St. Marks River Mitigation Bank

Sponsored By:

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Table Of Contents

1.0	Preamble	1
	1.1 Purpose of the Bank	1
2.0	Essential Mitigation Requirements	2
	2.1 Objectives	2
	2.2 Site Selection	2
	2.3 Site Protection Instrument	3
	2.4 Baseline Information	3
	2.4.1 General Site Description	3
	* 2.4.2 Ownership	3
	2.4.3 Historic and Archeological Resources	3
	2.4.4 Surrounding Land Use	3
	2.4.5 Hydrology	4
	2.4.6 Historic Communities	4
	2.4.7 Existing Vegetative Communities	6
	2.4.8 Species	7
	2.5 Mitigation Work Plan	8
	2.5.1 Pine Thinning	9
	2.5.2 Prescribed Fire Management	ğ
	2.5.2 Cypress Restoration	11
	2.5.4 Hydrologic Enhancements	12
	2.5.4 Trydiologic Enhancements	12
		12
	2.5.0 Preservation	10
	2.5.7 Longleat Pine Planting	13
	2.5.8 Herbaceous Augmentation	14
	2.5.9 Restoration of Disturbed Areas	15
	2.6 Mitigation Credit Generation and Utilization	15
	2.6.1 Determination of Credits	15
	2.6.2 Utilization of Mitigation Credits	16
	2.6.3 Mitigation Service Area	17
	2.7 Maintenance Plan	18
	2.8 Performance Standards	18
	2.9 Monitoring Requirements	22
	2.9.1 Qualitative Pedestrian Transects	22
	2.9.2 Qualitative Spot Assessments	23
	2.9.3 Permanent Quantitative Quadrats	24
	2.9.4 Permanent Photo Points	24
	2.10 Long-term Management Plan	25
	2.11 Adaptive Management	25
	2.12 Financial Assurances	26
3.0	Mitigation Bank Review Team	26
40	Authorities	26
5.0	Generalized Implementation Timetable	27
6.0	Bank Operation	28
0.0	6.1 Provisions for Site Audits	28
	6.2 Schedule of Credit Availability	28
	6.3 Procedures for Credit Release	20
	6.4. Conditions for Debiting of Ponk Motland Credits	29
	6.5 Lodger of Available Mitigation Credits	29 20
	6.6 Leager of Available Willigation Credits	30
	o.o Legal Responsibilities	30

e (

7.0 Mineral Rights	30
8.0 Reporting and Record Keeping	30
9.0 Contingency Plans	30
10.0 Other Provisions	31
10.1 Force Majeure Clause	31
10.2 Dispute Resolution	31
10.3 Bank Default	31
10.4 Bank Closure	31
11.0 Signature Pages	33

List of Figures

- Figure 1 Bank Location Map
- Figure 2 Bank Boundary Showing STR
- Figure 3 Bank in Relationship to Adjacent Owners
- Figure 4 Mitigation Service Area
- Figure 5 Landscape Location of Bank
- Figure 6 USGS Quadrangle
- Figure 7 Existing Culverts
- Figure 8 1941 Aerial Photograph
- Figure 9 1999 Aerial Photograph
- Figure 10 2007 Aerial Photograph
- Figure 11 Uplands and Wetlands
- Figure 12 Existing FLUCCS
- Figure 13 Proposed FLUCCS
- Figure 14 Prescribed Fire Units
- Figure 15 Cypress Areas Impacted by Logging
- Figure 16 Proposed Hydrologic Improvements
- Figure 17 Typical Plan and Cross-Sectional View of Culvert
- Figure 18 Low Water Crossing No. 1
- Figure 19 Low Water Crossing No. 2
- Figure 20 Low Water Crossing No. 3
- Figure 21 Low Water Crossing Typical
- Figure 22 Typical Plan and Cross-Sectional View of Ditch Blocks
- Figure 23 Temporary Hunting Impact
- Figure 24 Typical Plan and Cross-Sectional View of Road Removal
- Figure 25 UMAM Categories

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- Figure 26 Location of Reference Wetland
- Figure 27 Quantitative Monitoring Quadrat Location Map

List of Exhibits

- Exhibit 1 Summary Line Drawings of Bank
- Exhibit 2 Property Appraisers Information for Adjacent Properties
- Exhibit 3 Ambystoma cingulatum Critical Habitat in the Vicinity of the Bank
- Exhibit 4 Conservation Easement
- Exhibit 5 Division of Historical Resources
- Exhibit 6 Management History of St. Marks Mitigation Bank
- Exhibit 7 Plant Species Documented from Transects on St. Marks Mitigation Bank
- Exhibit 8 Plant Species Coverage Documented from Quadrants on St. Marks Mitigation Bank
- Exhibit 9 FNAI Element Occurrence Summary for Flint Rock Properties
- Exhibit 10 Prescribed Fire Management
- Exhibit 11 Cypress Restoration by Area
- Exhibit 12 Hydrologic Assessment
- Exhibit 13 Florida Exotic Pest Plant Council's 2009 List of Invasive Plant Species
- Exhibit 14 Desirable Flatwood Species
- Exhibit 15 Qualitative Monitoring Form
- Exhibit 16 Implementation Costs
- Exhibit 17 Long-term Management Costs
- Exhibit 18 Credit Ledger

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1.0 Preamble

This Mitigation Banking Instrument (MBI) regarding the establishment, use, operation and perpetual maintenance of the St. Marks River Mitigation Bank (Bank) has been prepared by Westervelt Ecological Services (WES), property owner and sponsor of the Bank, and Bosso, Dentzau & Imhof, Inc., in consultation with the Interagency Review Team (IRT). For this project, the IRT is composed of representatives from the U.S. Army Corps of Engineers (Corps), U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (USFWS), and the Florida Department of Environmental Protection (FDEP). This document serves as the federal MBI (Corps SAJ-2008-02014-CLB). This MBI does not obviate WES from obtaining necessary federal dredge and fill permits for Bank activities as appropriate.

The text of this MBI is based on 33 CFR Chapter II, Part 332 – Compensatory Mitigation For Losses of Aquatic Resources. Essential elements of this Bank, including location, mitigation service area, existing and proposed vegetative communities, and management activities are summarized by black & white line-drawing maps (Exhibit 1).

This MBI regarding the establishment, use, operation, and perpetual maintenance of the St. Mark River Mitigation Bank is made and entered into by and among Westervelt Ecological Services and the U.S. Army Corps of Engineers.

1.1 Purpose of the Bank

The St. Marks River Mitigation Bank (SMRMB) is proposed in Sections 13, 24 and 25, Township 3 South, Range 2 East, Wakulla County and Sections 19 and 30, Township 3 South, Range 3 East, Jefferson County (Figures 1 and 2). The SMRMB is bordered on the east by large scale agricultural/timber lands; on the north by agriculture, timber and conservation lands (St. Marks River Conservation Bank – proposed); on the west by undeveloped, but platted, residential lots with a minimum size of 40 acres; and on the south by Hwy 98 and extensive conservation lands owned by The Nature Conservancy and the Sam Shine Foundation (Figure 3). Property appraiser information for the adjacent owners is provided in Exhibit 2.

The purpose of the Bank is to offer wetland compensatory mitigation needs for private and public projects anticipated within the Bank Mitigation Service Area (MSA) as shown in (Figure 4). The MSA incorporates all areas within the 8-digit St. Marks River Hydrologic Unit Code except the open water areas of the Wakulla River, St. Marks River and Apalachee Bay.

Impacted wetlands which may be mitigated "in-kind" using the Bank, subject to regulatory approvals, include, but are not limited to, wet prairie, wet flatwoods, mixed forested/hardwood wetlands, baygall, cypress and gum depressions and sloughs and emergent marshes. With the approval of the regulatory agencies, "out-of-kind" impacts and minimal impacts from outside the MSA may also be mitigated using the Bank, on a case-by-case basis, particularly for small or linear projects. However, the use of the Bank may be inappropriate, even within the MSA, when it will result in unacceptable cumulative impacts to a waterbody, or when an impact is to a locally unique species, feature or community.

There were no locally-developed standards and criteria that were factored into either the MSA development nor the credit generation.

2.0 Essential Mitigation Requirements

Under the federal mitigation rule entitled, *Part 332 – Compensatory Mitigation for Losses of Aquatic Resources*, all mitigation banks and site specific mitigation projects are required to document the inclusion of 12 essential items within the plan as discussed below.

2.1 Objectives

The objectives of the Bank are as follows:

- ► Mixed Wetland Hardwood Preservation, Restoration and Management. Approximately 734.5 acres of Mixed Wetland Hardwoods will be enhanced through hydrological restoration, the edge response to prescribed fire effects, restoration of skidder trails, road removal, and the perpetual preservation from future adverse impacts. Approximately 39.3 acres of this community that was heavily logged will be enhanced through the affirmative planting of cypress.
- ► Wet Flatwood Restoration. Approximately 697.2 acres of Wet Flatwoods will be restored through timber thinning/removal, prescribed fire, hydrologic restoration, skidder trail restoration, road removal, and preservation.
- ► Enhancement of Emergent Marsh. Approximately 3.6 acres of Marsh will be maintained and enhanced with prescribed fire and perpetual preservation.
- Pine Flatwood Restoration. Approximately 1.6 acres of slash pine plantation will be restored to Pine Flatwood uplands through timber removal, longleaf pine planting, prescribed fire, and perpetual preservation.
- ► Hydrologic Improvements. Hydrologic enhancement will be implemented consisting of three (3) low water crossings, thirteen (13) additional culverts, and forty (40) road ditch blocks.
- Exotic Species Control Natural Corridor Protection. Monitoring for, and control of, exotic infestation and unauthorized activities will be completed in perpetuity.

2.2 Site Selection

The property for the Bank was selected because of it landscape position adjacent to existing and proposed conservation lands (Figure 5). Immediately south of the Bank is the recently purchased Flint Rock Property owned by The Nature Conservancy and Sam Shine Foundation. These properties contain defined critical habitat for the federally threatened frosted flatwoods salamander (*Ambystoma cingulatum*). Specifics concerning the designated *A. cingulatum* critical habitat in proximity of the Bank are provided in Exhibit 3. The St. Marks Preserve and St. Marks National Wildlife Refuge continue the connectivity to Apalachee Bay. Although not contiguous directly with the Bank, the Aucilla Wildlife Management Area occupies a large position to the east and extends northward along SR 59. All of these properties form a substantial wildlife linkage to which the Bank is an important addition.

2.3 Site Protection Instrument

The Bank will be protected in perpetuity by a conservation easement granted to the State of Florida. The U.S. Army Corps of Engineers and this Mitigation Banking Instrument will be provided the same rights of enforcement and protection in the recorded document as the State of Florida. A copy of the draft conservation easement is provided in Exhibit 4.

2.4 Baseline Information

2.4.1 General Site Description

The St. Marks River Mitigation Bank (SMRMB) is proposed in Sections 13, 24 and 25, Township 3 South, Range 2 East, Wakulla County and Sections 19 and 30, Township 3 South, Range 3 East, Jefferson County (Figures 1 and 2). The property consists of prior silviculture lands that have a network of interior and exterior dirt roads, some of which are culverted. The exterior roads are jointly owned by the adjacent property owners and consist of dedicated access easements. Although partially within the property boundary, these access easements were excluded from the Bank acreage since natural community restoration cannot be guaranteed in these locations.

The Bank straddles the Wakulla and Jefferson County lines on the north side of Highway 98, approximately 1 mile west of its intersection with SR 59. Substantial dedicated conservation lands surround the property to the south and north, with agriculture and large acreage residential development to the west and east.

2.4.2 Ownership

The Mitigation Bank property was acquired by Westervelt Ecological Services, LLC in 2008 from M.C. Davis. WES owns and manages mitigation bank properties in Florida, Alabama and California.

2.4.3 Historic and Archeological Resources

A survey for historic and archeological resources was completed by Suncoast Archeological Consultants, Inc. Their survey determined the site has a low probability of containing any significant prehistoric or historic cultural resources, and this survey was accepted by the Division of Historical Resources (Exhibit 5).

2.4.4 Surrounding Land Use

The Bank is surrounded by a mixture of conservation, agriculture and large-acreage residential lands in a rural portion of Wakulla and Jefferson counties. South of U.S. Highway 98 (the southern border of the Bank) two large tracts of land have recently been acquired for the expressed purpose of conservation. The western portion of this tract was purchased by The Sam Shine Foundation, Inc., while the eastern portion was acquired by The Nature Conservancy, Inc. Both acquisitions occurred early in 2008. The property is currently within the acquisition plan for the St. Marks National Wildlife Refuge. The complex of lands forms an essential wildlife linkage in the region (Figure 5).

Immediately north of the Bank is property owned by WES that is designated for a species conservation bank with compatible conservation standards as SMMB. The specifics of this conservation bank require further review that involves only a subset of the individuals involved in the Mitigation Bank review and will be handled separately (Figure 3). A small portion of the proposed conservation bank site is being used for project specific mitigation needs, as they arise, during the development of the Mitigation Bank.

Immediately west of both the Bank and the proposed species bank is Kala Preserve, which was recently platted into 42 lots ranging from approximately 47 acres to almost 100 acres. The eleven (11) easternmost lots are accessed by the dirt road that is commonly owned with WES properties. The sinuous nature of the road does not meet the minimum Wakulla County standards for pavement and therefore this access will remain primitive. North and east are extensive agricultural lands owned by the Crayton Pruitt Trust and Uncle Rigg, LLC.

2.4.5 Hydrology

The Bank contains a wetland complex referenced as Morrison Branch (Figure 6) which ultimately drains southerly into the East River and the St. Marks National Wildlife Refuge. Flow is southerly overall and is maintained internally through the Bank in a series of culverts under the timber roads. Flow continues under Hwy 98 with two sets of box culverts and an additional 36" culvert (Figure 7).

The network of roads and borrow ditches within and immediately contiguous to the Bank boundary demonstrably affects the amount and periodicity of flows. This was evident during the substantial fall rains where flow was observed being restricted by culverts and over topping roads.

2.4.6 Historic Communities

A review of historic aerial photographs and documentation supports the notion that past ecological structure is substantially different than what exists today. For restoration purposes we have indicated that we are striving for "historic conditions". Typically the term "historic condition" is also coupled with the term "pre-European." In order to complete that evaluation, a judgment call is made to determine the point in prehistory that should be used to determine the desired ecological condition, e.g., pre or post glaciation, post-Mississippian, proto-historic, etc. To do this, we would need extremely accurate information concerning the historic composition of the communities. We have used 1826 township maps (and witness tree data), remnant flatwoods sites along the St. Marks river, on-site stump analysis, historic photos of flatwoods, reference sites on St. Marks National Wildlife Refuge, modern and historic aerial photographs and land manager intuition to hone in on our target communities on SMMB.

Figure 8 represents a composite of several 1941 aerials, and as such is spatially distorted; however, the approximate Bank boundary is depicted. This aerial provides a glimpse into the historic conditions with well defined hardwoods and extensive flatwoods/prairie. No road impacts are evident except of a single trail entering the property in the center from the north. It is important when reviewing the 1941 aerial that the conditions reflected are a single snapshot in time. In fact, Exhibit 6 is a summary of likely management/utilization of the site and the surrounding areas based upon best professional judgment concerning the history of resource utilization in the southeast. In summary, it is likely that the minimal tree cover suggested by the 1941 aerial is an artifact of a cutover landscape maintained as native pasture by open range grazing. In addition, it appears that intensive timber management and silviculture began under St. Joe Timber Company in the late 1980's. It is our professional opinion that this area has been in intensive silviculture for not even one full rotation.

The site conditions in 1999 are reflected in Figure 9. Substantial impacts associated with timber production are evident, and the conversion of historic habitat types to pine plantation is clear. The road network in place at this time is substantially similar to existing conditions.

There are few (if any) ecosystems left in Florida that have not been significantly altered by post-European contact, e.g., through firesuppression, logging, agriculture, introduction of non-native species (like feral hogs), etc. In short, it is highly questionable whether or not areas exist that could be considered "untrammeled" by the influence of modern man. Additionally, there are conflicting schools of thought that have credibility for how we should define historic conditions: 1) that protohistoric and pre-historic aboriginal populations had significant direct or indirect effects on shaping the landscape and 2) that the benchmark ecological conditions are, in fact, a "moving target" as a result of stochastic perturbations of various spatial and temporal scales (*sensu* Hiers, 2009¹).

Likewise, we will never be able to mimic ecological functions and therefore precisely "restore" ecosystem structure. For example, whether or not one subscribes to the scientific debate over fire seasonality versus frequency, the application of fire on the landscape is forever altered. Due to legal constraints, fire will never again act as it did "pre-European." For example, lightning strikes and fire escapes from aboriginal encampments

¹ Hiers, JK, RJ Mitchell, A. Barnett, B. Williams. How to hit a moving target? Measuring Recovery within Longleaf Pine Communities on Eglin AFB. Society of American Foresters annual meeting, Ecological Forestry Special Session, Orlando FL. October 1-3, 2009.

created single point ignitions that could burn for multiple days and nights. Night time burning in Florida is seldom, if ever, permitted though it has very exacting fire effects. Likewise, single point ignitions are substituted with multiple point ignitions to ensure that a prescribed area is burned within an allowable time frame permitted, thus again, exacting different fire effects.

We have drawn on multiple resources to determine the desired ecological conditions driving restoration. Solely using the 1941 aerial photograph does not account for temporal variation (the "moving target") Likewise, the 1941 aerial is not to a of benchmark conditions. photographic scale that allows adequate resolution at the computer map scale needed for precise community identification. Therefore, it has always been our position that the main value of the historic aerials is to provide a snapshot of relative, historic conditions at that specific point in time. The 1941 aerial is sufficient to demonstrate that prior to intensive silvicultural practices (primarily bedding and planting), road construction, etc.. the communities were shaped by annual/biannual fire (presumably set by cattlemen) that freely moved into forested areas (wetlands) and Though "natural" conditions are flatwoods (wetlands and uplands). shown, the detail of the 1941 aerial is not sufficient to provide assurance that the conditions reflected were not those created and/or maintained by modern man. As such, we have used the 1941 aerial as an additional source to help define our target communities.

2.4.7 Existing Vegetative Communities

Figure 10 depicts the Bank with 2007 aerials which were used, along with on the ground inspections, to classify existing natural communities. The most demonstrable changes between 1999 and 2007 are the impacts associated with harvesting hardwood timber. This is evident in the skidder trails, altered signatures, and extra spur logging roads not evident in 1999.

The existing extent of wetland hardwoods was estimated from the joint review of the 2007 aerial photographs and the 1999 aerial photographs. This combined approach has generated the extent of wetland hardwood coverage that currently exists. When considering this, it is important to realize that historic flatwood conversion into hardwoods would not have been a silvicultural technique and therefore this extent cover can be assumed to have developed because of extensive period of fire suppression. No one can accurately account for a naturally occurring ebb and flow of hardwoods into historic flatwood areas due to the ephemeral nature of fire. Simply put, hardwoods would have naturally grown into and retracted from these flatwood areas over the millennia because of the temporal nature of fire. For these reasons we believe the use of the recent, higher quality, aerial photographs to establish existing wetland hardwood coverage is appropriate as it falls within the fluctuations of the ebb/flow cycle.

The Bank consists of approximately 1,418.4 acres of wetlands, 1.6 acres of uplands, and 31.2 acres of disturbed areas (Figure 11). These areas are further broken down into upland slash pine plantation, wetland pine plantation, mixed hardwood wetlands, skidder trails and emergent marsh. Table 1 provides the existing FLUCCS classifications along with the acreage of each community and Figure 12 depicts the spatial arrangement of these communities on the site.

Table 1 – Existing Land Cover by FLUCCS				
FLUCCS Code	Description Acres			
617	Mixed Wetland Hardwoods/Central 361.4			
617	Mixed Wetland Hardwoods/Secondary 368.0			
641	Freshwater Marsh 3.6			
411	Coniferous Plantation/Wetland 685.4			
411	Coniferous Plantation/Upland 1.6			
740/8146	Disturbed Lands/Trails and Ditches 14.3			
8146	Disturbed Lands/Skidder Trails/Food Plots 16.9			
	TOTAL 1451.2			

2.4.8 Species

In order to provide information to demonstrate the existing vegetative conditions, several transects and quadrats were completed for WES by Drs. Jeff Glitzenstein and Donna Streng. Sampling was completed over a three day period and involved both transects and quadrats. Transects were directed to cross community boundaries and to provide information on occurrence, but were weighted to generate as much information as possible about pine plantation flatwoods which are targeted to receive the greatest amount of restoration and are currently in the most degraded state (Exhibit 7). Quadrats were completed within Wet Plantation Flatwoods and are characterized by either sawgrass dominant or wiregrass dominant. These data provide an indication of cover by the individual species (Exhibit 8).

Information generated by the Florida Natural Areas Inventory for the Flintrock property now owned by the Nature Conservancy and the Sam Shine Foundation (Figure 5) documents several state listed species in the general vicinity of the project (Exhibit 9). These element occurrences are summarized in Table 2 below.

Table 2 – Element Occurrences Documented by FNAI.			
Genus/Species	Common	Ranking ²	
Ambystoma cingulatum	Frosted Flatwoods Salamander	FLE, LS	
Agrimonia incisa	Incised Groove-bur	LE	
Amphiuma pholeter	One-toed Amphiuma	NA	
Calamovilfa curtissi	Curtiss' Sandgrass	LT	
Carex chapmanii	Chapman's Sedge	LE	
Clemmys guttata	Spotted Turtle	NA	
Drymarchon couperi	Eastern Indigo Snake	FLT, LT	
Eleocharis rostellata	Beaked Spikerush	LE	
Haliaeetus leucocephalus	Bald Eagle	LT	
Hymenocalis godfreyi	Godfrey's Spiderlily	LE	
Leitneria floridana	Corkwood	LT	
Macrochelys terminckii	Alligator Snapping Turtle	LS	
Pseudemys concinna	Suwannee Cooter	LS	
suwanniensis			
Rhynchospora thornei	Thorne's Beakrush	NA	
Ruellia noctiflora	White-flowered Wild Petunia	LE	
Trichechus manatus	Manatee	FLE, LE	
Ursus americanus floridanus	Florida Black Bear	LT	

2.5 Mitigation Work Plan

A mitigation work plan for the restoration and management of the Bank has been developed with input from the IRT based upon a presubmittal field inspection completed in June of 2008 and the continued review of the site through 2010. The overall goal for this property involves a return to conditions as evidenced by the historic aerial photographs and documentation to the greatest degree practicable. The proposed or target communities after restoration is complete in the Bank are referenced in Figure 13 and in Table 3 below.

Table 3 - Proposed Land Cover By FLUCCS.					
FLUCCS CODE	Description		Acres		
617	Mixed Wetland Hardwoods		734.5		
641	Freshwater Marsh		3.6		
625	Hydric Pine Flatwoods		697.2		
411	Pine Flatwoods		1.6		
740/8146	Disturbed Land/Trails		14.3		
		TOTAL	1451.2		

To accomplish the restoration, the following specific activities are proposed:

- 1. Thinning of planted slash pine in mesic and hydric pine plantations.
- 2. Prescribed fire management plan implemented in perpetuity.
- 3. Wetland restoration through planting of cypress in areas identified as impacted by cypress timber harvesting within the Central Mixed Hardwood Wetlands.

² State Endangered (LE), State Threatened (LT), State Species of Special Concern (LS), Federally Threatened (FLT), Federally Endangered (FLE), Rare (NA)

- 4. Hydrologic improvements.
- 5. Exotic species eradication and control in perpetuity.
- 6. Preservation of community viability in the long term.
- 7. Planting of longleaf pine in mesic and hydric flatwoods.
- 8. Supplement herbaceous plantings where seed source is absent.
- 9. Restoration of Mixed Hardwood Wetlands from skidder trails and roads.
- 10. Restoration of Hydric Flatwoods from skidder trails and roads.

2.5.1 Pine Thinning

The first stage of the ecological restoration of the site will involve the harvesting/thinning of slash pines to achieve densities more indicative of the benchmark natural communities. The conversion of the site to intensive fiber production is evidenced by the aerial photographs (Figures 8-10). The effects of the silviculture have been the conversion of hydric flatwoods to hydric pine plantations and mesic flatwoods to mesic pine plantations. In both circumstances the tree density has been substantially increased from historic conditions to the current 600-700 trees/acre, i.e., from an open to a closed canopy pine forest. In addition, the species composition has changed from predominately longleaf pine with slash pine in the wetter areas to all slash pine and loblolly pine.

The planted slash pines in 685.4 acres of wetland plantation and 1.6 acres of upland plantation (Figure 12) will be thinned to no more than 75 trees/acres in a manner that is consistent with "Silviculture Best Management Practices for Florida", 1993, Florida Department of Agriculture and Consumer Services, 98 pp., herein referenced as silviculture "BMPs". In some cases complete removal of the pine may be completed in any given area. The resultant community types are provided in Figure 13. Pine thinning activities will be completed by management unit (Figure 14) on the following schedule:

- Units 2 and 3 Year 1
- Unit 1 Year 2
- Unit 4 Year 3.

2.5.2 Prescribed Fire Management

Subsequent to slash pine thinning the next step in the ecological restoration will be the reintroduction of fire into the ecosystems. For the purpose of this assessment prescribed fire will be deemed essential to the maintenance of the Hydric Pine Flatwoods (FLUCCS 625), Pine Flatwoods (FLUCCS 411), and Freshwater Marsh (FLUCCS 641), and will be deemed as important ecosystem components of Mixed Wetland Hardwoods (FLUCCS 617).

The target communities have varying fire return intervals as reference in Table 4.

Table 4 – Fire R	eturn Intervals.
FLUCCS	Description Years
CODE	
617	Mixed Wetland Hardwoods 5-150
621	Cypress Dominated 3-150
641	Freshwater Marsh 1-10
625	Hydric Pine Flatwoods 3-10
411	Pine Flatwoods 1-8

Within Mixed Wetland Hardwood the shorter return interval reflects the ebb and flow effect of fire along the edges in these systems while the longer interval would represent catastrophic events impacting the bulk of the community that occur during extended drought conditions. For the purpose of Bank management prescribed fire will not target these upper limits of the fire return intervals in hardwoods since that would require catastrophic fire. Since the communities are mixed throughout the site, and since individual fire breaks between communities are not desirable, a unified fire return interval of 3-5 years will be targeted. The fire management program will be in perpetuity.

To implement the prescribed fire management program, the site is divided into four (4) management/fire units as shown in Figure 14. The internal road system forms the spine of the fire breaks between management units and the exterior roads, common with the adjacent property owners, and the ROW of Highway 98, complete the fire breaks. The overall goal will be to introduce fire into the Pine Flatwoods, Hydric Pine Flatwoods and Freshwater Marsh communities and allow that fire to extend into the transitional zones of the Mixed Wetland Hardwoods or Cypress Wetlands. Given the embedded nature of some of the pyric communities within hardwoods, prescribed fire will require the use of multiple ignition points for complete Bank coverage. Exhibit 10 provides a sample burn plan.

It is anticipated that most burning will be completed December through early May. During this period the weather conditions are much more predictable which allows the safe and continued use of prescribed fire on the property by directing smoke away from Highway 98. This timing is also similar to that used by the surrounding state and federal agencies with respect to the management of their properties. Notwithstanding, however, all opportunities to burn later in the growing season (June-September) will be taken when available.

Recent information suggests that burn frequency is more important than burn seasonality in achieving restoration and management goals in longleaf/wiregrass and flatwood communities. In fact, variation in the season of burn will allow variable flowering opportunities for species and should help to increase the diversity of the groundcover³. In other words, growing season burns will be used as a tool and are not the end objective.

2.5.3 Cypress Restoration

Through a review of the historic aerials and based upon the information provided by Southern Forests⁴, a recent previous owner of the property, timber harvesting of some of the hardwoods is evident. It is also clear that the target species for harvesting was cypress.

The targeting of cypress for selective timber harvesting would be expected given the commercial viability of species both for wood and mulch. Cypress, however, require specific conditions for seeding and early growth, and the harvesting of this species when other readily available hardwood recruitment exists either within the system or nearby, tends to lead to a decrease in cypress cover in the long term.

Cypress seeds require moist soil for germination, but will not germinate under water, and new seedlings do not survive inundation greater than 1".⁵ Therefore, seedlings must grow tall enough to escape inundation but must receive enough water to prevent wilting. Furthermore, studies completed at Corkscrew Swamp Sanctuary indicated that cypress reestablishment after logging or severe fire is difficult and the end product may be mixed hardwoods with little or no cypress component.⁶

Given the biology of cypress and its lack of adequate regeneration after severe impacts, the affirmative restoration of cypress is desirable. For the purpose of this effort, restoration will be completed by the planting of 400 cypress seedlings/acre over the 39.3 acres of recently timbered portions of the Central Mixed Wetland Hardwoods, for a total of 15,720 seedlings (Figure 15). Seedlings will be planted in late winter to

³ Hiers, J. K., O'Brien, J. J., Will, R. E., Mitchell, R. J. 2007. Forest floor depth mediates understory vigor in xeric *Pinus palustris* ecosystems. *Ecological Applications*, *17*, 806-814.

³ Brockway, D. G. and Lewis, C. E. 1997. Long-term effects of dormant-season prescribed fire on plant community diversity, structure and productivity in a longleaf pine wiregrass ecosystem. *Forest Ecology and Management, 96*(1,2), 167-183.

³ Hiers, J. K, Wyatt, R. and Mitchell, R. J. 2000. The effects of fire regime on legume reproduction in longleaf pine savannas: Is a season selective? *Oecologia*, *125*(4), 521-530.

 ³ Glitzensteing, J. S., Streng, D. R. and Wade, D.D. 2003. Fire frequency effects on longleaf pine (*Pinuse palustris* P. Miller) vegetation in South Carolina and northeast Florida. *Natural Areas Journal, 23*, 22-37.
 ³ Liu, H and Menges, E. S. 2005. Winter fires promote greater vital rates in the Florida Keys than

³ Liu, H and Menges, E. S. 2005. Winter fires promote greater vital rates in the Florida Keys than summer fires. *Ecology 86*(6), 1483-1495. ³ Hiers, J. K. O'Brion, J. L. Will, D. F. Mitchell, D. J. 2007. The second state of the second state

⁴ GIS data transmitted from a previous owner indicates approximately 507 acres of predominately wetlands were "clear cut".

⁵ Brown, C.A. 1984. Morphology and Biology of Cypress Trees, pp 16-24. *In Cypress Swamps*. K.C. Ewel and H.T. Odum (eds). University Press of Florida. 472 pp.

⁶ Gunderson, L.H. 1984. Regeneration of Cypress in Logged and Burned Strands at Corkscrew Swamp Sanctuary, Florida, pp 349—357. *In Cypress Swamps*. K.C. Ewel and H.T. Odum (eds). University Press of Florida. 472 pp.

early spring in advance of the spring rains. Care will be taken to ensure that adequate soil moisture is present at the time of planting to avoid wilting. Exhibit 11 provides the approximate size of each area to be planted.

2.5.4 Hydrologic Enhancements

The impacts to the site over 70 years have resulted in fragmented communities and altered hydrology. The "lift" we have requested from the hydrologic enhancements is commensurate with the obvious alterations and impacts that are already in place. Undoing past alterations to the site's hydrology to more reasonably approximate historic conditions will result in a positive ecological "net benefit," especially when coupled with the other proposed restoration activities on the SMMB. A hydrologic review completed by an engineer registered in the State of Florida is provided in Exhibit 12.

While some culverting is present, the Bank proposes to enhance water flow and periodicity through the installation of thirteen (13) additional culverts that range in size from 18" to 36" and three (3) low-water crossings (Figure 16).

Culverts will be installed both within the interior roads of the WES property and also on roads common with the adjacent property owners. Typical culvert design is provided in Figure 17. Since the predominate flow is from the north to the south, low water crossings will be installed along the northern Bank Boundary adjacent to the area designed for a conservation bank property. These structures, which are depicted in Figures 18-21, will provide for a more historic conveyance of flows both in amount and timing.

In order to restore flows to the greatest extent possible, the Bank is also proposing the installation of numerous ditch blocks within the ditch system adjacent to the roads. Forty (40) ditch blocks will be installed at the major transitions of community types – hardwood wetlands to hydric flatwoods, hardwood wetlands to mesic flatwoods and hydric flatwoods to mesic flatwoods. The general landscape location of these blocks are depicted in Figure 16 while a typical detail is provided in Figure 22.

2.5.5 Exotic Species Control and Eradication

Throughout all of the community types, an exotic and nuisance species control program will be implemented. Current undesirable plant species identified include Chinese tallow and Japanese climbing fern. Although exotic species infestation is not substantial at this point, in the "no project alternative" coverage by exotics will expand and over time will develop into a chronic disturbance issue. Plants of concern shall be those listed by the Florida Exotic Pest Plant Council (FLEPPC), 2009. (Internet: http://www.fleppc.org/09list.htm, Exhibit 13). Treatment of exotics will follow the same schedule as with the timber thinning:

- Units 2 and 3 Year 1
- Unit 1 Year 2
- Unit 4 Year 3.

Annual follow-up will be conducted throughout the site.

In addition to plants listed above, site utilization by feral hogs has been noted on the property and the surrounding conservation lands. While an attempt will be made to reduce hog numbers on the site through trapping and hunting, it is not conceivable to eradicate the species from the property. WES has determined that continuation of the existing hunting lease on the property would be beneficial for a period of 5 years after entitlement. To accomplish this existing food plots and access will be retained for that period. These areas are depicted in Figure 23 and total 16.9 acres. After cessation of hunting these areas will be restored to natural conditions and the acreage has been incorporated into the post restoration totals provided in Figure 13 and Table 3. A copy of the existing hunting lease is provided in Exhibit 14. No additional disturbance will be permitted during this timeframe.

2.5.6 Preservation

One of the most important features of the mitigation bank is the perpetual conservation of existing and restored communities. In the without bank scenario, the cumulative impacts to the site from uncontrolled access, intensive fiber production at the expense of ecosystem diversity, and the continued harvesting of wetland hardwoods and cypress would be perpetuated. The unregulated impacts of intensive forestry practices, including mechanical land clearing, are evident on adjacent properties. The draft conservation easement is provided in Exhibit 4.

2.5.7 Longleaf Pine Planting

Historically the dominant pine on the uplands and upper wetland flatwoods was longleaf pine. After slash pine thinning, at least one prescribed fire, and hydrologic improvements, longleaf pine tublings will be established in the Pine Flatwoods Uplands at a density of 250 trees/acre and in the Hydric Pine Flatwoods at a density of 100 trees/acre. Target densities for saplings which have attained a stature that is likely to survive prescribed fire events is 100-225 trees/acre in the uplands and 35-75 trees/acre in the wet flatwoods.

It may be necessary to prepare the site for longleaf seedling planting through the application of herbicide to control the regrowth of broad leaf hardwoods. This determination will be made after review of the site subsequent to timber removal and the effects of prescribed fire.

2.5.8. Herbaceous Augmentation

The intent of the restoration is to restore native natural communities which include a healthy herbaceous component in both the Upland Pine Flatwoods and the Hydric Pine Flatwoods. This allows the application of moderate fires on the schedule stated in Section 2.5.2. Supplemental plantings may be needed based upon the recovery documented after the pine thinning and burning.

An important species to re-establish within both the wetland and upland flatwoods will be wiregrass (*Aristida beyrichiana*). It is anticipated that a combination of direct seeding and wiregrass plugs will be used based upon the amount of desirable ground cover in a given area. Direct seeding is only effective when the ground can be scarified and the seed is rolled in, and therefore is really only appropriate in areas with no viable ground cover. The following direct seedling protocol is proposed:

- 1. Prescribed fire in the donor sites will be completed to the greatest degree possible in May through June to maximize viable seed production⁷.
- 2. Seed will be collected in November following the burn predominately through the use of Flail-Vac Seed Stripper⁸ or collected by hand.
- 3. Seed will be dried under cover for a minimum of 7 days before being transferred to paper bag containers for later distribution.
- 4. Seed will be "cleaned" of stalks and debris to the greatest extent possible to prevent complications in the sowing aspect of the project.
- 5. Seed will be separated into "upland collected seed" and "wetland collected seed" to the greatest degree feasible.
- 6. Prior to seed sowing, the area will be prepared to accept the seed by the removal of woody debris and the scarification of the soils.
- 7. Only areas that are predominately devoid of wiregrass and other native groundcover will be targeted for direct seeding restoration given the need to "prepare" the soil.
- 8. Sowing of the seeds will be completed with a Grasslander hauled with a tractor. This provides not only for seed distribution, but also provides rollers to increase the seed-soil contact, and thereby increase the germination rates.
- 9. Sowing will be completed in late winter following seed collection.

The Bank is prepared to argument the herbaceous layer with as many as 150,000 plugs of wiregrass distributed over bare areas in

⁷ Outcalt, KW. 1994. Seed Production of Wiregrass in Central Florida Following Growing Season Prescribed Burns. *Int. J. Wildland Fire 4(1)* 123-125.

⁸ A Flail-Vac collection system attached to the front of an all-terrain vehicle was determined by The Nature Conservancy at the Apalachicola Bluffs and Ravines Preserve in Liberty County to provide the best seed collection results.

Flatwoods. However, the number and spacing will not be known until such time as the rebounding of herbaceous species is understood, which is anticipated to be documented by Year 4 of the project. Furthermore while wiregrass is a clear desirable component of the flatwoods, other species may be deemed essential after a review of the area(s) selected as the reference wetland. Therefore, no later than 5 years from entitlement of the Bank, the Banker will provide a plan for herbaceous species augmentation based upon the data generated in years 0-4.

2.5.9 Restoration of Disturbed Areas – Trails, Roads, Skidder Trails and Food Plots.

Approximately 11.8 acres and 5.1 acres of disturbed area will be restored to Wet Flatwoods Mixed Hardwood Wetlands, respectively. Approximately 2.1 acres of highly disturbed (rutted, scarified, etc) skidder trails will be restored to the community type that they are contained within. This will result in the restoration of 1.6 acres of Wet Flatwoods and 0.5 acres of Mixed Hardwoods. Flatwood restoration will involve the planting of 1,600 wiregrass plugs. Mixed Hardwood restoration will involve the planting of 400 cypress saplings.

Approximately 0.8 acres of roads will be restored to 0.7 acres of Wet Flatwoods and 0.1 acres of Mixed Hardwoods. For restoration the road will be excavated with the suitable material being deposited in the adjacent borrow ditches created during road construction. An example is provided in Figure 24. The borrow ditches will be filled to grade to the extent possible with the spoil removed from the roads. Because of spoil compaction or vegetation, the entire ditch may not be filled; however, drainage, if any, will be restored. Wet Flatwood restoration will be completed with the planting of 900 wiregrass plugs, while the Mixed Hardwood restoration will be completed with 70 cypress saplings.

Approximately 14 acres of existing hunting food plots will be restored to 4.5 acres of Mixed Hardwood Wetlands and 9.5 acres of Wet Flatwoods. The flatwood pine restoration will require the application of an approved herbicide to eliminate ruderal grasses and the planting of 4,500 wiregrass plugs. The hardwood restoration will require the planting of 2,700 cypress saplings.

2.6 Mitigation Credit Generation and Utilization

2.6.1 Determination of Credits

The IRT conducted a field meeting on December 8, 2010 for the purpose of determining the UMAM scores. At that meeting it was agreed that four UMAM (existing) categories would be appropriate as follows:

UMAM 1 – Central Mixed Hardwood Wetlands (FLUCCS 617) – 363.0 acres.

UMAM 2 – Secondary Mixed Hardwood Wetlands (FLUCCS 617) 371.5 acres.

UMAM 3 – Coniferous Plantation Wetlands (FLUCCS 411) – 697.2 acres.

UMAM 4 – Freshwater Marsh (FLUCCS 641) – 3.6 acres.

These categories are reflected in Figure 25.

Table 5 provides the summary calculations for the post restoration UMAM (proposed community) scores.

	Table	5 –	UN	AM S	Summ	ary							
UMAM Areas	Locati Before After	ion ∋-	Wa En Be Afi	iter viron. fore- er	Com Strue Befo After	munity cture re-	UMAM Delta	PAF	Time Lag	Risk	RFG	Acres	Credits
No. 1	7	9	7	9	7	9	0.200	NA	1.26	1	0.159	363.0	57.62
No. 2	7	9	8	9	7	9	0.167	NA	1.07	1	0.156	371.5	57.87
No. 3	7	9	6	9	4	9	0.333	NA	1.16	1	0.287	697.2	200.35
No. 4	7	9	7	8	7	9	0.167	NA	1.07	1	0.156	3.6	0.56
TOTAL												142513	316.39

The mitigation, restoration, management and preservation activities are proposed to provide 316.39 palustrine credits.

2.6.2 Utilization of Mitigation Credits

The Bank credits generated by the management activities are available for use for all palustrine impacts including, but not limited to, the following FLUCCS category communities within the Service Area:

- 610 Wetland Hardwood Forests
- 611 Bay Swamps
- 613 Gum Swamps
- 614 Titi Swamps
- 615 Stream and Lake Swamps (Bottomland)
- 617 Mixed Wetland Hardwoods
- 619 Exotic Wetland Hardwoods
- 621 Cypress
- 624 Cypress-Pine-Cabbage Palm
- 625 Hydric Pine Flatwoods
- 626 Hydric Pine Savanna
- 627 Slash Pine Swamp Forest
- 630 Wetland Forested Mixed
- 641 Freshwater Marshes
- 646 Treeless Hydric Savanna
- 650 Non-vegetated.

2.6.3 Mitigation Service Area

The purpose of the Bank is to offer wetland compensatory mitigation for private and public projects involving impacts to jurisdictional waters of the United States within the Mitigation Service Area (MSA) as shown in Figure 4. The MSA encompasses the St. Marks River 8-digit Hydrologic Unit Code, but excludes the open water areas of the Wakulla River, St. Marks River and Apalachee Bay.

Nothing stated in this document will prevent utilization of the Bank for projects or activities located outside the MSA should the reviewing agencies determine that the scope and quality of the impact is such that reasonable assurances can be provided that the use of the Bank fully addresses the negative impacts of the project/activity. Examples of projects or activities located outside the MSA for which utilization of the Bank may be appropriate include, but are not limited to:

1. Projects with adverse impacts partially, but not entirely, located within the MSA.

 Linear projects, such as roadways, transmission lines, distribution lines, pipelines or railways that partially intersect the MSA.
 Project with total adverse impacts of less than one-half acre in size even if not partially within the MSA.

When mitigation credits are applied to offset adverse impacts for projects or activities located outside of the MSA, the mitigation credit requirement may be higher if necessary, as determined by the Corps on a case by case basis, to adequately offset the adverse impacts of the project.

Nothing stated herein assumes that the mitigation will be suitable when considering the scope of the impacts, the quality of the impacted ecosystem, or the type of the impacted system, but this document does allow appropriate consideration by the permitting entity.

2.7 Maintenance Plan

A maintenance plan that includes long-term access control, prescribed fire, and exotic plant control has been developed as outlined in other sections of the MBI. These components are perpetual requirements under this document and would transfer to any other entity that may assume title to the property subsequent to Bank entitlement. The costs associated with the long-term management have been accounted for in financial assurance documentation.

Access to the Bank will be restricted through locked gates and the boundary and interior will be patrolled for evidence of encroachments on a quarterly basis.

2.8 Performance Standards

The goal of the mitigation is to convert, enhance or preserve the site so that the target communities depicted in Figure 13 are attained. Descriptions of target communities are as follows:

Mixed Wetland Hardwoods, FLUCCS 617

This system is also referenced as a Basin Swamp and represents a depression area not associated directly with a river that is large, irregularly shaped and dominated by hydrophytic trees and shrubs that can withstand an extended hydroperiod. Typical species include red maple, buttonbush, black titi, red titi, dahoon holly, myrtle-leaved holly, Virginia willow, sweetgum, sweetbay, wax myrtle, blackgum, red bay, slash pine, longleaf pine, swamp laurel oak, cabbage palm, American snowbell, pond cypress, slimpod, cane, sawgrass, sweetpepper bush, haw, St. Johns wort, rush, fetterbush, shiny lyonia, ludwigia, cinnamon fern, royal fern, red chokeberry, camphor-weed, pickerelweed, beakrush, palmetto, rhododendron, duck potato, lizard tail, smilax, corkwood, chain fern and rain lily.

Hydric Pine Flatwoods, FLUCCS 625

Flatwoods are characterized by relatively open-canopy forests of scattered pine trees and often grade into savannas with fewer to no trees found on relatively flat and poorly drained terrain. Understory is typically sparse with a dense ground cover. Target plants include slash pine, longleaf pine, sweetbay, titi, cypress, red maple, tall gallberry, gallberry, broomsedge, wiregrass, milkweeds, honeycomb-head, white screwstem, beggar-tick, rayless goldenrod, yellow colic-root, grass-pink orchids, pineland daisy, Maryland goldenaster, sawgrass, sweetpepper bush, tickseed, toothache grass, panic grasses, sundew, fleabane, hatpins, dog fennel, fringe-rush, swamp sunflower, St. Johns wort, musky mint, redroot, white-head bog button, fetterbush, flax, lyonia, hornwort, muhly grass, panic grass, narrowleaf silkgrass, red-hot-poker, milkwort, bracken fern, meadowbeauty, beakrushes, saw palmetto, nut-rush, corkwood, bladderwort and yellow-eyed grass.

Freshwater Marsh, FLUCCS 641

Freshwater Marshes are characterized by herbaceous dominated systems that have varying amounts of shrubby coverage. Typical plants include

sawgrass, rushes, arrowhead, pennywort, panicums, saltbush and wax myrtle. Regular and periodic fires are essential to the maintenance of this community.

Pine Flatwoods, FLUCCS 411

Also referenced as Mesic Flatwoods, this community consists of an open forest of pine trees with little midstory and a dense ground cover of herbs and shrubs. Typical plants include longleaf pine, slash pine, gallberry, saw palmetto, wiregrass, runner oak, St. John's wort, fetterbush, wax myrtle, blueberries, and assorted bunch grasses. These communities are closely associated with and often grade into Hydric Pine Flatwoods with differences often determined by minor topographic changes. The integrity of this community is dependent upon periodic fires.

In order to gauge the success of the restoration and management activities, qualitative and quantitative monitoring (described in Section 2.9) will be employed. For the purpose of determining success for the Hydric Pine Flatwoods the similarity of the restoration areas to the approved reference wetland in the St. Marks National Wildlife Refuge will be utilized. This site was inspected and approved by the IRT on December 8, 2010 and is referenced in Figure 26. In addition, the species list of existing and probable plants based upon site review, literature, and professional opinion that was generated by Dr. Glizenstein and Dr. Streng will serve as additional guidance for the success of the restoration (Exhibit 15). Success will be determined using best professional judgment from a combination of both sources.

Interim Success Criteria

Interim Success is designed to account for trending improvements over the existing conditions as a result of the restoration and management activities, and acknowledges that full ecological value will only be realized after several years of management has occurred. Success Interim Standards are generally applied Bank wide and include the following:

Progressive environmental enhancement or trending toward success provides environmental lift for which credit may be released incrementally prior to achieving all the final success criteria. Credits will be released whenever representative monitoring data provided in Annual Reports indicate that:

- a. At least one year has transpired since the initial restoration activities, including pine thinning, first prescribed fire, and hydrologic enhancements, were completed to the satisfaction of the Department or since the previous interim success attainment;
- b. There is less than 2% exotic vegetation cover on average per acre;
- c. Planted vegetation is surviving at a rate necessary to support final success criteria;
- d. Preservation areas are maintaining or improving in function;
- e. Hydric/Wet Flatwoods are attaining success criteria or are measurably increasing in herbaceous groundcover and decreasing in woody vegetation cover;
- f. Mixed Wetland Hardwoods are demonstrating increasing coverage by canopy tree species.

- g. For the first level of interim success, the wet flatwoods quadrats shall have at least 20 species and of that total number at least 50% of the quadrat species shall be those listed from either the reference wetland or Exhibit 15. The mixed hardwood wetland quadrats shall have at least 30% coverage by canopy trees that are at least 3.0" d.b.h.
- h. For the second level of interim success, the wet flatwoods quadrat's shall have at least 30 species and of that total number at least 50% of the quadrat species shall be those listed from either the reference wetland or Exhibit 15. The mixed hardwood wetland quadrats shall have at least 40% coverage by canopy trees that are at least 3.0" d.b.h.
- i. For the third level of interim success, the wet flatwoods quadrat's shall have at least 40 species and of that total number at least 50% of the quadrat species shall be those listed from either the reference wetland or Exhibit 15. The mixed hardwood wetland quadrats shall have at least 50% coverage by canopy trees that are at least 3.0" d.b.h.
- j. Prescribed burns have been conducted in accordance with the season and schedule.
- k. The project is in compliance with this permit.

Final Success Criteria

The goal of the mitigation is to convert, enhance or preserve the existing communities shown in Figure 12 into the target communities shown in Figure 13 and as described in Section 2.8. The bank shall be deemed successful when all of the following criteria, in addition to the community descriptions, have been met for a period of at least one full year without intervention in the form of eradication of undesirable vegetation, pine harvesting or replanting of desirable vegetation.

a. Entire Site. Invasive exotic species cover is less than 1% cover in any one acre and not more than a cumulative 2 acres throughout the site.

b. Hydric Pine Flatwoods -

- The average cover of herbaceous groundcover (including graminoids, forbs, and ferns) shall be 75% or greater, with no one monitoring quadrat having less than 50% cover, and the collective cover of pioneer *Andropogon* spp. (except *A. liebmannii*) shall not exceed 30% in any quadrat and shall be demonstrated to be decreasing in cover and/or frequency.
- Each sampling quadrat shall contain at least 50 species and of that total number at least 50% of the quadrat species shall be those listed from the reference wetland or Exhibit 15. Species not included within this reference list may be acceptable provided their appropriateness can be demonstrated by the Banker with a literature citation, or a third party professional botanist/ecologist opinion, and agreed to by the Department.
- 3) Gallberry, yaupon, wax myrtle, fetterbush, titi and other woody shrubs shall be no taller than the coppice sprouts that could have arisen from root crowns following the most recent

successful fire. Areas dominated by woody shrubs (i.e. areas with shrubs averaging 1.5 meters in height and a collective canopy coverage of over 50%) shall be limited to random spots of 1 ac. or less where fire did not burn and shall represent an insignificant feature in this community type.

- 4) The combined canopy (>4" d.b.h.) of slash pine and loblolly pine shall not exceed 75 live trees/acre on average, and in no monitoring quadrat should the tree density be greater than 100 trees/acre.
- 5) Canopy and subcanopy (>1" g.l.d.) longleaf pine shall average between 5 and 100 trees/acre, with no monitoring plot having more than 110 trees/acres.
- 6) Appropriate vegetation is reproducing naturally, either by normal, healthy vegetative spread or through seedling establishment, growth and survival.
- 7) Prescribed fire routinely carries over a minimum of 70% of the community type.

d. Mixed Forested Wetlands

- 1) The total tree and shrub cover shall be \geq 70%.
- 2) A minimum of 320 t.p.a.cypress seedling have demonstrated survival and growth.
- 3) Plants are reproducing naturally, either by normal, healthy vegetative spread, or through cypress seedling aforestation, growth and survival.
- For those areas adjacent to Mesic Flatwood Uplands or Wet Flatwoods, prescribed fire is effective in shaping a transitional zone with a herbaceous outer ring progressing interior to a forested system.

e. Emergent Marsh

- Gallberry, yaupon, wax myrtle, fetterbush, titi and other woody shrubs shall be no taller than the coppice sprouts that could have arisen from root crowns following the most recent successful fire. Areas dominated by woody shrubs (i.e. areas with shrubs averaging 1.5 meters in height and a collective canopy coverage of over 50%) shall be limited to random spots of 1 ac. or less where fire did not burn and shall represent an insignificant feature in this community type.
- 2) Prescribed fire routinely carries over a minimum of 70% of the community type.

f. Mesic Flatwood Uplands

- The combined canopy (>4" d.b.h.) of slash pine and loblolly pine shall not exceed 75 live trees/acre on average, and in no monitoring quadrat should the tree density be greater than 100 trees/acre.
- 2) Canopy and subcanopy (>1" g.l.d.) longleaf pine shall average between 50 and 150 trees/acre, with no monitoring plot having more than 200 trees/acres.
- 3) Prescribed fire routinely carries over a minimum of 70% of the community type.

g. Hydrologic Enhancements. All low water crossings, culverts and ditch fill areas have been installed to the satisfaction of the Department, are stabilized and showing no signs of erosion, and have operated as designed, without the need of repairs for a period of at least three years.

h. Fire and interim success. Success criteria are being achieved at least one full year after the second successful fire and the attainment of the third level of interim success criteria described above.

2.9 Monitoring Requirements

A monitoring plan has been developed to assess the attainment of ecological goals and milestones for the natural community restoration. This plan will include:

- 1. Qualitative Random Pedestrian Transects.
- 2. Quantitative Random Quadrats.
- 3. Fixed Point/Fixed Perspective Photographic Stations.
- 4. Aerial photography as available through the Florida Department of Environmental Protection LABINS website.

2.9.1 Qualitative Pedestrian Transects.

The goal of the Qualitative Pedestrian Transect is to provide the maximum amount of qualitative information over the largest variable area to document the success of the restoration and management activities. Eleven (11) transects, each 1,000', will be randomly determined at the start of each monitoring event in October-December.

The following applies:

 Three (3) transects will be completed in the Hydric Flatwoods; three (3) transects will be completed in Mixed Wetland Hardwoods benefiting primarily from preservation; two (2) transects will be completed in Cypress Dominated Wetlands restored by planting; one (1) transect will be completed in the Cypress Dominated Wetlands benefiting primarily from preservation; one (1) transect will be completed in the Freshwater Marsh (perimeter); and one (1) transect will be completed in the Pine Flatwood Uplands.

- 2. In the event that any randomly selected community on the Bank is smaller than 1,000' in radius, multiple smaller transects will be completed totaling 1,000 linear feet.
- 3. Once selected the starting points of each will be GPS located and a compass heading for the transect established and recorded.
- 4. Transects will provide comments on listed species, nuisance species, health and reproductive status of vegetation, cover estimates, dominant species, recruitment of new species, hydrologic condition, fuel loads and general condition with respect to target community type.
- 5. Locations of nuisance species and listed species observed will be GPS located and mapped.
- 6. For estimates of burn coverage, observations along the entire transect will be used.
- 7. For estimates concerning herbaceous cover, three (3) points will be systematically selected at the 300', 600' and 900' intervals to estimate herbaceous cover based upon the cover classifications in the attached monitoring form. The area inspected will be approximately 2 m².
- 8. For estimates concerning shrub cover, the same three (3) points selected above will be used to estimate cover based upon the classifications in the attached monitoring form. The area inspected will be approximately 3m². Shrubs are to include all woody material greater than 1' in height.
- 9. Each transect will be accompanied by a data sheet as provided in Exhibit 16.
- 10. The purpose of the qualitative information is to provide a visual monitoring of the events over a prolonged period. Sites will be evaluated as to how representative they are of the community being measured, and the degree to which the site is attaining community success. Potential problems and appropriate solutions will be identified.

2.9.2 Qualitative Spot Assessments

The goal of the Qualitative Spot Assessments is to provide information on the discrete restoration areas. Since these areas consist of the restoration of wetlands from highly disturbed skidder trails or previous road fill, a spot assessment will be completed for two (2) randomly selected sites in October-December.

Information to be collected include: estimates of cover by desirable species, exotic coverage, percent survival of planted material, evidence of erosion, the degree the site is trending toward success and a representative photograph.

2.9.3 Permanent Quantitative Quadrats

The Permanent Quantitative Quadrats (PQQ) will consist of the following:

1. Nine (9) permanently marked and GPS located 200 x 100 foot quadrats approximately located as depicted in Figure 27.

2. Quadrats will be sampled in October-December.

3. Quadrats will be located to the greatest degree possible to cover a uniform representation of the community being sampled (ie. transitional zones between communities will be avoided). Counting the number of canopy pines, by species, with a d.b.h. greater than 4".

4. Counting the number of subcanopy pines, by species, with a d.b.h. between 1" and 4".

5. List of exotic or nuisance species in overall quadrat and estimation of % cover.

6. List of all species within overall quadrat.

7. Within each quadrat, ten (10) randomly selected 1 meter squared sub-quadrats to determine herbaceous cover and shrub cover. These quadrats will be re-randomized for each sampling event. Percent cover will be determined for the following categories:

- a. Graminoid
- b. Herbaceous
- c. Woody/Shrub
- d. Wiregrass

e. Individual Species of Interest

The interval ranges for cover shall be as follows:

Class	Range of Cover (%)	Mean
7	91-100	95.5
6	70-90	80.0
5	50-69	59.5
4	31-49	40.0
3	11-30	20.5
2	1-10	5.5
1	<1%	0.5

8. List of exotic or nuisance species in each sub-quadrat.

9. Documentation of listed species within overall quadrat.

10. Sampling will be completed between October and November of any given year, to the greatest extent feasible.

11. The boundary of each 200 x 100 foot quadrat will also be used to establish a line-intercept sampling program. The frequency of review will be 3 foot intervals and will be used to demonstrate density to be compared to the estimates of cover generated in the individual subquadrats. Recording shall be by species. Supplemental sampling for species present may also be completed in the spring should it be deemed useful.

2.9.4 Permanent Photo Points

Permanent photographic points will be established as follows:

1. Two opposite corners of each permanent 200 x 100 foot quadrat, collected annually.

- 2. Aerially (to the greatest degree possible) of each 10 m subquadrat, collected annually.
- 3. The beginning and end of each qualitative transect, collected annually.
- 4. Ten (10) additional locations showing landscape conditions using permanent orientation and perspective that are outside of the above. These stations will be conveniently located along trails and access and will be sampled quarterly.

2.10 Long-term Management Plan

The Bank is owned by WES which owns and manages over 500,000 acres in the Southeast. Under the terms of the conservation easement and the agency authorizations, Westervelt is required to maintain the lands within the Bank pursuant to the terms of the this MBI, and terms herein, including ecological management in perpetuity, are binding on the property owner.

The Bank shall be posted with appropriate signage and held secure. Vehicular access to the Bank shall be controlled by locked gates. All access will be monitored randomly and during the quarterly inspections. Hunting and Fishing for the general public will not be permitted; however, still hunting for deer, turkey and hog will be permitted under a lease with WES, provided that such activities are consistent with hunting regulations, do not result in impacts to the natural community restoration, and prohibit the use of vehicles off of the main road, the construction of permanent hunting blinds and food plots.

2.11 Adaptive Management

The IRT accepts that all ecological restoration projects are site specific. that multiple endpoints are possible owing to the stochastic nature of ecological processes, and that human activities offsite and beyond the control of the Bank may influence the course of restoration. For these reasons, the Bank, with approval of the IRT, may change the restoration strategy, modify the objectives, and adjust the performance standards and monitoring protocols at any given time prior to full project release. Such changes must be made in writing and must qualify as adaptive management in response to site specific conditions. The Bank must demonstrate good-faith efforts to comply with restoration requirements and cannot invoke an alleged need for adaptive management as a pretext for non-compelling reasons. Likewise, changes made by the IRT shall not prolong the project or cause an increase in the overall cost of restoration or management to the Bank. The IRT acknowledges that the Bank has experience in restoration and management of lands in the area and shall consider this experience in the review of any adaptive management suggestions. Anv changes at the Bank will be made with full consultation and approval of the IRT.

Management actions will be designed to facilitate the Bank's overall restoration goals and to respond to situations that could potentially jeopardize the project's success. Intensive management is to be avoided; however, the ability to introduce prescribed fire and thin pine trees is essential to the long-term sustainability of the Bank. A responsive management approach will correct problems identified during monitoring, prevent deterioration of wetland functions, and respond to unforeseen changes that may occur.

2.12 Financial Assurances

WES will establish an irrevocable letter of credit with a standby trust For \$1,050,566.00 which is 110% of the calculated costs of Bank implementation through achievement of success. Implementation costs have been summarized and are listed in Exhibit 17. This letter of credit will be reviewed and adjusted every 2 years with some amount remaining in force until such time as 90% attainment of success has been achieved at the Bank.

A long-term management fund will be established that will generate funds for the operation and maintenance of the Bank in perpetuity based upon the cost outlined in Exhibit 18. This fund, totaling \$616,667.00, will be fully established no later than year 5 post entitlement. In the interim, WES will establish an irrevocable letter of credit with a standby trust in the total amount which will remain in force until the endowment is fully funded.

3.0 Mitigation Bank Review Team

The IRT (Interagency Review Team) provides oversight to the execution of the provisions of this banking instrument. At the time of preparation of this Mitigation Banking Instrument, the following individuals represented the IRT:

Agency	Representative
FDEP – Tallahassee	Vicki Tauxe
USCOE – Jacksonville	Carrie Bond
EPA-Jacksonville	Eric Hughes
FWS – Panama City	Patty Kelly, Ted Martin, Mary Mittiga
FWCC - Tallahassee	Ted Hoehn

4.0 Authorities

The establishment, use and operation of the St. Marks River Mitigation Bank is carried out in accordance with the following authorities:

A. Federal

- 1. Compensatory Mitigation for Losses of Aquatic Resources (33 CFR Part 332).
- 2. Clean Water Act Section 404(33 U.S.C. 1344).
- 3. Rivers and Harbors Act of 1899 Section 10 (33 U.S.C. 403 et seq.).
- Environmental Protection Agency, Section 404(b)(1) Guidelines (40 CFR Part 230). Guidelines for Specification of Disposal Sites for Dredged or Fill Material.
- 5. Department of the Army, Section 404 Permit Regulations (33 CFR Parts 320-330). Policies for Evaluating Permit Applications to Discharge Dredged or Fill Material.

- Memorandum of Agreement between the Environmental Protection Agency and the Department of the Army concerning Determination of Mitigation Under the Clean Water Act, Section 404 (b)(1) Guidelines (February 6, 1990).
- 7. Title XII Food Security Act of 1985 as amended by the Food, Agriculture, Conservation and Trade Act of 1990 (16 U.S.C. 3801 et seq.).
- 8. National Environmental Policy Act (42 U.S.C. 4321 et seq.), including the Council on Environmental Quality's implementing regulations (40 CFR Parts 1500-1508).
- 9. Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.).
- 10. Magnuson Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.).
- 11. National Marine Fisheries Service Habitat Conservation Policy (48 CFR pages 53142-53147, 1983.

5.0 Generalized Implementation Timetable

Implementation of the Bank will follow a general timetable that focuses on maintenance of existing high quality communities in their current or enhanced condition, followed by restoration activities in more disturbed areas. Table 6 provides the implementation timeline for Bank activities and assumes time zero is the date of Bank entitlement.

Table 6 – Bank Implementation Timetable	Endimental
Activity	Completion Date From Date Execution of Instrument
Execution of Conservation Easement (SC #8), fencing & security	1-3 mo.
Demonstration of Financial Assurances	1-3 mo.
Management Units 2 & 3 -Timber Thinning/First Prescribed	1 year
Fire/Exotic Species Treatment and Control Unit 2 & 3	
Monitoring Year 1/ Annual Report Preparation	1 year
Management Unit 1 -Timber Thinning/First Prescribed	2 vear
Fire/Exotic Species Treatment and Control Unit 1	
Exotic and Nuisance Species Treatment Follow-up in	2 vear
Management Units 2 & 3	,
Monitoring Year 2 / Annual Report Preparation	2 year
Management Unit 4 -Timber Thinning/First Prescribed	3 year
Fire/Exotic Species Treatment and Control Unit 4	•
Exotic and Nuisance Species Treatment Follow-up in	3 year
Management Units 1-3	
Installation of Low Water Crossings	3 year
Installation of Ditch Blocks	3 vear
Installation/Replacement of Culverts	3 year
Excavation of Fill Road	3 vear
Replant Skidder Trails	3 vear
Plant Cypress in Previously Timbered Hardwoods	3 vear

Perpetual Management	Ongoing
Success	
Monitoring Year 10/Annual Report Preparation/Final	10 year
Third Prescribed Fire	10 year
Exotic and Nuisance Species Treatment Follow-up	10 year
Monitoring Year 9 / Annual Report Preparation	9 year
Exotic and Nuisance Species Treatment Follow-up	9 year
Monitoring Year 8 / Annual Report Preparation	8 year
Exotic and Nuisance Species Treatment Follow-up	8 year
Monitoring Year 7 / Annual Report Preparation	7 year
Exotic and Nuisance Species Treatment Follow-up	7 year
Monitoring Year 6 / Annual Report Preparation	6 year
Exotic and Nuisance Species Treatment Follow-up	6 year
Plant Longleat	6 year
Second Prescribed Fire – All Management Units	6 year
Monitoring Year 5 / Annual Report Preparation	5 year
Exotic and Nulsance Species Treatment Follow-up	5 year
Restore Hunting Food Plots	5 year
Augment Herbaceous Component as Necessary	5 year
Monitoring Year 4/ Annual Report Preparation	4 year
Exolic and Nulsance Species Treatment Follow-up	4 year
Review for Herbaceous Cover	4 year
Paviaw for Herbaccous Caver	4

6.0 Bank Operation

6.1 Provisions for Site Audits

Representatives of the IRT will have access to the Bank at any reasonable time to perform site inspections, provided at least 24 hours advance notice is provided to the Bank. Regular inspections may be scheduled by the IRT following restoration and management activities.

6.2 Schedule of Credit Availability

The number of wetland credits available for release (i.e. – debiting) will generally be commensurate with the level of wetland and aquatic functions attained at the Bank at the time of release. Credits will be generated as specific activities are completed and documented in accordance with the Credit Release Schedule table below (Table 7).

Table 7 – Credit Availability Schedule			
Task	Anticipated Date based upon MBI Authorization	% Credit Release	Palustrine Credits
Execution of Conservation Easement; Execution of Financial Assurances; Gating and Signage; Exotic Species Survey.	30 days	15.00	47.45
Units 2 & 3 -Timber Harvesting/Thinning; First Prescribed Fire Unit 2 and 3; Exotic Control Units 2 and 3	1 year	7.0	22.15
Unit 1 -Timber Harvesting/Thinning; First Prescribed Fire Unit 1; Exotic Control Units 1, 2, 3	2 year	7.0	22.15
First Prescribed Fire Unit 4; Exotic Control All	3 year	6.0	18.98
Hydrologic Enhancements	3 year	7.5	23.73
Road removal; Planting	4-5 year	7.5	23.73
1 st Period Attainment of Interim Success	6	12.5	39.55
2 nd Period Attainment of Interim Success	7	12.5	39.55
3 rd Period Attainment of Interim Success	8	12.5	39.55
Final Success	10	12.5	39.55
TOTAL		100.0	316.39

6.3 Procedures for Credit Release

Whenever the Bank believes that a specific milestone warranting the release of credits has been made, it shall submit a request in writing for a determination of success from the IRT. The request shall be sent by mail the Corps Project Manager responsible for the Bank. The Corps agree to provide comments on the request within 30 days of receipt and either agree or deny the request within 45 days, unless additional time is required to schedule field inspections due to seasonal considerations that affect the ability of the Corps or IRT to assess whether the applicable credit release milestones have been achieved. If denied, the Corps will provide specific descriptions of the conditions that led to a denial of the request and provide mechanisms for compliance.

6.4 Conditions for Debiting of Bank Wetland Credits

Credits will be withdrawn from the mitigation bank through standard dredge and fill or Environmental Resources Permitting. The Bank will coordinate with the Corps, FDEP and the applicants for wetland impacts to provide information on the MSA and type of available credits. The responsibility for demonstration that credits from the Bank constitute adequate and appropriate compensation for proposed impacts lies with the impact applicant.

If the impact is authorized, the Permittee shall provide an agreement for the transfer of mitigation credits from the Bank. This agreement, accompanied by a current total of available credit, will be signed by the Permittee and the Bank, and shall be attached to the permit instrument.

6.5 Ledger of Available Mitigation Credits

A ledger (Exhibit 19) of available mitigation credits will be maintained by the Bank and updated with each credit transfer or release. An updated copy of the ledger will be provided to the Corps and FDEP following each debit or release which has been purchased.

6.6 Legal Responsibilities

Once an applicant or permittee for an impact has purchased and secured the appropriate number of credits from the Bank/Banker, the legal responsibility for providing the appropriate compensatory mitigation lies with the Bank Sponsor. Nothing herein suggests that the Banker shall be responsible for negotiating with the federal agencies for the amount of compensatory mitigation needed by a particular project, nor will the Banker be responsible for justifying that the use of the Bank meets the mitigation requirements of Part 332 as its applies to the impact project.

7.0 Mineral Rights

The mineral rights for the subject property have transferred with the surface rights and therefore surface and subsurface extraction can be protected under the conservation easement.

8.0 Reporting and Record Keeping

The Bank shall submit annual reports to the Corps and FDEP until a determination of final success has been made. These reports may include, but not be limited to, the following:

- ► Dates permitted activities were begun or are anticipated to begin.
- ▶ Brief description of work completed since previous reporting cycle.
- ► Qualitative and quantitative sampling report.
- Maps showing location of activities completed since last report.
- ► Fixed point photographs.
- ► Description of any problems encountered and solutions tendered.
- ► Description of work anticipated for the next year.
- Assessment of the degree to which the Bank is attaining success criteria.

9.0 Contingency Plans

In the event the Bank fails to achieve success criteria, the Bank shall take remedial action in consultation with the IRT. Failure to achieve interim or final mitigation success criteria as established herein will result in the IRT delaying release of mitigation credits.

10.0 Other Provisions

10.1 Force Majeure Clause

The requirements of this permit shall not be enforceable against the Bank Sponsor or the letter of credit if the Bank Sponsor has been precluded from performing the conditions of the permit due to acts of God, rebellion, strikes, or natural disaster, including but not limited to hurricane, flood, or fire. In the event such occurrence causes substantial damage to the project to preclude completion of that particular phase of the project, Corps shall release the balance of any letter of credit for such phase of the project. If the acts of war, acts of God, rebellion, strikes, or natural disaster, including but not limited to hurricane, flood, or fire do not preclude the Sponsor from performing the project without unreasonable expense, then it shall not be relieved of its obligations under this document.

10.2 Dispute Resolution

Resolution of disputes about application of the Banking Instrument shall be in accordance with those stated in Compensatory Mitigation for Losses of Aquatic Resources (33 CFR Part 332).

10.3 Bank Default

The Bank Sponsor shall be in default if that Party fails to observe or perform any obligation or responsibilities required of it by this MBI. In the event the Bank Sponsor realizes it is in default, it shall promptly notify the Corps. Once the Corps has received notification, or otherwise becomes aware that the Bank Sponsor may be in default, informal dispute resolution shall be initiated. All parties involved in the dispute resolution agree to work in good faith to resolve disputes to correct the default condition within 60 days of notice by the Bank Sponsor.

In the event that informal dispute resolution does not satisfactorily correct the default condition, the Corps may elect to cause the holder of the financial assurances specified in Section 2.12 to draw upon those assurances as necessary to continue Bank development, management, or operation as provided herein. Nothing within this section shall be construed to modify or limit any specific right, remedy, or procedure in any Section of this MBI or any remedy available under application of State and/or Federal Law.

10.4 Bank Closure

Bank Closure will be deemed to occur upon the occurrence of one of the following:

a. All performance standards have been met, the last authorized credit has been transferred, and the perpetual management endowment is fully funded in cash as specified in Section 2.12; or
b. The Bank Sponsor requests closure based upon the level of success attained (which should be commensurate with the amount of credits issued), the last authorized credit has been transferred, and the perpetual management endowment is fully funded in cash as specified in Section 2.12.

11.0 Signature Pages

Signatories

U.S. Army Corps of Engineers

inaul / Signature

Sinard Printed Name

Chief, Title Regulatory Division

Mitigation Banking Instrument Signature Page St. Marks Mitigation Bank, SAJ-2008-02014-CLB

Westervelt Ecological Services, LLC Southeastern Regional Office

John Wigginton John Wigginton Printed Name Southeast Region Mayager Title

Mitigation Banking Instrument Signature Page St. Marks Mitigation Bank, SAJ-2008-02014-CLB St. Marks Mitigation Bank

May 2011

IN THE TESTIMONY WHEREOF the U.S. Fish and Wildlife Services have set their hand this ______ /9 #h _day of ______ , 2011

U.S. Fish and Wildlife Services Panama City Field Office, FL

Signature

Imm onald Printed Name

FO, Field Sup. Fonanna ity Title

ECEIVED

MAY 2 0 2011

MACKSONVILLE DISTRICT USACE

Mitigation Banking Instrument Signature Page St. Marks Mitigation Bank, SAJ-2008-02014-CLB

36 | Page















Legend Approximate Boundary - Not Rectified		
Westervelt Ecological Services St. Marks Mitigation Bank	Figure 8 - 1941 Aerial Photograph	Bosso, Dentzau & Imhof, Inc. Drawn By: MWD Date: March 25, 2010

























AT GRADE CROSSING INSTALLATION DETAIL



PROFILE VIEW N.T.S.

FIGURE 21













EXHIBIT 1
















The Wakulla County Property Appraiser's Office makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. The assessment information is from the last certified taxroll. All data is subject to change before the next certified taxroll. PLEASE NOTE THAT THE PROPERTY APPRAISER MAPS ARE FOR ASSESSMENT PURPOSES ONLY NEITHER WAKULA COUNTY NOR ITS EMPLOYEES ASSUME RESPONSIBILITY FOR ERRORS OR OMISSIONS ---THIS IS NOT A SURVEY---

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http://qpublic6.qpublic.net/fl_wakulla_printit.html?extent=2077792.9122878576+428059.8... 2/8/2011

Print Preview - Jefferson County Property Appraiser - Map Printed on 2/8/2011 3:50:05 P... Page 1 of 1







BILLING CODE 4310-55-C

(xi) Unit FFS–3, Subunit A—Wakulla County, Florida. From USGS 1:24,000 scale quadrangle maps St. Marks and St. Marks NE, Florida.

(A) Land bounded by the following UTM Zone 16N, NAD83 coordinates (E, N): 775789.22, 3340665.92; 778066.61, 3340484.87; 777670.88, 3338778.31; 777533.15, 3338184.41; 777525.56, 3338156.70; 777516.42, 3338129.40; 777505.42, 3338102.83; 777492.86, 3338076.99; 777478.74, 3338052.00; 777471.13, 3338040.27; 777482.70, 3338036.35; 777509.30, 3338025.48; 777535.17, 3338012.93; 777560.12, 3337998.80; 777584.24, 3337982.99; 777607.24, 3337965.82; 777629.12, 3337947.29; 777649.88, 3337927.29; 777669.21, 3337906.14; 777687.24, 3337883.74; 777703.84, 3337860.31; 777714.90, 3337842.39; 777724.48, 3337852.29; 777745.69, 3337871.69; 777768.09, 3337889.78; 777791.49, 3337906.35; 777815.99, 3337921.39; 777841.30, 3337934.91; 777867.51, 3337946.89; 777894.35, 3337957.11; 777921.81, 3337965.57; 777949.70, 3337972.38; 777978.02, 3337977.42; 777990.29, 3337977.52; 778007.58, 3337977.78; 778035.40, 3337978.19; 778064.31, 3337978.62; 778092.26, 3337979.03; 778121.08, 3337975.61; 778149.29, 3337969.88; 778177.06, 3337962.38; 778204.20, 3337953.08; 778230.80, 3337942.21; 778256.67, 3337929.67; 778281.62, 3337915.43; 778305.74, 3337899.73; 778328.75, 3337882.56; 778350.72, 3337863.93; 778371.38, 3337844.03; 778390.82, 3337822.89; 778408.84, 3337800.49; 778425.45, 3337776.95; 778440.53, 3337752.59; 778454.00, 3337727.19; 778465.95, 3337700.97; 778476.17, 3337674.16; 778484.68, 3337646.75; 778491.46, 3337618.85; 778496.52, 3337590.46; 778499.75, 3337561.92; 778501.16, 3337533.22; 778500.82, 3337504.47; 778498.66, 3337475.90; 778494.65, 3337447.40; 778488.90, 3337419.29; 778481.41, 3337391.48; 778472.17, 3337364.28; 778461.27, 3337337.71; 778448.71, 3337311.87; 778434.49, 3337286.88; 778418.81, 3337262.74; 778401.64, 3337239.78; 778383.01, 3337217.89; 778363.09, 3337197.19; 778341.88, 3337177.80; 778319.48, 3337159.70; 778296.08, 3337143.13; 778271.58, 3337128.08; 778246.27, 3337114.46; 778220.05, 3337102.59; 778193.21, 3337092.37; 778165.75, 3337083.80; 778137.85, 3337077.10; 778109.53, 3337072.05; 778080.97, 3337068.78; 778052.27, 3337067.39; 778023.61, 3337067.77; 777994.91, 3337069.93; 777966.46, 3337073.87; 777938.25, 3337079.59; 777910.58, 3337087.10; 777883.34, 3337096.29; 777856.73, 3337107.26;

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(B) Note: Map of Unit FFS-3 follows: BILLING CODE 4310-55-P EXHIBIT 4

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CONSERVATION EASEMENT

THIS CONSERVATION EASEMENT is given this ______ day of ______, 2009, by Westervelt Ecological Services, LLC, having an address at 1400 Jack Warner Parkway NE, Tuscaloosa, AL 35404 (Grantor) to the FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEPARTMENT), whose address is Department of Environmental Protection, Division of State Lands, 3900 Commonwealth Boulevard, Mail Station 130, Tallahassee, Florida 32399-3000 (Grantee). As used herein, the term Grantor shall include any and all heirs, successors or assigns of the Grantor, and all subsequent owners of the Property (as hereinafter defined) and the term Grantee(s) shall include any successor or assignee of Grantee(s).

WITNESSETH

WHEREAS, the Grantor is the sole owner in fee simple of certain lands situated in Wakulla County and Jefferson County, Florida, more specifically described in Exhibit A attached hereto and incorporated herein (Property); and

WHEREAS, the Grantor desires to implement St. Marks Mitigation Bank (Project) on the Property, which is subject to the regulatory jurisdiction of the Department under the provisions of Part IV of Chapter 373 of the Florida Statutes; and

WHEREAS, Department Permit Number 0295847-001 (Permit) authorizes certain activities which affect waters in or of the State of Florida; and

WHEREAS, the U.S. Army Corps of Engineers (Army Corps) authorizes certain activities in the waters of the United States and requires this conservation easement over the Property as part of the Mitigation Bank Instrument (MBI) number SAJ-2008-02014 (Federal MBI); and

WHEREAS The Army Corps is not authorized to hold conservation easements and the Department has agreed the Board of Trustees will hold this conservation easement on behalf of the Army Corps; and

WHEREAS, the Grantor grants this conservation easement to offset and prevent adverse impacts to water quality and natural resources, such as fish, wildlife, and wetland or other surface water functions. Specifically, this conservation easement is intended to protect the mitigation area.

NOW THEREFORE, to achieve these purposes, and in consideration of the above and the mutual covenants, terms, conditions and restrictions contained herein, together with other good and valuable consideration, the adequacy and receipt of which is hereby acknowledged, Grantor hereby voluntarily grants and conveys a perpetual conservation easement, as defined in Section 704.06, Florida Statutes, for and in favor of the Grantee upon the Property which shall run with the land and be binding upon the Grantor, and shall remain in full force and effect forever.

The scope, nature and character of this conservation easement shall be as follows:

1. <u>Purpose</u>. The purpose of this conservation easement is to retain land and water areas in their natural, vegetative, hydrologic, scenic, open, agricultural or wooded condition and to retain such areas as suitable habitat for fish, plants or wildlife. Those wetland or upland areas included in the conservation easement that are to be enhanced or created pursuant to the Permit shall be retained and maintained in the enhanced or created conditions required by the Permit. The Permit, as modified from time to time, is incorporated in the conservation easement by reference as though fully set forth herein, and is available from the Department on request.

2. <u>Rights of Grantee</u>. To carry out this purpose, the following rights are conveyed to Grantee by this easement:

a. The right to take action to preserve and protect the environmental value of the Property;

b. The right to prevent any activity on or use of the Property that is inconsistent with the purpose of this conservation easement, and to require the restoration of areas or features of the Property that may be damaged by any inconsistent activity or use;

c. The right to enter upon and inspect the Property in a reasonable manner and at reasonable times after obtaining Grantor's prior written approval (which shall not be unreasonable withheld or delayed), including the right to use vehicles and all necessary equipment to determine if Grantor is complying with the provisions of this conservation easement; and

d. The right to enforce this conservation easement by injunction or proceed at law or in equity to enforce the provisions of this conservation easement and the covenants set forth herein, to prevent the occurrence of any of the prohibited activities hereinafter set forth, and the right to require Grantor to restore such areas or features of the Property that may be damaged as a direct result of Grantor's inconsistent activity or use of the Property.

3. <u>Prohibited Uses</u>. Any activity on or use of the Property inconsistent with the purpose of this conservation easement is prohibited. Without limiting the foregoing, the following activities and uses are expressly prohibited, except for restoration, creation, enhancement, maintenance, and monitoring activities authorized by the Permit:

a. Construction or placing of structures on, above, or below the ground, including but not limited to: buildings, roads, docks, piers, billboards or other advertising; utilities, signs(other than those marking the conservation easement), or other structures;

b. Dumping or placing of soil or other substances as land fill, or dumping or placing of trash, waste, or unsightly or offensive materials;

c. Removal or destruction of trees, shrubs, or other vegetation, except nuisance, invasive, exotic, or nonnative species upon prior written approval by the Grantee;

d. Planting or seeding of exotic or nuisance species or other plants that are outside their natural range or zone of dispersal and have or are able to form self-sustaining, expanding, and free-living populations in a natural community with which they have not previously associated; e. Exploration for or extraction of oil or gas, and excavation, dredging, or removal of loam, peat, gravel, soil, rock, or other material substance in such manner as to affect the surface;

f. Surface use except for purposes that permit the land or water area to remain in its natural or created, restored or enhanced condition under the provisions of the Permit;

g. Activities detrimental to drainage, flood control, water conservation, erosion control, soil conservation, or fish and wildlife habitat preservation including, but not limited to, ditching, diking, dredging, consumptive water use and fencing, except as may be provided in the Permit;

h. Acts or uses detrimental to such aforementioned retention and maintenance of land or water areas, except as provided in the Permit;

i. Acts or uses detrimental to the preservation of the structural integrity or physical appearance of sites, except as provided in the Permit, or properties of historical, architectural, archaeological, or cultural significance;

j. The use of all-terrain vehicles, except as may be provided in the Permit.

4. <u>Reserved Rights</u>. Subject to the provisions of the Permit, as modified from time to time, the rights granted to the Grantee herein and the prohibited activities defined in this conservation easement, the Grantor reserves to itself, its successors or assigns all rights as owner of the Property, including the right to engage in uses of the Property that are not inconsistent with the provisions of the Permit, Department rules, Federal MBI or the intent and purposes of this conservation easement.

5. <u>Public Access</u>. No right of access by the general public to any portion of the Property is conveyed by this conservation easement.

6. <u>Responsibilities of Parties</u>. Grantor on behalf of its successor or assigns hereby agrees to bear all costs or liabilities related to the operation, upkeep or maintenance of the Property and Grantor does hereby indemnify and hold harmless the Grantee from same. In addition, Grantee, their successors or assigns, shall have no responsibility for any costs or liabilities related to the operation, upkeep or maintenance of the Property.

7. <u>Taxes</u>. Grantor, its successors or assigns, shall pay before delinquency any and all taxes, assessments, fees, and charges of whatever description levied on or assessed by competent authority on the Property, and shall furnish Grantee with satisfactory evidence of payment upon request.

8. <u>Liability.</u> Grantor, its successors or assigns, will assume all liability for any injury or damage to the person or property of third parties which may occur on the Property arising from ownership of the Property by the Grantor, its successors or assigns. Neither Grantor, its successors or assigns, nor any person or entity claiming by or through Grantor its successors or assigns, shall hold Grantee liable for any damage or injury to person or personal property which may occur on the Property. Furthermore, the Grantor, its successors or assigns shall indemnify and hold harmless Grantee for all liability, any injury or damage to the person or property of third parties which may occur on the Property except to the extent arising out of or in any way

resulting, directly or indirectly, from Grantee, its employees, agents, contractors or representatives negligence or willful misconduct.

9. <u>Hazardous Waste</u>. Grantor covenants and represents that to the best of Grantor's knowledge no hazardous substance or toxic waste exists nor has been generated, treated, stored, used, disposed of, or deposited in or on the Property, and that there are not now any underground storage tanks located on the Property. Grantor, its successors or assigns, further indemnify the Grantee for any and all liability arising from any subsequent placement or discovery of hazardous or toxic material on the property. In the event such material is discovered, Grantor, its successors or assigns, shall be responsible for the removal of the materials following coordination and written approval of the Department.

10. <u>Enforcement Discretion</u>. Enforcement of the terms, provisions and restrictions of this conservation easement shall be at the reasonable discretion of Grantee, and any forbearance on behalf of Grantee to exercise its rights hereunder in the event of any breach by Grantor, shall not be deemed or construed to be a waiver of Grantee' rights.

11. <u>Rights of U.S. Army Corps of Engineers.</u> The Army Corps shall have all the rights of Grantee under this easement. The Corps shall be a party to a modification, alteration, release, or revocation of the conservation easement, and shall review, approve as necessary, or deny any additional structures or activities that require approval by the Grantee.

12. <u>Vénue and Enforcement Costs</u>. Venue to enforce the terms of this conservation easement shall be in Wakulla County or Jefferson County, Florida. In the event the Army Corps takes enforcement action, venue shall be in a state or federal court of competent jurisdiction. If either Grantee prevails in an enforcement action, it shall be entitled to recover costs, including expert witness fees, as well as the reasonable cost of restoring the land to the natural vegetative and hydrologic condition existing at the time of execution of the conservation easement or to the vegetative and hydrologic condition required by the aforementioned Permit. These remedies are in addition to any other remedy, fine or penalty which may be applicable under Chapters 373 and 403, Florida Statutes.

13. <u>Assignment of Rights</u>. Grantee agrees to hold this conservation easement exclusively for conservation purposes and that they will not assign their rights and obligations under this conservation easement except to another organization qualified to hold such interests under applicable state laws.

14. <u>Recording in Land Records</u>. Grantor shall record this conservation easement and any amendments hereto in a timely fashion in the Official Records of Wakulla County and Jefferson County, Florida. Grantor shall pay all recording costs and taxes necessary to record this conservation easement in the public records.

15. <u>Successors</u>. The covenants, terms, conditions and restrictions of this conservation easement shall be binding upon, and inure to the benefit of the parties hereto and their respective personal representatives, heirs, successors and assigns and shall continue as a servitude running in perpetuity with the Property.

16. <u>Notices</u>. All notices, consents, approvals or other communications hereunder shall be in writing and shall be deemed properly given if sent by United States certified mail, return receipt requested, addressed to the appropriate party or successor-in-interest, and referencing the Permit Name and Number.

17. <u>Subsequent Deeds</u>. Grantor shall insert the terms and restrictions of this conservation easement in any subsequent deed or other legal instrument by which Grantor divests itself of any interest in the Property. Grantor further agrees to give written notice to Grantee of the transfer of any interest. The failure of Grantor to perform any act required by this paragraph shall not impair the validity of this conservation easement or limit its enforceability in any way.

18. <u>Severability</u>. If any provision of this conservation easement or the application thereof to any person or circumstances is found to be invalid, the remainder of the provisions of this conservation easement shall not be affected thereby, as long as the purpose of the conservation easement is preserved.

19. <u>Alteration or Revocation</u>. This conservation easement may be amended, altered, released or revoked only by permit modification as necessary and written agreement between the parties hereto or their heirs, assigns or successors-in-interest, which shall be filed in the public records in Wakulla County and Jefferson County.

20. <u>Controlling Law</u>. The interpretation and performance of this conservation easement shall be governed by the laws of the State of Florida.

21. <u>Baseline Documentation Report.</u> The specific conservation values of the Property are documented in the Baseline Documentation Report associated with this conservation easement. The Baseline Documentation Report consists of reports, maps, photographs, and other documentation that the parties agree provide, collectively, an accurate representation of the property at the time of this grant, and which is intended to serve as an objective information baseline for monitoring compliance with the terms of this grant. The Baseline Documentation Report is maintained in the offices of the Florida Department of Environmental Protection and is incorporated by this reference. A copy of the Baseline Documentation Report is available from the Department on request.

TO HAVE AND TO HOLD unto Grantee forever. The covenants, terms, conditions, restrictions and purpose imposed with this conservation easement shall be binding upon Grantor, and shall continue as a servitude running in perpetuity with the Property.

Grantor hereby covenants with said Grantee that Grantor is lawfully seized of said Property in fee simple; that the Property is free and clear of all encumbrances that are inconsistent with the terms of this conservation easement and all mortgages have been joined or subordinated; that Grantor has good right and lawful authority to convey this conservation easement; and that it hereby fully warrants and defends the title to the conservation easement hereby conveyed against the lawful claims of all person whomsoever.

IN WITNESS WHEREOF, the Grantor executes this Conservation Easement on the day and year first above written.

Signed, sealed and delivered in our presence as witnesses: WESTERVELT ECOLOGICAL SERVCIES, LLC

Signature of Witness

By: Print Name:

* Printed/Typed Name

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Title:			
and the second sec			

Signature of Witness

Printed/Typed Name

STATE OF ALABAMA COUNTY OF TUSCALOOSA

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(SEAL)

Notary Public Signature

Printed/Typed Name of Notary

Commission No. **Commission Expires**

EXHIBIT A

PARCEL #1

STATE OF FLORIDA) JEFFERSON COUNTY)

Commence at a rod and cap marking the Northwest corner of Section 18, Township 3 South, Range 3 East, Jefferson County, Florida, said point also marking the Northeast corner of Section 13, Township 3 South, Range 2 East, Wakulla County, Florida; thence the Westerly boundary line of said Section 18 and the Wakulla County and Jefferson County line South 00 degrees 22 minutes 59 seconds East 5349.05 feet to a point marking the Southwest corner of said Section 18 and also marking the Northwest corner of Section 19, Township 3 South, Range 3 East, Jefferson County, Florida; thence continue along said Wakulla County and Jefferson County boundary and run along the Westerly boundary line of said Section 19 South 00 degrees 22 minutes 59 seconds East 1109.75 feet to a point marking the intersection of said Westerly boundary line and said Wakulla County and Jefferson County line with the centerline an existing dirt road and the centerline of a 50 foot wide roadway easement, said point being the POINT OF BEGINNING; thence leaving said POINT OF BEGINNING and said centerline continue along the Westerly boundary line of said Section 19 and Wakulla and Jefferson County South 00 degrees 22 minutes 59 seconds East 4239.30 feet to a point marking the Southwest corner of said Section 19 and also marking the Northwest corner of Section 30, Township 3 South, Range 3 East, Jefferson County, Florida; thence run along the Westerly boundary line of said Section 30 and continue along said Wakulla and Jefferson County line South 00 degrees 22 minutes 59 seconds East 3356.38 feet to a re-bar marking the intersection of said Westerly boundary line and said Wakulla and Jefferson County line with the Northerly right of way line of U.S. Hwy #98, also being known as State Road No. 30; thence leaving said Westerly boundary line and said Wakulla and Jefferson County line run along said Northerly right of way line as follows: South 87 degrees 45 minutes 38 seconds East 4458.18 feet to a concrete monument, said point being a point of curve to the right having a radius of 5779.65 feet; thence Southeasterly along the arc, thru a central angle of 03 degrees 01 minutes 08 seconds, a distance of 304.52 feet, chord of said arc being South 86 degrees 18 minutes 03 seconds East 304.48 feet to a concrete monument; thence South 84 degrees 45 minutes 42 seconds East 276.44 feet to a point marking the intersection of said Northerly right of way line with the centerline of a 60 foot wide roadway easement as described in Official Record Book 760, Page 565 in the Public records of Wakulla County, Florida and Official Record Book 624, Page 397 in the Public Records of Jefferson County, Florida, said point also being the easement agreement and partial termination of easement agreement dated December 27, 2005 in Official Record Book 577, Page 801 of the Public Records of Jefferson County, Florida; thence leaving said Northerly right of way line run along the centerline of said easements as follows: North 24 degrees 46 minutes 09 seconds West, a distance of 313.21 feet; thence North 29 degrees 22 minutes 55 seconds West, a distance of 156.37 feet; thence North 31 degrees 32 minutes 52 seconds West, a distance of 475.86 feet; thence North 31 degrees 01 minutes 23 seconds West, a distance of 221.12 feet; thence North 29 degrees 47 minutes 53 seconds West, a distance of 565.19 feet; thence North 30 degrees 45 minutes 51 seconds West, a distance of 285.21 feet; thence North 39 degrees 53 minutes 51 seconds West, a distance of 320.55 feet; thence North 40 degrees 43 minutes 46 seconds West, a distance of 291.23 feet; thence North 36 degrees 15 minutes 51 seconds West, a distance of 187.40 feet; thence North 32 degrees 59 minutes 23 seconds West, a distance of 66.08 feet; thence North 24 degrees 28 minutes 22 seconds West, a distance of 62.55 feet; thence North 16 degrees 24 minutes 17 seconds West, a distance of 73.68 feet; thence North 07 degrees 42 minutes 11 seconds West, a distance of 205.65 feet; thence North 10 degrees 07 minutes 51 seconds West, a distance of 151.22 feet; thence North 14 degrees 08 minutes 36 seconds West, a distance of 244.36 feet; thence North 20 degrees 47 minutes 41 seconds West, a distance of 75.30 feet; thence North 27 degrees 26 minutes 26 seconds West, a distance of 121.10 feet; thence North 30 degrees 51 minutes 13 seconds West, a distance of 118.36 feet; thence North 27 degrees 11 minutes 13 seconds West, a distance of 54.87 feet; thence North 20 degrees 50 minutes 18 seconds West, a distance of 50.06 feet; thence North 49 degrees 48 minutes 32 seconds East, a distance of 76.42 feet; thence North 35 degrees 31 minutes 02 seconds East, a distance of 66.93 feet; thence North 23 degrees 20 minutes 14 seconds East, a distance of 62.49 feet; thence North 14 degrees 08 minutes 43 seconds East, a distance of 60.17 feet; thence North 11 degrees 36 minutes 09 seconds East, a distance of 90.22 feet; thence North 17 degrees 22 minutes 04 seconds East, a distance of 289.20 feet; thence North 15 degrees 26 minutes 51 seconds East, a distance of 185.82 feet; thence North 16 degrees 05 minutes 21 seconds East, a distance of 320.19 feet; thence North 17 degrees 05 minutes 58 seconds East, a distance of 115.12 feet; thence North 21 degrees 05 minutes 10 seconds East, a distance of 98.53 feet; thence North 21 degrees 03 minutes 06 seconds East, a distance of 132.27 feet; thence North 15 degrees 15 minutes 33 seconds East, a distance of 85.16 feet; thence North 17 degrees 21 minutes 40 seconds East, a distance of 147.49 feet; thence North 17 degrees 24 minutes 18 seconds East, a distance of 500.83 feet; thence North 17 degrees 26 minutes 07 seconds East, a distance of 854.89 feet; thence North 17 degrees 49 minutes 32 seconds East, a distance of 440.52 feet; thence North 16 degrees 15 minutes 29 seconds East, a distance of 342.78 feet; thence North 15 degrees 32 minutes 54 seconds East, a distance of 107.53 feet; thence North 19 degrees 47 minutes 53 seconds East, a distance of 144.72 feet; thence North 17 degrees 47 minutes 21 seconds East, a distance of 232.95 feet; thence North 14 degrees 52 minutes 49 seconds East, a distance of 301.41 feet to a point marking the intersection of said centerline of easements with the centerline of a 50 foot wide roadway easement as described in Official Record Book 760, Page 565 in the Public Records of Wakulla County and Official Record Book 624, Page 397 in the Public Records of Jefferson County, Florida; thence run along the centerline of said easement as described in O.R.B.760 Page 565 and O.R.B. 624 Page 397 as follows: North 82 degrees 06 minutes 23 seconds West 131.27 feet to a rod and cap; thence North 84 degrees 49 minutes 02 seconds West 315.12 feet to a rod and cap; thence North 78 degrees 18 minutes 59 seconds West 44.10 feet to a rod and cap; thence North 74 degrees 16 minutes 45 seconds West 51.36 feet to a rod and cap; thence North 72 degrees 26 minutes 37 seconds West 567.61 feet to a rod and cap; thence North 74 degrees 35 minutes 49 seconds West 229.33 feet to a rod and cap; thence North 69 degrees 37 minutes 34 seconds West 126.52 feet to a rod and cap; thence North 65 degrees 28 minutes 53 seconds West 95.26 feet to a rod and cap; thence North 58 degrees 43 minutes 28 seconds West 135.06 feet to a rod and cap; thence North 54 degrees 37 minutes 38 seconds West 102.30 feet to a rod and cap; thence North 79 degrees 12 minutes 29 seconds West 34.11 feet to a rod and cap; thence South 78 degrees 48 minutes 08 seconds West 364.59 feet to a rod and cap; thence South 77 degrees 38 minutes 03 seconds West 578.82 feet to a rod and cap; thence South 76 degrees 04 minutes 08 seconds West 377.71 feet to a rod and cap; thence South 76 degrees 33 minutes 50 seconds West 320.79 feet to a rod and cap; thence South 78 degrees 47 minutes 47 seconds West 149.91 feet to a rod and cap; thence South 74 degrees 26 minutes 10 seconds West 87.20 feet to a rod and cap; thence South 77 degrees 36 minutes 16 seconds West 329.74 feet to a rod and cap; thence South 75 degrees 17 minutes 13 seconds West 177.81 feet to a rod and cap; thence South 77 degrees 14 minutes 57 seconds West 466.09 feet to a rod and cap; thence South 85 degrees 46 minutes 14 seconds West 99.83 feet to the POINT OF BEGINNING, containing 731.13 acres, more or less.

PARCEL #2

STATE OF FLORIDA)WAKULLA COUNTY)

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Commence at a rod and cap marking the Northwest corner of Section 18, Township 3 South, Range 3 East, Jefferson County, Florida, said point also marking the Northeast corner of Section 13, Township 3 South, Range 2 East, Wakulla County, Florida; thence run along the Northerly boundary line of said Section 13 as follows: South 89 degrees 30 minutes 03 seconds West 1150.31 feet; thence South 89 degrees 30 minutes 06 seconds West 2607.18 feet to a point marking the intersection of said Northerly boundary line with Easterly boundary line of Kala Preserve a subdivision recorded in Plat Book 4 Pages 93-98 of the public records of Wakulla County, Florida; thence leaving said Northerly boundary line run along said Easterly boundary South 4274.15 feet to a point marking the intersection of said Easterly boundary line with the centerline of a 60 foot wide roadway utility easement as recorded in Official Record Book 665 Page 129 of the public records of Wakulla County, Florida, said point being the POINT OF BEGINNING; thence leaving said POINT OF BEGINNING continue along said Easterly boundary line of Kala Preserve and run along the centerline of said easement as described in O.R.B. 665 Page 129 as follows:: South 42 degrees 18 minutes 40 seconds West, a distance of 81.09 feet to a rod and cap; thence South 38 degrees 25 minutes 27 seconds West, a distance of 75.37 feet to a rod and cap; thence South 31 degrees 03 minutes 44 seconds West, a distance of 47.01 feet to a rod and cap; thence South 08 degrees 35 minutes 01 seconds West, a distance of 41.60 feet to a rod and cap; thence South 82 degrees 23 minutes 05 seconds East, a distance of 76.20 feet to a rod and cap; thence South 72 degrees 38 minutes 09 seconds East, a distance of 47.21 feet to a rod and cap; thence South 58 degrees 52 minutes 18 seconds East, a distance of 48.07 feet to a rod and cap; thence South 45 degrees 39 minutes 43 seconds East, a distance of 66.23 feet to a rod and cap; thence South 37 degrees 12 minutes 16 seconds East, a distance of 821.27 feet to a rod and cap; thence South 31 degrees 14 minutes 28 seconds East, a distance of 92.35 feet to a rod and cap; thence South 24 degrees 01 minutes 09 seconds East, a distance of 91.83 feet to a rod and cap; thence South 18 degrees 00 minutes 52 seconds East, a distance of 66.61 feet to a rod and cap; thence South 07 degrees 22 minutes 20 seconds East, a distance of 57.96 feet to a rod and cap; thence South 03 degrees 31 minutes 47 seconds West, a distance of 53.63 feet to a rod and cap; thence South 12 degrees 31 minutes 58 seconds West, a distance of 53.62 feet to a rod and cap; thence South 20 degrees 39 minutes 50 seconds West, a distance of 63.17 feet to a rod and cap; thence South 35 degrees 00 minutes 14 seconds West, a distance of 54.24 feet to a rod and cap; thence South 49 degrees 53 minutes 31 seconds West, a distance of 489.25 feet to a rod and cap; thence South 46 degrees 59 minutes 28 seconds West, a distance of 82.47 feet to a rod and cap; thence South 34 degrees 27 minutes 43 seconds West, a distance of

51.86 feet to a rod and cap; thence South 15 degrees 50 minutes 33 seconds West, a distance of 54.41 feet to a rod and cap; thence South 08 degrees 37 minutes 36 seconds West, a distance of 292.58 feet to a rod and cap; thence South 05 degrees 33 minutes 16 seconds West, a distance of 87.46 feet to a rod and cap; thence South 00 degrees 23 minutes 14 seconds East, a distance of 244.65 feet to a rod and cap; thence South 06 degrees 02 minutes 47 seconds West, a distance of 58.09 feet to a rod and cap; thence South 17 degrees 01 minutes 53 seconds West, a distance of 53.41 feet to a rod and cap; thence South 27 degrees 56 minutes 36 seconds West, a distance of 84.66 feet to a rod and cap; thence South 33 degrees 35 minutes 47 seconds West, a distance of 88.11 feet to a rod and cap; thence South 40 degrees 39 minutes 37 seconds West, a distance of 303.52 feet to a rod and cap; thence South 34 degrees 20 minutes 07 seconds West, a distance of 75.23 feet to a rod and cap; thence South 23 degrees 10 minutes 41 seconds West, a distance of 53.97 feet to a rod and cap; thence South 09 degrees 50 minutes 36 seconds West, a distance of 50.58 feet to a rod and cap; thence South 03 degrees 02 minutes 03 seconds East, a distance of 74.16 feet to a rod and cap; thence South 12 degrees 22 minutes 57 seconds East, a distance of 754.34 feet to a rod and cap; thence South 07 degrees 24 minutes 53 seconds East, a distance of 60.25 feet to a rod and cap; thence South 01 degrees 14 minutes 31 seconds West, a distance of 63.25 feet to a rod and cap; thence South 11 degrees 20 minutes 50 seconds West, a distance of 60.65 feet to a rod and cap; thence South 23 degrees 23 minutes 37 seconds West, a distance of 68.49 feet to a rod and cap; thence South 37 degrees 59 minutes 25 seconds West, a distance of 165.09 feet to a rod and cap; thence South 57 degrees 41 minutes 12 seconds East, a distance of 704.57 feet to a rod and cap; thence South 60 degrees 55 minutes 36 seconds East, a distance of 181.36 feet to a rod and cap; thence South 66 degrees 08 minutes 15 seconds East, a distance of 55.30 feet to a rod and cap; thence South 75 degrees 22 minutes 05 seconds East, a distance of 94.05 feet to a rod and cap; thence South 80 degrees 45 minutes 34 seconds East, a distance of 434.24 feet to a rod and cap; thence South 79 degrees 26 minutes 55 seconds East, a distance of 416.29 feet to a rod and cap; thence South 66 degrees 16 minutes 57 seconds East, a distance of 56.93 feet to a rod and cap; thence South 41 degrees 37 minutes 29 seconds East, a distance of 56.12 feet to a rod and cap; thence South 11 degrees 54 minutes 55 seconds East, a distance of 87.64 feet to a rod and cap; thence South 17 degrees 48 minutes 53 seconds East, a distance of 464.01 feet to a rod and cap; thence South 03 degrees 36 minutes 59 seconds East, a distance of 57.56 feet to a rod and cap; thence South 11 degrees 40 minutes 07 seconds West, a distance of 79.39 feet to a rod and cap; thence South 23 degrees 50 minutes 17 seconds West, a distance of 93.73 feet to a rod and cap; thence South 30 degrees 27 minutes 20 seconds West, a distance of 80.75 feet to a rod and cap; thence South 40 degrees 04 minutes 17 seconds West, a distance of 125.67 feet to a rod and cap; thence South 45 degrees 27 minutes 28 seconds West, a distance of 184.81 feet to a rod and cap; thence South 52 degrees 45 minutes 59 seconds West, a distance of 100.74 feet to a rod and cap; thence South 57 degrees 57 minutes 48 seconds West, a distance of 442.97 feet to a rod and cap; thence South 53 degrees 35 minutes 22 seconds West, a distance of 103.33 feet to a rod and cap; thence South 46 degrees 58 minutes 18 seconds West, a distance of 89.01 feet to a rod and cap; thence South 37 degrees 37 minutes 33 seconds West, a distance of 339.22 feet to a rod and cap; thence South 44 degrees 18 minutes 10 seconds West, a distance of 58.51 feet to a rod and cap; thence South 59 degrees 38 minutes 16 seconds West, a distance of 75.14 feet to a rod and cap; thence South 75 degrees 37 minutes 38 seconds West, a distance of 237.94 feet to a rod and cap; thence South 67 degrees 09 minutes 11 seconds West, a distance of 61.28 feet to a rod and cap; thence South 59 degrees 04 minutes 30 seconds West, a distance of 166.11 feet to a rod and cap; thence South 52 degrees 26 minutes 28 seconds West, a distance of

66.11 feet to a rod and cap; thence South 35 degrees 19 minutes 05 seconds West, a distance of 50.61 feet to a rod and cap; thence South 17 degrees 45 minutes 11 seconds West, a distance of 537.24 feet to a rod and cap; thence South 15 degrees 34 minutes 10 seconds West, a distance of 304.75 feet to a rod and cap; thence South 20 degrees 41 minutes 00 seconds West, a distance of 138.80 feet to a rod and cap; thence South 25 degrees 53 minutes 21 seconds West, a distance of 323.63 feet to a rod and cap; thence South 30 degrees 18 minutes 24 seconds West, a distance of 174.26 feet to a rod and cap; thence South 27 degrees 12 minutes 41 seconds West, a distance of 280.51 feet to a rod and cap; thence South 06 degrees 26 minutes 40 seconds West, a distance of 73.32 feet to a rod and cap; thence South 07 degrees 09 minutes 57 seconds East, a distance of 302.94 feet to a rod and cap; thence South 04 degrees 01 minutes 40 seconds East, a distance of 95.78 feet to a rod and cap; thence South 02 degrees 09 minutes 33 seconds West, a distance of 220.43 feet to a point marking the intersection of said Easterly boundary and of said centerline with the Northerly right of way line of U.S. Highway Number 98; thence leaving said centerline and said Easterly boundary line run along said Northerly right of way line as follows: South 85 degrees 09 minutes 18 seconds East 2272.76 feet to a concrete monument marking a point of curve to the left having a radius of 5679.65 feet; thence Southeasterly along the arc, thru a central angle of 02 degrees 38 minutes 47 seconds for an arc distance of 262.34 feet chord of said arc being South 86 degrees 29 minutes 39 seconds East 262.31 feet to a rod and cap; thence South 87 degrees 45 minutes 38 seconds East 1958.94 feet to a rod and cap marking the intersection of said Northerly right of way line with the Easterly boundary of Section 25, Township 3 South, Range 2 East of Wakulla County, Florida said point also lying on the Wakulla and Jefferson County line; thence leaving said Northerly right of way line run along the Easterly boundary line of said Section 25 and said Wakulla and Jefferson County line North 00 degrees 22 minutes 59 seconds West 3356.38 feet to a rod and cap marking the Northeast corner of said Section 25, also marking the Southeast corner of Section 24, Township 3 South, Range 2 East; thence run along the Easterly boundary of said Section 24 and continue said Wakulla and Jefferson County line North 00 degrees 22 minutes 59 seconds West 4239.30 feet to a point marking the intersection of said Easterly boundary line and of said Wakulla and Jefferson County line with the centerline of an existing roadway and also the centerline of a 50 foot wide roadway easement; thence leaving said Easterly boundary line and said Wakulla and Jefferson County line run along said centerline as follows: North 70 degrees 22 minutes 39 seconds West 122.92 feet to a rod and cap; thence North 57 degrees 56 minutes 09 seconds West 91.42 feet to a rod and cap; thence North 48 degrees 43 minutes 57 seconds West 81.73 feet to a rod and cap; thence North 36 degrees 54 minutes 02 seconds West 181.71 feet to a rod and cap; thence North 33 degrees 23 minutes 57 seconds West 1594.87 feet to a rod and cap; thence North 35 degrees 57 minutes 30 seconds West 123.39 feet to a rod and cap; thence North 48 degrees 23 minutes 21 seconds West 82.06 feet to a rod and cap; thence North 63 degrees 08 minutes 49 seconds West 75.56 feet to a rod and cap; thence North 71 degrees 56 minutes 52 seconds West 80.52 feet to a rod and cap; thence North 77 degrees 12 minutes 31 seconds West 75.24 feet to a rod and cap; thence North 87 degrees 50 minutes 34 seconds West 257.43 feet to a rod and cap; thence North 88 degrees 19 minutes 17 seconds West 118.83 feet to a rod and cap; thence North 88 degrees 20 minutes 47 seconds West 524.62 feet to a rod and cap; thence North 88 degrees 02 minutes 33 seconds West 405.46 feet to a rod and cap; thence North 86 degrees 51 minutes 27 seconds West 258.74 feet to a rod and cap; thence North 81 degrees 03 minutes 05 seconds West 58.52 feet to a rod and cap; thence North 76 degrees 24 minutes 02 seconds West 60.73 feet to a rod and cap; thence North 71 degrees 02 minutes 08 seconds West 72.59 feet to a rod and cap; thence North 68 degrees 36 minutes 24 seconds West 160.61 feet to a rod and cap; thence North 66 degrees 20 minutes 33 seconds West 195.99 feet to a rod and cap; thence North 64 degrees 50 minutes 51 seconds West 142.64 feet to a rod and cap for the POINT OF BEGINNING, containing 737.61 acres, more or less.

LESS AND EXCEPT:

EASEMENT #1

A 50 foot wide easement recorded in Original Record Book 760, Page 565 of the Public Records in Wakulla County, Florida and Original Record Book 624, Page 397 of the Public Records in Jefferson County, Florida.

EASEMENT #2

A 60 foot wide easement recorded in Original Record Book 760, Page 565 of the Public Records in Wakulla County, Florida and Original Record Book 624, Page 397 of the Public Records in Jefferson County, Florida.

EASEMENT #3

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A 50 foot wide easement lying 25 feet either side of the following described centerline: Commence at a rod and cap marking the Northwest corner of Section 18, Township 3 South, Range 3 East, Jefferson County, Florida, said point also marking the Northeast corner of Section 13, Township 3 South, Range 2 East, Wakulla County, Florida; thence run along the Northerly boundary line of said Section 13 as follows: South 89 degrees 30 minutes 03 seconds West 1150.31 feet; thence South 89 degrees 30 minutes 06 seconds West 2607.18 feet to a point marking the intersection of said Northerly boundary line with Easterly boundary line of Kala Preserve a subdivision recorded in Plat Book 4 Pages 93-98 of the public records of Wakulla County, Florida; thence leaving said Northerly boundary line run along said Easterly boundary South 4274.15 feet to a point lying on the centerline of an existing roadway easement, said point being the POINT OF BEGINNING; thence leaving said POINT OF BEGINNING and said Easterly boundary line run along said centerline as follows: South 64 degrees 50 minutes 51 seconds East 142.64 feet to a rod and cap; thence South 66 degrees 20 minutes 33 seconds East 195.99 feet to a rod and cap; thence South 68 degrees 36 minutes 24 seconds East 160.61 feet to a rod and cap; thence South 71 degrees 02 minutes 08 seconds East 72.59 feet to a rod and cap; thence South 76 degrees 24 minutes 02 seconds East 60.73 feet to a rod and cap; thence South 81 degrees 03 minutes 05 seconds East 58.52 feet to a rod and cap; thence South 86 degrees 51 minutes 27 seconds East 258.74 feet to a rod and cap; thence South 88 degrees 02 minutes 33 seconds East 405.46 feet to a rod and cap; thence South 88 degrees 20 minutes 47 seconds East 524.62 feet to a rod and cap; thence South 88 degrees 19 minutes 17 seconds East 118.83 feet to a rod and cap; thence South 87 degrees 50 minutes 34 seconds East 257.43 feet to a rod and cap; thence South 77 degrees 12 minutes 31 seconds East 75.24 feet to a rod and cap; thence South 71 degrees 56 minutes 52 seconds East 80.52 feet to a rod and cap; thence South 63 degrees 08 minutes 49 seconds East 75.56 feet to a rod and cap; thence South 48 degrees 23 minutes 21 seconds East 82.06 feet to a rod and cap; thence South 33 degrees 23 minutes 57 seconds East 1594.87 feet to a rod and cap; thence South 36 degrees 54 minutes 02 seconds East 181.71 feet to a rod and cap; thence South 48 degrees 43 minutes 57 seconds East 81.73 feet to a rod and cap; thence South 57 degrees 56 minutes 09 seconds East 91.42 feet to a rod and cap; thence South 70 degrees 22 minutes 39 seconds East 122.92 feet to a rod and cap marking the intersection of said centerline with the Easterly boundary line of Section 24, Township 3 South, Range 2 East, Wakulla County, Florida and also the Wakulla and Jefferson County line; thence leaving said Easterly boundary line of Section 24 and said Wakulla and Jefferson County line continue along said centerline as follows: South 70 degrees 22 minutes 39 seconds East 6.88 feet to a rod and cap; thence North 85 degrees 46 minutes 14 seconds East 99.83 feet to a rod and cap; thence North 77 degrees 14 minutes 57 seconds East 466.09 feet to a rod and cap; thence North 75 degrees 17 minutes 13 seconds East 177.81 feet to a rod and cap; thence North 77 degrees 36 minutes 16 seconds East 329.74 feet to a point marking the intersection of said centerline with the centerline of a 50 foot wide roadway easement as described in Official Record Book 760, Page 565 in the Public Records of Wakulla County, Florida to the POINT OF TERMINUS.

EASEMENT #4

A 60 foot wide easement recorded in Original Record Book 665, Page 129 of the Public Records in Wakulla County, Florida.



FLORIDA DEPARTMENT OF STATE Kurt S. Browning Secretary of State DIVISION OF HISTORICAL RESOURCES

Mr. Matthew White Suncoast Archaeological Consultants, Inc. 2632 Eagle Court Lake Wales, Florida 33898 March 22, 2010

Re: DHR Project File No.: 2010-00824 (2009-05942, 2009-03104)
Received by DHR: February 10, 2010
DEP Application No.: 02-95847-001 / USCOE Permit Application No: 2008-02014
Reconnaissance Level Cultural Resource Survey for the St. Marks River Mitigation Bank,
Jefferson and Wakulla Counties, Florida

Dear Mr. White:

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Our office received and reviewed the above referenced survey report in accordance with Section 106 of the National Historic Preservation Act of 1966 (Public Law 89-665), as amended in 1992; 36 C.F.R., Part 800: Protection of Historic Properties and Chapters 267 and 373 of the Florida Statutes, for possible adverse impact to cultural resources (any prehistoric or historic district, site, building, structure, or object) listed, or eligible for listing, in the National Register of Historic Places (NRHP).

In January 2010, Suncoast Archaeological Consultants, Inc. (SAC) conducted an archaeological and historical reconnaissance survey of the proposed St. Marks River Mitigation Bank project area on behalf of Westervelt Ecological Services. SAC identified one previously unrecorded archaeological site (8WA851) and one archaeological occurrence within the project area during the investigation.

SAC determined that Site 8WA851, a low density lithic scatter, does not appear to be eligible for listing in the NRHP based on its small assemblage, lack of diagnostic artifacts, and low research potential.

SAC determined that the proposed project will have no effect on cultural resources listed, or eligible for listing, in the NRHP, or otherwise of historical, archaeological, or architectural value. SAC also found that the tract is unlikely to contain significant cultural resources and recommends no further investigation of the subject parcel.

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Director's Office 850.245.6300 • FAX: 245.6436 Archaeological Research 850.245.6444 • FAX: 245.6452

Historic Preservation 850.245.6333 • FAX: 245.6437

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Mr. White March 22, 2010 Page 2

Based on the information provided, our office concurs with these determinations and finds the submitted report complete and sufficient in accordance with Chapter 1A-46, *Florida* Administrative Code.

For any questions concerning our comments, please contact Rudy Westerman, Historic Preservationist, by electronic mail at <u>rjwesterman@dos.state.fl.us</u>, or by phone at 850.245.6333. We appreciate your continued interest in protecting Florida's historic properties.

Sincerely,

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Laura a. Kammerer

Laura A. Kammerer Historic Preservationist Supervisor Compliance Review Section Bureau of Historic Preservation