so that the area under Conservation Easement will continually increase in an incremental fashion.

The fact that Farmton Mitigation Bank is such a large bank, and is expected to operate over a very long time, places a level of uncertainty that all credits will eventually be sold. If the market demand for credits is inadequate for any reason, the Miami Corporation reserves the right to remove unused portions of the bank (those areas without Conservation Easements in place) from the bank.

The Miami Corporation will be permitted to withdraw Farmton Mitigation Bank credits to offset wetland impacts from private and public development projects within the geographic service area described herein. The credits necessary to offset specific wetland impacts will be based upon the type and quality of wetlands being impacted by the associated projects. A GIS map of each bank site, and a running total of credits and debits, will be maintained by Miami Corporation and reported following every monitoring event. Each permit application proposing to use the Farmton Mitigation Bank will contain the latest balance sheet on credits available, credits used up to that time, and the number of credits proposed to offset the project impacts. Simultaneous with issuance of the permit authorizing wetland impacts and the use of Farmton

Mitigation Bank as mitigation, the SJRWMD and the ACOE will verify all changes to the credit balance and process the modification to the Farmton Mitigation Bank permit.

## **B. MITIGATION CATEGORIES AND RATIOS**

Since phases will be defined based on anticipated demand for credits, the acreage of each mitigation category in future phases will not be known until the phases have been identified as described above. To calculate the available credits in any phase, it is necessary to have a multiplier based on tasks completed or success criteria met for each mitigation category. Using GIS, the acreage for each mitigation category within each phase can be readily calculated, and the appropriate multiplier can then be multiplied times the acreage for each category.

***Pursuant to the issued SJRWMD Permit, there are 9 different categories rather than 12 categories, not all of which occur in all bank sites.*** These categories are listed with FLUCFCS codes which may (but do not always) occur in each category shown in parentheses. The locations of the mitigation type categories are shown in Figures 9A-9C. Proposed credits were calculated by multiplying the percent of credits to be released times the ratio, then times the acreage of each mitigation type.

***Pursuant to permit issuance (See Exhibit 3 of the permit), W1 and W2 were combined into one category. This category was then separated into forested vs. non-forested systems. Categories W4 and W5 were combined. Categories W6 and W7 were combined. The rest of the categories remained the same. Ratios for each category were revised by the SJRWMD and are reflected in Table 4 below. For clarity, to identify existing Figures and the permit exhibits, the categories in this text now are listed with both the SJRWMD designation and the original designation.***

Table 3 shows the overall mitigation ratios and percent credit to be released for each task for each mitigation category and ***this table has been modified to reflect permit conditions (Specific Condition 23).***

**Table 3.** Overall Ratios, & % Credit Release by Task or Success Criteria

**W-1 Wetland Hydrologic Enhancement (Hydrologically Enhanced Wetlands - SJRWMD)**

**W-2 Includes all hydrologically enhanced harvested and non-harvested wetlands.**

**Ratio (Forested Systems - 610, 613, 617, 620, 621, 624, 630)..... 8:1**

**Ratio (Non-Forested Systems - 641, 646 ).....13:1**

<b>W-1 &amp; W-2 (FORESTED AND NON-FORESTED SYSTEMS)</b>	<b>TASK &amp; SUCCESS CRITERIA</b>	<b>% CREDITS</b>
	Place Conservation Easement and Removal of cattle *****	25%
	Implement & complete hydrologic enhancement activities - complete installation of low-water crossings and culverts	10%
	Hydrologic enhancement success criteria met - provide documentation of water elevation balance and no washouts via monitoring for one year	10%
	Implement Forestry Stewardship Plan - document existing baseline conditions	10%
	Implement Wildlife Management Plan - document that hunting leases and restrictions have changed to limit number of hunters	5%
	Preservation/Enhancement areas show # 5% exotic vegetation infestation	2%
	Release of buffer credits when 2 project phases adjoin existing phase	8%
	Year 2: Document hydrologic enhancement success criteria met, ie- water elevation balance and no washouts continue(5%), document continuing forestry stewardship conditions via aerial photos (5%), and document wildlife management plan in place (5%). 15% total	15%
	Year 3: Document hydrologic enhancement success criteria met, ie- water elevation balance and no washouts continue(5%), document continuing forestry stewardship conditions via aerial photos (5%), and document wildlife management plan in place (5%). 15% total	15%

**\*\*\*\*\* Credits released for all categories after financial responsibility mechanism is provided to the SJRWMD.**

W-3 Wetland Restoration (411) (**Restored Forested Wetlands - SJRWMD**) Removal of bedding in buffer areas (as described in Section III-D-2). Bedding has converted these areas to functional uplands, which by re-grading to natural grade will be restored to functional wetlands.

**Ratio** ..... **1:1**

W-3	TASK & SUCCESS CRITERIA	% CREDITS
	Place Conservation Easement & Removal of cattle	<b>15%</b>
	Removal of bedding - document & demonstrate evidence of wetland hydrology within one year of bedding removal	<b>25%</b>
	<b>Complete swale/berm regrading of bedded areas</b>	<b>25%</b>
	<b>Years 2-4: Removal of bedding - demonstrate evidence of wetland hydrology</b> <b>Year 2 (10%) Year 3 (10%) Year 4 (10%) = 30% total</b>	<b>35%</b>

**W-4 Cypress Wetland Enhancement (621) (Enhanced Cypress Wetlands - SJRWMD)**

**W-5** Includes all **harvested and non-harvested** cypress wetlands which are ecologically enhanced.

**Ratio** ..... **10:1**

W-4 & W-5	TASK & SUCCESS CRITERIA	% CREDITS
	Place Conservation Easement & Removal of cattle	25%
	Implement Forestry Stewardship Plan - document existing baseline conditions	30%
	Implement Wildlife Management Plan - document that hunting leases and restrictions have changed to limit number of hunters	5%
	Preservation/Enhancement areas show # 5% exotic vegetation infestation	2%
	Release of buffer credits when 2 project phases adjoin existing phase	8%
	Year 2: Forestry Stewardship Plan - document existing conditions that natural regeneration is occurring via aerial photography	10%
	Year 3: Forestry Stewardship Plan - document existing conditions that natural regeneration is occurring via aerial photography	10%
	Year 4: Forestry Stewardship Plan - document existing conditions that natural regeneration is occurring via aerial photography	10%

**W-6** Hardwood Wetland Enhancement (**Enhanced Hardwood Wetlands - SJRWMD**)

**W-7** (610, 620, 624, 630, 646)

**Harvested and non-harvested** hardwood wetlands which are ecologically enhanced.

**Ratio** ..... **9:1**

<b>W-6 &amp; W-7</b>	<b>TASK &amp; SUCCESS CRITERIA</b>	<b>% CREDITS</b>
	Place Conservation Easement & Removal of cattle	25%
	Implement Forestry Stewardship Plan - document existing baseline conditions	30%
	Implement Wildlife Management Plan - document that hunting leases and restrictions have changed to limit number of hunters	5%
	Preservation/Enhancement areas show # 5% exotic vegetation infestation	2%
	Release of buffer credits when 2 project phases adjoin existing phase	8%
	Year 2: Forestry Stewardship Plan - document existing conditions that natural regeneration is occurring via aerial photography	10%
	Year 3: Forestry Stewardship Plan - document existing conditions that natural regeneration is occurring via aerial photography	10%
	Year 4: Forestry Stewardship Plan - document existing conditions that natural regeneration is occurring via aerial photography	10%

**W-8** Inland Salt Marsh Preservation (642) (**Preserved Inland Salt Marsh - SJRWMD**)

Rare inland salt marshes (South Bank only)

**Ratio** ..... **14:1**

<b>W - 8</b>	<b>TASK &amp; SUCCESS CRITERIA</b>	<b>% CREDITS</b>
	Place Conservation Easement & Removal of cattle	<b>100%</b>

U-9 Hardwood Upland Enhancement/Restoration (421, 425, 425R, 427, 434)

U-10 (**Enhanced Hardwood Upland -SJRWMD**)

**Harvested and non-harvested** hardwood (including relic hardwood) upland forests in buffer zones and elsewhere. Areas which have been cleared and planted in pine will be selectively cut, but no further planting will occur (Section III-D-2).

**Ratio.....2.67:1**

<b>U-9 &amp; U-10</b>	<b>TASK &amp; SUCCESS CRITERIA</b>	<b>% CREDITS</b>
	Place Conservation Easement & Removal of cattle	<b>50%</b>
	Implement Forestry Stewardship Plan - document existing baseline conditions	<b>25%</b>
	<b>Appropriate vegetative re-establishment is documented</b>	<b>25%</b>

U-11 Planted Pine Upland Restoration (411) (**Enhanced Pine Flatwoods - SJRWMD**)

Planted pines in buffer areas subject to one harvest with no subsequent re-planting.

**Ratio.....3:1**

<b>U-11</b>	<b>TASK &amp; SUCCESS CRITERIA</b>	<b>% CREDITS</b>
	Place Conservation Easement & Removal of cattle	50%
	<b>Implement Forestry Stewardship Plan - show that uneven-age management initiated</b>	<b>25%</b>
	<b>Appropriate vegetative re-establishment is documented</b>	<b>25%</b>

U-12. Designated Forestry Area Enhancement (411)

Areas shown in Figures 8A-8C.

**Ratios.....8:1**

<b>U-12</b>	<b>TASK &amp; SUCCESS CRITERIA</b>	<b>% CREDITS</b>
	Place Conservation Easement & Removal of cattle	<b>100%</b>

Using GIS, the acreage of each mitigation category for each bank site has been calculated, and the total credits available for each bank site are provided in the following section.

#### **B. MITIGATION ACREAGES AND CREDITS PER BANK SITE**

It is proposed that a total of **4,585.20** credit units should be granted for this project (**See SJRWMD permit**). This amounts to a total of **3124.8** available credit units from the North Bank site, **812.7** credit units from the West Bank site and **647.8** credit units from the South Bank site. Credits are derived according to the criteria listed below in Table 4.

**Table 4. Mitigation Credit Calculations**

Mitigation Category	Ratio	North Bank		West Bank		South Bank	
		Acres	Credit	Acres	Credit	Acres	Credit
<b>W-1 (Forested Systems)</b> Harvested Wetland Hydrologic Enhancement	8:1	488.95	1338.6	255.02	180.2	218.54	181.7
<b>W-2 (Forested Systems)</b> Wetland Hydrologic Enhancement	8:1	10,220.17	--	1186.21		1234.87	--
<b>W-1 (Non-Forested Systems)</b> Harvested Wetland Hydrologic Enhancement	13:1	16.74	97.1	0.65	5.3	2.32	47.7
<b>W-2 (Non-Forested Systems)</b> Wetland Hydrologic Enhancement	13:1	1245.18	--	67.72		617.46	--
W-3 Wetland Restoration <b>(Restored Forested Wetlands)</b>	1:1	875.98	876.0	174.34	174.3	99.53	99.5
W-4 Harvested Cypress Wetland Enhancement <b>(Enhanced Cypress Wetlands)</b>	10:1	48.18	4.8	11.65	1.2	25.35	2.6
W-5 Cypress Wetland Enhancement <b>(Enhanced Cypress Wetlands)</b>	10:1	210.10	21.0/ <b>25.8total</b> w4/w5	34.43	3.4/ <b>4.6total</b> w4/w5	22.19	2.2/ <b>4.8total</b> w4/w5
W-6 Harvested Hardwood Wetland Enhancement <b>(Enhanced Hardwood Wetlands)</b>	9:1	10.18	1.1	0.0	--	1.23	0.1
W-7 Hardwood Wetland Enhancement <b>(Enhanced Hardwood Wetlands)</b>	9:1	44.04	4.9/ <b>6.0total</b> w6/w7	82.92	9.2 total w6/w7	245.68	27.3/ <b>27.4total</b> w6/w7
W-8 Inland Salt Marsh Preservation <b>(Preserved Inland Salt Marsh)</b>	14:1	0.00	0.0	0.0	0.0	20.20	1.4
U-9 Harvested Hardwood Upland Restoration <b>(Enhanced Hardwood Upland)</b>	2.67:1	0.00	0.0	556.94	208.6	0.0	0.0
U-10 Hardwood Upland Enhancement <b>(Enhanced Hardwood Upland)</b>	2.67:1	72.93	27.3	73.19	27.4/ <b>236.0</b> total	14.56	5.5
U-11 Planted Pine Upland Restoration <b>(Enhanced Pine Plantation)</b>	3:1	1784.87	595.0	292.16	97.4	413.09	137.7
U-12 Designated Forestry Area Enhancement	8:1	1271.75	159.0	845.47	105.7	1,136.97	142.1
<b>Totals</b>		<b>16289.1</b>	<b>3124.8</b>	<b>3580.70</b>	<b>812.7</b>	<b>4,051.99</b>	<b>647.8</b>
Total Mitigation Bank Credits		<b>4,585.20</b>					

Considering that a total of 4,585.20 credits are proposed to be obtained from a total bank area of 24,323 acres (excluding outparcels, **safe line areas**, and proposed county roadway easement), that yields an overall credit ratio of **5.2:1**.

Using the same methods as described above, the credits for the first phase in each bank site have been calculated and are presented in Table 5 below. The total Phase One credits equal **181.90**. Credits for Phases 2 and 3 can be readily calculated using GIS polygon acreages and applying approved ratios as above. Credit matrices and phase maps will be forwarded to all agencies prior to implementation of each subsequent phase.

**Table 5.** Mitigation Credit Calculations for Phase One

Mitigation Category	Ratio	North Bank		West Bank		South Bank	
		Acres	Credit	Acres	Credit	Acres	Credit
<b>W-2 (Forested Systems)</b> Wetland Hydrologic Enhancement	8:1	508.04	63.5	175.96	22.0	150.01	18.8
<b>W-2 (Non-Forested Systems)</b> Wetland Hydrologic Enhancement	13:1	--	--	37.07	2.9	89.75	6.9
<b>W-5</b> Cypress Wetland Enhancement <b>(Enhanced Cypress Wetlands)</b>	10:1	--	--	6.96	0.7	--	--
<b>W-7</b> Hardwood Wetland Enhancement <b>(Enhanced Hardwood Wetlands)</b>	9:1	--	--	35.92	4.0	2.86	0.3
<b>U-9</b> Harvested Hardwood Upland Restoration <b>(Enhanced Hardwood Upland)</b>	2.67:1	--	--	114.42	42.9	--	--
<b>U-10</b> Hardwood Upland Enhancement <b>(Enhanced Hardwood Upland)</b>	2.67:1	--	--	4.81/ <b>(119.23</b> <b>total</b> <b>U9&amp;10)</b>	1.8/ <b>(44.7</b> <b>total</b> <b>U9&amp;10)</b>	--	--
<b>U-11</b> Planted Pine Upland Restoration <b>(Enhanced Pine Plantation)</b>	3:1	--	--	5.15	1.7	43.72	16.4
<b>Totals</b>		<b>508.04</b>	<b>63.5</b>	<b>380.29</b>	<b>76.0</b>	<b>286.34</b>	<b>42.4</b>
Total Phase One Mitigation Bank Credits	<b>181.90</b>						



## **V. ECOLOGICAL VALUE**

### **A. CURRENT VALUE**

The ecological value of the Farmton Mitigation Bank to the regional watershed is extremely significant. The entire mitigation bank site is an important component of the natural wildlife corridor system that is being established along the St. Johns River. The West Bank site contains two tributaries to the St. Johns River which originate on the Farmton property. The North Bank site contains the headwaters of Spruce Creek, as well as Crane Swamp, which is the largest remaining freshwater swamp in eastern Florida. The staff of the Florida Fish and Wildlife Commission (FFWCC) has identified this property as a proposed Strategic Habitat Conservation Area for both the bald eagle and the Florida sandhill crane, wetland-dependent species that have been observed on-site. Data provided in "Closing the Gaps in Florida's Wildlife Habitat Conservation System" indicates that the area serves as black bear habitat, and black bears have been noted on the property on many occasions. The South Bank site includes a portion of Buck Lake and is adjacent to SJRWMD's Buck Lake Preservation Area and the Colbert-Cameron Mitigation Bank. It includes lacustrine and scrub-shrub wetlands with high habitat value.

Ecological benefits currently provided by the Mitigation Bank are moderate to high, due to the large amount of undeveloped wetlands present. The wetland ecosystems have been somewhat impacted by harvesting and hydrological impacts associated with forestry, but still provide significant value to wetland-dependent wildlife species. The upland ecosystems have been impacted by forestry and hunting activities. Those upland ecosystems which provide the most food and habitat for wildlife (e.g., hardwood and oak hammocks) have been largely replaced with planted pine. The species and age diversity of trees are minimal, as is typical of pine plantations. The carrying capacity of pine plantations for game species is the lowest of any forest type according to published literature.

The three bank sites comprise significant areas of wetland and upland habitats for south Volusia and north Brevard Counties. The heterogeneity of the ecosystems on the property provides high spatial diversity of habitat types. The large size and relative isolation of the wetlands and uplands is especially beneficial to Listed Species. Habitat types range from cypress strands, through wet flatwoods to oak scrub. This broad spectrum of plant communities provides for a variety of wildlife populations, including many that are listed by the U.S. Fish and Wildlife Service.

### **B. PROPOSED VALUE**

The greatest proposed value lies in the preservation in perpetuity of such a large amount of land. With the exception of the Ocala National Forest (which is actually a planted pine plantation), the Farmton Mitigation Bank will be the largest preservation area within the St. Johns River Water Management District. As a result of implementing the mitigation plan, the most notable physical changes will come from the re-establishment of a closer approximation to the natural hydroperiods within wetlands, and the regeneration of natural hardwood ecosystems from pine plantations. Water from rain events has been artificially retained (by elevated logging roads) over thousands of acres for longer periods of time than was historically the case. By the

same alterations, other areas have been deprived of water, since the source was blocked. The proposed plan will place the bank areas back into "hydrological balance." Simultaneously, the Forestry Stewardship Plan will allow hardwood and mixed hardwood wetlands and uplands, which have been cleared and planted in pine, to return to their natural condition.

Functionality of habitat will be improved with the restoration of hardwood areas, as well as through the Wildlife Management Plan, which calls for a reduction in hunting pressures. There are three traditional emphases in habitat management: (1) maximizing production of game species, (2) maximizing wildlife diversity (both game and non-game species), and (3) preserving interior or area-sensitive species. All of these goals will be achieved over time through this mitigation plan.

Much of the value of this bank lies in the fact that ecologically damaging activities which could be done will not be done. The potential for development has already been discussed in Section II-E. Without the establishment of the bank, large areas of land within the three bank sites could be used for residential and commercial development in the future. In addition, a recent forestry survey indicated that within the three bank sites, 95 % of all the forested wetlands and 100% of all uplands could be harvested. The remaining "food source" ecosystems (oak hammocks, mixed hardwood wetlands, etc.) could be cleared to remove all native trees, bedded and replanted with slash pines. Plant succession, which is the ecological process that shapes wildlife habitat, would not be allowed to proceed to equilibrium. The importance of plant succession is that (1) natural diversity develops, and (2) as it proceeds, forest canopy trees increase in height, diameter, and volume, but decrease in density. There is a direct relationship between abundance and diversity of bird species and age of forests. Older forests often support large numbers of primary and secondary cavity-nesting species and canopy-based rookeries which contribute to high species diversity. William Bartram, an ecologist who traveled through Florida in the mid-1700's, observed that ancient cypress trees developed large umbrella-like canopies (unlike younger trees, which have conical canopies), and only these trees were used as rookery areas by certain wetland-dependent birds.

Without preservation of the bank sites, agricultural practices could also change to cattle grazing or sod farming through the conversion of cleared pine plantations to improved pastures (as was the case in Farnton during the early 1900's). Changing the land use from timber production to these and other options, such as citrus groves, has been suggested. Such activities would result in the loss of virtually all environmental benefits of the land. Bank establishment would eliminate these possibilities.

Numerous wildlife species are expected to benefit from preservation and enhancement activities associated with the bank implementation. A brief description of individual species and habitat of each is presented below:

#### *Endangered Species*

Bald eagle (*Haliaeetus leucocephalus*) - The bald eagle is a species of primary concern in this state, due to its status as a national symbol, and its sensitivity to environmental disturbances. Eagles can be seen flying over many habitat types, but they require water bodies for feeding, and large trees near feeding areas for nesting. There are active eagle nests nearby and within the bank sites.

Wood stork (*Mycteria americana*) - This species is the most endangered wading bird in Florida. It requires feeding areas in the form of pools or ditches in which fish congregate and they nest in forested swamps and mangroves. Hydroperiod restoration of the wetlands will almost certainly result in greater numbers of fish over two inches in length, which is the preferred size of prey animals for wood storks. Wood storks have been seen on the site, but no breeding colonies have been reported in the near vicinity of the project.

Red-cockaded woodpecker (*Picoides borealis*) - The colonial red-cockaded woodpecker (RCW) is a habitat specialist, requiring stands of over-mature longleaf pine that have contracted the red-heart disease for cavity building. These stands need to be open, with a sparse subcanopy to allow easy flight, and ample foraging habitat of younger pines surrounding the cavity trees. Following the maturation of the proposed longleaf pine uplands, suitable RCW habitat may occur on the site. No RCW's have been seen on the site. However, through preservation and management, it is possible that within a few decades the site will have sufficient habitat to be used by this species.

Bachman's warbler (*Vermivora bachmanii*) - One of the rarest of America's birds, possibly even extinct, the Bachman's warbler breeds in deciduous swamps in isolated localities in southern states, north of Florida, and winters in the West Indies. It passes through this state as a migrant, and as such, likely uses a variety of forested habitats as stopover points during its migrations. Due to the extreme rarity of this bird (last confirmed sighting in the U.S. was in the mid-1980's), it has been assigned a low likelihood of occurrence on this project site.

Kirtland's warbler (*Dendroica kirtlandii*) - This warbler is an extreme habitat specialist and has one of the most restricted breeding ranges of any North American bird. It only breeds in approximately 500 mi<sup>2</sup> of the open jack pine (*Pinus banksiana*) plains of central Michigan. The bird winters in the Bahamas, so it only passes through Florida during the spring and fall migrations. While in this state, it will utilize a variety of upland and wetland habitats as stopover locations during migration.

### *Threatened Species*

American alligator (*Alligator mississippiensis*) - After being legally protected for several years, the alligator has made a population comeback, and are now fairly common in areas that will support them. Alligators can be found in most types of wetlands that have standing water and ample food supplies. Habitat improvements that will benefit the alligator include the enhancement of the wetlands. Several have been observed on site.

Eastern indigo snake (*Drymarchon corais couperi*) - The indigo snake is a habitat generalist, using a variety of habitats from mangrove swamps to xeric uplands. During winter months, however, it can typically be found in uplands utilizing the burrows of gopher tortoises (*Gopherus polyphemus*) as shelter. These snakes require large tracts of natural, undisturbed habitat, so it is likely that they will be found in the FMB.

Arctic peregrine falcon (*Falco peregrinus tundrius*) - Florida is an important wintering spot for this subspecies of peregrine, and it can be found here from September through May. These falcons feed primarily on wetland birds along the coastal regions of the state, and near inland lakes, rivers and herbaceous wetlands. They have been known to utilize agricultural areas to a minor degree, as well. Almost the entire site can thus be considered suitable habitat for this species. The primary improvement in habitat for the falcons will be the increase in food supply, brought about by the increased hydroperiod of the wetlands and the preservation of the uplands.

Audubon's crested caracara (*Polyborus plancus audubonii*) - This species of raptor is most common in this state in the agricultural fields north and west of Lake Okeechobee. The preferred habitat for the caracara is open, palmetto prairies and agriculture fields. They nest in adult cabbage palms (*Sabal palmetto*). No caracaras have been observed.

### *Candidate Species (C2)*

Gopher frog (*Rana capito*) - The gopher frog is a gopher tortoise burrow commensal organism, utilizing the burrows for shelter, and breeding in nearby wetlands. Prime gopher frog habitat includes xeric uplands, especially longleaf pine-turkey oak associations, with nearby (within one mile), seasonally flooded marshes or ponds.

Gopher tortoise (*Gopherus polyphemus*) - This species is a key component in the determination of habitat suitability for endangered species because of the large number of other animals that will use tortoise burrows for one or more of their life requisites. While it is common to find tortoise burrows in most types of upland communities, the preferred habitats of the gopher tortoise are xeric uplands and high pine flatwoods. Only two burrows have been observed within the project boundaries during the field evaluations for this site. Suitable habitat exists in the oak areas. Preservation of tortoise habitat continues to be the best method of assuring the continued existence of this species and its commensals.

Florida pine snake (*Pituophis melanoleucus mugitus*) - This snake is another tortoise burrow commensal organism, utilizing both tortoise burrows and the tunnels of pocket

gophers (*Geomys pinetis*). Preferred habitat of the pine snake is xeric uplands, and to a lesser extent, flatwoods and other mesic uplands. The same habitat preservation and manipulations that will improve the habitat value for the gopher tortoises will also benefit this species.

Southeastern American kestrel (*Falco sparverius paulus*) - This is the resident subspecies of the kestrel, to be distinguished from its larger cousin, *Falco sparverius sparverius*, which is a winter visitor to Florida. The Southeastern kestrel requires three components for optimal habitat: large, open fields for foraging, snags for nesting, and snags, fence lines or telephone poles as perching sites from which to hunt. The preservation and restoration of habitat will have a positive impact upon this species due to the increase in the available food supply.

Florida mouse (*Podomys floridanus*) - This mouse is one of the two mammal species that are endemic to Florida. It typically lives within gopher tortoise burrows in fire-maintained, xeric uplands. Due to the natural flexibility of habitat requirements of most animal species, this one in particular, this mouse has a good possibility of occurring on the site if the site is managed for gopher tortoise habitat. Preservation and burning should improve the on-site habitat for this species.

Sherman's fox squirrel (*Sciurus niger shermani*) - The Sherman's is the largest of the three fox squirrel subspecies that occur in Florida. While its population is declining, this squirrel is still fairly common. Optimum habitat for this subspecies is composed of longleaf pine-turkey oak sandhills, although they will also be found in more mesic forested areas.

Florida black bear (*Ursus americanus floridanus*) - Although the distribution of the black bear is patchy throughout Florida, it is believed to encompass the western and central portions of Volusia County. Preferred habitat of the black bear is dense forest, both upland and wetland, but it is often encountered in other areas during its seasonal movements. Palmetto fruit is an important component of the bear's diet. The availability of dense forests and low degree of development in and around the FMB implies a high likelihood of bear occurrence in this region. Bears within the Bank sites have been noted and bear scat as been identified throughout the project site. An additional improvement in the value of the FMB from the perspective of black bears will be the reduction of human presence and hunting on the site.

#### *Additional State-Listed Species*

Roseate spoonbill (*Ajaia ajaja*) - Nearly extirpated in the middle of this century, the spoonbill is making an encouraging comeback. The only recorded nesting colonies of the spoonbill are in Florida Bay, Tampa Bay and on Merritt Island, but spoonbills can also be found inland, along rivers, lakes and freshwater marshes. There is a possibility of encountering spoonbills within the project.

Limpkin (*Aramus guarana*) - The limpkin is a reclusive bird that inhabits forested swamps, mangrove swamps and marshes. Increasing the hydroperiod of the wetlands

will increase the food supply for this species by increasing the local populations of apple snails and other prey species.

Little blue heron (*Egretta caerulea*), Snowy egret (*Egretta thula*), Tricolored heron (*Egretta tricolor*), and White ibis (*Eudocimus albus*) - These wading birds all have similar life histories, and inhabit marshes, lakes, rivers, ponds and coastal systems. All three species have been observed from time to time on the FMB, and are present in large numbers on the St. Johns River and Crane Swamp.

Florida sandhill crane (*Grus canadensis pratensis*) - The Florida sandhill crane is a non-migratory subspecies of *Grus canadensis*, and has been seen on the FMB. Sandhill cranes nest in shallow marshes and wet prairies, and forage for prey in the marshes and open fields.

## VI. SUCCESS CRITERIA AND MONITORING

### A. SUCCESS CRITERIA

Overall, the Mitigation Banking Plan focuses on the preservation and enhancement of the natural function of the communities within the bank by accomplishing objectives such as hydrological enhancement, habitat enhancement, and preservation. Credits are proposed to be released through a combination of implementation of specific tasks or programs, and meeting specific success criteria (Table 3). ***These tasks are further discussed in the issued permit under "Exhibit A".*** All construction and mitigation activities will be provided by the Miami Corporation or its designated contractors.

Farnton Mitigation Bank is unlike any other mitigation banks that have been permitted in Florida, since credit sell-out is not expected to occur until 50-100 years after permit issuance. Most mitigation banks are designed credit sell-out in 5 years, perhaps 10 years at the most, and their success criteria and monitoring plans are designed to support their intent. With the Farnton Mitigation Bank, there is the unprecedented opportunity to observe the regeneration of natural ecosystems, including wetland and upland hardwood forests, from slash pine plantations. No success criteria, and no additional credit release, are tied to this long-term process of ecosystem regeneration, since it is understood that - given enough time - the process will occur. It is an ecological fact that when human-induced perturbations (mainly forestry, in this case) are removed, ecosystems revert to their original condition. The time frame is expected to be 50-100 years, which is the expected longevity of the bank.

The tasks, programs, and success criteria tied to credit release are listed in Table 3 ***and shown in Specific Condition Number 23 of the SJRWMD bank permit.*** The Miami Corporation understands that unless implementation of the mitigation plan commences upon issuance of the permit, new background data and new calculations of credits would be required (probably done through a permit modification as each phase is implemented). As a result, most of the work and programs will be implemented as described in this mitigation plan within 5 years after issuance of the permit. Exceptions include: bedding removal (which will occur after one-time clearing of planted pines), cattle removal (which will occur within 5 years after placement of a conservation easement on a phase), Cow Creek bridge replacement and Deep Creek piling removal (which are tied to the phases in which they occur).

If credits are to be sold during the first year, the status of the mitigation program will be documented in interim reports to the regulatory agencies prior to placement of Conservation Easements. Achievement of these task implementation and success criteria will also be subsequently documented in the annual monitoring reports.

## **B. MONITORING**

The monitoring program for Farmton Mitigation Bank is divided into two phases: short-term monitoring and long-term monitoring. These are described below:

### *Short-term Monitoring Program*

The short-term monitoring program will be done ***twice annually until overall hydrological enhancement success has been achieved and annually thereafter unless maintenance problems arise. Additional requirements are presented in the SJRWMD permit under Specific Condition number 25. The following elements will be documented in each annual report:***

- ❖ location & size of culverts and low-water crossings
- ❖ periodic staff gauge readings (locations shown in Figures 7A-7C)
- ❖ weekly rainfall data (at Farmton forestry office)
- ❖ GIS map of all clear cuts within bank sites
- ❖ GIS map of all bedded areas removed
- ❖ evidence of cattle removal
- ❖ location of plats abandoned
- ❖ age, weight, and sex of deer taken
- ❖ infrared aerial photos (1"=1320') in year 1 and year 2
- ❖ photos of work done

The infrared aerial photos will include a clear mylar overlay of the FLUCFCS map. Reports will be submitted in December of each year.

### *Long-term Monitoring Program*

The first long-term monitoring report will be submitted ***as specified in the SJRWMD bank permit.*** Although credit release is not tied to forest regeneration, one of the efforts of the long-term monitoring program is to detect changes in canopy through infrared aerial photo interpretation. Sufficient background data is available from historic and present infrared aerial photos that canopy signatures can be easily distinguished. The following elements will be documented in each report:

- ❖ GIS map of all clear cuts, thinning and other forestry activities within bank sites
- ❖ GIS map of all bedded areas removed
- ❖ infrared aerial photos (1"=1320') with FLUCFCS overlay

The infrared aerial photos will include a clear mylar overlay of the original-ecosystem FLUCFCS map (the "target" for forest regeneration). Any changes observed as a result of forest regeneration will be described in the report.



## **VII. MAINTENANCE AND LONG-TERM MANAGEMENT**

### **A. MAINTENANCE**

The Miami Corporation will be permitted to maintain property boundary fences and logging roads within the banks (Road Map, Appendix III). All new culverts and low-water crossings, as well as existing culverts, will be maintained on an as-needed basis. Fire breaks will be maintained within the Designated Forestry Areas. Because of the large size of the bank and the minimum amount of construction to be done, maintenance is expected to be minimal.

### **B. LONG-TERM MANAGEMENT**

All land management will be the responsibility of the Miami Corporation or their successors. The Mitigation Bank will be managed to minimize human impacts, and to verify that the mitigation plan is being correctly implemented. The Bank sites will be monitored to assure success of the project.

Wildlife management will be done by the (FFWCC) under the terms of a User Pay Type I Wildlife Management Area lease. If at some future time FFWCC should decide not to continue this program, the Miami Corporation will develop and implement a similar program. The elements of the Type I Management program are discussed in Section III-C (also see Wildlife Management Plan, Appendix V).

As part of the Forestry Stewardship Plan (Appendix IV), management will include controlled burns, underbrushing, thinning, or other methods to reduce undesirable competing species. When the pines have been thinned several times, and hardwoods have become dominant, it will no longer be feasible to selectively remove pines. The result will be close to a natural mix of natural pines and hardwoods. It is anticipated that the mitigation areas will require very little long-term management, once ecological succession has developed sufficiently.

There are long-term property management costs, including insurance, property management and maintenance (primarily fences and gates), repairs to equipment, road maintenance, culvert and weir maintenance, salaries and wages of Miami Corporation maintenance staff, and depreciation of equipment, which are not self-funding. The Miami Corporation has calculated these costs at \$272,432 per year for the entire 57,000 acre Farmton property. This amounts to \$4.78/acre/year. It should be noted that the bank sites contain a higher percentage of wetlands than the overall property, so if \$4.78/acre is assumed as the annual long-term maintenance cost, it should more than cover the per acre cost for the bank sites. To ensure that long-term maintenance funding is available in perpetuity, a Land Management Trust Fund will be established. Prior to establishing each phase of the bank by placement of a conservation easement, sufficient funds will be placed in the Trust Fund to generate annual interest equal to \$4.78/acre/year for the area covered by the conservation easement. In fact, it is likely that income from the sale of trees within the Designated Forestry Areas.

Preliminary field studies have indicated that there may be archaeological material present. If archaeological resources are found within the bank sites, provisions will be made to ensure that such sites receive protection according to the Division of Historical Resources

recommendations.

### VIII. MITIGATION SERVICE AREA

The service area includes all or significant portions of the Upper (Lake Poinsett, Tosohatchee & Puzzle Lake Units), Middle (Econlockhatchee River (excluding the RHPZ), Deep Creek Unit, Lake Jessup & Lake Monroe Unit) and Lower St. Johns River Basins\*\* (Crescent Lake), Lake George Basin \*\* (Lake Woodruff Unit), and Northern Coastal Basin (Halifax River Unit, excluding the Tomoka River RHPZ). ***The areas above identified with \*\* are added to the Service Area when Phase 4 in the North Bank site is implemented. The Service Area includes areas located west and south of Watershed 4A up to the SJRWMD boundary as depicted in Exhibit 4 of the bank permit and as further described in Specific Condition number 24 of the permit.*** Figure 3 also shows the location of the bank and the geographic area it will serve.

### IX. FINANCIAL ASSURANCE AND PROPERTY INTEREST

One of the major contemporary land use management goals is that preservation lands should be managed in an environmentally sensitive manner, and yet generate enough income to be self-sustaining with respect to long-term management costs.

To achieve this goal, the Miami Corporation is dedicated to establishing the bank as a mixed-use conservation area by retaining enough low-impact forestry and hunting to provide management funding for the bank in perpetuity. The Miami Corporation will be the responsible entity for all management activities. Under the mitigation banking rule, a permittee who successfully completes phases of a mitigation bank can receive credit for the completed component(s) without the need for a bond or trust fund. To attain credits, Farmton will execute conservation easements and implement the hydrologic and vegetative manipulations. Upon successful completion of preservation, enhancement or restoration, credits attributable to those activities will be requested. Therefore, only earned credits will be released and the agencies will have the needed assurance that the mitigation is in place and functioning as planned. Miami Corporation holds title to the property and will retain property ownership.

### X. ANTICIPATED USE

It is anticipated that most of the mitigation credits will be used to offset impacts associated with private and public projects within the geographic service area. Use of the Farmton Mitigation Bank will not affect the application of normal USACOE permitting criteria dealing with wetland impact avoidance and minimization.

## Appendix 5 Farmton Mitigation Bank Forestry Stewardship Pla

**FORESTRY STEWARDSHIP PLAN**

for

**FARMTON MITIGATION BANK**

Revised June 24, 1999

2<sup>nd</sup> Revision December 20, 1999

3<sup>rd</sup> Revision January 12, 2000

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## **A. BACKGROUND**

From the late 1800's to around 1960, the land which comprises the Farnton Tree Farm was cleared and used for cattle grazing. Historical records indicate that it may have been regularly burned and used for cattle grazing by the native Americans long before then. Since the early 1950's the majority of lands suitable for planting have been planted with slash pine (Photos 1&2). The pine plantations are harvested at 20 - 40 year rotation intervals. As a stand of timber is cut, or as new land is cleared, the land is replanted with slash pine. Other timber considered as merchantable has been harvested within some of the temperate hardwood areas and these areas were replanted with slash pines. The logging of cypress and removal of pine from within forested wetlands has also been a part of the harvesting program. The result of the long-standing forestry program is that some of the pine plantations, along with some cypress wetlands and upland temperate hammocks within the three bank sites have been recently harvested or thinned.

There are over 17,000 acres of wetlands on the three bank sites (Figures 4A-4C), with the North Bank containing the highest percentage of wetlands. The remaining lands consist primarily of pine flatwoods, with lesser amounts of hardwood and live oak hammocks (Photos 3&4), sand pine/scrub, and other minor communities. Virtually all of the bank area has been mapped as forestry stands, and over 60% of the total bank area is considered to be readily harvestable (slash pines and cypress stands), with another 35% harvestable depending on seasonal or climatic conditions.

A Forestry Stewardship Plan has been developed which calls for limited forestry activities within designated areas of the bank sites. According to the plan, only the planted pine flatwoods

shown as Designated Forestry Areas (DFAs) in Figures 8A-8C will be subject to continued large (150 acres) clear cuts. **Important Note: The Designated Forestry Areas are outside of the bank for purposes of the federal permit, but inside the bank for the state permit.** Surrounding the DFAs are upland buffers, which serve as the average 300' buffers for wetlands adjacent to the DFAs. Pine areas within the upland buffers will be managed to achieve uneven age distribution (see Sections 4.b and 5.b). Elsewhere within the bank are areas that either are or were upland or wetland hardwood forests, or oak hammocks. Most of these areas have been cleared and are in the process of being converted to pine plantations. These will be managed by means of selective harvesting of pines to encourage them to revert to their original condition as quickly as possible. Within cypress-dominated wetlands, no further harvesting will occur.

The Forestry Stewardship plan will allow the regeneration of diverse forest ecosystems, which will in turn provide a significant increase in wildlife food sources. This is expected to increase the density and diversity of both game and non-game species (although no monitoring or credit release is proposed for actual species increases). Allowing tree species to reach old age also has the potential to allow some endangered and threatened species which rely on large old trees (red-cockaded woodpeckers and some wetland dependent birds) for nesting to re-colonize the area.

All of the existing farm roads within the bank sites will be maintained as they have been prior to issuance of the bank permit. Within pine plantations which occur in the banks, additional access roads may be constructed, and these will be permitted as required by SJRWMD.

## B. EXISTING CONDITIONS

Pine plantations within the mitigation bank sites total approximately 7,020 acres. Of these, 3,329 acres occur within the DFAs, and 3,690 are within upland buffers (of which 1,170 ac. have been bedded). The ages of the individual stands vary from one year to approximately 35 years old. The timber stands in the DFAs are located in historic pine flatwoods areas, but outside of the DFAs planted pines are also found in habitats which were historically upland mixed hardwood forests, oak hammocks, and mixed forested wetlands.

Forestry techniques follow a 20-40 year cutting rotation, and where a stand of timber is cut, the land is seeded or planted with slash pine. Pines considered merchantable within non-pine flatwood areas have been harvested, and these areas subsequently cleared and replanted with slash pine. As a result, few old, large pines and oaks remain on the three mitigation bank sites. The logging of cypress and pine from within forested wetlands has been a routine part of the forestry program. The mitigation categories shown in Figures 9A-9C denote where clear cuts have occurred within the past 3 years, or are currently under contract to cut.

Bank Site	Total Acres	Acres of Logged Timber (1995-1998)	Acres of Timber Under Contract to be Logged (1999)
North Bank site	16,337	1,050	118
West Bank site	3,595	764	334
South Bank site	4,391	275	1,659
Totals	24,323	2,089	2,111

Note that the 1,659 acres under contract as of August 1998 to be harvested in 1999 in the South Bank site are a result of the major forest fires which burned much of Central Florida in June and July of 1998.

## **C. FORESTRY STEWARDSHIP PLAN**

The goals of the Forestry Stewardship program are:

1. Allow the preservation of existing wetlands, and regeneration of harvested wetlands
2. Increase the availability of food source habitats
3. Protect wetlands by a 300' upland buffer
4. Increase age and species diversity using uneven-age management techniques
5. Allow the regeneration of upland and wetland hardwood areas
6. Limit clear-cutting to Designated Forestry Areas (Figures 8A-8C) and pine flatwoods

These goals will be achieved by the implementation of specific programs, as detailed below.

### **1. Establishment of Designated Forestry Areas (state permit only)**

Certain areas within the mitigation bank sites consist primarily of large blocks of pine plantations which were historically pine flatwoods. These areas contain minimal wetland acreage, and are planned for continuing forestry operations using environmentally sensitive techniques. In order to delineate these "Designated Forestry Areas" (DFAs), the 300' upland buffers around major wetlands were laid out using straight lines as much as possible (Figures 8A-8C). In the field, the boundaries between buffers and DFAs will be delineated, as needed, (based upon GIS coordinates from the mitigation maps) by permanent markers, fire breaks, or other suitable methods prior to any harvesting activities.

This will make it possible for foresters in the future to easily identify the boundaries of the areas available for harvest. Within the DFAs, the trees will be harvested using clearcuts of no greater than 150 acres, and no clear cuts will be adjacent to areas cut within the previous 3 years (the exception to this program will be in the event of uncontrolled forest fires, such as occurred in



1998, where burned trees will be harvested before disease sets in). The intent is to obtain a mixture of uneven-aged stands up to 20-60 years of age. Excessively dense saw palmetto understories will be chopped after harvesting. In each stand, wildlife trees with large diameters, hollow cavities, and nest supporting branch structures will begin to develop within the 25' wetland buffers, as well as within the 300' surrounding wetland buffers. At age 15, trees will be assessed for first thinning. Stands will be thinned to 40-80 sq. ft. of basal area as soon as the trees are merchantable. Thinning will occur every 5-10 years, or as needed, to maintain a basal area between 50 and 110 sq. ft. per acre.

## **2. Establishment of Upland Buffers Adjacent to Wetlands**

An upland buffer averaging 300' wide will be established around major wetlands. In some cases the buffers are much wider than 300' in order to contain the natural and relic upland hardwoods. As a result, they are correspondingly less wide in other areas, but in no case are they less than 100' wide.

One exception to the 300' buffer system is for wetlands which lie within the Designated Forestry Areas (described below). These isolated wetlands will have a 25' buffer. In order to achieve uneven-age distribution in the DFA's, the 25' buffers will be managed by thinning and chopping, followed by harvesting on a 60-year rotation. No more than 50% of any 25' buffer will be harvested within a 15-year period. Therefore, if half of a 25' buffer is to be harvested, the remaining half will be at least 15 years old.

One buffer area of special interest is the xeric oak area located in the North Bank site which has

been harvested of oaks and replanted with longleaf pine seedlings. This area will be allowed to regenerate as it has been planted, with periodic thinning to achieve uneven-age distribution.

### **3. Prescribed Burns**

#### **a. Designated Forestry Areas**

No prescribed burns are proposed within the Designated Forestry Areas (DFAs). These areas are outside of the credited portion of the bank for the federal permit, and proposed credit ratios have been accordingly reduced for purposes of the state permit. In any case, the Farnton property is so large that natural fires caused by lightning strikes are a regular occurrence, and the fires often burn themselves out before they can be controlled.

#### **b. Buffer Areas**

Areas within the Buffer Areas which are classified as pine flatwoods (FLUCFCS 411) will be subject to prescribed burns. The goal of the prescribed burn program is understory reduction, which has a number of widely recognized benefits ranging from increasing the density and diversity of groundcover species which serve as food sources for wildlife, to reducing the likelihood of catastrophic wildfires.

As each phase of the bank is implemented, the prescribed burn program will begin. When weather is suitable and burn permits can be obtained, controlled burns in stands of approximately 50 to 150 acres will be done during normal working hours. Wide disked fire lines will be established and maintained in order to contain the burns. The lines will be maintained using a flat plowing disk harrow.

The goal will be to burn the stands on a 2 to 5 year rotational basis, using a system of two growing season burns followed by one dormant season burn. Initial burns will be done in the winter if either of the following two conditions are present: (1) Desirable slash pine seedlings and saplings are present, or (2) Fuel loads are high enough that growing season burns may damage desirable slash pines.

#### **4. Thinning and Chopping**

##### **a. Designated Forestry Areas**

At age 15, trees will be assessed for first thinning. Stands will be thinned to 40-80 sq. ft. of basal area as soon as the trees are merchantable. Thinning will occur every 5-10 years, or as needed, to maintain a basal area between 50 and 110 sq. ft. per acre. Excessively dense saw palmetto understories will be chopped after clearcut harvesting.

##### **b. Buffer Areas**

For purposes of forestry management, the ecosystems within the buffer areas can be divided into 3 types of areas: pine flatwoods, systems which include upland hardwoods, and systems which include wetland hardwoods. Management procedures for these areas are discussed below. Note that management procedures for upland hardwoods and wetland hardwoods are similar, so these areas are discussed together.

##### Pine flatwoods (411)

Virtually all of the areas that were historically pine flatwoods have been managed as part of the overall Farmton forestry program, and have been clearcut and seeded or planted at some time. Most of these areas which lie within the bank (but outside the DFAs) are located within the 300'

upland buffer zones (the yellow areas in Figures 8A - 8C). A few occur as isolated “islands” elsewhere within the bank. All pine flatwood areas will be managed as follows:

At age 15, trees will be assessed for first thinning. Stands will be thinned to 40-80 sq. ft of basal area per acre as soon as the trees are merchantable. Following that, thinning will occur every 5-10 years, or as needed, to maintain a residual basal area between 50 and 80 sq. ft. per acre.

Hardwood enhancement areas (wetland and upland - 421, 425, 425R, 427, 434, 624, 630)

Many of these areas still have large oaks and other hardwood species, along with naturally occurring and planted pines. Other areas have been clearcut and planted or seeded in pine, but hardwood species remain in the groundcover or subcanopy. As these pines mature, they will be selectively cut, but no further planting will occur. Eventually the hardwoods will become dominant, and selective harvesting will cease, since it will no longer be economically feasible. Contracts for selective harvesting in these areas will contain a penalty clause for damaging hardwoods (see sample forestry contract, Appendix IV).

## **5. Harvesting Rotations and Uneven-age Management**

### **a. Designated Forestry Areas**

All areas shown as pine flatwoods in Figures 4A-4C within the DFAs will be thinned and chopped according to Section 4 above, and harvested on a 20-60 year rotational basis. Pines will be re-established either by seeding or planting. Clearcuts will be limited to 150 acres, and no clearcuts will be adjacent to areas cut within the previous 3 years.

**b. Buffer Areas**

No uneven-age management techniques for southern slash pine forests have been developed, and very little information has been published on the subject. The best approach currently seems to be management to achieve small stands of uneven age. The goal is to arrive at a mosaic of stands with trees ranging in age from 0 - 80 years. This approach requires periodic thinning to maintain basal areas appropriate for the age of the stands (40 - 80 sq. ft. for first thinning, 50 - 80 sq. ft. for subsequent thinnings).

All areas shown as pine flatwoods in Figures 4A-4C will be thinned and chopped according to Section 4 above, and harvested on a 15-80 year rotational basis. The first thinning (age 15 approx.) constitutes the first harvest rotation. Subsequent thinning will be done as necessary to maintain the basal area goals. Pines may be re-established by seeding or planting if natural regeneration appears to be inadequate to prevent dominance of saw palmettos, but they will not be planted in rows. The goal is to establish an uneven age mosaic of stands, and in order to achieve that goal, the size of stands will vary from area to area. In other words, larger areas can have larger stands, but smaller areas must have smaller stands.

The exception to this management program will be in the event of uncontrolled high temperature forest fires, where burned trees will be harvested before insects or disease sets in. For example, a large percentage of the South Bank site was burned by very hot fire during the widespread fires which occurred throughout central Florida in the summer of 1998. Areas that previously were planted in pine either have been or will be re-seeded or re-planted in pine (not in rows) to prevent development of saw palmetto prairies. Obviously the result will be large stands of even age. To arrive at uneven aged stands, some stands will be harvested at around 20 years, while

other adjacent stands will be left progressively longer - some for as long as 80 years.

In some areas (shown hatched in Figures 9A-9C) bedding, consisting of alternating low berms and swales, has been constructed to allow pines to grow at higher elevations than natural grade. In those areas where bedding has occurred, the beds will be leveled to grade after being clearcut. This will restore historic surface water hydrology and soil types. Because of the earthwork involved, pines will be seeded or planted to allow canopy to become re-established as soon as possible and help to prevent the influx of exotic or nuisance species. No further bedding will be done within the Buffer Areas.

## **6. Elimination of Harvesting in Wetlands**

As part of the previous forestry program, numerous wetlands of all types have been harvested of trees in all of the bank sites. Cypress wetlands have been clearcut, and mixed hardwood wetlands and hydric hammocks have been clearcut and re-planted in pines. As of the time of the development of this mitigation plan, cutting in wetland areas has either been completed, or is under contract to be completed by the end of year 2000, and has been identified as harvested in the accompanying maps.

If the permit application is approved and the mitigation plan is implemented, no further cutting will occur in cypress swamps (FLUCFCS 621). Limited selective cutting will, however, continue for a period of time in the hardwood wetlands. As pines are cut, fewer and fewer pines will remain, and at some point in time it will no longer be economically or technically feasible to remove them. Since no further pines will be seeded or planted in these areas, this will accelerate the re-growth of hardwood trees, and these areas will revert to their original condition. These wetlands will ultimately be preserved and managed in their natural state, with as little human intervention as possible.

## Appendix 6 Farmton Wildlife Management Plan

**WILDLIFE MANAGEMENT PLAN**

for

**FARMTON MITIGATION BANK**

Revised December 30, 1999  
2<sup>nd</sup> Revision January 12, 2000

*Prepared by:  
Sharon Collins  
Environmental Management Systems*



## **WILDLIFE MANAGEMENT PLAN**

### **EXECUTIVE SUMMARY**

The Wildlife Management Plan (WMP) consists primarily of reducing and controlling the number of hunters over the entire 57,000 acre Farmton property, not just the bank sites. The WMP will be placed into effect within the first year after issuance of the bank permits, and will reduce the number of hunters to approximately 1/5 the present level. The mechanism for managing hunters will be through a Type I Wildlife Management Plan, implemented and managed by the Florida Fish and Wildlife Conservation Commission. They will be responsible for all record-keeping associated with licensing of hunters, game killed, etc., as well as policing the property during hunting season to control vandalism and poaching. In addition to the hunting program, cattle will be removed and fenced out no later than within 5 years of implementation of each phase. In most instances, cattle will be removed immediately upon implementation of a phase.

The annual monitoring report will include data on the number of hunters licensed each year, as well as the number of game killed (if available from the Florida Fish and Wildlife Conservation Commission). The report will also document the removal of cattle and construction of fences.

### **BACKGROUND**

The Florida Fish and Wildlife Conservation Commission (FFWCC) has for decades leased approximately 52,000 acres of land in Farmton for public hunting purposes. It is estimated that during some periods of the hunting season, as many as 2,500 hunters may be on the land. Since only about 35,000 acres are readily accessible, this results in a density of about one hunter per 14 acres.

Because Farmton has been leased to FFWCC for public hunting for many years, some records exist of the take of game species. The primary game species is white-tail deer, but other species such as turkey, wild hog, quail, and bobcat have been taken. Estimates of the deer population at Farmton by FFWCC average around 500 (about one deer per 120 acres of suitable habitat). In the southeastern U.S., the prime white-tail deer habitat is bottomland hardwood forest, which can support a deer density of up to one deer for every 10 - 15 acres. The FFWCC believes that the deer population at Farmton is below carrying capacity. This is due to the low wildlife carrying capacity inherent in pine plantations, and as well as historic hunting pressure. Hunting activities may have contributed to the loss of animal species diversity, as well as some degradation of vegetative habitat due to vehicular access (Photo 7). There are semi-permanent hunting camp sites scattered throughout Farmton, some of which have been there for decades.

All bank sites currently have some cattle, although the stocking rate is very low. As a result, only minimal damage to the ecosystems has been observed. Cattle are often seen along the banks of Cow Creek in the West Bank site, in the uplands near the powerline easement in the North Bank site, and in the cleared pine flatwoods areas in the South bank site.

## **GOALS**

The primary objective of the Wildlife Management Plan is wildlife enhancement and protection. This will be accomplished in three ways: (1) Beginning at the time of issuance of the bank permit, there will be a reduction in the number of hunters permitted and managed by FFWCC to one fifth the present amount on the entire Farmton property. (2) Cattle will be phased out of each bank site, as described below. (3) The Farmton Mitigation Banking Plan assumes that wildlife enhancement will occur through restoration and enhancement of hardwood uplands and

wetlands within the bank sites. This will be accomplished through the Forestry Stewardship Plan (Appendix II), and will not be discussed further in this document. By increasing the amount and diversity of food source plants, it is expected that the wildlife carrying capacity of the bank sites will increase significantly with time. However, no success criteria and no goals have been stated herein as part of the mitigation plan. We have adopted the approach that “if we build it, they will come”.

## **METHODS**

### **A. Hunting Plan**

Hunting within the mitigation bank sites will be reduced to a fraction of what it has been for the previous several decades. Historically, for FFWCC to manage the overall property as a Wildlife Management Area, it was required to be completely open to members of the public who held active hunting licenses. As a result, approximately 2,500 hunters annually used the site. Recent legislation allows a new type of wildlife management lease by FFWCC in certain areas. These are to be referred to as “User Pay Type I Wildlife Management Areas”, and are based upon a 5-year lease which can be terminated annually by either party. Under this type of lease, FFWCC will be responsible for wildlife management, but the Miami Corporation can establish the number of hunters and other conditions. The optimum number of hunters has been discussed with FFWCC, and will be set at 875 hunters. This means that, realistically speaking, a maximum of 500 hunters at any time would be likely to be on the overall Farnton property, mostly outside the bank areas, since the bank sites are more difficult to access. Of equal importance is the fact that the statewide hunting licenses cannot be used at Farnton. Instead, specific hunting licenses for Farnton will be required. This drastic reduction in hunting should not only increase the game species count, but will result in greatly decreased damage to the

ecosystems from hunters' vehicles. A summary of the specifics of the hunting plan developed by FFWCC is as follows:

1. Daily and possession limits are as follows: deer (daily limit 2, possession limit 4), wild hogs (no limits), turkey (daily limit 1, season limit 2), gray squirrel, quail, rabbit (daily limit 12, possession limit 24 each), bobcat, mink, otter (possession limit 1), raccoon, opossum, armadillo, beaver, coyote, skunk, nutria (no limits).
2. It is unlawful to set fires, or cut or destroy any tree, shrub, or protected plant.
3. Taking of foxes or fox squirrels is prohibited.
4. No person shall release any wildlife on the wildlife management area.
5. It is illegal to bait wildlife, use live decoys, traps, snares, nets, drugs, lights, or recorded game calls.
6. It is illegal to kill swimming deer.
7. Possession of dogs is prohibited in areas posted as "closed".
8. Vehicles may be operated only on established roads.
9. Airboats and tracked vehicles are prohibited.
10. Hunters shall check all deer, turkey, and hogs at a check station prior to leaving the area. A wildlife officer may search any camp, vehicle, or boat when he or she reasonably believes a violation has been committed.

The Type 1 WMA hunting lease with FFWCC provides that the Commission shall perform law enforcement services on the WMA, including patrolling the WMA, and shall protect and defend the WMA from vandalism, fires, litter, unauthorized use, and habitat destruction, and shall enforce all federal and state laws and rules relating to the management, protection, and taking of wild animal life and freshwater aquatic life. The Commission may, at their option, conduct biological surveys or engage in other biological assessments on the WMA. Usually these

consist of analysis of age, weight, and sex data from check point records. The FFWCC may propose changes to the 10 point hunting plan based on the results of these surveys. The changes would reflect changes in the amount and type of eligible species due to implementation of the Wildlife Management Plan (decreased hunting pressure) or Forestry Stewardship Plan (habitat restoration).

## **B. Phased Cattle Removal**

Removal of cattle will begin upon implementation of each phase, and cattle will be completely removed within 5 years of phase implementation.

## **C. Habitat Restoration and Enhancement**

One of the major goals of the Forestry Stewardship Plan is to encourage the restoration of upland and wetland habitats which historically included significant hardwood components. This will be done by selectively removing previously planted slash pines. Another goal is to develop a type of uneven-age management by using small clear-cuts with sequential harvesting to establish a mosaic of stands of different ages. Refer to the Forestry Stewardship Plan, Appendix II, for detailed information on habitat restoration and enhancement.

## **SUCCESS CRITERIA**

It is not the intent of the Farmton Mitigation Banking Plan or this Wildlife Management Plan to demonstrate or measure in any way an increase in number, age, or species diversity as a result of implementing the three methods described above. Instead, it is assumed that if recognized adverse conditions are improved or eliminated, positive results will occur. Therefore, the success of this program lies with the implementation itself, rather than in quantification of any observed changes.

## **EXPECTED BENEFITS**

Having noted above that no wildlife-related success criteria are proposed to be measured, the expected benefits of the Wildlife Management Plan are discussed below.

The Farmton Mitigation Bank can contribute to the maintenance of a large and diverse gene pool among wildlife in both Volusia and Brevard Counties. The site is big enough that large mammalian species which require large territories will be able to survive in perpetuity. The integrated nature of the wetlands and uplands is especially beneficial to species which require mixed habitats for breeding or feeding. A greater number and diversity of animal species are expected to utilize the extensive wetland sloughs and upland buffer zones as functions are restored and allowed to remain in a natural condition. The equalization of water elevations should stabilize and increase wading bird populations and heighten breeding opportunities for fish and amphibians. Specific techniques used to optimize wildlife populations will be aimed at significantly reducing the amount of hunting, eliminating cattle from within the bank sites, and increasing the availability of food source habitat.

Increasing and improving food source habitats will be a process that will take decades to achieve. The FFWCC and other organizations have noted that pine plantations are among the poorest type of wildlife habitat for most species. The primary food source for many species consists of either nuts (mainly acorns), berries, or leaves of broad-leaved plant species, which are largely absent from pine plantations. Many areas within the bank which originally contained such food sources have been cleared and converted to pine plantations. The Forestry Stewardship program (described in Appendix II) is designed to allow the regeneration of food source habitats. As suggested by USFWS, a thinning and seed cut program for pine plantation areas within the bank will allow hardwoods to regenerate in areas which were formerly hardwood dominated or mixed pine-hardwood. Field studies indicate that supplemental planting

of hardwoods or other desirable species should not be necessary, since young specimens of many of the original species are still growing as groundcover or subcanopy.

Appendix 7 Minutes of the Farmton  
Conservation Management Plan Task  
Force



## FARMTON TASK FORCE

November 4, 2011

### Members Present:

Alan Alshouse  
Mark Asleson  
Mike Brown  
Robert Christianson  
Stephen Kintner  
Charles Lee  
Adele Mills  
George Tanner

### Farnton Representatives:

Glenn Storch  
Clay Henderson  
Sharon Collins

### Staff Present:

John Thompson  
Randy Sleister  
Kelli McGee  
Becky Mendez  
Ginger Adair  
Derrill McAteer – Assistant County Attorney  
Sheila Stanbro – Recording

Danielle Dangleman  
Melissa Booker  
Mary Connors

## **I. Meeting called to order**

Kelli McGee, Director of Growth and Resource Management called the meeting to order at 2 p.m., Friday November 4, 2011.

## **II: Roll Call**

Present from the task force were Alan Alshouse, Mark Asleson, Mike Brown, (Robert Christianson running late but will arrive), Steve Kintner, Mike Kuypers and Vickie Larson are both excused, Charles Lee present, Adele Mills present and George Tanner Present. Absent are Preston Robertson and Pierce Jones. County staff that are present are: John Thompson, Randy Sleister, Kelli McGee, Becky Mendez, Ginger Adair, Derrill McAteer, Sheila Stanbro in place for Jeanette Munson, Danielle Dangleman, Melissa Booker and Mary Connors. Present were Clay Henderson and Glenn Storch for Miami Corporation and Susan Collins biologist for TerraBlue Environmental.

## **III: Discussion Topics**

### **A. Introduction**

Ms. McGee, Director of Growth and Resource Management welcomed all present on behalf of herself, staff and the County Council.

**B. Sunshine Law Review**

Derrill McAteer, Assistant County Attorney with the Legal Department briefed everyone on an overview of the sunshine law, what kind of board qualified and the requirements of operating in the sunshine and requested that if there are any questions or concerns to please ask immediately so as not to run the risk of violating the sunshine law.

**C. Election of Chair and Vice chair**

Next on the agenda was the election of the chair. Mr. Brown nominated Charles Lee who declined. Mr. Lee nominated Stephen Kintner, who was seconded and approved by all.

Mr. Kintner then sought nominations for Vice Chair. Mr. Alshouse nominated George Tanner who declined, Mr. Kintner nominated Alan Alshouse, who accepted the nomination and after the vote, was appointed vice-chair.

**D. Farmton Local Plan Overview**

Ms. Mendez, Planning Manager presented a presentation and powerpoint on the Farmton Local Plan overview. Ms. Mendez discussed the status of the amendment, Mr. Storch Storch also spoke about the amendment. Slides 2 and 3 regarded the local plan in Volusia County. Mr. Lee questioned the Deep Creek subset and the actual number of acreage in Volusia County. Mr. Kintner questioned the rectangle blocks on the map which were two parcels of land not owned by Miami Corp. Slide 4 discussed the SDA overview and Mr. Lee questioned the 25% SDA preservation number stated in the amendment. Discussion ensued. Ms. Collins spoke regarding the number of acreage. Ms. Mendez reminded everyone of no development until after 2025 which would then be 4700 units with the remainder slated for after 2026. Slides 5, 6, and 7 were shown, the development threshold, 8 objectives and principals of sustainability respectively. Slide 8 showed greenkey and open space. Mr. Lee questioned the areas with the SDA and MBBOS, locations would not be known until design is taken up later. BM confirmed that would probably be an accurate statement. Slide 9 was the SDA standards, slide 10 was energy and water and slide 11 was transportation and the spine network. Mr. Lee questioned the spine network thru Greenkey.

Mr. Christianson arrived at 2:40 p.m.

Mr. Storch discussed roads and mitigation.

Return to the slide show, slide 12 was objective 8, slide 13 the conservation management plan, slide 14 time frame, Mr. Lee asked about the design in Greenkey prior to 2025. Mr. Lee asked about each unit being aggregated and 25% dedicated.

**E. Draft Conservation Management Plan and Presentation authored by Glenn Storch, Esq., and Clay Henderson, Esq., on behalf of Miami Corporation.**

Next on the agenda was the presentation by Mr. Storch and Mr. Henderson on behalf of Miami Corp.

Mr. Storch spoke first. Thanked everyone involved in the process. Ongoing for six years. The design has been based on the habitat and started with what Miami Corporation was trying to preserve. Ms. Collins is the biologist. All maps will need to be updated. Mr. Storch spoke of conservation requirements, background, habitat modeling and the plan itself. 94 square miles bought by Deering Family in 1924. Per Mr. McAteer was Brevard County required to have a task force. Per Mr. Storch no, task force not required. Farmton is in the Edgewater service area.

Mr. Henderson to discuss resource based open space (RBOS). This is similar to Brevard County, all should read objective 2. Regional wildlife concept, 1<sup>st</sup> area Greenkey and uses, priority for ID, won't be able to do it today but will over time. No public access at this time. Southwest regional corridor along south and west, required to forestry management plan, FWCC depository for black bear. Per Mr. Lee is there a way to inventory? Changes will need to be made.

Per Mr. Henderson, Deep Creek has the highest level of protection and shall be conveyed to a community stewardship. Canoes may be used. Mr. Storch brought up the regional trail in the middle of the property and the buffer requirement. Mr. Christianson asks about the nature of the buffer, Sharon stated 100 feet. Mr. Lee questioned the relationship between the buffer and the Hunt Club, the Hunt Club is not on the task force. Per Mr. Storch, Miami Corp has requested and spoken with them but they are not on the task force. They will work together and provide a lease to the hunt club.

Mr. Henderson spoke of the mitigation bank, proven successful, approved in 2000, 19000 acres in Volusia County. Mr. Lee thought the boundary lines look bigger than 200 feet, Mr. Storch stated they have used existing roads and all conservation easement will be in place within one year. Ms. Collins stated that modification of the mitigation bank cannot change; it's been in place for 11 years now.

Per Mr. Storch, Brevard is ready to go, no appeals, all lawsuits done. The intent is to coordinate between the two counties. Mr. Christianson asked what the primary function of the task force will be, to create a plan, has the clock started?

Mr. Henderson stated that the conservation easement and covenants are different. Easement and management plan tied together, then the covenants go into effect, in case of a change in government. Questions and answers re the covenants and easements from Mr. Lee and Mr. Christianson.

Mr. Storch spoke about what's going on with the land now, the family thought it would be a town, active silvaculture. It's a farming area with cattle, 2 major fires in 20 years.

Sharon has walked the area for 16 years. Designed to connect with other areas of conservation and per Ms. McGee, restoration. Per Henderson the restoration and DRI areas are based on the best available science. Will need to update maps. Ms. Collins will update and provide those. Mr. Lee requested they be sent electronically. Mr. Storch will get the most recent to Mr. Sleister who will send everything out.

Per Mr. Henderson, in July the parties started working on a complete package with update material but then Farmton got set for hearing and everything was put on hold. The management is the same in Volusia County and Brevard County.

Per Mr. Storch, Brevard County is going through the process now but would like to manage as a whole. Mr. Christianson questioned in the areas in silvaculture. Mr. Lee questioned the departure of the southwest corridor and a shift in management. Mr. Christianson is trying to understand boundaries. Ms. McGee reminds everyone that they are the task force, they can make recommendations, create objectives, rules and goals as long as they are consistent with the habitat. Council members have requested public access points. Mr. Lee questioned access to areas, infrastructure of roadways, how do you establish public access because of logging roads. Mr. Storch reminded everyone this is a living document, will change. Mr. Alshouse asked about the areas in greenkey.

Next Mr. Henderson talked about the species on the property. Required to have cultural and natural assessment must be done. Historic structures on Maytown, railroad, rugel paw paw federal endangered in pine flatwoods but not known to be in Farmton also woodstork bald eagles and alligator 13 foot long on the property and the eastern indigo snake. Mr. Brown spoke about control of exotic species which was always in the plan since the conception of Farmton. Ligodium is a problem, treating all, so far 70 acres, pepper plan hit by freeze last year. Per Ms. Collins provision for protection of imperiled species, majority of nests in conservation areas.

Mr. Storch spoke of the wellhead protection, previous attempt by the city to place wells but study showed sulfur. Wells sipping not sucking. Erosion control should not be a big issue, not a lot of shoreline. The entire property is fenced from public access. There is also internal fencing. Encourage public access, create East Central Regional Trail but worried about public destruction.

Mr. Henderson discussed the provision for roadways and wildlife crossings, two fires, the crane swamp fire in 85, one in 98 and this past summer burned 9700 acres in Brevard Co. Have regular fire burns but those can be potential liability. Mr. Tanner asked about smoke awareness plans.

Mr. Thompson informed everyone that they closed to getting the ERP. Mr. Christainson questioned security and financial security. Mr. Lee spoke about the tree farm and timber management. Per Mr. Henderson, this presentation is in draft, logical ways to break out issues, try to anticipate and imagine.

#### **G. Sub-Committee(s) (out of order from agenda)**

Mr. Sleister than spoke about the idea of breaking the task force into groups. He identified three main areas, resource, public access and infrastructure. Mr. Henderson pointed out there was no wildlife group. Mr. Sleister stated this was a starting point for allowable uses. Ms. Adair discussed how it was divided up into groups.

Mr. Christianson stated that while he understands there is a job to do, he is not prepared for groups at this time. The task force as a whole needs to observe. The conservation management plan is impressive but overwhelming, don't want to lose sight of the big picture. After some time, they can then break out into groups based on what would benefit everyone. Also thinks the book needs to be redone.

Mr. Lee agrees, he's not ready to delve into subcommittees, need to review the plan, make comments pm it. The easement and covenants can proceed, that's the most important think at this time. Would live to review the plan and think about whom fits where, he would also like a word version of the document. Mr. McAteer stated he can't do easements until the group meets. Mr. Lee suggests language be drawn up, look at St. John's Water Management District easements, be consistent with them regarding structure and content. Mr. Storch stated the conservation management plan should be done by easement and they can begin work on it. Mr. Christianson suggested putting the item on the next agenda.

#### **F. Meeting Dates**

That brought the topic of the next meeting by Mr. Sleister wanted to know how soon before everyone would like to have the next meeting. Mr. Christianson suggested monthly. Mr. McAteer wanted to know if the location of the County Administration building was okay for everyone. He stated he was concerned about the using the pavilion on the Farnton property, could perhaps have one meeting there. At that Mr. Storch suggested a bus tour. Mr. McAteer reminded everyone that the next meeting needed to be noticed in the paper so there needed to be enough time for advertising. Mr. Christianson stated the earlier the better. Mr. Brown informed everyone Wednesday would be a better day and so Mr. Christianson suggested the first Wednesday of the month. Per Mr. Lee that would be December 7, 2011. Mr. Sleister asked about the time for the meeting. Mr. Christianson preferred the morning and Mr. Lee prepared no earlier than 10 a.m. Mr. Sleister then asked about the length of the meeting, should they be set for two hours. At that Mr. Kintner suggested they be set for 10 a.m. to 2 p.m. but don't have to use all that time and again wanted to know if this facility is okay. All agreed.

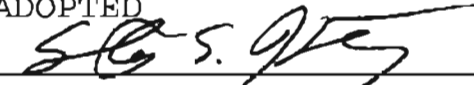
**IV: Public Participation.**

Mr. Kintner asked if there was any public participation and there was none. He then asked if anyone had anything else they would like to discuss. Ms. Collins stated she will work on updating the maps and Mr. Sleister asked if there anything else in the notebook. Ms. Collins and Mr. Sleister will work on updating items in the book and maps. Mr. McAteer reminded everyone to review the Sunshine law materials provided. Ms. McGee thanked everyone for coming on behalf of the County Council.

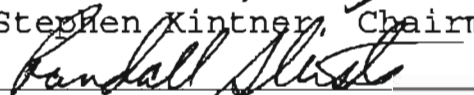
**V: Adjournment**

Mr. Kintner adjourned the meeting at 4:52 p.m.

ADOPTED

  
Stephen Kintner, Chairman

Jan 19, 2012  
Date

  
Randall Sleister, Staff Liaison

19 JAN 12  
Date

**FARMTON CONSERVATION MANAGEMENT PLAN TASK FORCE**  
**PUBLIC MEETING HELD**  
**Wednesday, December 7, 2011**

The public meeting of the Volusia County Farmton Conservation Management Plan Task Force was called to order by Stephen Kintner, at 10:00 a.m. in the auditorium of the Deltona Regional Library, 2150 Eustace Avenue, Deltona, Florida. Chairman Kintner informed the Task Force that Member Pierce Jones had resigned his position. On roll call, a quorum was established with the following members being present, to-wit:

Stephen Kintner, Chairman  
Alan Alshouse, Vice-Chairman (Arrived Late)  
Mark Asleson  
Mike Brown (Arrived Late)  
Robert Christianson  
Mike Kuypers (Arrived Late)  
Vickie Larson  
Charles Lee  
Adele Mills  
Preston Robertson  
George Tanner

**STAFF PRESENT**

Derrill McAteer, Assistant County Attorney  
Randall Sleister, Land Management Supervisor  
Ginger Adair, Director, Environmental Management  
Becky Mendez, AICP, Senior Planning Manager  
John Thompson, AICP, Planner III  
Jeanette Munson, Recording Secretary

**DISCUSSION TOPICS**

Randall Sleister stated that county staff had provided the following handouts: 1) meeting agenda; 2) "draft" minutes from the November 4, 2011, meeting; 3) "draft" Deed of Conservation Easement; and 4) "draft" conservation covenants. The remaining handouts were to replace pages in the Task Force's notebook. They included: 1) revised Table of Contents; 2) PowerPoint presentation as provided by Miami Corp. on November 4, 2011; 3) version 2 of the "draft" conservation management plan as provided by Glenn Storch on behalf of Miami Corp.; and 4) the revised Ecological Evaluation reports. He advised the Task Force to insert version 2 of the "draft" conservation management plan under Tab 6 of their notebooks, and to remove all of the previous pages from this tab. He also advised them to do the same for Tab 7. An FTP was created to provide this information electronically to the Task Force, and to allow the maps to be viewed in greater detail.

**APPROVAL OF MINUTES**

Derrill McAteer requested that the Task Force make a formal motion to amend the agenda as the approval of the November 4, 2011, minutes would be continued until January 4, 2012.

Member Preston Robertson made a motion to amend the agenda and continue the approval of the November 4, 2011, minutes until the January 4, 2012, meeting. Member Charles Lee seconded the motion that carried unanimously.

Chairman Stephen Kintner acknowledged the arrival of Members Mike Brown and Mike Kuypers.

**DRAFT CONSERVATION MANAGEMENT PLAN DATED 11-10-2011**

Randall Sleister opened the discussion of the "draft" conservation management plan by suggesting that the Task Force establish a time frame/schedule to begin the development of the plan.

**FARMTON CONSERVATION MANAGEMENT PLAN TASK FORCE  
PUBLIC MEETING HELD  
Wednesday, January 4, 2012**

The public meeting of the Volusia County Farnton Conservation Management Plan Task Force was called to order by Stephen Kintner, at 10:00 a.m. in the 1<sup>st</sup> Floor Training Rooms of the Thomas C. Kelly Administration Building, 123 West Indiana Avenue, DeLand, Florida. On roll call, a quorum was established with the following members being present, to-wit:

Stephen Kintner, Chairman  
Alan Alshouse, Vice-Chairman  
Mark Asleson  
Mike Brown  
Robert Christianson  
Mike Kuypers  
Vickie Larson  
Charles Lee  
Adele Mills  
Preston Robertson  
George Tanner

**STAFF PRESENT**

Derrill McAteer, Assistant County Attorney  
Kelli McGee, Director, Growth and Resource Management  
Randall Sleister, Land Management Supervisor  
Ginger Adair, Director, Environmental Management  
Becky Mendez, AICP, Senior Planning Manager  
John Thompson, AICP, Planner III  
Jeanette Munson, Recording Secretary

**FARMTON REPRESENTATIVES PRESENT**

Sharon Collins  
Clay Henderson

**PUBLIC PRESENT**

Dot Moore

**DISCUSSION TOPICS**

Chairman Stephen Kintner advised the Task Force of an agenda change; movement of Discussion Topics' Items C and D to the end of the meeting. He explained that this change would allow the Task Force time to review the comments from county staff on the "draft" conservation management plan dated 11-10-2011, and the Grantees time to discuss the "draft" deed of conservation easement and covenants.

**APPROVAL OF MINUTES**

Member Preston Robertson made a motion to approve the November 4, 2011, minutes, as written. Member Charles Lee seconded the motion that carried unanimously.

Member Preston Robertson made a motion to approve the December 7, 2011, minutes, as written. Member Robert Christianson seconded the motion that carried unanimously.

**MITIGATION BANK PRESENTATION**

Sharon Collins, biologist with TerraBlue Environmental, provided an overview, PowerPoint presentation on the mitigation bank. She explained that Miami Corporation has owned the 59,000 acre Farnton tract since 1926, and has been managed it as a silviculture operation for over



**FARMTON CONSERVATION MANAGEMENT PLAN TASK FORCE  
PUBLIC MEETING HELD  
Wednesday, February 1, 2012**

The public meeting of the Volusia County Farnton Conservation Management Plan Task Force was called to order by Stephen Kintner, at 10:00 a.m. in the 1<sup>st</sup> Floor Training Rooms of the Thomas C. Kelly Administration Building, 123 West Indiana Avenue, DeLand, Florida. On roll call, a quorum was established with the following members being present, to-wit:

Stephen Kintner, Chairman  
Mark Asleson  
Mike Brown  
Robert Christianson  
Mike Kuypers  
Vickie Larson  
Charles Lee  
Adele Mills  
George Tanner

**STAFF PRESENT**

Derrill McAteer, Assistant County Attorney  
Randall Sleister, Land Management Supervisor  
Ginger Adair, Director, Environmental Management  
Palmer Panton, Director, Planning & Development Services  
Becky Mendez, AICP, Senior Planning Manager  
John Thompson, AICP, Planner III  
Jeanette Munson, Recording Secretary

**FARMTON REPRESENTATIVES PRESENT**

Glenn Storch  
Clay Henderson

**DISCUSSION TOPICS**

Chairman Stephen Kintner advised the Task Force of an agenda change; Discussion Topics' Items A (presentation on forestry management) and B (Conservation Management Plan Review Strategy) would be discussed in reverse order.

**Conservation Management Plan Review Strategy**

Randall Sleister provided a handout with possible decision points, and opened the discussion by explaining that this information was compiled to provide organization, and strategic goals with developing the CMP. He stated that county staff has been working on a matrix of the various habitat types with the amounts of acreage for each category. Recently, county staff and representatives from Miami Corporation met to review staff's comments on the "draft" CMP, and make revisions.

Clay Henderson advised the task force that the "draft" CMP would be revised and restructured based on suggestions from county staff and the task force. He stated that the Division of Administrative Hearings will be signing a Recommended Order confirming that the Farnton Local Plan is "in compliance." Once the order is signed, the timeframe for recording the initial conservation easement and developing the CMP would begin.

Discussion ensued regarding the Recommended Order, which recommends that the Department of Economic Opportunity enter a Final Order determining the Farnton Local Plan as being "in compliance," and the sequence of events once this order has been issued.

**FARMTON CONSERVATION MANAGEMENT PLAN TASK FORCE**  
**PUBLIC MEETING HELD**  
**Wednesday, June 6, 2012**

The public meeting of the Volusia County Farmton Conservation Management Plan Task Force was called to order by Stephen Kintner, at 10:00 a.m. in the 1<sup>st</sup> Floor Training Rooms of the Thomas C. Kelly Administration Building, 123 West Indiana Avenue, DeLand, Florida. On roll call, a quorum was established with the following members being present, to-wit:

Stephen Kintner, Chairman  
Alan Alshouse, Vice-Chair  
Mark Asleson  
Mike Brown  
Robert Christianson  
Mike Kuypers  
Vickie Larson  
Charles Lee  
Preston Robertson  
George Tanner

**STAFF PRESENT**

Derrill McAteer, Assistant County Attorney  
Randall Sleister, Land Management Supervisor  
Ginger Adair, Director, Environmental Management  
Palmer Panton, Director, Planning & Development Services  
John Thompson, AICP, Planner III  
Ed Isenhour, Volusia Forever Program Coordinator  
Jeanette Munson, Recording Secretary

**FARMTON REPRESENTATIVES PRESENT**

Glenn Storch

**PUBIC PRESENT**

Jack Hayman  
Joe Crews  
Joe Walsh

**DISCUSSION TOPICS:**

**APPROVAL OF MINUTES**

Member Preston Robertson made a motion to approve the February 1, 2012, minutes, as written. Member Mark Asleson seconded the motion that carried unanimously.

Member Vickie Larson made a motion to approve the March 7, 2012, minutes, as written. Member Preston Robertson seconded the motion that carried unanimously.

**Staff Updates**

Randall Sleister stated that county staff and Miami Corporation representatives have met over the last several months to continue the reformatting of the "draft" Conservation Management Plan (CMP). Once these documents are provided and incorporated into the "draft" CMP, it should be ready for review and discussion by the task force during their July meeting.

Derrill McAteer stated that the "draft" deed of conservation easement and covenants (CE) were still under review and would not be part of the agenda for today's meeting. However, they would be

**FARMTON CONSERVATION MANAGEMENT PLAN TASK FORCE  
PUBLIC MEETING HELD  
Wednesday, July 11, 2012**

The public meeting of the Volusia County Farnton Conservation Management Plan Task Force was called to order by Stephen Kintner, at 10:00 a.m. in the 1<sup>st</sup> Floor Training Rooms of the Thomas C. Kelly Administration Building, 123 West Indiana Avenue, DeLand, Florida. On roll call, a quorum was established with the following members being present, to-wit:

Stephen Kintner, Chairman  
Mark Asleson  
Mike Brown  
Robert Christianson  
Mike Kuypers  
Vickie Larson  
Charles Lee  
George Tanner

**STAFF PRESENT**

Derrill McAteer, Assistant County Attorney  
Randall Sleister, Land Management Supervisor  
Ginger Adair, Director, Environmental Management  
Palmer Panton, Director, Planning & Development Services  
John Thomson, AICP, Planner III  
Ed Isenhour, Volusia Forever Program Coordinator  
Jeanette Munson, Recording Secretary

**FARMTON REPRESENTATIVES PRESENT**

Glenn Storch  
Clay Henderson

**PUBIC PRESENT**

Dot Moore  
Joe Walsh

**DISCUSSION TOPICS:**

**APPROVAL OF MINUTES**

Member Mike Brown requested that the term "options" on page 6, paragraph 7, be changed to "concepts."

Member Charles Lee suggested adding "conceptual" after "following" in the first sentence of this paragraph.

After further discussion, it was determined that the terms "option(s)" and "concept(s)" would be replaced with "element(s)" beginning on page 6, paragraph 7, for consistency.

Member Mike Brown also requested clarification on Member Vickie Larson's motion on page 10, last paragraph.

Member Vickie Larson clarified that this was a two part motion. She requested the addition of:" and the other elements as described in previous motions to be implemented during the development planning of the SDAs."

Member Robert Christianson made a motion to approve the June 6, 2012, minutes, as amended. Member Charles Lee seconded the motion that carried unanimously.

## **STAFF UPDATES**

Randall Sleister explained that the May and June “draft” CMPs were the only staff updates. County staff posted both of these “draft” CMPs on the FTP site and provided notification to the task force of the additions. Additionally, a copy of these “draft” CMPs were being provided today for further review and discussion.

Discussion ensued regarding the different versions of the “draft” CMP and their content/ text differences.

Clay Henderson recommended that the task force refer to the “draft” CMPs (May and June) contained in the notebooks as provided by county staff. He explained that the May 7, 2012, “draft” CMP, which contains county staff’s comments, was created by Miami Corporation staff as a result of meetings with county staff during the months of April and May. The June 21, 2012, “draft” CMP contains revisions to the May 7, 2012, “draft” CMP based on these meetings and county staff’s comments. The June 21, 2012, “draft” CMP is Miami Corporation staff’s attempt to address the issues raised by county staff, and provide a more organized, readable document. He added that there are still some differences that need to be worked out.

## **“DRAFT” CONSERVATION MANAGEMENT PLAN**

Randall Sleister explained that county staff has identified seven (7) topics needing further discussion and clarification. These topics include: 1) Southwest Wildlife Corridor - its role as it relates to the Farnton Mitigation Bank; 2) Black Bear – inconsistencies of language relating to their management; 3) formatting and organization – continue revising to create a readable document; 4) map clarity – create maps that are easier to understand; 5) financial plan – provide additional information; 6) desired future conditions (DFC’s) – provide more details with measurable conditions; and 7) management units – replace the term “special areas” as it relates to management. He asked for additional topics for further discussion from Miami Corporation staff and the task force.

Miami Corporation did not have any additional topics for further discussion.

Discussion ensued regarding the improvements (i.e., reformatting and reorganization) of the “draft” CMP, and the process for incorporating comments from the task force, and reviewing the CMP.

Member Mike Kuypers recalled that the various “decision points” (i.e., mitigation bank, public access) were to be reviewed during several meetings to establish conceptual policy decisions, and then the task force would begin a review of the CMP.

Chairman Stephen Kintner stressed the need to create a CMP that could be used as a guide and measuring stick for the managers of the Farnton tract.

Randall Sleister explained that the “draft” CMPs were being provided due to concerns expressed by several members of the task force. He added that there are still outstanding differences, which need to be resolved before the task force would have a readable document ready for review.

Member Robert Christianson requested that Miami Corporation and county staff continue working together to produce a workable document for review by the task force.

After further discussion, it was determined that the task force would discuss the seven (7) topics as provided by county staff and provide policy decisions for the “draft” CMP.

Member Robert Christianson offered two (2) issues/concerns located on page 9, Section 1.2 of the June 21, 2012, "draft" CMP needing to be addressed: 1) limiting scope of the CMP; and 2) the relationship between the CMP and CE (i.e., use of "shall").

In an effort to address Member Robert Christianson's issue/concern regarding the relationship between the CMP and CE, Derrill McAteer referenced Policy FG 2.15 of the FLP, which states: "All conservation easements and covenants shall be subject to a conservation management plan as set forth in FG 2.10-11 and enforceable by the county."

After Member Mike Kuypers noted that the "draft" CMP did not address miscellaneous forest products (i.e., pine straw, cabbage palm), it was determined that additional language should be included concerning these products.

After displaying Figure 13 (Volusia Conservation Management Plan – June 22, 2012 -Conservation Management Units Area Map), Clay Henderson opened the discussion regarding the Southwest Wildlife Corridor. He explained that as development of the SDAs occurs at least 25% shall be designated as RBOS (Resource Based Open Space) and incorporated into the CMP. Some of these areas could be consistent and other complimentary. The CMP would define how the RBOS are established and annexed into the CMP. The MRBOS (Mandatory Resource Based Open Space) are part of the SDAs, but would be subject to the CMP.

Member Charles Lee suggested adding the MRBOS areas to GreenKey since Figure 13 delineates them as such.

Clay Henderson explained that this would require a land use change. It would be faster to allow the MRBOS areas to be covered by the conservation easement than to amend the FLP.

Discussion ensued regarding the 25% of the SDAs being designated as RBOS.

Member Vickie Larson noticed a mapping error where outparcels are being included in a management unit.

Member Robert Christianson requested clarification as to what the blue and green areas represent on Figure 13, since the legend does not provide this information.

Clay Henderson clarified that the blue areas represent the mitigation bank areas, and the green areas represent the areas designated as GreenKey. This map helps delineate the areas that would be affected by the CMP, and those that are regulated by the terms and conditions of the mitigation bank permit.

Ginger Adair requested guidance from the task force with regards to the management of the special areas.

Chairman Stephen Kintner noted that the CMP could not mandate something that was inconsistent with the mitigation bank permit, but it could add value to the mitigation bank areas. Therefore, the mitigation bank areas would not necessarily be excluded from the CMP.

Member Mike Brown explained that the intent has been to keep the mitigation bank areas separate in an effort to manage them consistent with the terms and conditions of the mitigation bank permit. As such, a copy of the mitigation bank permit has been forward to Mike Orlando, Assistant Black Bear Preservation Coordinator with the Florida Wildlife Conservation Commission (FFWCC), to ensure that the management for the black bear is consistent within the West Bank site.

Clay Henderson added that the conditions under the mitigation bank permit are more stringent than

any other area of the Farmton tract.

Member Mike Brown stated that other concessions (i.e., no logging within the wetlands, low impact forestry) were exchanged for the financial incentives of the mitigation bank.

Discussion continued regarding the need for black bear management consistencies within the Southwest Wildlife Corridor.

Member Vickie Larson suggested layering the management requirements for the special areas with the mitigation bank being the base layer.

Clay Henderson pointed out that Section 7.2 (Management Units) on page 43 of the June 21, 2012, "draft" CMP was created in order to implement the different land management requirements as established in the FLP. He acknowledged that this section could be improved upon. However, it was a good start to ensuring that the land management requirements for the special areas are met.

Discussion ensued after Member Robert Christianson suggested creating a matrix of the management units contained in Section 7.2 as a visual aide/tool for resolving any management inconsistencies.

Discussion ensued after Member Robert Christianson noticed that several maps contained very similar information.

Randall Sleister explained that it has been challenging to create simpler but informative maps.

Discussion ensued regarding the width of the Pell and Prideaux Road buffer with references being made to the FLP.

Randall Sleister explained that the management unit concept involves establishing the different units, and identifying the management needs within each unit.

An additional map (Figure 15 – Functional Management Units – Bank-NonBank GreenKey) was provided as a visual aide/tool to show the various management units.

Clay Henderson explained that Figure 15 provides clarity to the land manager and assists with the tree farm certification.

Member Mike Brown added that Figure 15 provides on the ground clarity to the land manager due to the road network being used as boundaries for the different management units.

Mike Kuypers asked for clarification on the management of the lands within the SDAs until they are developed.

Randall Sleister explained that the MRBOS areas would be subject to the CMP with the RBOS areas eventually becoming subject to it, once development occurs within the SDAs.

Clay Henderson added that appendices would be added to the CMP as additional areas become subject to it.

Discussion ensued regarding the percentage (25% or 50%) of the lands within the SDAs that would not be developed and total area that would be under conservation.

Clay Henderson explained that it would be an average of 50% of the SDAs that would not be developed, since one SDA could be comprised of more wetlands than another. The FLP states that

at least 25% of the SDAs would be designated as RBOS, which would protect and enhance the environmental systems. The FLP also designates that at least 2/3 of the total tract would be under conservation.

Discussion ensued regarding the public's perception of the acreage that would be under conservation, and the total that is outlined in the FLP.

As a point of clarification, Clay Henderson referenced Policy FG 1.6 of the FLP, which states: "The Sustainable Development Area districts within the Farmton Local Plan: (c) shall contain Resource Based Open Space to protect substantially all wetlands and associated buffers and other areas such that when combined with GreenKey lands more than 36,000 acres or 75% of the area within the Farmton Local Plan shall be preserved."

It was determined that a matrix of the management units with a map depicting these units would be developed to resolve any management inconsistencies within the Southwest Wildlife Corridor.

Randall Sleister explained that the requirements of the mitigation bank permit are being reviewed to ensure that there won't be any conflicts or violations of the permit.

Clay Henderson added that Miami Corporation and county staff would work with FFWCC staff to resolve any ambiguities as it relates to black bear management. FFWCC's recently adopted black bear management plan would be used as a guide.

Randall Sleister explained that the FLP requires the inclusion of a financial plan in the CMP. At this time, the "draft" CMP does not include language for this. As such, language will need to be crafted and incorporated into the CMP.

Discussion ensued after Member Mike Kuypers requested clarification regarding the management units contained in the "draft" CMP and Figure 15 map.

Clay Henderson explained that the management units contained in the Figure 15 map would be in addition to those listed in the "draft" CMP. As such, the "draft" CMP would be revised to include all of these units.

After further discussion, it was determined that the management units depicted on the Figure 15 map should be consistent with the names and descriptions contained in the "draft" CMP. The map would provide clarity as to the geographical location of each unit.

After Member Vickie Larson suggested using Figure 15 as the base map for development of the management units, Member Mike Brown expressed a concern regarding the minimum acreage requirement for the tree farm certification.

Clay Henderson pointed out examples of the areas that could have the same management standards.

Discussion ensued regarding the maps and potential difficulties with depicting the buffer areas based on the map scale.

Randall Sleister explained that Miami Corporation and county staff would continue working toward creating simpler, more readable maps.

Discussion ensued regarding the financial plan requirements with John Thomson referencing the following FLP Policies:

1) FG 2.11 - "A conservation management plan shall be adequately funded by the owner, or its

successors in interest, to meet the requirements of the plan over time...Areas that have been formally opened as a mitigation bank shall be managed subject to the permit conditions, financial responsibility provisions, and terms of the conservation easement pertaining to the mitigation bank.”

2) FG 2.14 – The Conservation covenant and easement shall incorporate provisions for a conservation management plan which shall include conservation objectives and outcomes and a financial plan for meeting the obligations of the program over time.” and

3) FG 2.16 – “The owner/applicant shall fund and facilitate the creation of the CSO, but its governance shall be independent from the owner/applicant.”

Discussion ensued after Member Robert Christianson noted that the FLP policies reference an obligation, not a detailed report/analysis of the revenues and expenses.

Clay Henderson and Glenn Storch explained that Miami Corporation would continue to meet the financial obligations for the maintenance of the site. However, steps would need to be taken to ensure that the financial obligations would continue on and run with the property after any portion of it is sold. It is anticipated that the income from the SDAs would pay for the maintenance of the conservation easement areas. As provided in the CE, Miami Corporation would be responsible for the costs associated with the annual review and inspection by the Florida Audubon Society and St. Johns River Water Management District.

Randall Sleister requested additional language be included in the CMP which would provide clarity to Miami Corporation’s financial plan for this site.

Clay Henderson responded that the CMP and CE would stipulate Miami Corporation’s financial obligations to maintaining the site. Additionally, the grantees would have the ability to enforce Miami Corporation’s financial obligations for the site.

Discussion ensued regarding the management responsibilities as outlined in Section 10.3 (Identification of Ownership, Management Responsibilities, and Financial Responsibility) of the June 21, 2012, “draft” CMP, and a duty of care statement as required by the mitigation bank permit.

Randall Sleister explained that measurable goals for the desired future conditions (DFC) would need to be added to the CMP.

Clay Henderson explained that the DFC language (i.e., habitat type with description) contained in the June 21, 2012, “draft” CMP came from Division of Forestry management plans. County staff has requested that the DFCs become measurable goals.

Member Vickie Larson recalled discussing DFCs at great length during the forestry management and black bear management presentations. DFCs were also discussed during the public access presentation. It was determined that the DFCs would be measurable.

Randall Sleister explained that the DFCs used by county staff for the management of conservation lands have measurable goals, which could be a range (i.e., 30-80% canopy), or specific points (i.e., burn 500 acres every 3 years).

Discussion ensued regarding the level of specificity for the DFCs, after Member Mike Brown suggested the concept of managing by outcome rather than by practice.

Randall Sleister stated that an operational plan could provide a more detailed level of specificity for the DFCs.

After further discussion, it was determined that the 21 criteria set forth in Policy FG 2.11 of the FLP would be used as the basis for the development of the DFCs, and the level of specificity would be



guided by those items that are mandated by the mitigation bank permit.

The Task Force broke for lunch at noon and reconvened with a quorum at 12:45p.m.

Discussion ensued regarding miscellaneous forest products with Member Mike Brown stating that Miami Corporation has harvested palm trees as part of a thinning program within the mitigation banks. The Farmton tract now has a higher basal area for cabbage palms than pines, which has brought forth a market for palmetto berries. At this time, Miami Corporation does not anticipate getting into the pine straw production market due to the risks (i.e., moist climate). However, palm buds have been harvested and sold during Easter time. By managing for the outcome rather than by practice, these types of forest products could become a source of income.

Chairman Stephen Kintner noted that Section 7.2.5 (East Central Florida Trail Buffer) on page 44 of the June 21, 2012, "draft" CMP prohibits clear cutting within the trail buffer. However, it does not address disease control.

Clay Henderson explained that another section of the CMP addresses clear cutting for insect or disease control. Additionally, the CE provides for the use of sound silviculture practices to control disease in order to protect the remaining timber.

Randall Sleister requested more specifics on "aesthetically pleasing" in this section to prevent differences of opinion.

Member Vickie Larson requested that the CMP include: 1) an introductory section, which would provide a list of acronyms, and 2) a subsection with a list of definitions, which primarily have specific context in the FLP, or are proper nouns used in references that may be environmental or ecological related (i.e., Eastern Florida Flatwoods Level IV Ecoregion).

Member Charles Lee suggested that the CMP include an appendix page which provides information relating to the entire Farmton tract; not just Volusia or Brevard County.

Discussion ensued regarding the acreage discrepancies between the May and June "draft" CMPs.

Ginger Adair asked if the task force would be using the June 21, 2012, "draft" CMP for the review process, or if a new "draft" would be provided to them.

Clay Henderson explained that the June 21, 2012, "draft" CMP would be revised, and a new "draft" would be presented to the task force for review. He added that the intent is to provide a more readable document.

After further discussion, it was determined that the next "draft" CMP would be in a condition to begin the 100% review process by the task force.

Clay Henderson suggested that the August 1, 2012, task force meeting be canceled to allow time for revisions by Miami Corporation staff, and to provide the task force with at least two (2) weeks for review before the next meeting.

The task force agreed and canceled the August 1, 2012, task force meeting.

After Chairman Stephen Kintner noted that the next meeting would be September 5, 2012, he asked if the newly revised "draft" CMP would be ready for review by the task force at that time.

Clay Henderson responded that the newly revised "draft" CMP should be ready for review by the task force during the September 5, 2012, meeting. He requested that the task force pay close

attention to Section 6.0 (Land Management and Natural Resource Management Objectives) on page 39 of the June 21, 2012, "draft" CMP. The objective of this section was to show how everything would work together. However, this list has not been prioritized as required by the FLP. Therefore, he requested that the task force take this into consideration as they reviewed the "draft" CMP.

Discussion ensued after Member Robert Christianson asked for guidance on providing comments.

It was determined that any comments from the task force should be provided to county staff, Randall Sleister.

Discussion ensued regarding the inclusion of "Deering Preserve" in the CMP with Clay Henderson explaining that this was a matter to be worked out.

Member Charles Lee acknowledged the importance of the property owner's legacy, and requested that it be recognized through creative signage. He noted that the grand total of the listed acreages in Table 1 Farnton Local Plan (Land Use and Special Areas) on page 8 of the June 21, 2012, "draft" CMP was missing and needed to reflect the correct overall total acreage.

Member Robert Christianson requested an update on the status of Volusia County's CE, and expressed concerns regarding the language which provides for enforcement by the CMP instead of the CE.

Derrill McAteer explained that it has been difficult to craft language for the CE, which provides for simultaneous enforcement of the CMP and the CE. Therefore, the CE draft process has been put on hold until certain aspects of the CMP have been worked out. Upholding the requirements of the FLP has also been a concern.

Member Charles Lee noted that the CMP manages those activities that are permitted under the conservation easement. He expressed concerns as a "grantee" regarding enforcement.

Clay Henderson added that the enforcement language was taken directly out of the FLP, and is different from the language in a typical conservation easement.

Discussion ensued regarding the connections between the CE and CMP, and the provisions for measurable goals and enforcement, after Member Robert Christianson expressed the desire to have the CE and CMP on an equal level.

Clay Henderson added that the FLP outlines the process where the conservation easement and covenants would be "drafted" within 60 days, and recorded with the Clerk of the Circuit Court within one year from the effective date of the FLP. The CMP would be take two (2) years to develop, so it was determined to develop the CE and CMP in tandem.

Randall Sleister stated that the goal is to provide the task force with a "new" CMP at least two (2) weeks prior to the September 5, 2012, meeting.

Discussion ensued regarding the timeliness for reviewing and approving the CE and CMP, after Chairman Stephen Kintner stated that the task force has had an internal goal of completing the CMP by the end of 2012.

Glenn Storch added that the CE must be filed by March 29, 2013, because the FLP has been adopted. So, the clock is running. The County Council has also expressed a desire to have the CE and CMP in place by the end of 2012.

Discussion ensued regarding the public notice if the reviewing of the CMP takes longer than anticipated.

It was determined that the meeting would be noticed to begin at a certain time, but no ending time.

### **PUBLIC PARTICIPATION**

There was none.

### **ADJOURNMENT -**

Having no additional business; the meeting adjourned at 1:20p.m upon consent.

### **ADOPTED**

  
\_\_\_\_\_  
Stephen Kintner, Chairman

9-6-2012  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Randall Sleister, Staff Liaison

6-SEP-12  
\_\_\_\_\_  
Date

discussed during a future meeting.

Randall Sleister added that public access was a topic of lengthy discussion during the meetings with Miami Corporation representatives, as there is a difference of opinion.

Member Robert Christianson expressed a concern that meetings were being held between county staff and Miami Corporation representatives without input from the task force regarding the "draft" CMP.

Randall Sleister explained that county staff and Miami Corporation representatives had been meeting to reformat the current "draft" of the CMP, so it would be in a readable format for discussion by the task force. He added that this has been a slow process, and there were no policy changes to this document, just formatting for readability.

Member Robert Christianson requested that the time frame/ schedule for developing the "draft" CMP be reviewed during today's meeting.

Member Vickie Larson suggested segmenting the "draft" CMP into elements (i.e., forestry management) as they begin their review process, instead of all at once.

As a point of clarification, Derrill McAteer explained that county staff and Miami Corporation representatives had been meeting in an effort to bring forth a document that is in the best format to move forward with the development of the CMP by the task force.

Member Preston Robertson requested confirmation that the CMP would be made enforceable by the CE, and the document that would be presented to the task force would be agreeable with Miami Corporation and county staff.

Derrill McAteer responded that the Miami Corporation and county staff are not currently in complete agreement regarding the draft CMP. It is the responsibility of the task force to develop a CMP that fulfills the criteria set forth in Policy FG 2.11 of the Farmton Local Plan (FLP), and provide its recommendation to county council.

Glenn Storch added that Miami Corporation staff has been working diligently on the "draft" CMP to address all of the comments provided by the task force and county staff. The maps and figures are the only missing components of the CMP. The major issue still needing guidance from the task force has been public access. It is Miami Corporation's intent to produce a CMP for submission to county council that is based on consensus from the task force.

Member Vickie Larson also expressed concerns regarding the development of the "draft" CMP, and again suggested reviewing it in segments in an effort to continue moving forward.

### **Public Access Presentation**

Randall Sleister opened the presentation by explaining that a conceptual public use map had been created by county staff, and provided to Miami Corporation staff for review and consideration as it relates to the public access element of the CMP. He provided two (2) handouts of this map (aerial and local plan), which depicts county staff's proposed public access routes. County staff with Miami Corporation representatives conducted an on-site tour of these proposed access points on Tuesday, June 5, 2012. Additional information, such as photographs, and video footage from this tour, can be presented to the task force. After displaying the aerial map in a larger format for review on the overhead, Mr. Sleister explained that the proposed areas for public access would be located south of Osteen-Maytown Road; nothing to the north. During the development of the proposed trails, county staff decided to incorporate the route of the East Central Regional Rail Trail (ECRRT), which runs along Osteen-Maytown Road. The ECRRT will be a paved, multi-purpose trail with two (2)

proposed trail heads; one near the Farmton headquarters and one near Maytown Spur Drive. The county has created three (3) options that could provide vehicular access to Deep Creek for the launching of a kayak or canoe. Option 1 would run along the western boundary of the property and extend Pell Road to the south.

Member Vickie Larson requested additional information on the amenities of the proposed ECRRT trail heads.

Randall Sleister explained that the ECRRT trail heads would be an improved facility with a paved parking area for vehicles and trailers, and public restrooms. The county's proposed kayak/canoe launch parking areas, represented by the "P" on the map, would be unimproved/ natural and small in size.

Discussion ensued regarding the ground conditions of the proposed routes for public access.

Randall Sleister explained that Option 1's route is an unimproved fire line with a wetland hammock located along the way to Deep Creek. Although this area was drivable during the tour, watermarks were observed on trees, approximately 2 1/2- 3 feet above ground level. He added that ground conditions (i.e., wetlands) would determine the exact location of the parking areas. He reminded the task force that the county's proposal is conceptual, and would need some adjustments based on ground conditions. Option 2's route is an existing jeep trail that traverses an area consisting primarily of wet flatwoods.

Member Mike Brown added that Option 2's route is non-paved, but maintained by Miami Corporation's staff.

Randall Sleister explained that Option 3's route is a well maintained, logging road that traverses an area at a higher elevation than Options 1 or 2. He added that a formal wetland determination has not been completed for any of the options. County staff used an aerial map to determine which areas maybe wetlands or uplands during the development of the conceptual public use trails.

Discussion ensued regarding county staff's vision on how the public would access and use the proposed kayak/canoe launch sites.

Member Charles Lee expressed concerns regarding the security, safety and liability issues (i.e., rogue users) of a private landowner allowing public access on lands that may be under a conservation easement. He also expressed a need for protecting the natural resource.

Randall Sleister responded that a permit system could be developed, implemented and enforced by Miami Corporation or county staff. This system could be self check-in where the user completes a form that would be prominently displayed on the dashboard of their vehicle. A copy of the rules would also be provided to any user indicating what is allowed. Violators could be considered trespassers and handled as such.

Member Charles Lee expressed concerns that the proposed Community Stewardship Organization (CSO) would not be involved with the development of the CMP's public access component, since they would have management responsibilities of the lands within the Deep Creek Conservation Area.

Discussion ensued regarding Miami Corporation's liability issues/ concerns.

Member Mark Asleson stated that recently approved legislation provides some relief of liability to a landowner who offers public recreational opportunities at no charge.

Derrill McAteer added that there are two (2) Florida statutes pertaining to the relief of liability to a

landowner. One offers relief of liability to persons offering public recreational opportunities at no charge, and the other offers liability protections and indemnification to a landowner who incorporates a trail system into OGT's trails system. County staff has shared this information with Miami Corporation staff.

Member Preston Roberston stated that Section 375.251, Florida Statutes, does not shield the landowner from a lawsuit, but it does provide for a defense.

Member Vickie Larson requested clarification on the county staff's vision for public access.

Randall Sleister explained that designating specific areas for public access (i.e., kayak/canoe launch) would provide control, and limit the impacts to the natural resource, especially as development occurs on the property.

Discussion ensued regarding county council's goals for providing public access to Deep Creek, and how the task force needs to move forward with developing the public access element of the CMP.

Chairman Stephen Kintner explained that providing upland, public access to Deep Creek is a county council goal.

Discussion ensued regarding the various public access options that county staff provided to the task force, and which options could be incorporated into the CMP.

Member Robert Christianson asked: 1) from a recreational planning prospective, what the advantages or disadvantages could be with co-locating the access road with the trails for Options 2 and 3; 2) from a security/ public safety aspect, which option may be better than another with regards to its compatible with the silviculture operation; and 3) if these options are within the mitigation bank, do they violate the terms of the mitigation bank permit.

Randall Sleister explained that in addition to the three (3) options for vehicular access, county staff proposes that public access would only be allowed during daylight hours. Option 2 was created to provide some control of the public access as it is in the immediate area of the Operations Headquarters. However, this could be problematic because there is heavy equipment stationed here. County staff also wanted to incorporate other public access opportunities. As such, a small loop trail (approximately 3 miles long) for hiking, biking and horseback riding was developed and included on the conceptual map. This trail would begin and end at the ECRRT trail head, and would follow the existing roads/trails. No motorized vehicles (i.e., ATVs) would be allowed on the loop trail. County staff considered a loop trail around the proposed town center, but determined that there weren't enough existing roads/trails and too much was wetlands. The areas within the mitigation bank were discussed with the St. Johns River Water Management District to ensure these proposals would not be in violation of the mitigation bank permit. The District indicated that a modification of the permit may be required.

Discussion ensued regarding the bridge for the proposed trail (designated by the red stars) running southward over Deep Creek, and the maintenance (i.e., herbicide treatment) of Deep Creek.

Randall Sleister demonstrated on the aerial conceptual public use map the connectivity of the proposed trails to the ECRRT and FDOT trail, wetland areas, and the Mandatory Resource Based Open Space (MRBOS) areas.

Discussion ensued regarding public access within the MRBOS areas with Derrill McAteer referencing Policy FG 2.4 of the FLP, which states: "...Mandatory Resource Based Open Space shall not be subject to the public access and shall be subject to the Black Bear Management Plan as set forth in FG 2.5b."

Member Charles Lee recalled discussions during the court proceedings regarding the need to provide a buffer for the wildlife corridors, so the habitat value would not be diminished by public access.

Glenn Storch reminded the task force that the Resource Based Open Space (RBOS) and MRBOS areas are within the Sustainable Development Areas (SDA) districts. Policy FG 2.4 (Resource Based Open Space) of the FLP was created to differentiate the RBOS and MRBOS areas as development occurs within the SDAs. RBOS provisions provide for the trails and walkable community within the SDAs. The intent was to convert certain areas from RBOS to MRBOS as a way of limiting public access to areas designated for black bear habitat preservation.

Discussion ensued regarding public access to the FDOT trail.

Member Charles Lee expressed concerns regarding the development of the proposed conceptual public use trails before the trails are developed within the SDAs. He agreed that public access to Deep Creek for kayaks and canoes is appropriate. However, the desire to provide public access should not take priority over the preservation of the natural resource.

Ginger Adair suggested that the task force provide guidance to the county council through the CMP as it relates to the appropriate level of public access and the timeframe for implementing the various elements of the plan. She also suggested leaving enough latitude when developing the public access element of the CMP in an effort to address some of the unknown factors (i.e., CSO, SDAs), but determine generally what public access is appropriate and where.

Member Charles Lee continued to express concerns regarding the liability, management and enforcement issues for the private landowner who allows public access.

Discussion continued regarding operational issues, such as management and enforcement responsibilities.

Member Mike Kuypers suggested developing the CMP in a conceptual manner to avoid constraints, and possible revisions.

Randall Sleister recommended establishing a 10 year review cycle. However, the level (i.e., county council, county staff) at which to review the CMP has not been determined. As the project matures and evolves, the review of the CMP would provide the flexibility for revising the proposed plan for public access.

Member George Tanner expressed concerns regarding the potential mixture of public access with hunting.

Member Charles Lee concurred that the CMP should be developed to allow flexibility as the project evolves; especially since there are some unknown factors (i.e., CSO, SDAs) needing to be established.

Ginger Adair suggested developing goals for the CMP that provide some level of specificity and an implementation period. This could potentially resolve issues with interpretation of the plan.

Discussion ensued regarding the next step in the process of developing the CMP; whether the proposed public access plan provided by the county should be recommended for incorporation into the CMP.

Member Charles Lee continued to express concerns regarding the implementation of public access with unknown factors (i.e., CSO, SDAs) needing to be established.

In an effort to resolve the concerns expressed by the task force, Derrill McAteer referenced Policy FG 2.11(s) of the FLP, which states: "Provisions for passive recreational use, environmental education, and public access where appropriate." He added that the task force is charged with developing a CMP that addresses the criteria set-forth in this policy.

Discussion ensued regarding the term "where appropriate."

Member Vickie Larson requested a mileage/distance breakdown for each of the proposed trails.

Randall Sleister pointed out the proposed trails as depicted on the aerial map and provided the mileage, as follows: 1) FDOT Corridor, designated by the green circles and extending from Deep Creek eastward to Maytown Spur Drive, is 5.9 miles; 2) potential vehicle access routes (Options 1, 2 and 3) for a kayak/canoe launch, designated by the gray and white lines, combined are 3.4 miles; 3) future trails through the woods, designated by the red starred line, is 5.4 miles; 4) future trails through the woods, designated by the blue starred lines, is 4.6 miles; and 5) loop trail, designed by the green starred line, is 3.1 miles.

After noting that the proposed trails are only in the area south of Osteen-Maytown Road, Member Robert Christianson asked if there were reasons for choosing this area verses others on the property.

Randall Sleister explained that county staff wanted to limit the impacts to the natural resource by concentrating the trails system in one area rather than spreading them out over the entire property. County staff considered developing a trails system in the northwest portion of the tract that would provide connectivity to the county's conservation lands (Wiregrass Prairie Preserve) locate to the north of the Farnton tract. However, this consideration was abandoned due to the possible limitation that could occur as development begins within the SDAs. The northeast portion of the property consists primarily of wetlands, which would be problematic for developing a trails system.

Member Robert Christianson made a motion to adopt the following conceptual public use elements for the area south of Osteen-Maytown Road: 1) 2 trail heads along the ECRRT trail, generally located at the operations headquarters and in the area of the Town Center; 2) 1 drivable public access route to Deep Creek for a kayak/ canoe launch; 3) 1 loop trail for hiking near Farnton's operations headquarters; and 4) a connecting hiking, biking and equestrian trail located between the 2 trail heads through the woods. The motion was approved unanimously by consensus; without objection.

Discussion ensued regarding the potential need for a mitigation bank permit modification, after Member Charles Lee noted that the proposed trails would be partially located within the mitigation bank.

After further discussion, it was determined that the mitigation bank permit modification applicant for the portion of the trails within the mitigation bank could be the CSO.

Discussion ensued regarding a time frame in which to provide public access to a potentially phased in trails system.

Glenn Storch opened Miami Corporation's response to the task force's adoption of the conceptual public use elements by explaining that there were specific intents as it pertains to public access. He used the aerial map to point out the special areas (i.e., Deep Creek Conservation Area, Southwest Wildlife Corridor and Mitigation Bank). During the development of the FLP, the northwest section of the property was identified as an area needing the highest level of natural resource protection due to its pristine condition. Therefore, the Deep Creek area would be transferred to the CSO for protection in perpetuity. Additionally, the Southwest Wildlife Corridor was created to provide protection of the habitat for the black bear. The mitigation bank areas are under permit/easement



with the SJRWMD and Army Corp. of Engineers (ACOE), which typically does not allow public access to these lands. The overall intent was to provide protection of this area, and for the landowner to maintain the agricultural operations (i.e., silviculture and hunting), in perpetuity. The continuation of the agricultural operations and hunting provides the funding mechanism for the maintenance of the property as well as the obligations/requirements of the mitigation bank permit. As a way of providing some controlled public access and to address the liability concerns, Miami Corporation agreed to transfer the portion of the property containing Deep Creek to the CSO. This would provide the public access to Deep Creek for a kayak/canoe launch.

Glenn Storch referenced Policy FG 2.11, which states that the CMP "shall address....provisions for passive recreational use, environmental education, and public access where appropriate." The term "shall address" does not mean that it will be done; but just addressed. The term "where appropriate" has been interpreted by Miami Corporation to mean "if appropriate." Mr. Storch then referenced Policy FG 2.5(a) (Deep Creek Conservation Area), which states: "Controlled upland access by canoe or kayak to Deep Creek shall be an allowed passive recreation use." Miami Corporation's interpretation of this policy means that public access to Deep Creek is allowed, but it must be controlled. Miami Corporation's concerns are that county staff's proposal does not provide controlled access.

Member Vickie Larson expressed concerns that Miami Corporation would only allow public access under certain conditions. She referenced Canaveral National Seashore and Merritt Island National Wildlife Refuge to demonstrate how public access could be provided, but controlled.

Discussion ensued regarding the methods for controlling public access while continuing the silviculture operation and hunting (i.e., road closures, signage).

Glenn Storch suggested that county staff and Miami Corporation representatives work together to create the best location for the county's proposed 15 miles of trails, when the SDAs go into effect. At this time, there are too many unresolved issues pertaining to liability, usage conflicts, and public access control.

Member Vickie Larson clarified that the task force just adopted four (4) conceptual public access elements, not the exact configuration as proposed by county staff.

Glenn Storch expressed safety concerns regarding the compatibility of the hiking, biking and equestrian trails with motorized access routes. Therefore, Miami Corporation would propose using the route which runs along the western boundary of the property. This route could provide immediate access with the least amount of impact to the natural resource, and resolve the permitting issues, as it runs along the perimeter of the property and mitigation bank. Miami Corporation's other proposal would be to use the 6-mile FDOT access trail. This trail is currently maintained by the hunt club, and provides connectivity to OGT's ECRRT trail. Potentially this trail could be transferred by FDOT to OGT, which could resolve the liability issues.

Discussion ensued regarding the liability concerns after Member Preston Robertson requested clarification as to which area would be alienated to the CSO.

Glenn Storch pointed out that the area outlined in blue on the aerial map would be transferred to the CSO. However, the liability would not be immediately transferred to the CSO. So, there is still a timing issue until the transfer occurs.

Discussion ensued regarding the accessibility of the FDOT trail, and the settlement with FEC and OGT that allows the use of this trail until this portion of the ECRRT is completed.

Member Vickie Larson requested confirmation that Miami Corporation agrees with using the FDOT trail for public access.

Glenn Storch clarified that Miami Corporation has incorporated buffers so the FDOT trail could be used for public access.

Member Mike Kuypers asked if the private landowner could be relieved of liability when OGT's trails traverse their property.

Glenn Storch explained that the private landowner could be provided with liability protection under these circumstances. However, this does not provide protection from law suits. Miami Corporation continues to have concerns regarding their liability for providing public access. Once the SDAs are in place, a massive trails system could be implemented that would provide access beyond the area south of Osteen-Maytown Road, where appropriate.

Discussion ensued regarding the potential for using the southern boundary line for public access, such as vehicular access to a kayak/canoe launch, or a hiking, biking and equestrian trail.

It was agreed that the southern boundary line could be used as a part of a hiking, biking and equestrian trail, not vehicular access to a kayak/canoe launch.

As a point of clarification, Randall Sleister stated that the OGT and FDOT trails are not part of the Farmton tract. Therefore, the county would have to negotiate for access to these trails.

Glenn Storch added that Miami Corporation has access to the FDOT trail, not ownership.

Discussion ensued regarding connectivity to other potential access opportunities from the FDOT trail.

Member Vickie Larson asked how the CMP would ensure the implementation of the short loop trail and connectivity between the two (2) trailheads; especially, since there is a timing issue.

Glenn Storch acknowledged that these trails would be developed in concert with the planning for the SDAs. As such, Miami Corporation could agree to provide XXX miles of trails within this area, as part of the CMP. Additionally, the right-of-way vacations could be tied into this planning and exchanged for the miles of trails.

Member Mike Brown added that if the trails system is developed in conjunction with the SDAs, it would be as an amenity and part of the overall conservation landscaping plan.

Discussion ensued regarding the timing of the trails system being tied into the development of the SDAs.

Ginger Adair asked if the hunting and silviculture activities would continue in GreenKey even after the development of the SDAs.

Glenn Storch confirmed that the hunting and silviculture activities would continue in GreenKey even after the development of the SDAs. However, these uses would be minimized as development occurs in the SDAs. The development of the SDAs would off-set the loss of income from the hunting lease and silviculture operation. In an effort to provide immediate public access, Miami Corporation would suggest adopting the western boundary line (Option 1) as the vehicular access point for a kayak/ canoe launch to Deep Creek. This portion of the property could be transferred to the CSO or county, which would relieve Miami Corporation of any liability. This option would also limit the mixing of uses (i.e., hunting and passive recreational opportunities).

Discussion ensued regarding sovereign immunity, and Miami Corporation's liability concerns.

Member Robert Christianson suggested adding an item to the list of adopted elements that would provide for a connecting trail system extending northward from Osteen-Maytown Road to the county's conservation lands, Wiregrass Prairie Preserve.

Discussion ensued regarding the proposed connecting woods trails, and the development of the SDAs.

Glenn Storch reminded the task force that the GreenKey portion of the Farmton tract would be protected by a perpetual conservation easement within one year. He stated that other amenities (i.e., trails) would be provided in concert with the development of the SDAs.

Discussion ensued regarding provisions for providing public access through the conservation areas of the Farmton tract.

Member Charles Lee stated that the salient issue has been the protection of the natural resource, and public access was a sidebar.

In an effort to respond to the sidebar comment, Derrill McAteer referenced Item 1 - GreenKey (GK) future land use designation – on page 3 of the FLP, which states: "GreenKey (GK) is a new land use designation for high quality environmental resource lands consisting of current ECO lands, ESC lands, wetlands, and associated uplands, which function as integrated habitat. On the adoption of the land use, the underlying density shall be zero and permitted uses shall include agriculture pursuant to best management practices, trails, boardwalks, passive recreation, utilities and elevated road crossings, and environmental learning centers."

Discussion ensued regarding the permitted uses (i.e., trails) for the future land use designation of GK, and whether the landowner is obligated to provide these uses and when.

Discussion continued regarding the timing of a trails system along with maintenance responsibilities and connectivity to other trails systems.

Discussion ensued regarding the DRI process, and how it could impact the trails system.

The task force broke for lunch at 12:30p.m., and reconvened with a quorum at 1:15p.m.

Derrill McAteer asked that copies of two (2) Florida statutes that were part of the discussion pertaining to the relief of liability to a private landowner who allows public access on their property be entered into the record and distributed to task force members. County staff provided the task force with a copy of these statutes (Sections 260.0125 and 375.251, F.S.) as reference material.

Discussion returned to Member Robert Christianson suggestion of adding a fifth goal to the list of adopted elements; providing for a connecting hiking, biking and equestrian trail through the woods extending northward from the western trailhead on Osteen-Maytown Road to the county's conservation lands, Wiregrass Prairie Preserve.

Member Vickie Larson also suggested adopting a sixth goal to the list of adopted elements that would provide public access from the Farmton tract through a connecting trails system to adjacent conservation lands.

Discussion ensued regarding the proposed short loop trail, incorporation of a timing element for the adopted elements, and the creation of the CSO.

Chairman Stephen Kintner asked if the proposed vehicular public access route along the western boundary would be within the area to be conveyed to the CSO.

Glenn Storch stated that this area is owned by Miami Corporation, but could be conveyed to the CSO or county.

As a point of clarification, Derrill McAteer read into the record Policy FG 2.16 of the FLP, which states: "Within one year of the effective date of the Farmton Local Plan, the Articles of Incorporation for the CSO shall be filed and the approximately 400 acres of the initial phase of the Deep Creek Conservation Area shall be conveyed by deed to the CSO. As credits are sold in the West Mitigation Bank, remaining lands with the Deep Creek Conservation Area shall be conveyed by deed to the CSO."

Discussion ensued regarding the proposals for a drivable public access route to Deep Creek for a kayak/canoe launch, and potential setting of a two (2) year time limit for the development of this drivable public access route.

Glenn Storch stated that Miami Corporation could convey access to the CSO for the portion of the Deep Creek Conservation Area that would not initially be included in the 400 acres.

Chairman Stephen Kintner called the question to adopt elements #5 and #6, which are: 5) provide a connecting hiking, biking and equestrian trail through the woods extending northward from the western trailhead on Osteen-Maytown Road to the county's conservation lands, Wiregrass Prairie Preserve; and 6) provide connectivity from the Farmton tract through a trails system to adjacent conservation lands. The task force voted unanimously to adopt elements #5 and #6.

Discussion continued regarding the setting of a time limit for the development of a drivable public access route to Deep Creek for a kayak/ canoe launch.

Member Vickie Larson explained that a mandate for public access would be set by imposing a time limit on the development of the drivable public access route to Deep Creek for a kayak/ canoe launch. This would ensure that there would be public access to Deep Creek regardless of what occurs on the remainder of the property.

Glenn Storch added that Miami Corporation could be agreeable to this time limit, as long as it does not impact the agricultural operations/uses.

Discussion ensued regarding the conveyance of the lands to the CSO, and the access to Deep Creek for the kayak/ canoe launch.

Member Vickie Larson suggested that Miami Corporation convey an easement to the CSO for such access to Deep Creek.

Chairman Stephen Kintner expressed concerns about selecting a specific public access route to Deep Creek instead of maintaining flexibility.

After further discussion, the task force agreed that the western boundary would be the option adopted for the drivable public access route to Deep Creek for a kayak/ canoe launch (non-motorized vessels).

Member Vickie Larson made a motion to adopt the element to provide drivable public access to Deep Creek for a kayak/canoe (non-motorized vessel) launch along the western boundary of the Farmton tract, or other reasonable access agreed to by the landowner, CSO and county within two (2) years of the adoption of the CMP; and the other elements as described in previous motions to be implemented during the development planning for the SDAs. Member Preston Robert seconded this motion that carried unanimously.

**PUBLIC PARTICIPATION**

Chairman Stephen Kintner asked if there was any public participation. As there was none, Chairman Stephen Kintner asked county staff when the next meeting would be.


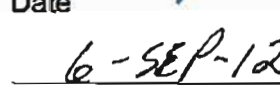
Randall Sleister replied that the next meeting would be held on Wednesday, July 11, 2012.

**Adjournment -**

Having no additional business; the meeting adjourned at 2:00p.m upon consent.

**ADOPTED as amended**

  
\_\_\_\_\_  
Stephen Kintner, Chairman  
  
\_\_\_\_\_  
Randall Sleister, Staff Liaison

  
\_\_\_\_\_  
Date  
  
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Date

Members Mark Asleson and Vickie Larson requested the addition of wildlife management as a decision point.

Member Mike Kuypers suggested grouping desired future conditions, habitat restoration and prescribed fire together as they are interrelated.

Randall Sleister suggested dividing the decision points into groups that would be discussed during the next several meetings, as follows: 1) desired future conditions, habitat restoration, and prescribed fire; 2) black bear management, hunting, and wildlife management with listed species; and 3) public access. He added that the tree farm and cypress harvesting could be including in today's discussion on forest management.

## **FOREST MANAGEMENT PRESENTATION**

Member Mike Brown provided a presentation that included pictures of the property, and a brief history of the tree farm. He stated that the Farnton property has been used as a tree farm since the early 1950s. The Forest Management Plan for the tree farm system is periodically updated to meet the State's current sustainability standards. He read some of the descriptive terms contained in a 1944 assessment report prepared by L.T. Nieland, which depicts the property as being mostly natural slash pine with impacts from a cattle operation. This report indicates that approximately 35,000 of the overall 55,000 acres supports the southern and northern slash pine species with a very limited amount of acreage supporting the longleaf pine species. Also included in this report are management recommendations as it relates to drainage, habitat protection, and prescribed burning.

Clay Henderson explained that, as far back as 1890, this area had been part of the railroad system for transporting pineapple and timber crops.

Member Mike Brown explained that approximately 1,000 trees were planted per year from 1952 through 1962 to subsidize the naturally growing trees. Pictures depicting early tree planting, logging, site prep techniques, and installation of fire lines were shown. He provided a map depicting all of the timber stands currently on the property, and explained that 25 acres is the average size of a pine stand. The larger contiguous strands depicted on the map are wetland stands; not pine stands. The forestry practices on this property have not changed much over the years. Thinning is done on a diagonal cut to create a 65-70 basal area.

Discussion ensued regarding the thinning of trees within the various areas of the property to a certain basal area, and at a certain age rotation.

Member Mike Brown moved on with the presentation to wetland harvesting, and explained that most of the tree farm has been impacted by wetland harvesting over the years, except for the mitigation bank areas. Cypress harvesting has been a component of the annual income stream until the recent decline in the demand for cypress products.

Discussion ensued regarding cypress harvesting, and the best management practices that are employed on the various areas of the property to create a natural mixture of species.

Member Mike Brown provided a picture depicting a low water road crossing that provides vehicular access for land management activities, and assists with creating a more natural water flow on the property. Historically, prescribed fire has been used, but became limited after the timber market began to discriminate against burnt or charred trees. Based upon weather conditions, prescribed burns may be conducted on a more frequent basis. From 1954 until 2000, the Farnton site was designated as a wildlife management area (WMA) managed by the Fish and Wildlife Conservation Commission (FFWCC). In 2000, the mitigation bank permit was issued, and the lands were leased to hunt clubs, which limits the number of hunters on the site. A deer management system has been implemented to increase the quality of the deer, and set deer harvesting limits. Turkey hunting, and

hunting with dogs are allowed on the site. The hunt clubs must follow the rules/ limitations consistent with state FFWCC rules and regulations. Approximately 14,000 acres have been leased as part of a cattle operation, which is an allowable use in the areas outside of the mitigation banks.

Discussion ensued regarding the areas under the cattle lease, the number of cattle within those areas, and using it as a land management tool.

Discussion ensued regarding the differences in the forest management of the areas inside and outside of the mitigation bank areas to create a mosaic mix. This discussion included wetland harvesting.

Randall Sleister stated that a matrix using the FLUCCS Codes is being developed to provide a list by acreage of the various natural communities on the site.

Discussion ensued regarding the continuation of cypress harvesting on the site. It was noted that this type of activity is not practiced on conservation lands.

Glenn Storch suggested using the forestry management plan to create a balance between forestry operation and preservation.

Discussion ensued regarding cypress mulch, the cypress mulch market, and alternative mulch products.

Member Vickie Larson asked for clarification on how cypress harvesting relates to the CMP, and the areas that would allow this activity.

Randall Sleister used an aerial map of the property to point out the mitigation bank areas, the SDAs, and GreenKey. He explained that DFCs could be incorporated into the CMP as a way of striking a balance between forestry operation and preservation.

Derrill McAteer referenced Policy FG 2.2 on page 9 of the Farmton Local Plan, which states: "Land uses allowed within GreenKey include Mitigation and Conservation Banks, Agriculture and Silviculture pursuant to Best Management Practices...."

Member Charles Lee added that the mitigation banks and Deep Creek area would be restricted from the harvesting of cypress. However, the task force could recommend further harvesting restrictions within GreenKey through the CMP, which could provide an extra level of protection.

Discussion ensued regarding the conservation easements and covenants, and how it could impact the harvesting of cypress within the special areas.

Member Robert Christianson explained that the current "draft" of the conservation easements and covenants (CE) has not addressed the cypress harvesting issue. However, it could, if there was a desire to protect special areas that would serve as a wildlife corridor.

Member Charles Lee suggested using the matrix of natural communities to determine which cypress strands should be protected by the CE and/or CMP.

Member Robert Christianson suggested extending more restrictive forestry standards within the areas that could provide wildlife corridors.

Clay Henderson acknowledged that the CE would include language making the CMP the overriding enforcement document. He suggested refining the management details/ criteria for each of the "special areas" (i.e., Deep Creek, black bear management areas) to ensure that they receive the appropriate level of protection.

Discussion ensued regarding the conceptual plan for development and preservation within the SDAs, and the management of the Resource Based Open Space (RBOS).

Clay Henderson explained that protection of the wetlands within the SDAs is the number one priority. However, the majority of these areas are uplands. He added that development within the SDAs should not occur for at least 20 years.

Discussion ensued after Randall Sleister suggested setting some resource protection standards that may apply to the SDAs.

As a point of clarification, Derrill McAteer referenced Policy FG 2.11 on page 11 of the Farmton Local Plan, which states: "The conservation management plan shall set resource protection standards and management protocols designed to ensure the long-term maintenance of the ecology and restoration of the Green Key and Resource Based Open Space of the site."

Randall Sleister suggested including a list of future tasks as part of the CMP. This could provide guidance for future groups when establishing the criteria for the SDAs.

The Task Force broke for lunch at 12:15p.m., and reconvened with a quorum at 1:00p.m.

Discussion continued regarding the harvesting of cypress, and the management of the special areas (i.e., Deep Creek, wishbone area, Crane Swamp).

The task force requested that Miami Corp. prepare a response for the next meeting to address their concerns about cypress harvesting on the site.

Member George Tanner agreed that the high quality cypress areas need to be identified, and have some level of protection through BMPs.

Member Adele Mills explained that it would be difficult to allow a property owner to harvest cypress when the State prohibits it on their conservation lands.

Member Mike Kuypers deemed it important to protect the legacy areas, but not to totally restrict the harvesting of cypress.

Member Mark Asleson explained that BMPs should be employed to protect listed species. However, he was not in favor of totally restricting the harvesting of cypress.

Member Robert Christianson also deemed it important to protect the legacy areas, and potentially limit cypress harvesting.

Discussion ensued regarding the management standards of the upland portions of the site.

Member Robert Christianson requested clarification on the difference in management practices within and outside the mitigation bank.

Member Mike Brown explained that the standards for the mitigation bank are outlined in the mitigation bank permit, which allows timber thinning. The intent is to continue harvesting timber (i.e., clear-cutting) outside of the mitigation bank.

Discussion continued regarding the management standards/restrictions within the mitigation bank, and potentially incorporating those standards/restrictions to other areas of the site (i.e., wildlife corridors) as a wildlife enhancement tool.



Clay Henderson reminded the task force that the special areas would need to be managed for wildlife enhancement, and the mitigation bank would be managed for wetland enhancement.

Discussion ensued regarding the development of standards for management of the black bear habitat. During this discussion, pages 22 and 23 of the November 10, 2011 "draft" CMP were referenced by Randall Sleister and Member Robert Christianson.

Randall Sleister informed the task force that an expert from the Florida Fish and Wildlife Conservation Commission would provide a black bear management presentation during the March 7, 2012, meeting. This could provide clarification on the management standards needed for this habitat.

It was determined that other topics to be discussed during the March 7, 2012, meeting would include hunting, wildlife, and special areas.

### **PUBLIC PARTICIPATION**

As there was none, Chairman Stephen Kintner asked county staff when the next meeting would be.

Randall Sleister replied that the next meeting would be held on Wednesday, March 7, 2012, from 10:00 a.m. until 2:00 p.m. in the Thomas C. Kelly Administration Building's 1<sup>st</sup> Floor Training Rooms located at 123 W. Indiana Avenue, DeLand,

After the task force took a brief break, the Grantees began the discussion of the "draft" deed of conservation easement and covenants.

### **DRAFT DEED OF CONSERVATION EASEMENT AND COVENANTS**

Clay Henderson opened the discussion with the Grantees. He explained that during last month's meeting it was agreed that the Grantees would receive a revised version of Volusia County's Declaration/Conservation Easement documents for review and comment. This version would include all of the changes from Brevard County.

Discussion ensued regarding the recording of the base line report and easement documents.

Member Robert Christianson requested that a map depicting the areas covered by the easement be included and recorded as part of the easement documents. This map would include roads and other measurable conditions outlined in the easement. This could prevent future enforcement disputes.

It was agreed that the full baseline report would be completed to provide historical information as to the conditions of the site, and provided to the Grantees, but not recorded. A summary of the full report would be completed with a map of the area covered by the easement documents, and recorded with the Clerk of the Circuit Court.

Discussion ensued regarding the Grantees comments on the draft deed of conservation easement and covenants, which included items such as: 1) quantifying the number of vehicles allowed on the property at any given time for public access; 2) additional language to ensure consistency with the Tree Farm Standards; 3) potential waste water facilities/drain fields outside of the SDAs in Brevard County; 4) title warranties by Miami Corp., and 5) easement prohibitions/provisions (i.e., no bio-solids; no conversion of natural areas).

After much discussion, it was agreed that language would be crafted to allow the CMP to be the overriding enforcement document, not the CE, and provide provisions for public access.

After Glenn Storch stated that Miami Corp. viewed the County as the primary enforcement agency, it

was agreed that the potential enforcement agencies would work together on any enforcement matters.

Discussion ensued regarding financial assurances (i.e., letter of credit, endowment fund) for resolving enforcement issues, and the need to budget for this issue.

It was determined that the Grantees would continue reviewing, and discussing the proposed covenants and conservation easement documents at the March 7, 2012, meeting.

**Adjournment -**

Have no additional business; the meeting adjourned at 3:20p.m upon consent.

**ADOPTED**

  
\_\_\_\_\_  
Stephen Kintner, Chairman

11 June 2012  
Date

  
\_\_\_\_\_  
Randall Sleister, Staff Liaison

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85 years. The St. Johns River Water Management District (SJRWMD) and the U.S. Army Corp. of Engineers (ACOE) issued the mitigation bank permits in 2000. The mitigation bank, consisting of approximately 24,000 acres with approximately 19,100 acres being located within Volusia County, is the largest in the nation. The bank provides protection, enhancement and restoration on regionally significant wetlands. The protection and enhancement actions and success criteria are described within the SJRWMD and ACOE mitigation bank permit documents, which includes the mitigation bank permit, mitigation bank plan, forestry stewardship plan, and wildlife management plan. Due to the size of the project, it was divided into three (3) hydrologically connected mitigation banks: 1) North Bank (15,221 acres); 2) West Bank (3,595 acres); and 3) South Bank (4,401 acres, of which 286 acres are in Volusia County, and 4,115 acres are in Brevard County). The mitigation bank permit allows the various banks to be phased in at an average rate of 500 acres. The North Bank has nine (9) phases with the West and South Banks having one (1) phase each. The North Bank's phases would be activated by conservation easements. The entire South Bank has been activated, and is under a conservation easement. The purpose of the mitigation bank is to provide conservation based revenue to Miami Corporation through the sale of mitigation credits, which are used to offset impacts to wetland systems from private and public development projects. The permitted restoration and enhancement targets are: 1) hydrologic – re-establishment of the water flows and wetland hydro periods; 2) vegetative – regeneration of converted/previously harvested wetlands and uplands, as well as re-establishment of pine flatwoods from pine plantation; 3) wildlife management – significant reduction of hunting and removal of cattle; and 4) overall – preservation of ecosystems and improvement of habitat quality. The regionally significant and ecologically sensitive areas that would be enhanced and preserved by the enhancement actions would include Crane and Spruce Creek Swamps, Deep and Cow Creeks, Buck Lake and Buck Lake marshes. A map depicting these areas was used as part of the presentation. Photographs depicting the results of the hydrologic enhancement (i.e., installation of low water crossings and culverts), vegetative enhancement (i.e., timber harvesting), and wildlife management (i.e., removal of cattle) actions were also used as part of the presentation.

Discussion ensued regarding the reduction of hunters as a result of a wildlife management action.

Sharon Collins explained that the number of hunters had reduced from approximately 2,500 per day to 260 due to the requirements of the mitigation bank permit. This action created the 260 member Miami Hunt Club, who may hunt on the entire 59,000 acre Farnton tract.

Member Charles Lee added that the Farnton tract was previously designated as a wildlife management area (WMA) managed by the Fish and Wildlife Conservation Commission (FFWCC). After the WMA was closed, the hunt club was created to limit the number of hunters on the site.

Member Mike Brown stated that the hunt club is governed by rules that may reduce the per day number of hunters even further.

Member Mike Kuypers explained that the hunt club members provide an extra level of fire detection for this area as they voluntarily man the Ashby fire tower.

Discussion ensued regarding the rules and regulations on the hunting of hogs.

Sharon Collins returned to the mitigation bank overview, PowerPoint presentation, which provided detailed information on the specific criteria as outlined in the Forestry Stewardship (i.e., limit clear-cutting to Designated Forestry Areas and pine flatwoods); Wildlife Management (i.e., removal of cattle from the mitigation bank areas); and Mitigation (i.e., install and maintain low water crossings, culverts, bridges and piling removals) plans. She also explained that the pine flatwood areas within the upland buffer areas are subject to prescribed burns. The prescribed burn program will begin as each phase of the bank is implemented, approximately 50 to 150 acres with wide disked fire lines to contain the burns. Initial burns will be done in the winter, if either of the following two conditions are present: 1) the desirable slash pine seedlings and saplings are present, or 2) the

fuel loads are high enough that growing season burns may damage desirable slash pines. Prescribed burns will be conducted only when conditions are favorable. The exception to the forestry management program would be in the event of uncontrolled high temperature forest fires, where burned trees would be harvested before insects or disease set in. The pine flatwood areas will be managed by periodic thinning to create a mosaic of stands with trees ranging in age from 0- 80 years, and possible re-planting, if the natural regeneration appears to be inadequate to prevent dominance of saw palmettos. The hardwood enhancement areas still have large oaks and other hardwood species, along with naturally occurring and planted pines.

Discussion ensued regarding the selective harvesting of pines within the hardwood enhancement areas.

Sharon Collins continued with the overview, PowerPoint presentation (Wetland Restoration Areas – W3) by explaining that these were areas planted in pine through bedding. The beds will be leveled to grade after being clear-cut. Pines will be seeded or planted to allow canopy to become re-established as soon as possible and help to prevent the influx of exotic or nuisance species. No further bedding will be done within the buffer areas. The permit does not require a time limit to level the beds.

Discussion ensued regarding the method in which the beds will be leveled to minimize the impact to the ground vegetation.

Sharon Collins continued the presentation (Elimination of Harvesting in Wetlands – W1-W8) and explained that the cypress wetlands had been clear-cut and replanted in pines prior to the issuance of the permit. No further cutting will be conducted in cypress swamps. However, limited selective cutting of pines will continue for a period of time in the hardwood wetlands. The wildlife management plan requires the removal of cattle from the bank areas, and implementation of hunting rules/ limitations consistent with state FFWCC rules and regulations. The mitigation plan's hydrologic improvement criteria includes items such as: 1) installation and maintenance of hydrologic improvements; 2) installation of new culverts in selected timber roads; 3) construction of low-elevation roadway sections; 4) applying the best management practices for erosion and sediment control, and 5) debris removal over Deep Creek.

Discussion ensued regarding the reconditioning of old fire lines that could be influencing the water flow on the site.

Sharon Collins explained that the Forestry Stewardship Plan (FSP) allows the establishment and maintenance of disked fire breaks, which have been installed throughout the entire tract and are maintained on an annual basis.

Member Mike Brown stated that in certain areas the fire breaks have been reconditioned, and others have been maintained as fire breaks.

Sharon Collins returned to the presentation (Other) and explained that phase by phase, Miami Corporation would relinquish the opportunity to develop the county approved platted communities and roads by vacating plats prior to recording the conservation easements. Before placing any conservation easements on the area, the mineral rights would be acquired by Miami Corporation. The applicant has the ability to terminate the banking program in a partially completed state. With the exception of removal of bedding and cattle, mitigation tasks/ programs (implementation of Forestry Stewardship Plan and Wildlife Management Plan) will be done before placement of Phase 1 conservation easement. When a phase is to be implemented, a GIS map with the phase boundaries identified will be forwarded to SJRWMD/ ACOE. The acreages for each mitigation category within the phase will be obtained by GIS, and indicated on the map. Miami Corporation will be permitted to maintain property boundary fences and logging roads within the banks. All culverts and low-water crossings will be maintained on an as-needed basis, and fire breaks will be

maintained within the designated forestry areas. To ensure funding for long-term maintenance is available in perpetuity for areas (phases) covered by a conservation easement, a trust fund will be established. Prior to establishing each phase of the bank, sufficient funds will be placed in the trust fund for the long-term maintenance of these areas. A GIS map of each bank site and a running total of credits and debits will be maintained and reported following each transaction. The mitigation bank area has been set aside from all uses other than silvicultural operations, conservation and hunting, as described within the permit, mitigation plan, forestry stewardship plan and wildlife management plan, and upon placement of a conservation easement.

Discussion ensued regarding the financial assurance for the long-term maintenance of the property.

Sharon Collins explained that the initial calculation for long-term maintenance provided a cost of \$4.78 per acre per year. However, those costs have recently been revised to reflect the actual costs from the past 11 years. The funds for long-term maintenance are received based on the completion of tasks as set forth in the mitigation bank permit.

Member Mike Brown added that long-term maintenance costs fluctuate each year depending on the land management needs (i.e., exotic control), and any unforeseen events (i.e., wildfire) that occurred on the property. These costs are re-evaluated every two years for budgeting purposes.

Sharon Collins returned to the presentation (Success Criteria & Monitoring Requirements for Credit Releases), and explained that if archaeological resources are found within the bank sites, provisions will be made to ensure that such sites received protection according to the Division of Historical Resources recommendations. The various success criteria must be documented demonstrating how it was met. Monitoring reports are required to be submitted periodically, commencing in January 2010. The monitoring program is divided into two phases: short-term and long-term. The short-term monitoring program is done twice annually until overall hydrological enhancement success has been achieved, and annually thereafter unless maintenance problems arise. The elements that will be documented in each annual report are: 1) location & size of culverts and low-water crossings; 2) periodic staff gauge readings; 3) weekly rainfall data; 4) GIS map of all clear cuts within bank sites; 5) GIS map of all bedded areas removed; 6) evidence of cattle removal; 7) location of plats abandoned; 8) age, weight, and sex of deer taken; 9) infrared aerial photos (1" = 1320') in year 1 and year 2; and 10) photos of work done. The first long-term monitoring report will be submitted five years after permit issuance. After that, the long-term monitoring reports will be submitted every five years as long as the bank is in operation. The following elements will be documented in each long-term report: 1) GIS map of all clear cuts, thinning and other forestry activities within bank sites; 2) GIS map of all bedded areas removed; and 3) infrared aerial photos (1" = 1320') with FLUCFCS overlay. The infrared aerial photos will include a clear mylar overlay of the original-ecosystem FLUCFCS map (the "target" for forest regeneration). Any changes observed as a result of forest regeneration will be described in the report. Maps depicting the three (3) banks were provided to show the mitigation enhancement categories (i.e., cypress wetlands, hardwood uplands, designated forestry areas), as well as the Green Key Conservation areas, and how the enhancement actions extend beyond the boundaries of these banks. Also provided were maps depicting the locations of hydrologic improvements (i.e., culverts and low-water crossings).

Discussion ensued regarding the possible effects of hydrological enhancements to this site and the surrounding area.

Discussion ensued regarding the mitigation bank, release of mitigation bank credits and the issuance of conservation easements based on the requirements of the Farnton Local Plan and mitigation bank permit.

Clay Henderson explained that the terms and conditions of the mitigation bank permit have been set, although changes can be made through a permit modification. The goal is to develop a conservation management plan geared toward wildlife habitat enhancement that would be

complimentary to the wetland enhancement criteria of the mitigation bank permit.

Kelli McGee added that a future modification of the permit could be requested to allow public access within the Deep Creek area. The Farnton Local Plan provides language that appropriate public access may be allowed if permitted by SJRWMD.

Derrill McAteer requested that any new conservation easements issued for released credits within the mitigation bank include language making it subject to the CMP.

Clay Henderson explained that he could not provide an answer as this a regulatory issue involving the SJRWMD and ACOE. He stated that the mitigation banking requirements' primary focus is on issues relating to wetland enhancement, and the CMP's focus is on sustainable forestry and habitat enhancement.

Discussion ensued regarding the objectives of the mitigation bank and the CMP, and how the CMP could be complimentary to the mitigation bank.

Chairman Stephen Kintner asked for clarification on the role of the task force with regards to the mitigation bank.

Derrill McAteer referenced Policy FG 2.11, paragraph 2, on page 12 of the Farnton Local Plan, which states: "Areas that have been formally opened as a mitigation bank shall be managed subject to the permit conditions, financial responsibility provisions, and terms of the conservation easement pertaining to the mitigation bank."

Kelli McGee referenced Policy FG 2.5(a) – Southwest Wildlife Corridor/Deep Creek Conservation Area, on page 10 of the Farnton Local Plan, which states: "The Deep Creek Conservation Area shall be managed subject to the Mitigation Bank Permit and Forestry Stewardship Plan. Controlled upland access by canoe or kayak to Deep Creek shall be an allowed passive recreation use. Other passive recreational uses may be allowed by permit (as granted by the Community Stewardship Organization established in FG 2.16), consistent with the management plan, and designed to have limited impacts on the resource. Boardwalks and viewing platforms may be allowed within the Deep Creek Conservation Area if permitted by SJRWMD." She explained that County Council was seeking a recommendation from the task force with regards to public access and any future permit modifications, specifically in the Deep Creek area.

Clay Henderson added that Policy FG 2.5 of the Farnton Local Plan is supplemental to the mitigation bank permit for an added layer of habitat protection and management. He explained that the objective is to set goals that are complimentary to the mitigation bank permit, and provide provisions for the long-term management of the property.

Member Robert Christianson explained that the task force's role should be limited with regards to the mitigation bank areas, except for the matter of public access within the Deep Creek area. The areas of focus should be those areas covered by the conservation easement dedicated to the CSO. He suggested layering easements to add an extra layer of protection.

Discussion continued regarding the management of the mitigation bank areas through the requirements of mitigation bank permit, and the task force's role in the management of specific areas (i.e., mitigation bank, resource based open space areas and greenkey lands).

Sharon Collins returned to the presentation and explained that the mitigation bank credits would be released upon completion of specific mitigation actions. The Farnton Mitigation Bank is a long-term bank as there are over 4,500 credits that could take at least 100 years to be used or sold. The bank was permitted with the flexibility to remove unused portions from it if the market demand is inadequate for any reason. To date, more than 11,147 acres have been put under conservation easement, which encompasses all of the South bank and much of the North and West Bank sites.

The Farnton Mitigation Bank provides regionally significant credits to off-set wetland impacts located within the footprint of the Halifax and St. Johns River Basins (Nos. 17 & 18), and provides service to approved projects within additional basins. The Farnton Mitigation Bank has been a substantial mitigation provider for mitigation needs in Volusia, Flagler, Brevard, Seminole, Orange, Lake, Marion and Osceola counties. This would include basins 14, 15, 16, 17, 18, 19 and 20. She provided photographs of the various species and habitats that the bank could protect or enhance.

Discussion ensued regarding the proposed covenants/easement documents after Member Robert Christianson asked if the benefits (i.e., hunting restrictions, exotics control and maintenance of hydrologic enhancements) would be part of the covenants/easement for the GreenKey lands.

Clay Henderson responded that the covenants/easement could be crafted to provide the mechanism for enforcement of the CMP. He added that every element of the CMP does not have to be part of the covenants/easement to achieve this goal.

The Task Force broke for lunch at noon and reconvened with a quorum at 12:30p.m.

#### **COMMENTS FROM COUNTY STAFF ON THE "DRAFT" CONSERVATION MANAGEMENT PLAN DATED 11-10-2011**

Randall Sleister opened the discussion of staff comments on the "draft" CMP dated 11-10-2011, and explained that some of the various comments from staff were made prior to the mitigation bank presentation.

Discussion ensued after Member Vickie Larson requested clarification on the process now that staff had provided its comments on the "draft" CMP to the task force.

Randall Sleister suggested, as part of the process, reformatting/ reorganizing the "draft" CMP in more of an outline format, as this was staff's greatest issue. At that point, the comments could be reviewed one by one.

Chairman Stephen Kintner suggested that staff begin the process by reformatting/reorganizing the "draft" CMP, and then incorporate comments through redline/underline editing.

Clay Henderson stated that county staff and representatives for Miami Corporation had not gotten together to review staff's comments on the "draft" CMP, and come to agreement on what revisions may be necessary to create a plan that addresses the important areas or concerns.

Randall Sleister suggested simplifying the maps, and adding them directly behind the section where they are referenced instead of being in the appendix. He added that county staff would work with representatives from Miami Corporation to improve the readability of the maps. He recommended that any comments from the task force be forwarded to county staff, so they can coordinate with Miami Corporation's representatives to make revisions to the "draft" CMP. The next comment from staff on page 2 notes that there is no language regarding the historical use or lack of prescribed fire on the property. On page 3, Section 2.1 Natural Resource Management Objectives, staff notes that there is a general lack of discussion regarding restoration or enhancement of the various habitat types outside of the mitigation bank areas.

Clay Henderson explained that the Farnton Local Plan requires descriptive language for the different habitat types in the CMP, but not what the outcomes would be other than sustainable forestry. The CMP's focus should be on the management of the "special areas."

Discussion ensued after Randall Sleister suggested incorporating desired future conditions for the various habitat types into the CMP.

Discussion ensued regarding forestry management practices in the various areas of the property.



Member Mike Brown explained that the forestry management objective is to reach a mosaic of uneven-age stands by thinning to a specific basal area, and maintain it within a certain range.

Discussion ensued regarding the importance of maintaining the wishbone portion of the GreenKey area in a more natural condition, and replanting the pine plantations with a more native species of pine, such as longleaf pine, to establish a more viable understory.

Randall Sleister returned to staff comments on page 5 regarding the need for better definitions of natural communities.

Discussion ensued after Member Vickie Larson recommended using FLUCCS Codes for the definitions of natural communities.

The task force requested that the CMP incorporate the FLUCCS Codes, and not FNAI definitions.

Randall Sleister returned to staff comments on page 7 regarding Buck Lake and Buck Lake Marsh, and asked for clarification on the location of these areas.

Clay Henderson used the map of the Farmton site to show the location of these areas, which are in Volusia and Brevard counties. He suggested managing the Volusia County portion of these areas with Brevard County's portion.

Discussion ensued regarding roadside ditches/ swales and hydrologic maps, after Randall Sleister asked if there were any significant roadside ditches outside of the mitigation bank.

Member Mike Brown replied that there were not any significant roadside ditches that are maintained by Miami Corporation.

Sharon Collins added that there are roadside ditches along all named timber roads.

Discussion ensued regarding prescribed fire, after Clay Henderson asked what direction county staff envisions the CMP heading with regards to the specificity of prescribed fire.

Randall Sleister explained that the CMP was geared more toward pile burning rather than using prescribed fire as a tool to provide suitable habitat for the various species on the site. Several places areas of the CMP made reference to the frequency of prescribed fires, but lacked details on its implementation. County staff would recommend adding additional language to provide more details on the implementation of prescribed fire, in what areas of the property, and at what frequency.

Member Robert Christianson suggested creating a fire management plan like the forestry stewardship plan that would provide specific details, such as target intervals, mechanical activities, etc.

Member Mike Brown added that the timber market has been the driving force as it relates to the use and frequency of prescribed fire on the Farmton site. He suggested that the CMP provide a variety of site appropriate management techniques/tools to meet the manage goals and objectives for the site.

Discussion ensued regarding the challenges of conducting prescribed fires (i.e., smoke) that are in close proximity to developed areas, on or near the Farmton site.

## **NEW BUSINESS**

The task force requested that the following topics be discussed at the February 1, 2012, meeting: 1) forest management presentation by Miami Corporation; 2) conservation easement/covenants discussion by Grantees; and 3) strategy for reviewing the CMP. During the March meeting, the next



potential topic for discussion could be a presentation on the habitat types.

Members Alan Alshouse and Preston Robertson asked to be excused from the February 1, 2012, meeting.

After the task force took a brief break, the Grantees began the discussion of the "draft" deed of conservation easement and covenants.

#### **DRAFT DEED OF CONSERVATION EASEMENT AND COVENANTS**

Clay Henderson opened the discussion with the Grantees, and explained that there would be a declaration of restrictive covenants with the conservation easement document attached as an appendix. Restrictive covenants by contract had been the document/ agreement used by land owners prior to the creation of Florida Statutes. He recommended that Volusia County's covenants and conservation easement documents be consistent with Brevard County's.

Member Robert Christianson explained that the District prefers a simple easement document with measurable, mapable and definable provisions. He noted that the latest version of the covenants and easement documents became confusing with regards to the prohibited uses, reserved rights, and exceptions to prohibitions.

Member Charles Lee agreed that the covenants and easement documents for Volusia and Brevard counties should be almost identical, except for certain provisions (i.e., rollover, extinguishment, and conversion).

Discussion ensued after Derrill McAteer explained that the county has a concern that the easement documents would hinder or put limits on the CMP. The CMP should be the overriding enforcement document. He referenced Policy FG 2.15 of the Farnton Local Plan, which states: "All conservation easements and covenants shall be subject to a conservation management plan as set forth in FG 2.10-11 and enforceable by the county."

After much discussion, it was agreed that language would be crafted to allow the CMP to be the enforcement document, and the covenants and conservation easement documents would provide measurable, mapable and definable provisions to set the boundaries.

Member Charles Lee suggested creating a document that would show the subtle differences between Volusia's and Brevard's proposed covenants and conservation easement documents. He also suggested including provisions for annual inspections, and other inspections upon request with reasonable notice during the remainder of the year.

Discussion ensued after Member Charles Lee recommended establishing an endowment fund for potential reimbursement costs, such as legal fees to resolve issues of non-compliance.

It was determined that the Grantees would continue reviewing, and discussing the proposed covenants and conservation easement documents at the February 1, 2012, meeting.

#### **Adjournment -**

Have no additional business; the meeting adjourned at 3:00p.m upon consent.

#### **ADOPTED**

  
Stephen Kintner, Chairman

  
Randall Sleister, Staff Liaison

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Derrill McAteer suggested that the Task Force develop a benchmark schedule where they would discuss and develop sections of the conservation management plan during their monthly meetings.

Chairman Stephen Kintner explained that there are issues that would need to be considered while developing the conservation management plan: 1) does this plan address the 21 criteria set forth in Section 2.11 of the Farnton Local Plan; 2) does it provide enough depth to allow for implementation, monitoring and enforcement of the plan; and 3) is this plan moving in the right direction. He recommended changing the word "should" to allow flexibility in the enforcement of the plan. He suggested discussing certain criteria (i.e., A thru F) of the Farnton Local Plan at each meeting to determine if the proposed plan sufficiently addresses each item. He recommended sending any comments from the Task Force members to county staff (i.e., Randall Sleister).

Derrill McAteer agreed that any comments from a Task Force member outside a public meeting should be directed to county staff; Randall Sleister. Mr. Sleister could then compile the comments for distribution to the Task Force members as materials to be discussed during a public meeting. He reminded the Task Force that direct communication between two board members on foreseeable topics for discussion by the board are prohibited and would be a violation of the Sunshine Law.

Member Preston Robertson requested clarification on the timeline for filing/recording the conservation easement documents with the Clerk of Court. Would this be handled as a rolling basis?

Glenn Storch, representative for Miami Corp., responded that the intent is to place everything into a conservation easement within one year from the effective date of the Farnton Local Plan. The mitigation bank would have a separate conservation easement under the terms and conditions of the mitigation bank permits. Additional conservation easements would be placed on the sustainable development areas (SDAs), but not immediately.

Member Charles Lee asked if Mr. Storch was referring to the covenants or conservation easements.

Glenn Storch clarified that it was the covenants he was referring to. However, it is also intended for the conservation easements to be placed over the mitigation bank areas at the same time as the covenants are placed over everything.

After Member Charles Lee added that the conservation easements and covenants would be filed/recorded right away with the permanent easements being implemented as the development begins in the SDAs, Glenn Storch agreed that this would be a rolling easement.

There was a brief discussion about the Brevard County conservation management plan in which Glenn Storch stated that their plan had already been approved and was in effect.

Chairman Stephen Kintner asked if there were any other suggestions/ ideas on how to proceed with developing a benchmark schedule.

Member Charles Lee also recommended changing the word "should" to allow more flexibility in the enforcement of the plan. He suggested making revisions that would provide operational guidelines/ standards rather than descriptive dialogue. The goal would be to create a precise, non-draconian plan that provides enough flexibility for the continued existence of a viable tree farm.

Member Robert Christianson also expressed a desire for a simple/precise plan with less dialogue and more action, but includes some maps with the various overlays. He stated that the management directives in the mitigation bank areas were cast, and the easements have been conveyed. Therefore, the Task Force shouldn't be overly concerned with the inclusion of these areas. The development areas also shouldn't be of concern, as these areas would be left for future groups to manage.

Member Charles Lee noted that the plan makes specific reference to certain areas of environmental concern, such as Deep Creek, or Crane Swamp, that would need to be treated different from the tree farm area. He suggested focusing on directive language to manage those sections outside of the areas designated for silviculture operation. He concurred that the mitigation bank area stands on its own, because it already has its own constitution (standards/ guidelines), conservation easement and mitigation banking permit that describes how it would be managed.

Member Vickie Larson explained that the special areas, including the tree farm and mitigation bank, should be part of the overall vision for this project and taken into consideration during the development of the conservation management plan. She referenced the Babcock Ranch management plan, and suggested using it or another management plan as an example/guide.

Discussion continued after Randall Sleister agreed that other management plans could be used as examples/guides for this plan and county staff could make them available to the Task Force.

Member Preston Robertson asked why the mitigation bank areas would be considered during the development of the plan, since it already is regulated by the mitigation bank permit. He stated that the "would" phrases are discretionary and wouldn't be enforceable. Therefore, they should be stricken to avoid any legal issues.

Chairman Stephen Kintner agreed that the plan should provide clear direction and make enforcement simpler.

Member Robert Christianson requested an overview of the aerial map depicting the special areas to assist the Task Force with determining the next step in developing the plan. He suggested reviewing the plan by these special areas rather than by sectioning the 21 criteria.

Discussion ensued regarding the consideration of the special areas (i.e., mitigation bank, tree farm) as they relate to the overall management of this project. The map designed as Figure 4A of Exhibit A was referenced during this discussion along with Exhibit I – Mitigation Bank Permit #4-127-76185-4.

Glenn Storch provided an overview of the map, and offered to provide a presentation on the standards of the mitigation bank permit at the next meeting to address some of the Task Force's concerns. He stated that the "draft" conservation management plan had been revised based on the Task Force's comments during their meeting on November 4, 2011. The concerns surrounding the usage of "should" within the plan would be addressed.

Discussion ensued after Member Robert Christianson asked for clarification on the Task Force's role as it relates to the tree farm, and suggested using a certification program for accountability purposes from the property owners.

Derrill McAteer explained that Kelli McGee, Director of the Growth and Resource Management Department, was unable to attend today's meeting. However, she wanted it conveyed that county staff would compile a list of questions/issues/concerns from the Task Force so clear direction could be obtained from County Council.

Discussion continued regarding the Task Force's role in the various areas as depicted by the map - Figure 4A of Exhibit A, and the need to strike a balance between preserving the habitat and maintaining a viable tree farm.

Ginger Adair, Director of Environmental Management, suggested using the Farmton Local Plan as a guide in developing the conservation management plan. She added that the local plan was approved by County Council, and it expresses their goals and expectations.

Randall Sleister agreed that the local plan is the driving force for the development of the conservation management plan by the Task Force. He reminded the Task Force that their goal is to provide recommendations to the County Council on a conservation management plan, which could include the mitigation bank. He added that the "draft" conservation management plan as created by Miami Corp. is only a starting point. However, the Task Force could determine that it is acceptable as written, but that is a decision to be determined by the Task Force.

Member Charles Lee suggested that county staff review the current "draft" conservation management plan, since they were involved with the creation of the Farnton Local Plan, and provide comments that could be useful to the Task Force. These comments would let the Task Force know if the plan is in compliance with the Farnton Local Plan and what may be lacking.

Derrill McAteer expressed a concern that the county was being asked to create a plan when Section 2.11 of the Farnton Local Plan states that "the owner shall develop the plan through a task force appointed by the county within one year of the recording of the initial conservation easement."

Member Charles Lee explained that county staff could use highlighting, redline and strikethrough editing to make its recommended changes to the 11-10-2011 "draft" conservation management plan.

Member Alan Alshouse asked if county staff had been in communication with Miami Corp. during the development of the "draft" conservation management plan.

Randall Sleister replied that county staff had not been in communication with Miami Corp. during the development of the 10-13-2011 "draft" conservation management plan, but had been during the development of the Farnton Local Plan.

Glenn Storch added that county staff had only been involved conceptually, not with the actual verbiage of the conservation management plan.

Discussion ensued after Member Vickie Larson suggested developing a matrix using the 21 criteria and the information contain in the 11-10-2011 "draft" conservation management plan. This would allow the Task Force to evaluate the plan in a physical and geographical sense. She also suggested creating a simple spreadsheet that would identify the special areas and its components (i.e., mitigation bank acreage).

Randall Sleister informed the Task Force that county staff would provide them with the resources (i.e., matrix, spreadsheet, staff comments) to achieve their goal.

Derrill McAteer referenced page 3 of the 11-10-2011 "draft" conservation management plan, which identifies the 21 criteria, and stated that the 21 criteria provides the Task Force with the key for the development of the plan.

Discussion continued regarding Charles Lee's suggestion that county staff review and provide comments on the content of the 11-10-2011 "draft" conservation management plan.

Discussion ensued after Member Robert Christianson suggested devoting a couple of meetings to discuss and become more familiar with the various aspects of the property (i.e., mitigation bank, working forest, special areas), and the management practices for these specific areas.

The Task Force determined that the next meeting would include county staff's comments on the 11-10-2011 "draft" conservation management plan and a presentation on the mitigation bank.

Member Alan Alshouse suggested reviewing the plan page by page with the Task Force making comments and coming to consensus on the comments.

Chairman Stephen Kintner explained that the Task Force would begin the process by reviewing county staff's comments on the plan. The next steps would include presentations on the various aspects of the property, and then a page by page review by the Task Force, but only after they have become more familiar with the various aspects of the property.

Randall Sleister suggested that the Task Force review the 21 criteria as set forth in Section 2.11 of the Farmton Local Plan as a discussion topic after lunch.

The Task Force broke for lunch at 11:45 a.m. and reconvened with a quorum at 12:20p.m.

Member Vickie Larson made a formal request for a copy of Brevard County's conservation management plan with county staff's comments.

Randall Sleister then opened the discussion of the 21 criteria as set forth in Section 2.11 of the Farmton Local Plan. He stated that the plan shall address at a minimum these items (A – U). Therefore, the Task Force could add items, but couldn't omit any.

**Item A** – A prioritized list of natural resource management objectives for the site and implementation methods that protect and enhance ecosystem integrity, function, and biodiversity.

Member George Tanner asked how and on what basis was the prioritized list developed.

Randall Sleister explained that there was not a protocol for establishing the prioritized list. However, the Task Force could accept the list as provided by Miami Corp., modify it, or create its own list.

**Item B** – Identification of special areas, including but not limited to the Deep Creek Conservation Area, Southwest Wildlife Corridor, and USFWS consultation areas.

After a member asked what consultation areas were, Randall Sleister explained that they are habitats/areas where the Everglades snail kite, crested caracara, and Florida scrub jay may be present.

Member Charles Lee added that the USFWS consultation areas may not be applicable as there isn't any data indicating the existence of these species on the property.

Clay Henderson, representative for Miami Corp., explained that the USFWS consultation areas were added due to comments from DCA during the initial finding of non-compliance. DCA had determined that this property was within the USFWS conservation area for three listed species, but Miami Corp. had no provisions for protection of those species.

Discussion ensued regarding the scrub jay and the potential need to enhance the scrub habitat.

Member Charles Lee noted that the wildlife corridors should be considered as part of this item.

Discussion ensued after Chairman Stephen Kintner raised the question on how the out parcels would be addressed during the development of the conservation management plan.

Glenn Storch explained that Miami Corp. has tried to acquire these enclaves, but some people wish to live in this type of area. However, the zoning of these enclaves would determine the allowable uses by the property owners.

**Item C** – Identification of natural and cultural resources in need of protection and discussion on how those resources will be protected.

No comments from the Task Force.

**Item D** – Description of natural communities and establish desired future conditions by specific habitat type.

Member Charles Lee noted that Items D and G were interrelated as the desired future condition could be accomplished through the Best Management Practices for silviculture.

Discussion ensued after Member Vickie Larson asked if there were any timeframes associated with the desired future conditions.

Member Mike Brown explained that there are certain elements that must be complied with once the conservation easement is in place.

**Item E** – Identification of known threatened or endangered plants and animals occurring on site and strategies and habitat management plans as identified in the best available scientific literature.

Discussion ensued after Member Robert Christianson stated that this item should be expanded to "regional" and not just on site. The scrub jay was used as an example, which encouraged additional discussion as it relates to the amount of scrub habitat on and surrounding the property.

**Item F** – Identification of exotic species and a plan for control/removal.

Member Charles Lee recalled a discussion regarding the existence of lygodium in several areas of the property.

Member Mike Brown stated that approximately 70 acres had been treated for lygodium since the last meeting.

Discussion ensued after Member George Tanner asked if Miami Corp. would continue surveying the property for exotics in the future, especially as development occurs.

Mike Brown explained that monitoring of exotics is handled as an operational function on an annual basis. If any exotics are identified within any area of the property, not just the mitigation bank area, they will be promptly treated.

Discussion ensued regarding the existence of and the amount of cogongrass on the property.

Member Mark Asleson asked if was intended that "exotic species" would include both plant and animal.

Randall Sleister responded affirmatively.

**Item G**– Forestry stewardship provisions consistent with Best Management Practices for silviculture, including location and logging road access management plan.

Discussion ensued after Member Charles Lee requested clarification on the meaning of the term "final harvest" and expressed a concern regarding the use of the clearcutting as part of the rotational cycle.

Member Mike Brown explained that it is intended to mean the final cut in the rotation/harvest prior to the reestablishment and regeneration of the area.

Discussion ensued regarding the handling of the timber harvesting operation as development occurs and the need for an integrated plan.

**Item H** – Provisions for significant water resources (such as streams, creeks, natural drainage ways, floodplains, and wetlands) protection, enhancement, and restoration and planned hydrological

restoration.

Discussion ensued after Member George Tanner asked if this includes surface water resources.

Member Robert Christianson noted that Item J should cover surface water resources.

Discussion ensued after Member Charles Lee noted that the plan needs additional descriptions of the currently altered streams, creeks, drainage ways, floodplains and wetlands, which need to be subject to restoration. It was suggested that a water course/hydrology map be included in the plan, which would delineate where the status and opportunities lay. It was requested that a roadway map be provided to the Task Force, which could include drainage ditches/swales.

Chairman Stephen Kintner stated that Item H should include provisions for the protection, enhancement and restoration of surface/ground water, and Item J should be handled separately.

**Item I** – Provisions for protection of habitat of listed or imperiled species and other indigenous species which may require special habitat protection.

Clay Henderson explained that this item was added to include the Swallow-tailed Kite.

Chairman Stephen Kintner reminded the Task Force that imperiled species includes plants as well as animals.

Discussion ensued after Member Robert Christianson noted that there needs to be a process in place to handle this issue as the project moves forward into the future.

**Item J** – Provisions for water resource development, well fields, and protection of well fields.

Discussion ensued regarding the potential development of an alternate water resource and the management requirements of the mitigation bank areas. The two maps were referenced during this discussion; 1) contained in the 11-4-2011 Miami Corp. presentation, and 2) Figure 4A. It was suggested that a map depicting the potential well sites be provided to the Task Force for clarity and there potential impacts to the Southwest Wildlife Corridor.

Member Charles Lee recalled discussion during the adoption of the Farmton Local Plan relating to an energy source/facility.

Discussion ensued regarding the potential addition of item (V) to address the potential development of an energy facility.

**Item K** – Erosion control.

No comments from the Task Force.

**Item L** – Fencing, appropriate public access, and development of trails, boardwalks, and interpretive facilities.

Clay Henderson noted that this would include fencing as approved by the Florida Fish and Wildlife Conservation Commission.

Discussion ensued after Member Vickie Larson requested clarification on the goal/intent of this item as it doesn't use the catch phrase "provisions for" like the other items. The Task Force agreed that this item should be interoperated as "provisions for" or "coordination of," even though it isn't specified in the text.

**Item M** – Provisions for elevated roadways or wildlife crossings.



Glenn Storch added that the standards for elevated roadways are part of the Comp Plan.

**Item N** – Prescribed fires specific to habitat types, Division of Forestry criteria, and addressing flexibility associated with climatic conditions and catastrophic events.

Discussion ensued regarding the term “criteria” with Member Mike Kuypers explaining that there are statutory criteria, and the Forester Service has its own policies/criteria, such as a range in values of humidity and wind speed, and burn intervals based on habitat type.

Member Charles Lee expressed a concern that the conservation management plan did not adequately advocate the need for prescribed fire.

Clay Henderson stated that there is a requirement for prescribed fire in the special areas (i.e., Southwest Wildlife Corridor). In other areas, prescribed fire is used as a management tool.

Glenn Storch explained that it is Miami Corp's intent to conduct prescribed fires, but only when it is appropriate.

**Item O** – Coordination of management plans with adjacent conservation lands and mitigation banks.

No additional comments from the Task Force.

**Item P** – Identification of ownership and management responsibilities including financial responsibility.

Member Charles Lee suggested that the conservation management plan needs to articulate the financial tie to the 50% of the SDAs being put into conservation.

**Item Q** – Coordination of the management plans with the City of Edgewater so as to be consistent with the natural resource protection measures within the Resource Based Open Space and Conservation Areas of the Restoration Sustainable Community Development District.

No comments from the Task Force.

**Item R** – Establishment of a timetable for implementation of the conservation management plan and development of a monitoring and reporting program to track the implementation.

Member George Tanner asked who would handle the monitoring program.

Glenn Storch explained that Miami Corp. would be responsible for the management of the property, and the Grantees would provide the monitoring on an annual basis to ensure that Miami Corp. has met the conditions set-forth in the conservation management plan. Even though the Grantees have the opportunity to monitor the property all year long, it is anticipated that there would be an annual review by everyone.

**Item S** – Provisions for passive recreational use, environmental education, and public access where appropriate.

Discussion ensued after Member Charles Lee asked if there would be a financial tie to the development in the SDAs to the creation of the environmental education centers as part of the public infrastructure.

**Item T** – Provisions for security and maintenance.

No comments from the Task Force.



**Item U** – Coordination of conservation management plans with management plan of the East Central Florida Regional Trail.

Member Charles Lee noted that this was a repeat of public access where appropriate.

Member Robert Christianson noted that an additional item (V) for infrastructure for other approved activities such as solar and environmental education had been proposed earlier.

#### **DRAFT DEED OF CONSERVATION EASEMENT AND COVENANTS**

Member Robert Christianson requested clarification on the Task Force's role as it relates to the covenants and easements, and their relationship with the conservation management plan.

Derrill McAteer explained that the covenants and easements are integrated with the conservation management plan.

Discussion ensued regarding the proposed language stating that one document would govern the other. It was determined that the proposed covenants and easements would be review at the next meeting to facilitate a more productive discussion by the Task Force. Discussion then ensued regarding the coordination meeting between the Grantees and Grantors of the covenants, and potential Sunshine Law issues.

Clay Henderson reminded the Task Force that the purpose of the covenants and easements would be to make the conservation management plan enforceable in perpetuity.

#### **NEW BUSINESS**

Randall Sleister asked if there was any new business. As there was none, they moved on with the agenda.

#### **PUBLIC PARTICIPATION**

Chairman Stephen Kintner asked if there was any public participation. As there was none, he then asked county staff when the next meeting would be.

Randall Sleister replied that the next meeting would be held on Wednesday, January 4, 2012, from 10:00 a.m. until 2:00 p.m in the Thomas C. Kelly Administration Building's 1<sup>st</sup> Floor Training Rooms located at 123 W. Indiana Avenue, DeLand,

Member Robert Christianson noted that the proposed agenda would include the approval of the 11-4-2011 minutes, an overview of the mitigation bank, and discussion of the covenants and easements along with county staff's comments on the 11-10-2011 "draft" conservation management plan.


#### **Adjournment -**

Chairman Stephen Kintner adjourned the meeting at 2:00p.m upon unanimous consent of the Task Force.

#### **ADOPTED**

  
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Stephen Kintner, Chairman

19 JAN 12  
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Date

  
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Randall Sleister, Staff Liaison

19 JAN 12  
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Date