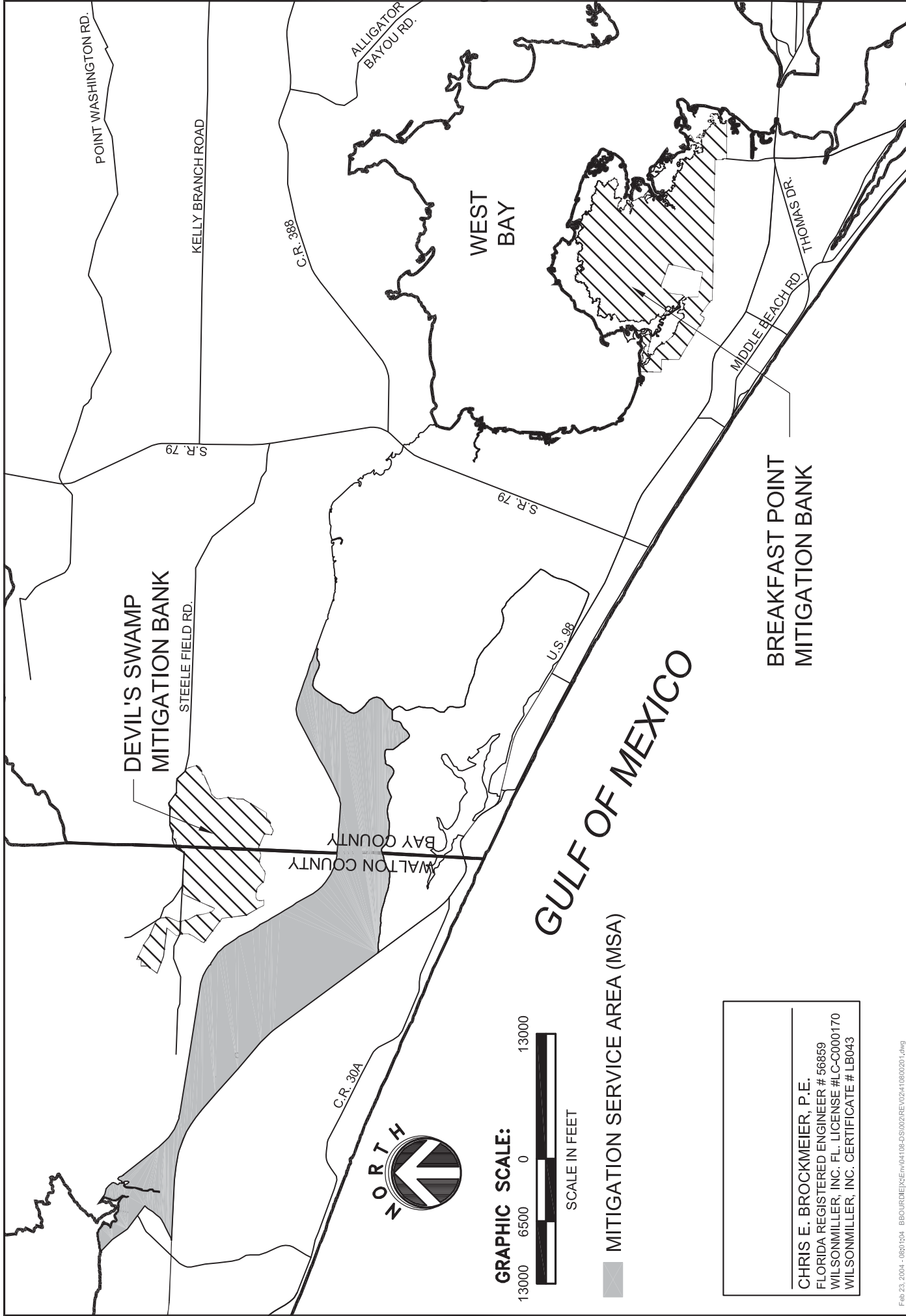


## Attachment B-1 – EXHIBITS

Exhibit B-1-1	Location & Service Area Map
Exhibit B-1-2	Aerial Photo, 1999
Exhibit B-1-3	Quad Topography Map
Exhibit B-1-4	Soils Map
Exhibit B-1-5	Existing Land Use and Land Cover
Exhibit B-1-6	Proposed Land Use and Land Cover
Exhibit B-1-7	Phases, Hydrologic Improvements, and Monitoring Locations
Exhibit B-1-8	Historic Aerial, 1949
Exhibit B-1-9	Turbidity Details
Exhibit B-1-10	Existing Land Use and Land Cover (11x17 color)
Exhibit B-1-11	Proposed Land Use and Land Cover (11x17 color)



**CHRIS E. BROCKMEIER, P.E.**  
 FLORIDA REGISTERED ENGINEER # 56859  
 WILSONMILLER, INC. FL. LICENSE # LC-C000170  
 WILSONMILLER, INC. CERTIFICATE # LB043

PROJECT NO: 04108-000-000		DATE: Feb. 2004	
DRAWN BY/EMP NO: WMB/1467		SCALE: 1" = 13,000'	
SHEET NUMBER: 1		REVISION: 9	
PROJECT: DEVIL'S SWAMP MITIGATION BANK		CLIENT: ST. JOE COMPANY	
EXHIBIT B-1-1		TITLE: LOCATION & SERVICE AREA MAP	

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MITIGATION BANK  
BOUNDARY

WALTON COUNTY  
BAY COUNTY

WALTON COUNTY  
BAY COUNTY



GRAPHIC SCALE:



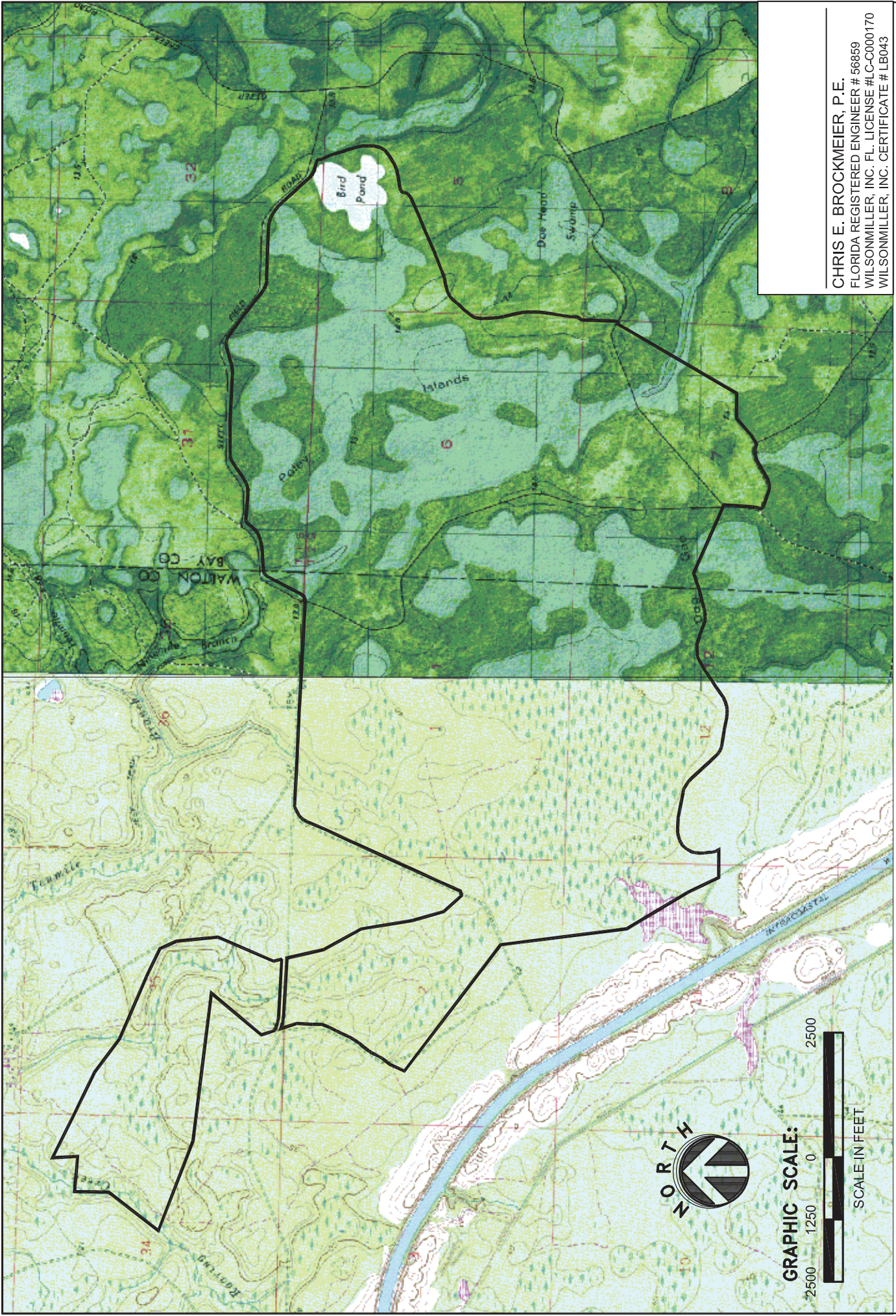
SCALE IN FEET

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FLORIDA REGISTERED ENGINEER # 56859  
WILSONMILLER, INC. FL. LICENSE # L-C-0000170  
WILSONMILLER, INC. CERTIFICATE # LB043

PROJECT NO: 04108-000-000		DATE: Feb. 2004	
DRAWN BY/EMP NO: WMB/1467		SCALE: 1"=2500'	
SHEET NUMBER: 2		REVISION: 9	
PROJECT: DEVIL'S SWAMP MITIGATION BANK		CLIENT: ST. JOE COMPANY	
EXHIBIT B-1-2		TITLE: AERIAL PHOTO, 1999	

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PROJECT: **DEVIL'S SWAMP MITIGATION BANK**  
 CLIENT: **ST. JOE COMPANY**  
 TITLE: **QUAD TOPOGRAPHY MAP**

EXHIBIT B-1-3

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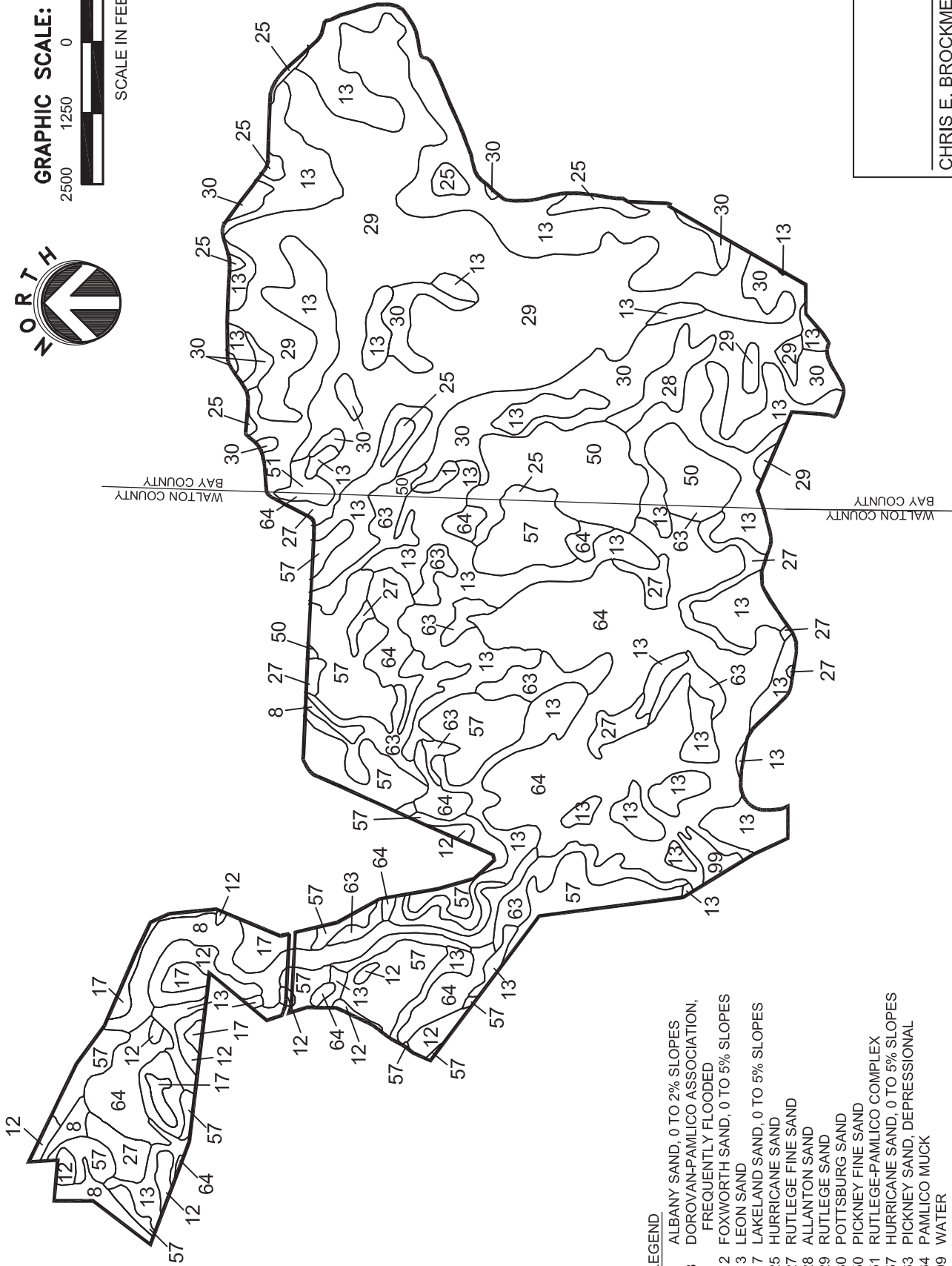
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04108-000-000	Feb. 2004
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SHEET NUMBER:	REVISION:
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OF	

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GRAPHIC SCALE:  
2500 1250 0 2500

SCALE IN FEET



**LEGEND**

- 1 ALBANY SAND, 0 TO 2% SLOPES
- 8 DOROVAN-PAMLICO ASSOCIATION, FREQUENTLY FLOODED
- 12 FOXWORTH SAND, 0 TO 5% SLOPES
- 13 LEON SAND
- 17 LAKELAND SAND, 0 TO 5% SLOPES
- 25 HURRICANE SAND
- 27 RUTLEGE FINE SAND
- 28 ALLANTON SAND
- 29 RUTLEGE SAND
- 30 POTTSBURG SAND
- 50 PICKNEY FINE SAND
- 51 RUTLEGE-PAMLICO COMPLEX
- 57 HURRICANE SAND, 0 TO 5% SLOPES
- 63 PICKNEY SAND, DEPRESSIONAL
- 64 PAMLICO MUCK
- 99 WATER

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WILSONMILLER, INC. CERTIFICATE # LB043

PROJECT: **DEVIL'S SWAMP MITIGATION BANK**  
CLIENT: **ST. JOE COMPANY**  
TITLE: **SOILS MAP**

EXHIBIT B-1-4



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PROJECT NO. 04108-000-000	DATE Feb., 2004
DRAWN BY/EMP. NO. WMB/1467	SCALE: 1"=2500'
SHEET NUMBER: 4 OF 9	REVISION:

FILE NO. 2004-082250 - BROWARD COUNTY PROJECTS - 10/21/04 REV. 02/10/04 02/04/04

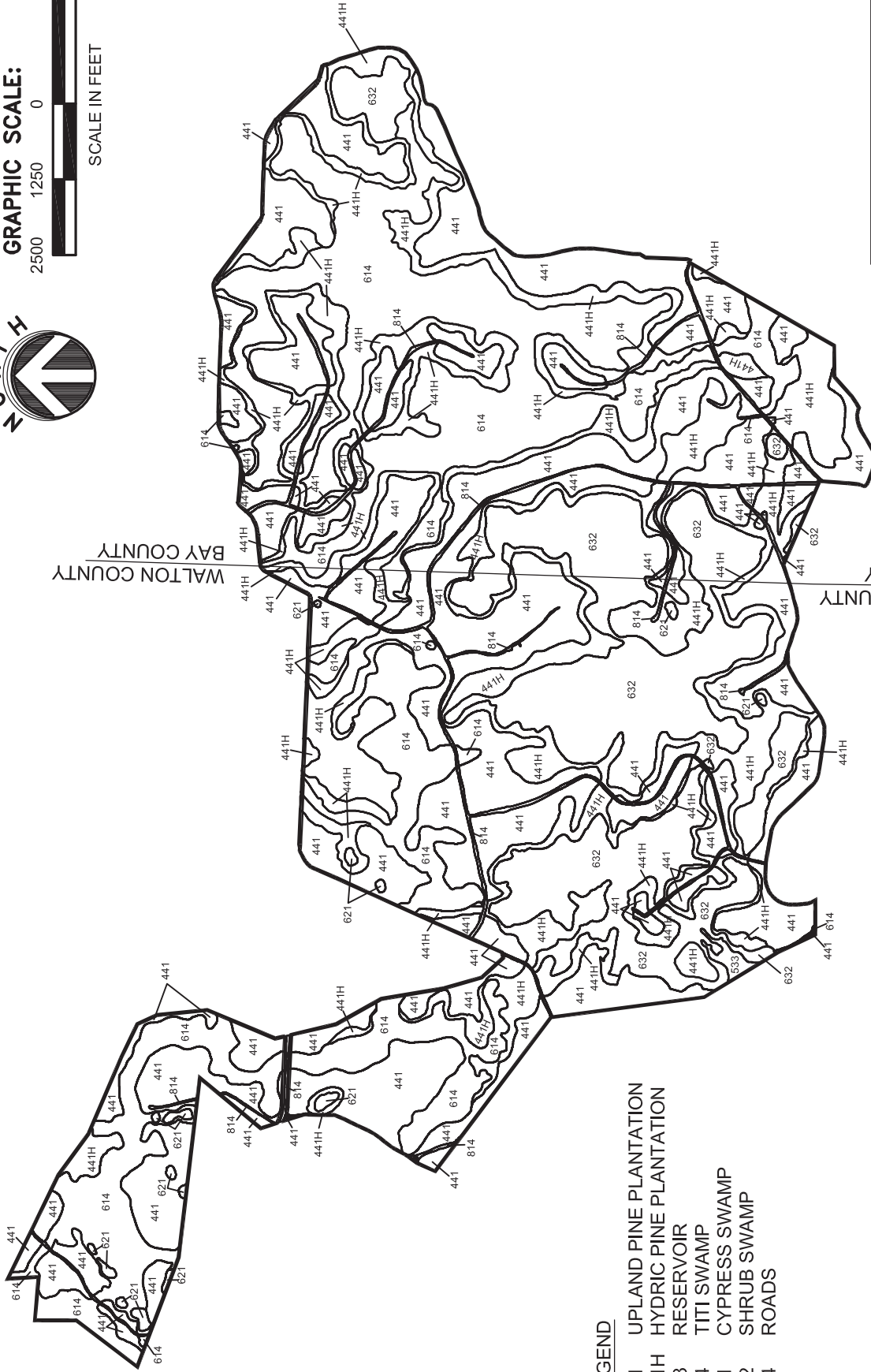


GRAPHIC SCALE:

2500 1250 0 2500



SCALE IN FEET



- LEGEND**
- 441 UPLAND PINE PLANTATION
  - 441H HYDRIC PINE PLANTATION
  - 533 RESERVOIR
  - 614 TITI SWAMP
  - 621 CYPRESS SWAMP
  - 632 SHRUB SWAMP
  - 814 ROADS

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 WILSONMILLER, INC. CERTIFICATE # LB043

PROJECT: **DEVIL'S SWAMP MITIGATION BANK**  
 CLIENT: **ST. JOE COMPANY**  
 TITLE: **EXISTING LAND USE & LAND COVER**

EXHIBIT B-1-5

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WMB/1467	1"=2500'
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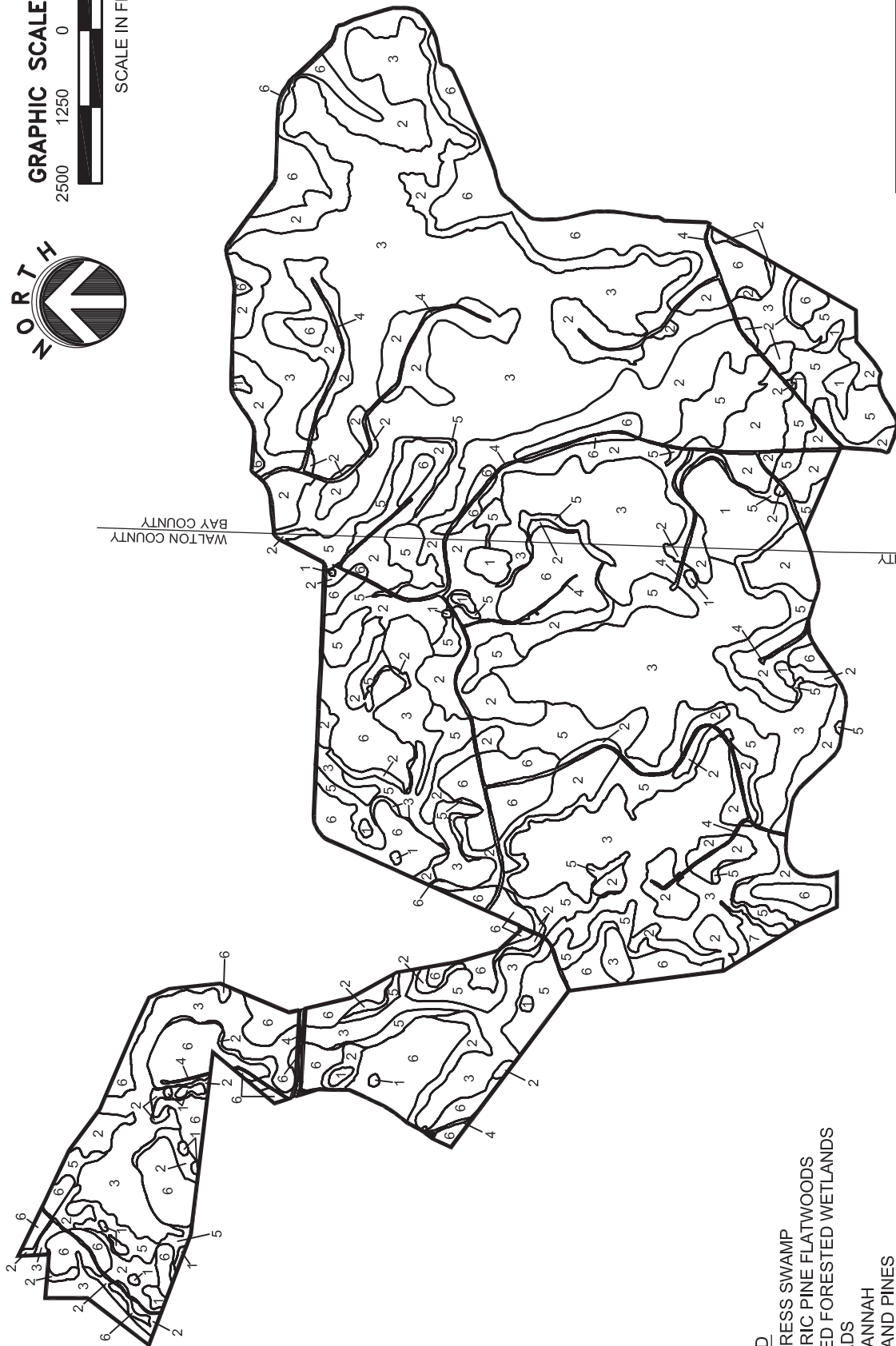


GRAPHIC SCALE:

2500  
1250  
0  
2500



SCALE IN FEET



**LEGEND**

- 1 CYPRESS SWAMP
- 2 HYDRIC PINE FLATWOODS
- 3 MIXED FORESTED WETLANDS
- 4 ROADS
- 5 SAVANNAH
- 6 UPLAND PINES
- 7 WATER BODIES

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WILSONMILLER, INC. CERTIFICATE # LB043

PROJECT: **DEVIL'S SWAMP MITIGATION BANK**  
CLIENT: **ST. JOE COMPANY**  
TITLE: **PROPOSED LAND USE & LAND COVER**

EXHIBIT B-1-6

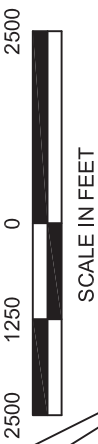
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PROJECT NO.	DATE:
04108-000-000	Feb. 2004
DRAWN BY/EMP. NO.	SCALE:
WMB/1467	1"=2500'
SHEET NUMBER:	REVISION:
6	9

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GRAPHIC SCALE:



MITIGATION BANK  
BOUNDARY

LOW WATER  
CROSSING #5

WALTON COUNTY  
BAY COUNTY

BRANCH

9 MILE

LOW WATER  
CROSSING #2  
BUNKER ROAD

STEELE FIELD ROAD

LOW WATER  
CROSSING #1

LOW WATER  
CROSSING #3

LOW WATER  
CROSSING #4

WALTON COUNTY  
BAY COUNTY

STEELE FIELD ROAD

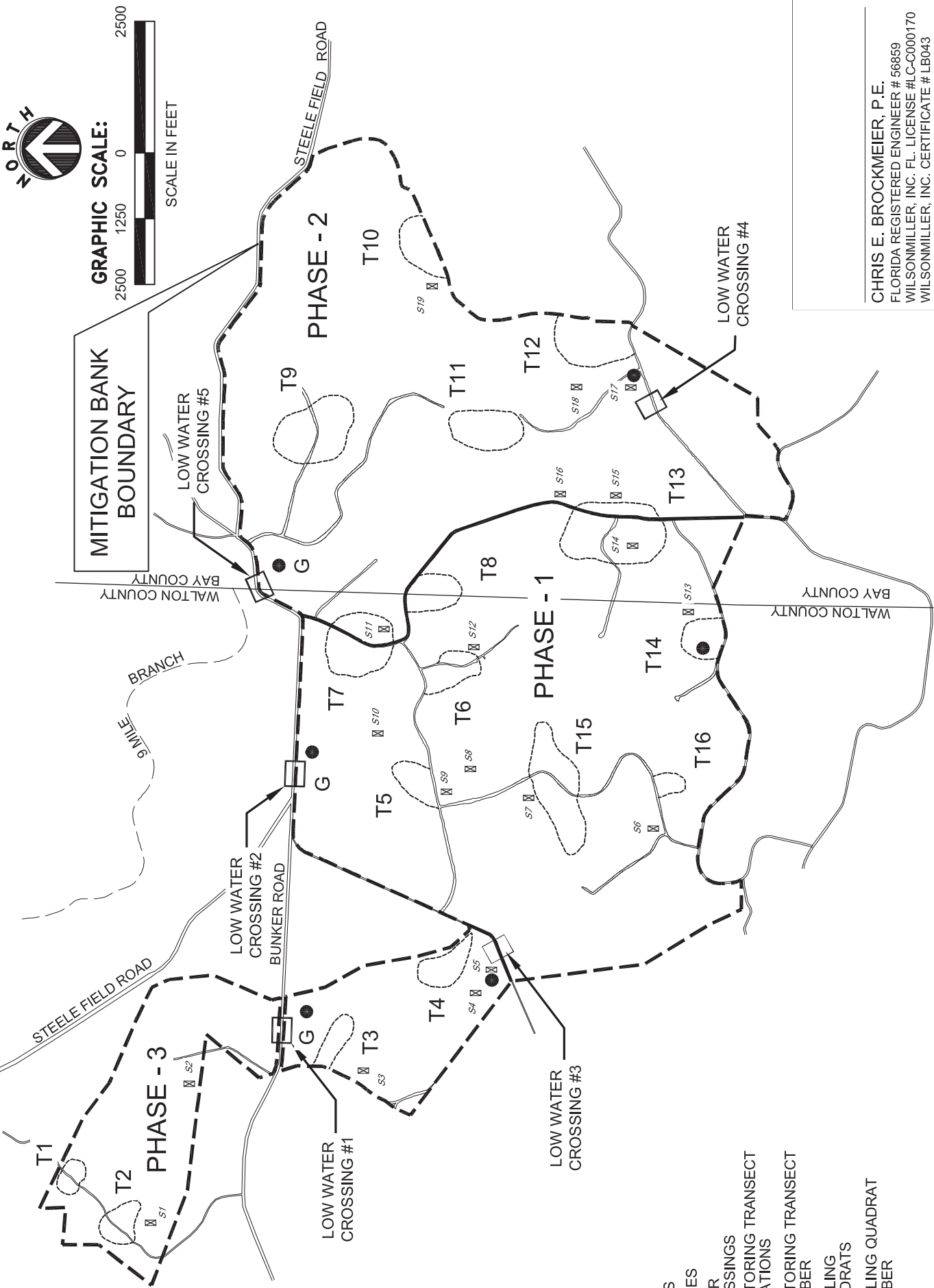
PHASE - 2

PHASE - 1

PHASE - 3

**LEGEND**

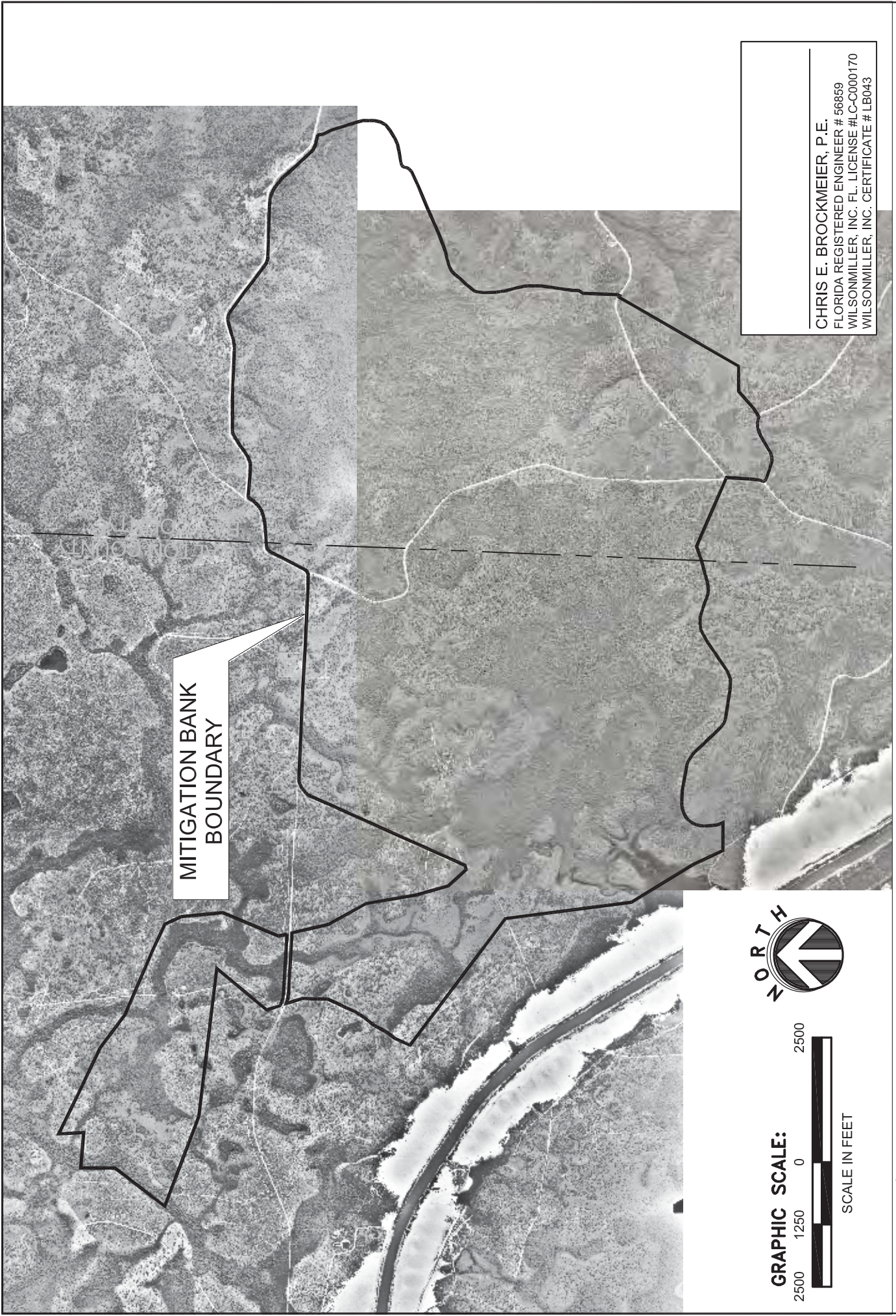
- WELLS
- G GAUGES
- WATER CROSSINGS
- MONITORING TRANSECT LOCATIONS
- T1 MONITORING TRANSECT NUMBER
- ⊠ SAMPLING QUADRATS
- s1 SAMPLING QUADRAT NUMBER



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PROJECT NO. 04108-000-000		DATE: Feb. 2004
DRAWN BY/EMP NO. WMBM/1467		SCALE: 1" = 2500'
SHEET NUMBER: 7		REVISION: 9
PROJECT: DEVIL'S SWAMP MITIGATION BANK		CLIENT: ST. JOE COMPANY
EXHIBIT B-1-7		TITLE: PHASES, HYDROLOGIC IMPROVEMENTS AND MONITORING LOCATIONS
<p>Wilson Miller Planners • Engineers • Ecologists • Surveyors • Landscape Architects • Transportation Consultants 1441 Mescal Commerce Drive, Suite 107 Tallahassee, Florida 32310 • 904-787-5200 • 904-787-5841 (F) www.wilsonmiller.com</p>		





MITIGATION BANK  
BOUNDARY

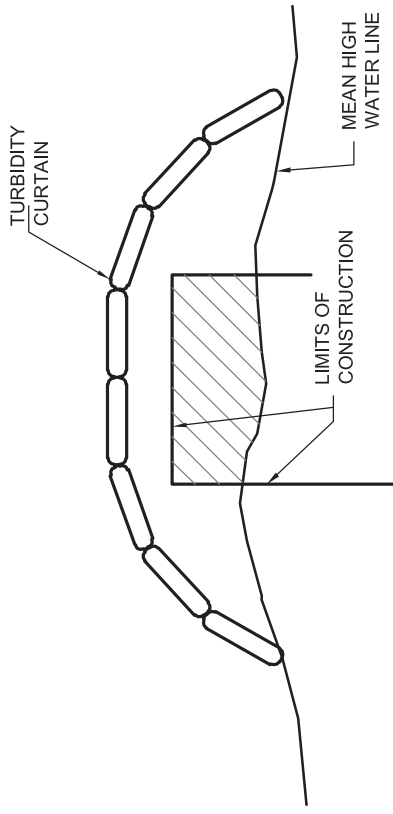
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WILSONMILLER, INC. FL. LICENSE # LC-C000170  
WILSONMILLER, INC. CERTIFICATE # LB043



PROJECT NO. 04108-000-000		DATE: Feb. 2004	
DRAWN BY/EMP NO. WMB/1467		SCALE: 1"=2500'	
SHEET NUMBER: 8		REVISION: 9	
PROJECT: DEVIL'S SWAMP MITIGATION BANK		CLIENT: ST. JOE COMPANY	
EXHIBIT B-1-8		TITLE: HISTORIC AERIAL, 1949	

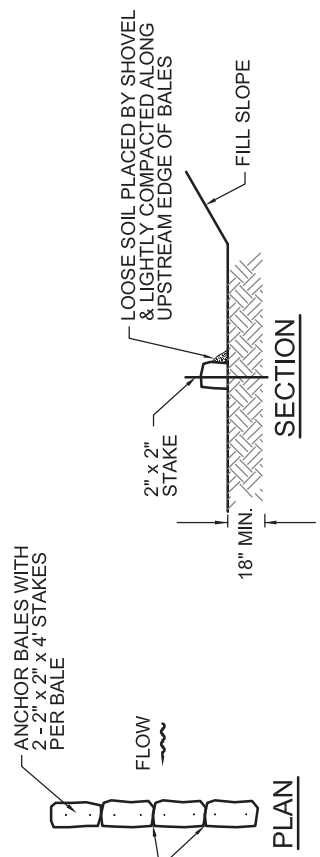
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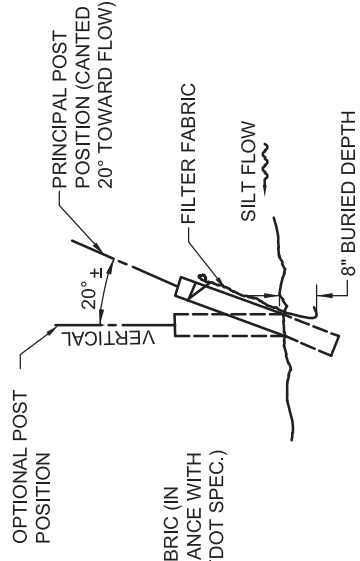


**TYPICAL TURBIDITY CURTAIN**

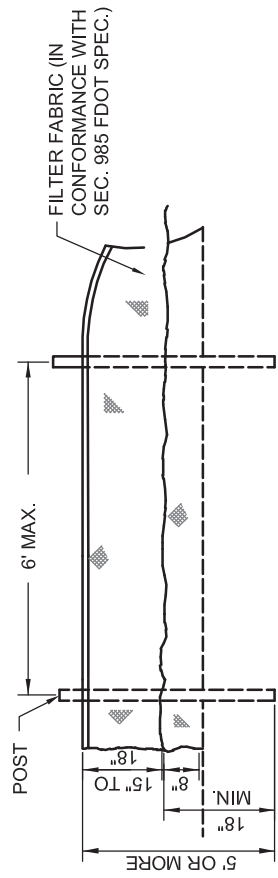
NOTE:  
TURBIDITY BARRIERS FOR FLOWING STREAMS AND TIDAL CREEKS MAY BE EITHER FLOATING OR STAKED TYPES OR ANY COMBINATIONS OF TYPES THAT WILL SUIT SITE CONDITIONS AND MEET EROSION CONTROL AND WATER QUALITY REQUIREMENTS.



**TYPICAL BALE SILT BARRIER**  
N.T.S.



**TYPICAL SILT FENCE**  
N.T.S.



**CHRIS E. BROCKMEIER, P.E.**  
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SHEET NUMBER:	9 OF 9
DATE:	Feb. 2004
SCALE:	N.T.S.
REVISION:	

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PROJECT: **DEVIL'S SWAMP MITIGATION BANK**

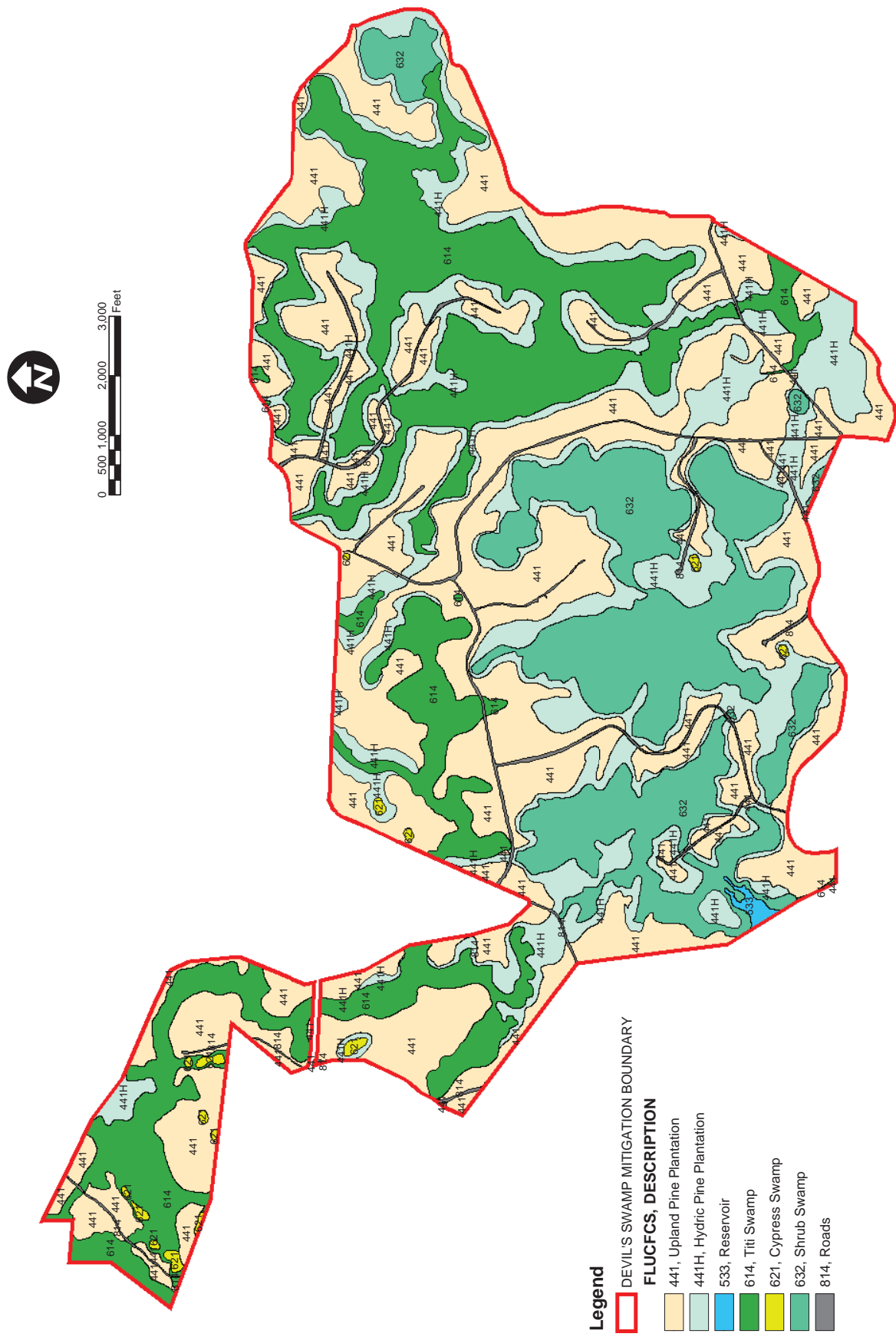
CLIENT: **ST. JOE COMPANY**

TITLE: **TURBIDITY DETAILS**

EXHIBIT **B-1-9**

DEVIL'S SWAMP  
MITIGATION BANK  
EXISTING LAND USE

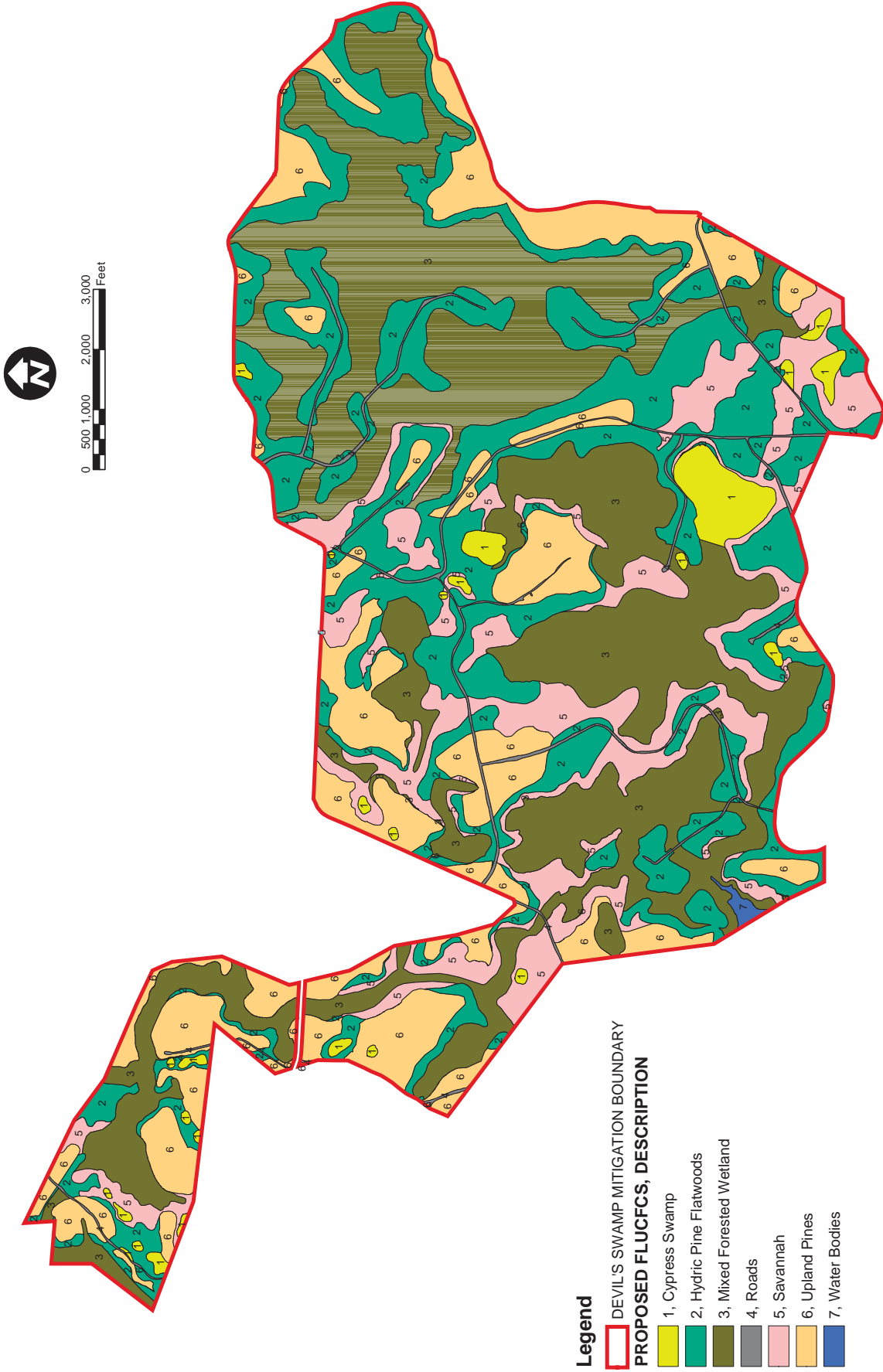
EXHIBIT B-1-10



- Legend**
- DEVIL'S SWAMP MITIGATION BOUNDARY
  - FLUCFCS, DESCRIPTION**
  - 441, Upland Pine Plantation
  - 441H, Hydric Pine Plantation
  - 533, Reservoir
  - 614, Titi Swamp
  - 621, Cypress Swamp
  - 632, Shrub Swamp
  - 814, Roads

**DEVIL'S SWAMP  
 MITIGATION BANK  
 PROPOSED LAND USE**

EXHIBIT B-1-11



- Legend**
- DEVIL'S SWAMP MITIGATION BOUNDARY
  - PROPOSED FLUCFCS, DESCRIPTION**
  - 1, Cypress Swamp
  - 2, Hydric Pine Flatwoods
  - 3, Mixed Forested Wetland
  - 4, Roads
  - 5, Savannah
  - 6, Upland Pines
  - 7, Water Bodies

## ATTACHMENT B-2 – FIRE MANAGEMENT PLAN

### Executive Summary

Ten burn units have been designated within the three phases of the Devil's Swamp Mitigation Area (DS); prescriptions are included with this synopsis. The timing and objectives of fire are outlined in the following prescriptions.

Burning will occur predominantly during the early growing season: growing season is March thru August. Generally, the burns will occur during the growing season every two to four years during the initial series of burns. Fire will be allowed to burn into all wetland systems when conditions allow and when it would not result in a catastrophic situation.

The conditions of the prescription are intended to inhibit succession of woody species, promote fire-adapted species, and stimulate seed production of desirable herbs. Along with ecological considerations, the prescription has been specifically written to comply with Florida's open-burning laws and liability considerations. Preservation of life and property by safe implementation of prescribed fire is the primary consideration of the Prescribed Burn Manager.

### General description of burn units

Ten burn units will be established for this project. The burn units are of a size that allows a more manageable application of fire than that of a large, single burn unit. Burns will be conducted in each unit when specific contingencies (listed below) for burn units have been met. Prescribed burns simulating natural fire events will be integral in restoring and maintaining the desired vegetative communities and ecotypes within the project site.

### Primary resource objectives

The objective of this burn plan is to apply fire to the project area by phase to facilitate replacement of planted pine community with several different vegetative communities including: hydric pine flatwoods, savannah, cypress swamp, mixed forested wetland, and upland pines. The burns are intended to mimic natural burn frequencies and the burn objectives are best described as ecological. The initial burns are intended to exhibit high intensity to consume standing biomass, kill woody vegetation (primarily titi and dense shrubbery) and to encourage the growth of fire-dependent grasses and forbs. Later burns are intended to maintain the restoration, and further the long-term ecological objectives of the mitigation plan. Burn coverage of 80% or more will be considered acceptable to restore and maintain these systems within the project area, and is the criterion by which mitigation credits will be released.

### Burn application contingencies

1. Any fire lines needed to insure safe management of fire within the burn units will be established prior to burning.
2. Burn units containing stands of merchantable timber will be thinned by 70% prior to burning, unless the mitigation plan dictates otherwise for that unit.
3. Several burn units must be burned early in the growing season (March) to capture northerly winds. This is necessary to avoid smoke management problems associated with the local area.
4. Local historical locations (cemeteries, etc.) must be protected and respected.
5. Any naturally occurring fire or those fires that burn outside of prescription will be deemed 'wildfires'. Any ecological damage that results from extinguishing such fires shall be restored by the Sponsor within two weeks of its occurrence.

## **Site preparation**

Roads and natural features were used to delineate ten units. A permanent firebreak that utilizes existing features will be maintained along the boundaries of the mitigation area. In light of the ecological objectives of this management activity, disking will be utilized in lieu of plowing. Disking will cause minimal soil disturbance while exposing enough mineral soil to serve as a firebreak.

## **Safety considerations**

Numerous safety zones are present utilizing the internal logging roads. All personnel present at the burn will carry Personal Protective Equipment (PPE). All radio communications will utilize plain language. Signs will be available for posting on County Highways in the event conditions cause low visibility on this roadway. All adjacent landowners will be contacted in writing at least thirty days prior to burn.

## **Prescription**

The parameters below are included as general guidelines. However, to insure compliance with Florida's open burn laws, event-specific prescriptions will be drafted and filed prior to each burn. The parameters identified in each prescription may differ from those listed below at the discretion and judgment of the Prescribed Burn Manager.

### Burn schedule:

The burn units will be burned on a two/four-year rotation beginning with the units in Phase 1: burning in units of phases 2 and 3 will start at later dates. The growing season burns will be timed to insure optimal smoke management and provide maximum kill of woody species. All subsequent burns will be growing season burns.

It may not be practical to completely separate the herbaceous and forested communities into burn units in all years, so it is anticipated that the initial several burns will be site-wide. As a result, there will be more frequent fire during the restoration phase in order to "re-set" the vegetative community. An adaptive management approach will be used to determine the appropriate fire frequency for the site.

The actual fire frequency will be dependent on available fuels and drought conditions; that is, sufficient fuels must exist to carry a fire at any given time and drought conditions must not be such that burning would be detrimental to the ecological integrity of the project.

The initial burn will be fired in three burn units of Phase 1 labeled in Figure 1. Burn unit boundaries utilize existing man-made and natural features that diminish the need for additional fire lines with the exception of the southern boundary of Phase 2. Subsequent burns may occur in units different from those presented in this plan.

### Chronology:

Phase 1 - Burn Unit 1, Burn Unit 2, Burn Unit 3; Phase 2 - Burn Unit 1, Burn Unit 2; Phase 3 - Burn Unit 1, Burn Unit 2, Burn Unit 3, Burn Unit 4, Burn Unit 5. Prescriptions for each burn unit are presented below: Fire lines and/or easements must be in place prior to burning all units.

**Prescription Phase 1, Unit 1 – 279 acres**

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	Northwest	North
Wind Speed (20' forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1800	NA
Dispersion Index (Day)	35	70
Burn method – <b>Aerial Ignition</b>	Backing	Strip Head
Smoke Management Concerns	Steelfield road on north boundary	

**Prescription Phase 1, Unit 2 – 363 acres**

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	Northwest	North
Wind Speed (20' forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1800	NA
Dispersion Index (Day)	35	70
Burn method – <b>Aerial Ignition</b>	Backing	Strip Head
Smoke Management Concerns	Steelfield road north of unit 1 and Phase 2	

**Prescription Phase 1, Unit 3 – 695 acres**

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	Southwest	South
Wind Speed (20' forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1800	NA
Dispersion Index (Day)	35	70
Burn method – <b>Aerial Ignition</b>	Backing	Strip Head
Smoke Management Concerns	Steelfield road north of unit 1 and Phase 2	

**Prescription Phase 2, Unit 1 – 281 acres**

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	NE to E	Northerly
Wind Speed (20' forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1800	NA
Dispersion Index (Day)	35	70
Burn method – <b>Aerial Ignition</b>	Backing	Strip Head
Smoke Management Concerns	Steelfield road north of unit 1	

**Prescription Phase 2, Unit 2 – 643 acres**

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	Northeast	North
Wind Speed (20' forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1800	NA
Dispersion Index (Day)	35	70
Burn method – <b>Aerial Ignition</b>	Backing	Strip Head
Smoke Management Concerns	Steelfield road north of unit 1	

**Prescription Phase 3, Unit 1 – 96 acres**

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	North to East	Northerly
Wind Speed (20' forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1800	NA
Dispersion Index (Day)	35	70
Burn method – <b>Hand Ignition</b>	Backing	Strip Head
Smoke Management Concerns	Steelfield fish camp north of unit, Steelfield road east of unit.	

**Prescription Phase 3, Unit 2 – 194 acres**

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	East to SE	E -SE
Wind Speed (20' forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1800	NA
Dispersion Index (Day)	35	70
Burn method – <b>Aerial Ignition</b>	Backing	Strip Head
Smoke Management Concerns Note Cemetery in NE corner	Steelfield fish camp north of unit, Steelfield road east of unit.	

**Prescription Phase 3, Unit 3 – 184 acres**

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	East to SE	E -SE
Wind Speed (20' forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1800	NA
Dispersion Index (Day)	35	70
Burn method – <b>Aerial Ignition</b>	Backing	Strip Head
Smoke Management Concerns	Steelfield road east of unit, Bunker road south of unit.	



**Prescription Phase 3, Unit 4 – 145 acres**

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	W - NW	W - NW
Wind Speed (20' forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1800	NA
Dispersion Index (Day)	35	70
Burn method – <b>Aerial Ignition</b>	Backing	Strip Head
Smoke Management Concerns	Bunker road north of unit.	

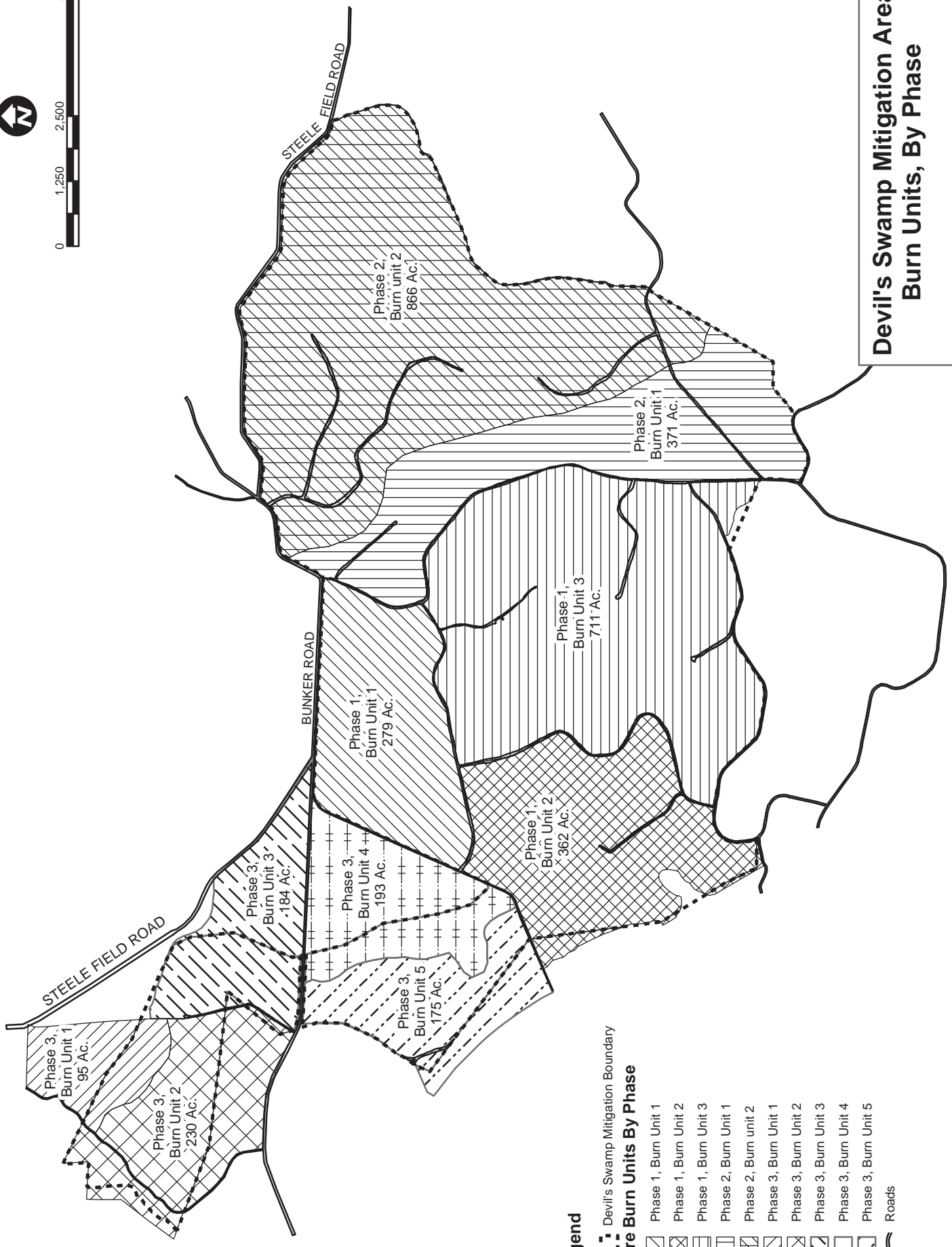
**Prescription Phase 3, Unit 5 – 174 acres**

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	W - SW	W - SW
Wind Speed (20' forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1800	NA
Dispersion Index (Day)	35	70
Burn method – <b>Aerial Ignition</b>	Backing	Strip Head
Smoke Management Concerns	Bunker road north and east of unit.	

**Smoke management screening**

This prescription has passed smoke screening provided wind prescriptions for each burn unit are employed. Care must be taken to avoid smoking Steelfield and Bunker roads Based on fuel type and burn unit area (3,254 -acres) a smoke sensitive radius of 3-miles is warranted. The Steelfield fish camp and the town of Bunker lies within the smoke sensitive radius. Prescriptions for the burn units are sensitive to this feature.

**Note: Burn objectives can be accomplished only under prescribed wind direction for each unit. Smoke screening can be cleared under prescribed winds only, which may reduce visibility on Steelfield and Bunker roads. The timing of the burn is critical to smoke management AND ecological objectives: both will be the over-riding parameters for firing the units.**



**Legend**

--- Devil's Swamp Mitigation Boundary

**Fire Burn Units By Phase**

- Phase 1, Burn Unit 1
- Phase 1, Burn Unit 2
- Phase 1, Burn Unit 3
- Phase 2, Burn Unit 1
- Phase 2, Burn Unit 2
- Phase 3, Burn Unit 1
- Phase 3, Burn Unit 2
- Phase 3, Burn Unit 3
- Phase 3, Burn Unit 4
- Phase 3, Burn Unit 5

Roads

**Devil's Swamp Mitigation Area  
Burn Units, By Phase**

**Figure 1**

## ATTACHMENT B-3 – SECURITY PLAN

The Devil's Swamp Mitigation Bank is located in a rural portion of Bay and Walton Counties. As such, the site has limited exposure to the general population. The site is surrounded by private property with access restricted to two distinct, narrow (<100') corridors .

### Gates

All entrance roads will be gated to control access (Figure 1). Gates will be constructed of 4-inch steel channel, painted blaze orange, and equipped with reflective tape. Gates will be locked and access permitted for St. Joe staff and their contractors, agency representatives, and hunting lease members and their guests only. Security housing around locks will be used to reduce the threat of illegal entry into the area.

Gates will be monitored bi-weekly by hunt club members. Monitoring will be a condition of the hunting lease agreement. Hunt club members are required to contact St. Joe staff (850-234-2204) within 24 hours of discovering a breach in gate security. Security gate damage will be repaired immediately.

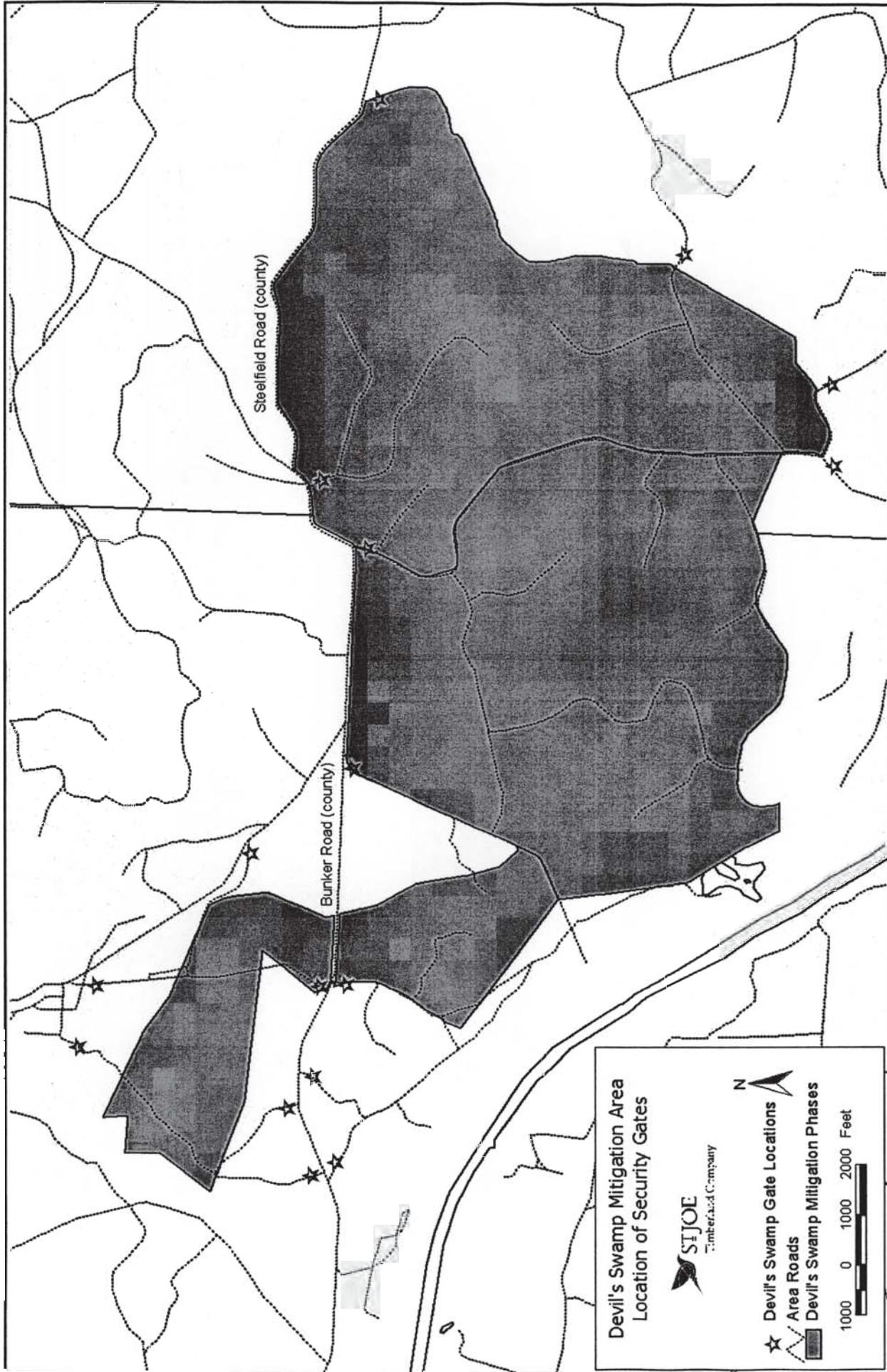
### Signs

The area boundary will be adequately posted with the sign shown as Figure 2. Signs will be posted at each entry point. All designated roads will be posted with signs. Hunt clubs are responsible for placement of road signs. The condition of entry and road signs will be evaluated during bi-weekly security inspections by hunt club members. The inspection and evaluation of signs will be a condition of the hunting lease agreement. The same reporting protocol for gates also will apply for sign security checks.

No trespassing signs also will be posted around the 750' perimeter of all active eagle nests.

### Additional

All unauthorized persons, signs of trespassing, and/or signs of illegal activities or disturbances (e.g., dumping, off-road driving, disturbance of restoration areas, yahooing) observed by hunt club members within the mitigation bank must be reported to St. Joe staff (850-234-2204) within 24 hours of discovery.



**Devil's Swamp Mitigation Area  
Location of Security Gates**



- ☆ Devil's Swamp Gate Locations
- ▬ Area Roads
- Devil's Swamp Mitigation Phases



Figure 2. Example of sign to be used to post boundary of Devil's Swamp Mitigation Bank.



## ATTACHMENT B-4 – WRAP ANALYSIS

The ecological function and estimated environmental lift associated with the proposed restoration on the Devil's Swamp Mitigation Bank (DSMB) property was assessed from spring to winter 2003. This assessment included a site visit followed by several in-office sessions. The October 1998 operational draft of the Wetland Rapid Assessment Procedure (WRAP), as implemented within the RGP and EMA and at the proposed Panama City Airport site, was used to determine the functional value of wetlands at the bank. The "lift" associated with each type of ecological change was then calculated and is displayed below. The credits from that assessment were modified by the Mitigation Bank Site Suitability Index and adjusted for time lag and risk.

### WRAP Analysis

The interagency Technical Team met numerous times and agreed on the following scoring scenario, which is further described below:

#### Master Credit Table: Expected Lift by Polygon Category:

Existing condition	Post restoration condition	Acres	Existing conditions score	With mitigation score	Scoring delta (Lift)	Mitigation Units (credits)
Bedded Pine Plantation	Hydric pine flatwoods	780.80	0.65	0.96	0.31	242.05
Bedded Pine Plantation	Wet prairie/Savannah	295.20	0.65	0.96	0.31	91.51
Bedded Pine Plantation	Cypress Swamp	18.70	0.65	0.96	0.31	5.80
Bedded Pine Plantation	Mixed forested wetland	153.40	0.65	0.96	0.31	47.55
Unplanted wetlands - Titi	Hydric pine flatwoods	48.20	0.75	0.97	0.22	10.60
Unplanted wetlands - Titi	Wet prairie/Savannah	79.40	0.75	0.97	0.22	17.47
Unplanted wetlands - Titi	Cypress Swamp	2.30	0.75	0.97	0.22	0.51
Unplanted wetlands - Titi	Mixed forested wetland	583.60	0.75	0.97	0.22	128.39
Unplanted wetlands-other	Hydric pine flatwoods	9.10	0.92	0.99	0.07	0.64
Unplanted wetlands-other	Wet prairie/Savannah	17.10	0.92	0.99	0.07	1.20
Unplanted wetlands-other	Cypress Swamp	53.40	0.92	0.99	0.07	3.74
Unplanted wetlands-other	Mixed forested wetland	410.00	0.92	0.99	0.07	28.70
Non-bedded pine plantation	Upland pines	545.60	n/a	n/a	0.00	0.00
Roads, waterbodies	Roads, waterbodies	52.40	0	0	0.00	0.00
<b>Total</b>		<b>3,049.20</b>				<b>578.10</b>

#### Existing conditions scores.

Existing condition scores for pine plantation were 0.65, the score assigned to "low quality" wetlands in the RGP/EMA.

The scoring for titi wetlands was scored at 0.75 based on the scoring done for “high quality”, but somewhat degraded, wetlands under the RGP/EMA process.

Existing condition scores for unplanted wetlands-other was scored at 0.92 based on the scoring done for “high quality” wetlands under the RGP/EMA process.

The areas labeled upland pine plantation were found to vary within the site as to whether they could be determined to be jurisdictional and therefore scored as wetland or upland. Since these areas were originally bedded, and since the mitigation plan is expected to result in certain of these areas being hydric, the agencies and Sponsor agreed to score them as if they were “low quality” wetlands, as defined by the RGP/EMA at a 0.65. These are described as “bedded Pine Plantation” in the master credit table. After considerable discussion, polygons of upland pine plantation that are expected to remain in an upland condition after restoration were not assigned any lift.

#### Proposed conditions scores.

Proposed conditions were based on the “high quality” wetland scores developed for the RGP/EMA and scoring developed for the proposed Panama City Airport mitigation. Restored pine plantation areas are expected to achieve an ultimate score of 0.96, while existing unplanted wetlands are expected to achieve a score of 0.97 or 0.99 depending on whether they are currently titi or forested systems, respectively.

#### **Mitigation Bank Siting Index**

The Mitigation Bank Siting Index (MBSI) was developed by the interagency team that developed the “Green Book.” It is intended to measure the extent to which a mitigation bank site “fits” into its region and the degree to which it makes a permanent contribution to the regional ecology. The scoring resulted in a proposed value of 1.067 for BPMB (Attachment B-5) and is discussed below.

**ESTABLISHED WATERSHED ISSUES:** The mitigation bank will result in identifiable ecological benefits to established watershed issues recognized to be critical to the watershed of the Bank. The extensive NFWFMD holdings immediately adjacent to the site on its northwest boundary are in permanent conservation status and serve to preserve the functional quality of the Choctawhatchee Bay system, a SWIM waterbody. The NFWFMD lands represent thousands of acres of preservation and substantial ecological and hydrological restoration areas that will be further enhanced by the addition of this 3,000+ ac. restoration site. Score a “3”.

**LANDSCAPE MOSAIC COMPATIBILITY:** The ecological communities present at the mitigation bank site will continue to blend with silvicultural lands for the foreseeable future. Score a “0”.

**THREATENED AND ENDANGERED SPECIES:** Establishment of the mitigation bank improves the status of federal and/or state listed threatened or endangered species. After implementation the bank should foster the increase in populations of the listed plant species known to occur on the site. It should also foster an increase in populations of flatwoods salamander, gopher tortoises, red-cockaded woodpecker, Florida pine snake, and some state-listed plant species. Score a “3”.

**EXPANSION OF SCARCE HABITATS:** The landscape contains ecological features considered to be unusual, unique or rare in the region and is of sufficient size. There is a paucity of coastal palustrine marsh and cypress flats in the region. The restoration of these systems will make a meaningful contribution to the long term ecological health of the region. Score a “3”.

**ADJACENT LAND USES:** The Bank will result in identifiable ecological benefits to adjacent lands or waters of regional importance such as State/National Park, State/National Forest, SWIM, OFW, AP, refuges and lands managed for conservation. West Bay is a SWIM water body. The adjacent Breakfast Point Peninsula CU and the bank site are identified as part of the West Bay Conservation Area. Score a “3”.

**STRATEGIC HABITAT CONSERVATION AREA (SHCA):** The Bank site is within or will result in identifiable benefits to the GAP analysis designating lands essential to providing the land base necessary to sustain populations in the future. There are no SHCA's identified for this site. Because SHCA's were based on existing data, data that may have resulted in designating this site within certain SHCA's did not then exist. Score a "0".

**Time lag and risk**

Background

To assess time lag and risk at DSMB, consideration was given to the fact that many of the credits assessed at the site were derived from herbaceous or open, prairie-like flatwoods communities where the tree cover is currently in place, but will be thinned to appropriate levels and that interim success criteria for these communities are quite specific. However consideration was also given to the portion of the site proposed for swamp communities that will require additional time to achieve maturity. For the assessment below, the time lag and risk factors are assigned to the "real time" mitigation value associated with each individual credit release and the activity and criteria for that release.

- At the time the conservation easement and financial assurances are in place, those credits have *de minimus* time and risk.
- At the time logging and associated activities are conducted, a great deal of the mitigation is achieved, but a few years are needed for recovery from these impacts and there is a low risk that this activity will lead to unanticipated, poorer outcomes.
- At the time burn credits are released, more actual mitigation is achieved, and little time is needed for recovery, but there is a low risk that this activity will lead to unanticipated, poorer outcomes or impacts.
- The hydrologic improvements are minor compared to the other outcomes and activities and are available at completion of construction without time lag or risk.
- By the time year interim performance standards are met, mitigation has proceeded to establish appropriate ground cover so there is assurance that the site is heading the right way, but there is still some limited time lag and risk associated with these credits.
- Final phase and final bank success credit releases are adjusted to account for the remaining future community and tree maturation and low risk.

Credit Release Activity	Percent of credits	Time Lag	Risk	Time Lag x Risk x percent credits
Record Conservation Easement, Financial Assurances	10.00%	1.00	1.00	.1
Logging, Selective Clearing, Brush Reduction, Exotic Control	20.00%	0.97	0.85	.165
Prescribed Burn	15.00%	1.00	0.85	0.127
Hydrologic Improvements	5.00%	1.00	1.00	.05
Performance Standards, Year 1 attained	10.00%	0.88	0.95	0.084
Performance Standards, Year 2 attained	10.00%	0.88	0.95	0.084
Performance Standards, Year 3 attained	10.00%	0.88	0.95	0.084
Performance Standards, Phase success attained	10.00%	0.80	0.95	0.076
Performance Standards, Final attained	10.00%	0.88	0.95	0.084
<b>Total</b>	100.00%			0.854

Note: time lag used the 62-345 F.A.C. (UMAM) tables, risk is basically percentage fractions at 0.05 increments



This table shows that, overall, the total adjustment to the potential credits at BPMB is effectively a reduction of 14.6%; therefore, for simplicity, all credits will be adjusted by this factor and will be considered fully adjusted for timelag and risk.

Total Potential Credits

Therefore, the total potential number of credits available at DPMB is:

<b>Factor</b>	<b>Credits</b>
WRAP scoring	578.10
MBSI multiplier of 1.067	616.83
Time Lag & Risk adjustment of .854	526.77
<b>Total Potential Credits</b>	<b>526.77</b>

**ATTACHMENT B-5 – SITE SUITABILITY INDEX**

PARAMETERS	SCORE
<p><b>ESTABLISHED WATERSHED ISSUES:</b> The mitigation bank will result in identifiable ecological benefits to established watershed issues recognized to be critical to the watershed of the Bank.                      Yes.....3                      No.....0</p>	<b>3</b>
<p><b>LANDSCAPE MOSAIC COMPATIBILITY:</b> The ecological communities present at the mitigation bank site blend seamlessly with the adjacent native communities and that relationship is expected to remain in perpetuity.                      Site will blend seamlessly on 95-100% of its perimeter.....3                      Site will blend seamlessly on 67-95% of its perimeter.....2                      Site will blend seamlessly on 25-66% of its perimeter.....1                      Site will blend seamlessly on &lt;25% of its perimeter.....0</p>	<b>0</b>
<p><b>THREATENED AND ENDANGERED SPECIES:</b> Establishment of the mitigation bank improves the status of federal and/or state listed threatened or endangered species.                      Increases population of one or more listed species.....3                      Meets identified task within a recovery plan or provides protection to candidate species.....2                      Attracts species to the site.....1                      Maintains the status-quo.....0</p>	<b>3</b>
<p><b>EXPANSION OF SCARCE HABITATS:</b> The landscape contains ecological features considered to be unusual, unique or rare in the region and is of sufficient size.                      Yes.....3                      No.....0</p>	<b>3</b>
<p><b>ADJACENT LAND USES:</b> The Bank will result in identifiable ecological benefits to adjacent lands or waters of regional importance such as State/National Park, State/National Forest, SWIM, OFW, AP, refuges and lands managed for conservation.                      Yes.....3                      No.....0</p>	<b>3</b>
<p><b>STRATEGIC HABITAT CONSERVATION AREA (SHCA):</b> The Bank site is within or will result in identifiable benefits to the GAP analysis designating lands essential to providing the land base necessary to sustain populations in the future.                      Yes.....3                      No.....0</p>	<b>0</b>
<p><b>TOTAL</b></p>	<b>12</b>
<p>MBSI = (TOTAL / MAXIMUM POSSIBLE) (0.1) + 1.0</p>	<b>1.067</b>
<p>WRAP Credits X MBSI =</p>	<b>616.083</b>

**ATTACHMENT B-6 – LEDGERS**

**Devil’s Swamp Mitigation Bank  
 Permit Number 0227475-001  
 February 26, 2004**

**Total Potential Credits = 526.77**

Impact Permit # (or Release Mod)	Project Name	Issue Date	Mod Date	Issuing Agency	Credits Available	Credits Released	Credits Withdrawn	Balance
#####	xxx			DEP	0	0		0

Assumptions:

- Low quality wetlands will be offset using a 0.65:1 ratio in the BPMB.
- High quality wetlands will be offset using a 0.92:1 ratio in the BPMB.
- On-site or within-conservation unit mitigation is not included here because it is planned on a per-project basis.

**Devil’s Swamp Mitigation Bank  
 Permit Number SAJ 2004-1864  
 March XX, 2004**

**Total Potential Credits = 526.77**

Impact Permit # (or Release Mod)	Project Name	Issue Date	Mod Date	Issuing Agency	Credits Available	Credits Released	Credits Withdrawn	Balance
#####	xxx			COE	0	0		0

Assumptions:

- Low quality wetlands will be offset using a 0.65:1 ratio in the BPMB.
- High quality wetlands will be offset using a 0.92:1 ratio in the BPMB.
- On-site or within-conservation unit mitigation is not included here because it is planned on a per-project basis.

## ATTACHMENT B-7 – DESIRABLE SPECIES LIST

Animals:

### Non-Comprehensive List of Potential Animal Species that Could Occur in the Devil's Swamp Mitigation Bank

Common Name	Scientific Name	Federal Status*	State Status*
Acadian flycatcher	<i>Empidonax virescens</i>		
<b>American alligator</b>	<b><i>Alligator mississippiensis</i></b>	<b>T(S/A)</b>	<b>LS</b>
American woodcock	<i>Scolopax minor</i>		
Anhinga	<i>Anhinga anhinga</i>		
Armadillo	<i>Dasypus novemcinctus</i>		
Bachman's sparrow	<i>Aimophila aestivalis</i>		
<b>Bald eagle</b>	<b><i>Haliaeetus leucocephalus</i></b>	<b>LT</b>	<b>LT</b>
Barred owl	<i>Strix varia</i>		
Belted kingfisher	<i>Ceryle alcion</i>		
Blue jay	<i>Cyanocitta cristata</i>		
Bluebird	<i>Sialia sialis</i>		
Blue-gray gnatcatcher	<i>Polioptila caerulea</i>		
<b>Bluenose shiner</b>	<b><i>Pteronotropis welaka</i></b>	<b>N</b>	<b>LS</b>
Blue-tailed mole skink	<i>Eumeces egregius lividus</i>		
Bobwhite quail	<i>Colinus virginianus</i>		
Box turtle	<i>Terrapene carolina</i>		
Bronze frog	<i>Rana clamitans</i>		
Brownheaded nuthatch	<i>Sitta pusilla</i>		
Carolina chickadee	<i>Poecile carolinensis</i>		
Carolina wren	<i>Thryothorus ludovicianus</i>		
Cedar waxwing	<i>Bombycilla cedrorum</i>		
Chorus frog	<i>Pseudacris nigrita</i>		
Chuck-will's widow	<i>Capromulgus carolinensis</i>		
Common grackle	<i>Quiscalus quiscula</i>		
Common yellowthroat warbler	<i>Geothlypis trichas</i>		
Cope's gray tree frog	<i>Hyla chrysoscelis</i>		
Corn snake	<i>Elaphe guttata</i>		
Cotton mouse	<i>Peromyscus gossypinus</i>		
Cotton rat	<i>Sigmodon hispidus</i>		
Cottonmouth	<i>Agkistrodon piscivorus</i>		
Crayfish	<i>Procambarus spp.</i>		
Crested flycatcher	<i>Myiarchus crinitus</i>		
Cricket frog	<i>Acris gryllus</i>		
Downy woodpecker	<i>Picoides pubescens</i>		
<b>Eastern chipmunk</b>	<b><i>Tamias striatus striatus</i></b>	<b>N</b>	<b>LS</b>
Eastern coachwhip	<i>Masticophis flagellum flagellum</i>		
Eastern cottontail rabbit	<i>Sylvilagus floridanus</i>		
Eastern hognose snake	<i>Heterodon platirhinos</i>		
<b>Eastern indigo snake</b>	<b><i>Drymarchon corais couperi</i></b>	<b>LT</b>	<b>LT</b>
Eastern kingbird	<i>Tyrannus tyrannus</i>		
Eastern mockingbird	<i>Mimus polyglottos</i>		
Eastern phoebe	<i>Sayornis phoebe</i>		
Eastern towhee	<i>Pipilo erythrophthalmus</i>		

**Non-Comprehensive List of Potential Animal Species that Could Occur in the Devil's Swamp Mitigation Bank**

Common Name	Scientific Name	Federal Status*	State Status*
<b>Flatwoods Salamander</b>	<b><i>Ambystoma cingulatum</i></b>	LT	LS
Flicker	<i>Colaptes auratus</i>		
<b>Florida black bear</b>	<b><i>Ursus americanus floridanus</i></b>	ce	LT**
<b>Florida bog frog</b>	<b><i>Rana okaloosae</i></b>	N	LS
<b>Florida burrowing owl</b>	<b><i>Speotyto cunicularia floridana</i></b>	N	LS
<b>Florida pine snake</b>	<b><i>Pituophis melanoleucus mugitus</i></b>	N	LS
Florida ribbon snake	<i>Thamnophis sauritus</i>		
<b>Florida sandhill crane</b>	<b><i>Grus canadensis pratensis</i></b>	N	LT
Fox squirrel	<i>Sciurus niger</i>		
<b>Gopher frog</b>	<b><i>Rana capito</i></b>	N	LS
<b>Gopher tortoise</b>	<b><i>Gopherus polyphemus</i></b>	N	LS
Gray catbird	<i>Dumetella carolinensis</i>		
Gray fox	<i>Urocyon cinereoargenteus</i>		
Great blue heron	<i>Ardea herodias</i>		
Great horned owl	<i>Bubo virginianus</i>		
Green anole	<i>Anolis carolinensis</i>		
Green tree frog	<i>Hyla cinerea</i>		
Ground dove	<i>Columbina passerina</i>		
Hooded warbler	<i>Wilsonia citrina</i>		
House wren	<i>Troglodytes aedon</i>		
Island glass lizard	<i>Ophisaurus compressus</i>		
Killdeer	<i>Charadrius vociferous</i>		
Leopard frogs	<i>Rana spenocephala</i>		
<b>Limpkin</b>	<b><i>Aramus guarana</i></b>	N	LS
<b>Little blue heron</b>	<b><i>Egretta caerulea</i></b>	N	LS
Little grass frog	<i>Hyla ocularis</i>		
Loggerhead shrike	<i>Lanius ludovicianus</i>		
Marsh rabbit	<i>Sylvilagus palustris</i>		
Meadowlark	<i>Sturnella magna</i>		
Mink	<i>Mustela vison</i>		
Mourning dove	<i>Zenaidura macroura</i>		
Nighthawk	<i>Chordeiles minor</i>		
Northern cardinal	<i>Cardinalis cardinalis</i>		
Northern scarlet snake	<i>Cemophora coccinea copei</i>		
Oak toad	<i>Bufo quercicus</i>		
Ornate chorus frog	<i>Pseudacris ornata</i>		
<b>Osprey</b>	<b><i>Pandion haliaetus</i></b>	N	LS**
Palm warbler	<i>Dendroica palmarum</i>		
<b>Panama City crayfish</b>	<b><i>Procambarus econfinae</i></b>	N	LS
Parula Warbler	<i>Parula americana</i>		
Pig frog	<i>Rana grylio</i>		
Pigmy rattlesnake	<i>Sistrurus miliarius</i>		
Pileated woodpecker	<i>Dryocopus pileatus</i>		
<b>Pine barrens treefrog</b>	<b><i>Hyla andersonii</i></b>	N	LS
Pine warbler	<i>Dendroica pinus</i>		
Pinewoods tree frog	<i>Hyla femoralis</i>		

**Non-Comprehensive List of Potential Animal Species that Could Occur in the Devil's Swamp Mitigation Bank**

Common Name	Scientific Name	Federal Status*	State Status*
Prothonotary warbler	<i>Prothonotaria citrea</i>		
Raccoon	<i>Procyon lotor</i>		
Red bellied woodpecker	<i>Melanerpes carolinus</i>		
Red headed woodpecker	<i>Melanerpes erythrocephalus</i>		
<b>Red-cockaded woodpecker</b>	<b><i>Picoides borealis</i></b>	<b>LE</b>	<b>LT</b>
Red-eyed vireo	<i>Vireo olivaceus</i>		
Red-shouldered hawk	<i>Buteo lineatus</i>		
Red-tailed hawk	<i>Buteo jamaicensis</i>		
River otter	<i>Lutra canadensis</i>		
Robin	<i>Turdus migratorius</i>		
Rough green snake	<i>Ophedrys aestivus</i>		
Scarlet king snake	<i>Lampropeltis triangulum elapsoides</i>		
Screech owl	<i>Otus asio</i>		
Short-tailed snake	<i>Stilosoma extenuatum</i>		
<b>Snowy egret</b>	<b><i>Egretta thula</i></b>	<b>N</b>	<b>LS</b>
<b>Southeastern American kestrel</b>	<b><i>Falco sparverius paulus</i></b>	<b>N</b>	<b>LT</b>
Southeastern pocket gopher	<i>Geomys floridana</i>		
Southern fence lizard	<i>Sceloporus unulatus</i>		
Southern hognose snake	<i>Heterodon simus</i>		
Southern leopard frog	<i>Rana utricularia</i>		
Southern spring peeper	<i>Hyla crucifer</i>		
Spotted skunk	<i>Spilogale putorius</i>		
Summer tanager	<i>Piranga rubra</i>		
Swallowtailed kite	<i>Elanoides forficatus</i>		
Tufted titmouse	<i>Parus bicolor</i>		
Turkey	<i>Meleagris gallopavo</i>		
<b>White ibis</b>	<b><i>Eudocimus albus</i></b>	<b>N</b>	<b>LS</b>
White-breasted nuthatch	<i>Sitta carolinensis</i>		
White-eyed vireo	<i>Vireo griseus</i>		
White-tailed deer	<i>Odocoileus virginianus</i>		
Wood duck	<i>Aix sponsa</i>		
<b>Wood stork</b>	<b><i>Mycteria americana</i></b>	<b>LE</b>	<b>LE</b>
Yellow-billed cuckoo	<i>Coccyzus americanus</i>		
Yellow-breasted chat	<i>Icteria virens</i>		
Yellow-rumped warbler	<i>Dendroica coronata</i>		

**Key:**

\* Federal and state listing status only provided for species that are listed (in bold); all others are non-listed species.

Federal Legal Status (refer only to Florida populations; federal status may differ elsewhere):

T(S/A) = Threatened due to a similarity of appearance (see above).

N = Not currently listed, nor currently being considered for listing as Endangered or Threatened.

State Legal Status/Animals:

LE = Endangered: species of plants native to Florida that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of decline in the number of plants continue; includes all species determined to be endangered or threatened pursuant to the U.S. Endangered Species Act.

LT = Threatened: species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in number as to cause them to be Endangered.

LS = Species of Special Concern is a species, subspecies, or isolated population which is facing a moderate risk of extinction in the future.

Plants:

Non-Comprehensive List of Potential Plant Species that Could Occur in the Devil's Swamp Mitigation Bank

Scientific Name	Common Name	Community Types*					Federal Status	State Status
		UP	MHP	MFW	CS	SAV		
<i>Acer rubrum</i>	Red maple		X	X	X			
<i>Achillea millefolium</i>	Milk pea	X						
<i>Agalinis spp.</i>	False foxglove	X						
<i>Aletris aurea</i>	Yellow colic-root		X	X				
<i>Aletris lutea</i>	Yellow colic-root		X	X		X		
<b><i>Andropogon arctatus</i></b>	<b>Pine-woods bluestem</b>		<b>X</b>				<b>N</b>	<b>LT</b>
<i>Andropogon spp.</i>	Bluestem	X	X			X		
<i>Aristida palustris</i>	Longleaf threeawn				X			
<i>Aristida purpureascens</i>	Arrowfeather		X			X		
<i>Aristida rhizophora</i>	Florida threeawn					X		
<b><i>Aristida simpliciflora</i></b>	<b>Southern three-awned grass</b>		<b>X</b>				<b>N</b>	<b>LE</b>
<i>Aristida spiciformis</i>	Bottlebrush threeawn	X						
<i>Aristida stricta</i>	Wiregrass	X	X			X		
<b><i>Aristolochia tomentosa</i></b>	<b>Pipevine</b>			<b>X</b>	<b>X</b>		<b>N</b>	<b>LE</b>
<b><i>Arnoglossum diversifolium</i></b>	<b>Variable-leaved Indian-plantain</b>			<b>X</b>	<b>X</b>		<b>N</b>	<b>LT</b>
<i>Aronia arbutifolia</i>	Red chokeberry		X	X	X	X		
<i>Arundinaria gigantea</i>	Cane		X	X	X	X		
<i>Asclepias humistrata</i>	Sandhill milkweed	X						
<i>Asclepias spp.</i>	Milkweeds	X	X			X		
<b><i>Asclepias viridula</i></b>	<b>Southern milkweed</b>		<b>X</b>			<b>X</b>	<b>N</b>	<b>LT</b>
<b><i>Aster spinulosus</i></b>	<b>Pine-woods aster</b>		<b>X</b>			<b>X</b>	<b>N</b>	<b>LE</b>
<i>Aster spp.</i>	Asters	X	X			X		
<i>Bacopa spp.</i>	water hyssop			X	X			
<i>Balduina spp.</i>	Honeycomb heads		X			X		
<i>Baptisia lanceolata</i>	Wild indigo	X	X					
<i>Berlandiera pumila</i>	Greeneyes	X						
<b><i>Calamintha dentata</i></b>	<b>Toothed savory</b>		<b>X</b>				<b>N</b>	<b>LT</b>
<b><i>Calamovilfa curtissii</i></b>	<b>Curtiss' sandgrass</b>		<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>N</b>	<b>LT</b>
<i>Carex spp.</i>	Sedges	X	X	X	X	X		
<i>Carphephorus spp.</i>	Deer tongue	X	X			X		
<i>Cassia fasciculata</i>	Partridge pea	X						
<i>Cephalanthus occidentalis</i>	Common buttonbrush			X	X			
<i>Chaptalia tomentosa</i>	Sun-bonnets		X			X		
<i>Chasmanthium spp.</i>	Spikegrasses		<b>X</b>	X	X			
<i>Chrysoma pauciflosculosa</i>	Woody goldenrod	X						
<i>Chrysopsis spp.</i>	Golden-asters	X						
<i>Cladina spp.</i>	Deer mosses	X	X					
<i>Cladium jamaicense</i>	Sawgrass				X			
<i>Cladonia spp.</i>	Deer mosses	X	X					
<b><i>Cleistes divaricata</i></b>	<b>Spreading Pogonia</b>		<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>N</b>	<b>LT</b>
<i>Clethra alnifolia</i>	Sweet pepperbush		X	X	X			
<i>Cliftonia monophylla</i>	Black titi		X	X	X			
<i>Clitoria mariana</i>	Butterfly pea	X						
<i>Conradina canescens</i>	False rosemary	X	X					
<i>Coreopsis spp.</i>	Tickseed		X			X		

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		UP	MHP	MFW	CS	SAV		
<b><i>Crataegus phaenopyrum</i></b>	<b>Washington thorn</b>			X	X		N	LE
<i>Crotalaria rotundifolia</i>	Rabbit bells	X	X					
<i>Crotalaria spectabilis</i>	Showy Crotalaria	X	X					
<i>Croton argyranthemus</i>	Silver croton	X						
<i>Ctenium aromaticum</i>	toothache grass		X			X		
<i>Cyrilla racemiflora</i>	White titi		X	X	X			
<i>Desmodium incanum</i>	Creeping beggarweed		X			X		
<i>Desmodium strictum</i>	Pineland beggarweed	X						
<i>Dicanthelium spp.</i>	Panic grasses	X	X			X		
<i>Dichromena spp.</i>	White-topped sedges		X			X		
<i>Diospyros virginiana</i>	Persimmon	X						
<i>Drosera brevifolia</i>	Sundew		X	X	X	X		
<i>Drosera capillaris</i>	Sundew		X	X	X	X		
<i>Drosera filiformis</i>	Sundew		X	X	X	X		
<i>Drosera intermedia</i>	Sundew		X	X	X	X		
<i>Drosera tracyi</i>	Sundew		X	X	X	X		
<i>Eleocharis spp.</i>	Spikerushes		X	X	X	X		
<i>Elephantopus spp.</i>	Elephant's feet	X						
<i>Erigeron vernus</i>			X			X		
<b><i>Eriocaulon nigrobacteatum</i></b>	<b>Dark-headed hatpins</b>		X	X		X	N	LE
<i>Eriocaulon spp.</i>	Hatpins		X	X	X	X		
<i>Eriogonum tomentosum</i>	Wild buckwheat	X	X					
<i>Eryngium integrifolium</i>			X			X		
<i>Eupatorium leucolepis</i>			X			X		
<i>Eupatorium spp.</i>	Dog fennel	X	X		X	X		
<i>Euphorbia inundata</i>	Spurge	X						
<b><i>Euphorbia telephioides</i></b>	<b>Telephus spurge</b>		X				LT	LE
<i>Fuirena sp.</i>	Umbrellagrass		X	X		X		
<i>Gaylussacia dumosa</i>	Dwarf huckleberry	X	X					
<i>Gaylussacia frondosa</i>	Dangleberry	X	X					
<i>Gaylussacia mosieri</i>	Mosier's huckleberry		X	X	X			
<i>Gelsemium spp.</i>	yellow jessamine	X						
<b><i>Gentiana pennelliana</i></b>	<b>Wiregrass gentian</b>		X			X	N	LE
<i>Gordonia lasianthus</i>	Loblolly bay			X	X			
<i>Helenium spp.</i>	Sneezeweed		X			X		
<i>Helianthus spp.</i>	Sunflowers		X			X		
<i>Heterotheca graminifolia</i>	Grassleaf goldenaster	X						
<b><i>Hymenocallis henryae</i></b>	<b>Panhandle spiderlily</b>		X			X	N	LE
<i>Hypericum brachyphyllum</i>	St. John's wort			X	X	X		
<i>Hypericum chapmanii</i>	Sponge bark hypericum			X	X	X		
<i>Hypericum cistifolium</i>	St. John's wort		X					
<i>Hypericum crux-andreae</i>	St. Peter's-wort		X		X			
<i>Hypericum exile</i>	St. Johns wort		X			X		
<i>Hypericum fasciculatum</i>	Sandweed		X	X	X	X		
<i>Hypericum galioides</i>	St. John's wort		X	X	X	X		
<i>Hypericum hypericoides</i>	St. Andrew's cross		X		X	X		



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		UP	MHP	MFW	CS	SAV		
<i>Ilex glabra</i>	Gallberry	X	X	X	X	X		
<i>Ilex cassine</i>	Dahoon holly			X	X			
<i>Ilex coriacea</i>	Sweet gallberry		X	X	X			
<i>Ilex myrtifolia</i>	Myrtle-leaved holly		X	X	X			
<i>Ilex vomitoria</i>	Yaupon	X	X					
<i>Itea virginica</i>	Virginia willow		X	X	X			
<i>Juncus spp.</i>	Rushes		X	X	X	X		
<b><i>Justicia crassifolia</i></b>	<b>Thickleaf waterwillow</b>		<b>X</b>			<b>X</b>	<b>N</b>	<b>LE</b>
<i>Kalmia hirsuta</i>	Hairy wicky	X	X					
<b><i>Kalmia latifolia</i></b>	<b>Mountain laurel</b>			<b>X</b>			<b>N</b>	<b>LT</b>
<i>Lachnanthes americana</i>	redroot		X	X	X	X		
<b><i>Lachnocaulon digynum</i></b>	<b>Pineland bogbutton or bog button</b>		<b>X</b>			<b>X</b>	<b>N</b>	<b>LT</b>
<i>Lachnocaulon spp.</i>	Bogbottoms		X	X	X	X		
<i>Lespedeza capitata</i>	Bush clover	X						
<i>Leucothoe spp.</i>	dog-hobble/hurrah bush			X	X			
<b><i>Liatris provincialis</i></b>	<b>Godfrey's gayfeather</b>	<b>X</b>					<b>N</b>	<b>LE</b>
<i>Liatris spp.</i>	Blazing stars	X	X					
<i>Licania michauxii</i>	Gopher apple	X						
<b><i>Lilium catesbaei</i></b>	<b>Catesby lily</b>		<b>X</b>			<b>X</b>	<b>N</b>	<b>LT</b>
<b><i>Lilium iridollae</i></b>	<b>Panhandle lily</b>			<b>X</b>	<b>X</b>		<b>N</b>	<b>LE</b>
<i>Lophiola caroliniana</i>	Golden crest		X	X	X	X		
<i>Ludwigia spp.</i>	Primrose				X	X		
<b><i>Lupinus westianus</i></b>	<b>Gulf Coast lupine</b>	<b>X</b>					<b>N</b>	<b>LT</b>
<i>Lycopodium spp.</i>	Clubmosses		X	X	X	X		
<i>Lyonia ferruginea</i>	Rusty staggerbush		X					
<i>Lyonia lucida</i>	Fetterbush		X	X	X	X		
<b><i>Lythrum curtissii</i></b>	<b>Curtiss' loosestrife</b>		<b>X</b>	<b>X</b>	<b>X</b>		<b>N</b>	<b>LE</b>
<b><i>Macbridea alba</i></b>	<b>White birds-in-a-nest</b>		<b>X</b>			<b>X</b>	<b>LT</b>	<b>LE</b>
<b><i>Macranthera flammea</i></b>	<b>Hummingbird flower</b>			<b>X</b>	<b>X</b>		<b>N</b>	<b>LE</b>
<i>Magnolia grandiflora</i>	Southern magnolia	X	X					
<i>Magnolia virginiana</i>	Sweet bay		X	X	X	X		
<i>Mitchella repens</i>	Partridge berry	X						
<i>Muhlenbergia capillaris</i>	Gulf muhly		X		X	X		
<i>Muhlenbergia spp.</i>	muhly grass		X			X		
<i>Myrica cerifera</i>	Wax myrtle		X			X		
<i>Myrica heterophylla</i>	Bayberry		X	X				
<i>Myrica inodora</i>	Odorless wax myrtle		X	X	X	X		
<i>Nymphaea spp.</i>	Water lilies				X			
<i>Nymphoides spp.</i>	Floating heart				X			
<i>Nyssa aquatica</i>	Water tupelo			X	X			
<i>Nyssa sylvatica var. biflora</i>	Swamp tupelo			X	X			
<i>Opuntia humifusa</i>	Prickly pear cactus	X						
<i>Orontium aquaticum</i>	Golden club			X	X			
<i>Osmunda cinnamomea</i>	Cinnamon fern		X	X	X			
<i>Osmunda regalis</i>	Royal fern		X	X	X			

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		UP	MHP	MFW	CS	SAV		
<i>Oxypolis filiformis</i>	Dropwort		X			X		
<b><i>Oxypolis greenmanii</i></b>	<b>Giant water dropwort</b>		X			X	N	LE
<b><i>Panicum abscissum</i></b>	<b>Cutthroat grass</b>		X			X	N	LE
<i>Panicum anceps rhizomatum</i>	Hairy Panicum	X						
<i>Panicum hemitomum</i>	maidencane		X	X	X	X		
<b><i>Panicum nudicaule</i></b>	<b>Naked-stemmed panic grass</b>	X	X				N	LT
<i>Panicum rigidulum</i>					X			
<i>Panicum verrucosum</i>	Warty Panicum					X		
<i>Panicum virgatum</i>		X	X		X			
<i>Peltandra spp.</i>	Arum				X	X		
<i>Persea palustris</i>	Swamp bay		X	X	X	X		
<b><i>Physostegia godfreyi</i></b>	<b>Apalachicola dragonhead</b>		X	X		X	N	LT
<i>Pieris phillyreifolia</i>	Vine wicky		X	X	X			
<b><i>Pinckneya bracteata</i></b>	<b>Fever tree</b>			X	X		N	LT
<b><i>Pinguicula ionantha</i></b>	<b>Violet-flowered butterwort</b>		X	X		X	LT	LE
<b><i>Pinguicula lutea</i></b>	<b>Yellow butterwort</b>		X	X		X	N	LT
<b><i>Pinguicula planifolia</i></b>	<b>Chapman's butterwort</b>		X	X		X	N	LT
<b><i>Pinguicula primuliflora</i></b>	<b>Primrose-flowered butterwort</b>		X	X		X	N	LE
<i>Pinus clausa</i>	Sand pine	X						
<i>Pinus elliotii</i>	Slash pine	X	X	X				
<i>Pinus palustris</i>	Longleaf pine	X	X			X		
<i>Pinus serotina</i>	Pond pine		X	X	X			
<i>Pityopsis spp.</i>	Golden aster	X	X					
<b><i>Platanthera ciliaris</i></b>	<b>Yellowfringed orchid</b>		X	X		X	N	LT
<b><i>Platanthera integra</i></b>	<b>Yellow fringeless orchid</b>		X	X		X	N	LE
<b><i>Platanthera nivea</i></b>	<b>Snowy orchid</b>		X	X		X	N	LT
<i>Pleea tenuifolia</i>	Rush-featherling		X	X		X		
<b><i>Pogonia ophioglossioides</i></b>	<b>Rose Pogonia</b>		X	X		X	N	LT
<i>Polygala spp.</i>	Milkworts	X	X			X		
<i>Pontederia spp.</i>	Pickerelweed			X	X			
<i>Proserpinaca spp.</i>	Mermaid Weed			X	X			
<i>Pteridium aquilinum</i>	Bracken fern	X	X					
<i>Quercus chapmanii</i>	Chapman's oak	X						
<i>Quercus incana</i>	Bluejack oak	X	X					
<i>Quercus laevis</i>	Turkey oak	X						
<i>Quercus minima</i>	Dwarf live oak	X	X					
<i>Quercus myrtifolia</i>	Myrtle-leaved oak	X						
<i>Quercus nigra</i>	Water oak		X	X				
<i>Quercus pumila</i>	Running oak	X	X					
<i>Quercus virginiana</i>	Live oak	X	X					
<i>Quercus virginiana var. geminata</i>	Sand live oak	X						
<i>Quercus margaretta</i>	Sand post oak	X						
<b><i>Rhexia parviflora</i></b>	<b>Small-flowered meadowbeauty</b>		X			X	N	LE
<b><i>Rhexia salicifolia</i></b>	<b>Panhandle meadowbeauty</b>	X	X				N	LT
<i>Rhexia spp.</i>	Meadowbeauties	X	X			X		
<i>Rhus copallina</i>	Winged sumac	X	X					

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		UP	MHP	MFW	CS	SAV		
<i>Rhynchospora</i> spp.	Wiry beakrushes		X	X	X	X		
<b><i>Rhynchospora stenophylla</i></b>	<b>Narrow-leaved beakrush</b>		X	X	X	X	N	LT
<i>Rubus</i> spp.	Blackberries	X	X					
<b><i>Rudbeckia nitida</i></b>	<b>St. John's Susan; shiny coneflower</b>		X	X		X	N	LE
<i>Rudbeckia</i> spp.	black-eyed susan		X	X		X		
<b><i>Ruellia noctiflora</i></b>	<b>Nightflowering wild petunia</b>		X			X	N	LE
<i>Sabatia</i> spp.	marsh pinks		X			X		
<i>Sagittaria</i> spp.	Arrowheads			X	X			
<i>Sarracenia flava</i>	Yellow trumpets		X	X		X		
<b><i>Sarracenia leucophylla</i></b>	<b>White-topped pitcherplant</b>		X	X		X	N	LE
<i>Sarracenia psitticina</i>	Parrot pitcher plant		X	X		X		
<i>Sarracenia purpurea</i>	Purple pitcher plant		X	X		X		
<b><i>Sarracenia rubra</i></b>	<b>Sweet pitcherplant</b>		X	X		X	N	LT
<i>Saururus cernuus</i>	Lizard's tail			X	X			
<i>Schizachyrium scoparium</i>			X			X		
<i>Schrankia microphylla</i>	Sensitive brier	X						
<i>Scleria ciliata</i>	Nutrush		X					
<i>Scleria</i> spp.	Nutrushes		X		X	X		
<b><i>Scutellaria floridana</i></b>	<b>Florida skullcap</b>		X			X	LT	LE
<i>Serenoa repens</i>	Saw palmetto	X	X					
<i>Smilax</i> spp.	Green briars	X	X	X	X	X		
<i>Solidago</i> spp.	goldenrod	X	X			X		
<i>Sorghastrum macundus</i>	Lopsided indiagrass		X					
<i>Sorghastrum nutans</i>	Indiagrass	X	X					
<i>Sphagnum</i> spp.			X	X	X			
<b><i>Spiranthes laciniata</i></b>	<b>Lace-lip ladies' tresses</b>		X			X	N	LT
<i>Spiranthes vernalis</i>	Ladies tresses		X			X		
<i>Sporobolus curtissii</i>	Curtis dropseed	X						
<i>Sporobolus floridana</i>	Florida dropseed	X	X					
<i>Sporobolus junceus</i>	Pinewoods dropseed	X						
<b><i>Stachydeoma graveolens</i></b>	<b>Mock pennyroyal</b>	X	X				N	LE
<b><i>Stewartia malacodendron</i></b>	<b>Silky camellia</b>			X	X		N	LE
<i>Stillingia aquatica</i>	Corkwood		X	X	X	X		
<i>Stillingia sylvatica</i>	Queen's delight	X						
<i>Taxodium ascendens</i>	pond cypress			X	X	X		
<i>Taxodium distichum</i>	Bald cypress			X	X	X		
<b><i>Tephrosia mohrii</i></b>	<b>Pineland hoary-pea</b>			X	X		N	LT
<b><i>Thalictrum cooleyi</i></b>	<b>Cooley's meadowrue</b>		X			X	LE	LE
<i>Tillandsia fasciculata</i>	Stiff-leaved wild pine			X	X			
<i>Tolfieldia racemosa</i>	Asphodel		X			X		
<i>Toxicodendron</i> spp.	Poison ivy		X	X	X			
<i>Utricularia</i> spp.	Bladderworts		X	X		X		
<i>Vaccinium elliotii</i>	Elliot's blueberry		X					
<i>Vaccinium arboreum</i>	Sparkleberry	X						
<i>Vaccinium corymbosum</i>	Highbush blueberry		X	X				

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<i>Vaccinium darrowi</i>			X					
<i>Vaccinium myrsinites</i>	Shiny blueberry	X	X					
<i>Vaccinium stamineum</i>	Deerberry		X	X				
<b><i>Verbesina chapmanii</i></b>	<b>Chapman's crownbeard</b>		<b>X</b>			<b>X</b>	<b>N</b>	<b>LT</b>
<i>Viburnum nudum</i>	possumhaw			X	X			
<i>Vitis rotundifolia</i>	Muscadine grape		X					
<i>Woodwardia areolata</i>	netted chain fern		X	X	X			
<i>Woodwardia virginica</i>	Chain fern		X	X	X			
<b><i>Xyris scabrifolia</i></b>	<b>Harper's yellow-eyed grass</b>		<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>N</b>	<b>LT</b>
<i>Xyris spp.</i>	Yelloweyed grasses		X	X	X	X		
<i>Yucca filamentosa</i>	Yucca	X						
<i>Yucca flaccida</i>	Weak-leaf yucca	X						
<i>Zigadenus spp.</i>	Crow poison		X	X		X		

\*UP=Upland Pines-Xeric Communities; MHP=Mesic/Hydric Pine; MFW=Mixed Forested Wetlands; CS=Cypress Swamps; SAV=Savannah.

Note: Federal and state listing status only provided for species that are listed (in bold); all others are non-listed species. Federal Legal Status (refer only to Florida populations; federal status may differ elsewhere):

N = Not currently listed, nor currently being considered for listing as Endangered or Threatened.

State Legal Status/Plants (Definitions from Sections 581.011 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of Florida Act, 5B-40.001):

LE = Endangered: species of plants native to Florida that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of decline in the number of plants continue; includes all species determined to be endangered or threatened pursuant to the U.S. Endangered Species Act.

LT = Threatened: species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in number as to cause them to be Endangered.

LS = Species of Special Concern is a species, subspecies, or isolated population which is facing a moderate risk of extinction in the future.

## ATTACHMENT B-8 – MONITORING PLAN

### Performance Monitoring

Rehabilitated ecosystems are dynamic and require periodic evaluation regarding the attainment of the target conditions. The annual monitoring will provide quantitative and qualitative information for adaptive management and to determine success. Monitoring components are detailed in the following sections.

Vegetation species composition and richness, as well as proportional distribution of life-forms (e.g., graminoids, forbs and woody plants), will indicate the relative hydroperiod, edaphic redox status, and fire periodicity. Vegetation monitoring and limited hydrologic monitoring are proposed for quantitative assessment. Extensive qualitative observations, and photographic monitoring will also be performed to provide greater coverage and to ensure that the quantitative monitoring is representative of the general polygon and site conditions.

Vegetation monitoring will measure two parameters: community structure and species abundance. Extensive observations of similar ecosystems were utilized in the development of the protocols detailed in DEP Permit 170880-001, which, in turn, are adapted for use here. Monitoring will be conducted annually in autumn, preferably during the latter half of October when most grasses and sedges are in fruit and can be most easily identified. Monitoring reports will include the results of the monitoring activities along with a catalog of photographs taken at permanent stations. Photograph stations will be established in each quadrat and walk path as described below.

Hydrologic monitoring will measure ground and surface water parameters, as described below.

### Protocols

Some vegetative monitoring shall encompass the entire restoration project site (landscape scale) and other monitoring shall be conducted within permanent 100 by 200 foot quadrats located in representative areas of the different polygons in each phase (proposed quadrats depicted in Exhibit B-1-7).

Landscape monitoring will involve a thorough walk through of these sites recording qualitative observations of: woody vegetation, exotic species, wildlife utilization, effects of fire, and maintenance needs (fence, signs, firebreaks, etc). Qualitative monitoring walk paths will be conducted to ensure that more internal portions of the site are observed (proposed walk paths depicted in Exhibit B-1-7).

The specific parameters to be observed and recorded on the walk paths are:

#### Hydric Pine Flatwoods & Savannahs:

- Estimated % cover graminoids and non-wood herbaceous vegetation
- Estimated % cover woody vegetation <1ft and >1ft
- Notation of seeding and/or new growth
- Estimate of tree distribution, health and size
- Species, location and required treatment of exotics observed
- Water table/soil saturation notes
- Wildlife observed and other evidence of wildlife usage (including hog damage)

#### Mixed Forested Wetlands & Cypress Swamps

- Estimated % cover non-wood herbaceous vegetation by averaging 4 densiometer readings
- Notation of seeding and/or new growth
- Estimate of tree distribution, health and size
- Species, location and required treatment of exotics observed
- Water table/soil saturation notes
- Wildlife observed and other evidence of wildlife usage (including hog damage)

Upland Pines finalize based on performance standards

- Estimated % cover graminoids and non-wood herbaceous vegetation
- Estimated % cover woody vegetation <1ft and >1ft
- Notation of seeding and/or new growth
- Estimate of tree distribution, health and size
- Species, location and required treatment of exotics observed
- Wildlife observed and other evidence of wildlife usage (including hog damage)

A descriptive summary shall also be included that compares the site to the quadrats and evaluates observable progress toward the restoration goals, evaluates the effectiveness of management activities to date, and recommends additional or revised management activities as appropriate to achieve success. Observations and photographs will be included in the site-wide portion of each monitoring report.

Specific quantitative measurements will be taken in 100 ft. x 200 ft. sample quadrats depicted in Exhibit B-1-7. The quadrats are located so that all proposed communities are represented independently and relatively proportionally and each quadrat shall enclose land that is relatively homogeneous with respect to polygon conditions ... A chosen point will represent the northeastern corner of a rectangle, which will be 100 by 200 feet and whose sides follow cardinal directions with the long axis running east and west. The point shall be marked by a secured and labeled iron rebar or similarly permanent, fire-resistant stake. Each stake shall be identified on the aerial photograph and its position fixed by GPS. Prior to the first monitoring event, the MBRT may require that any quadrat be relocated elsewhere within the site.

Sampling stations will occur along the perimeter of each 100 ft. x 200 ft. quadrat at 3 ft. intervals. Community structure will be sampled by recording the plant species intercepted at each of the 200 points along the perimeter of the quadrat, with percent cover of a species being defined as the percentage of intercept points in which it was observed. Species abundance/richness will be measured by recording all species found within the 100 ft. x 200 ft. quadrat. Woody shrub height will also be recorded. Supplemental monitoring (e.g., to document spring-fruited species, response to remedial actions, etc.) may be conducted, as needed, to identify all species. Measurements of shrub height, percent cover of graminoids and exotics, and species richness will be presented in a form to address success criteria of the permit.

Surface water gauges will be set at three locations depicted on Exhibit B-1-7. Groundwater wells will be installed at six locations depicted on Exhibit B-1-7. These will be monitored on a continuously and monthly basis, respectively. In conjunction with the vegetation monitoring data, the gauges and wells will be used to interpret the invert elevation being tested at the stoplog weirs, in order to fine tune the final elevation at which they will be set to best restore and maintain the intended ecological conditions. The stop logs will need to be removed periodically to allow the site to dry down for prescribed burns to be implemented, but only for the minimum amount of time needed to allow the burn.

**Photography**

Because of the size of the site and the nature of the mitigation expectations, photography will play a very important role in monitoring. As such, it is important to note some general photographic specifications. Most photos will be taken using digital cameras, but no editing, other than size, will be allowed, except as specifically noted in the documentation submitted with the photo. All photos will be dated, preferably on the photo itself, or directly below the printout of the photo. Photos taken from fixed sites shall include an identifying feature or marker within the photo. All photos will be submitted as printouts or, as requested, electronically. At a minimum, annual aerial oblique photographs will be taken to support the requirements below. Photographic monitoring locations are coincident with the northeast corner of each sampling quadrat. Photos will be oriented in a southwestern direction.

### **Baseline Monitoring**

Before ecological restoration activities are begun, the monitoring transects and stations will be used to gather baseline information including:

1. General site conditions within and in the vicinity of each plot
2. Evidence, if any, of disturbances, past or present, which may affect plant species composition and abundance
3. Plant community structure: vegetation cover, height, and life form by stratum
4. Plant species composition and diversity and, by extrapolation, differences in species composition between monitoring plots
5. Abundance of plant species within each plot

Appropriate metrics and statistical analysis will be applied to the sampling data. Data from the sampling quadrats will be evaluated with respect to vegetation characteristics of desired plant communities.

### **Reports and Record Keeping**

Reports including all observations, raw and processed data, and photographs will be compiled into an annual report. Annual monitoring will occur each fall beginning October 2004 or 2005. A copy of all records, in addition to that submitted, will be maintained at the office of the Qualified Mitigation Specialist of record.

### **Success**

The mitigation project is expected to be successful in restoring the pre-existing communities on the site. Many of the indicator species for the desired vegetative communities were found in the mitigation area during the field surveys. Attachment B-7 presents species that could occur in the Devil's Swamp Mitigation Bank.

The monitoring results will be compared with the baseline data and evaluated against the performance standards (Part IV, Section E of the Permit). If after three years the ground cover is not clearly trending toward the target condition, then the depauperate areas will be seeded or plugged with local, native species typical of the target community type, as reviewed and approved by the authorizing agencies.

### **Reference Wetlands**

Tate's Hell State Forest, the Apalachicola National Forest and the NFWMD's Devils Swamp landholding preserve and manage several areas that provide intact sandhills, hydric and mesic pine flatwoods, savannahs, and cypress domes. These systems support well-developed levels of plant composition and structure, topography, and hydrology useful as references for evaluating the DSMB. If deemed necessary to further quantify the success of the restoration effort, specific sites may be selected with the interagency Technical Team and photography, qualitative observations, and quantitative data from these sites to provide as reference standard information for the DSMB.

## ATTACHMENT B-9 – HYDROLOGIC RESTORATION PLAN



# **Devil's Swamp Mitigation Bank**

Bay and Walton Counties, Florida

**February 20, 2004**

*Prepared For:*

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# ***Hydrologic Restoration Plan***

**Hydrologic Restoration Plan  
for  
Devil’s Swamp Mitigation Bank**

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## 1 Introduction

The St. Joe Company (SJC) wishes to restore and enhance approximately 3,049 acres of wetlands and uplands that are primarily in silviculture within a portion of their property in Bay and Walton Counties, Florida. The proposed project, known as the Devil's Swamp Mitigation Bank (here after referred to as the "DSMB"), is located north of the Intracoastal Waterway (ICW), south of Steelfield Road, about 5 miles east of Choctawhatchee Bay, and about 7.5 miles west of State Road (SR) 79 (Exhibit 1-1).

The hydrologic plan contained herein provides technical documentation in support of issuance of a U.S. Army Corps of Engineers (Corps) Section 404 Regional General Permit (RGP) and a Florida Department of Environmental Protection (FDEP) Ecosystem Management Agreement (EMA) for the West Bay to East Walton RGP/EMA Project.

## 2 Existing Conditions

### 2.1 Landscape Setting

The 3,049-acre DSMB is entirely within property owned by SJC (Exhibit 1-1). Surrounding and nearby land uses include silviculture, conservation, residential, and industrial (Steele Field Road Landfill on Steele Field Road in Bay County). The DSMB is located north of the Intracoastal Waterway (ICW), south of Steele Field Road, about 5 miles east of Choctawhatchee Bay, and about 7.5 miles west of State Road (SR) 79.

The DSMB is located within four drainage basins: Roaring Creek, Direct Runoff to Bay, Tenmile Branch via Ninemile Branch, and Westbay Creek, which are within the Choctawhatchee Bay watershed (FGDL 2003; Fernald and Purdum 1998). The Choctawhatchee Bay watershed consists of approximately 5,349 square miles; the uplands primarily consist of mixed hardwood/pine forest and longleaf pine/xerophytic oak forests. Land is primarily used for silviculture, with agriculture more extensive in the northern portion of the watershed. Erosion/sedimentation are main concerns throughout the watershed; animal waste, urban stormwater, and septic tanks also are cited as problematic (FDEP 1999).

### 2.2 Topography and Hydrology

Topography across the DSMB varies from about 35 to 40 feet NGVD over the majority of the site and falls to about 20 feet NGVD in the northwestern connection to the NFWMD lands. Most of the site has relatively gentle topography, except in the northwest corner where it can be sudden and steep from sandhill to cypress dome or stream. In the majority of the site the wetlands are like shallow, rimmed platters with low rises between deep wetland systems. A copy of the USGS quadrangle for the project area is included in Exhibit 2-1.

### 2.3 Soils

According to the Natural Resources Conservation Service (NRCS) soil surveys for Bay and Walton Counties, Florida (USDA 1981, 1984), eight soil units in Bay County and eight soil units in Walton County are present on the property (Table 2-1). Locations of soil units are depicted on Exhibit 2-2.

**Table 2-1. USDA NRCS Soil Types within the Devil's Swamp Mitigation Bank  
 Bay County**

Soil Number	Soil Type	Hydric or Not Hydric
1	Albany Sand, 0 to 2 percent slopes	Not Hydric
13	Leon Sand	Hydric - Not Primary
25	Hurricane Sand	Not Hydric
28	Allanton Sand	Hydric – Not Primary
29	Rutlege Sand	Hydric – Primary

Soil Number	Soil Type	Hydric or Not Hydric
30	Pottsburg Sand	Hydric - Not Primary
50	Pickney Fine Sand	Hydric – Primary
51	Rutlege-Pamlico Complex	Hydric – Primary

**Walton County**

Soil Number	Soil Type	Hydric or Not Hydric
8	Dorovan-Pamlico Association, Frequently Flooded	Hydric – Primary
12	Foxworth Sand, 0 to 5 % Slopes	Not Hydric
17	Lakeland Sand, 0 to 5 % Slopes	Not Hydric
21	Leon Sand	Hydric - Not Primary
27	Rutlege Fine Sand	Hydric - Not Primary
57	Hurricane Sand, 0 to 5 % Slopes	Not Hydric
63	Pickney Sand, Depressional	Hydric – Primary
64	Pamlico Muck	Hydric – Primary

Bay County

Albany Sand: This somewhat poorly drained, nearly level sandy soil occurs along defined drainageways and on areas leading to lower wet areas. Natural vegetation consists of longleaf and slash pines; blackjack, post, and blue oaks; gallberry; wax myrtle; and wiregrass. This soil has a water table at a depth of 18 to 30 inches for 1 month to 3 months during most years. The NRCS Ecological Community typical for this soil type are mixed hardwood & pine and upland hardwood hammocks.

Leon Sand: This poorly drained, nearly level soil occurs in pine flatwoods areas where the natural vegetation consists of a canopy of longleaf, pond, and slash pine; water oak and an understory of wax myrtle, saw palmetto, running oak, fetterbush, gallberry, and wiregrass. The unit has a water table within a depth of 10 inches for 1 month to 4 months and at a depth of 10 to 40 inches for about 9 months in most years. The NRCS Ecological Community typical for this soil type is north Florida flatwoods.

Hurricane Sand: This somewhat poorly drained, nearly level soil occurs between the uplands and the lower wet flatwoods. Natural vegetation consists of slash and longleaf pines; bluejack, turkey, and post oaks; native shrubs; saw palmetto; gallberry; broomsedge; bluestem; and wiregrass. This soil has a water table at a depth of 40 to 60 inches for 3 to 6 months in most years and at a depth of 20 to 40 inches for 1 to 3 months in some years. The NRCS Ecological Community typical for this soil type is longleaf pine-turkey oak hills.

Allanton Sand: This poorly drained soil is on nearly level or slightly depressional areas along poorly defined drainageways. Natural vegetation consists of black titi, sweetbay, black gum, cypress, scattered slash and longleaf pines, gallberry, wax myrtle, and wiregrass. This soil has a water table at or near the surface for 4 to 6 months during most years, and most low-lying areas and drainageways are flooded for 4 to 6 months annually. The NRCS Ecological Community typical for this soil type is swamp hardwoods.

Rutlege Sand: This very poorly drained soil is on nearly level or slightly depressional areas along drainageways. The natural vegetation is black titi, sweetbay, black gum, cypress, and scattered slash pine. The understory is gallberry, wax myrtle, wiregrass, and various reeds and sedges. The Rutlege sand has a water table at or near the surface for 4 to 6 months during most years and is under ponded conditions for 4 to 6 months annually. The NRCS Ecological Community typical for this soil type are cypress swamp, swamp hardwoods, shrub bog, and pitcher plant bog.

Pottsburg Sand: This poorly drained soil is on nearly level, low-lying areas of the flatwoods. The natural vegetation consists of sweetbay, black titi, black gum, water oak, scattered slash and longleaf pine, gallberry, sweet gallberry, saw palmetto, wax myrtle, and wiregrass. The soil unit has a water table within a depth of 10 inches for 4 to 6 months during most years. Some low-lying

inclusions are ponded for 2 to 6 months annually. The NRCS Ecological Community typical for this soil type is north Florida flatwoods.

Pickney Fine Sand: This very poorly drained soil is on nearly level, broad flats and slightly depressional areas along poorly defined drainageways. Natural vegetation consists of sweetbay, black gum, cypress, black titi, scattered slash and longleaf pine, sweet gallberry, wax myrtle, and wiregrass. This soil has a water table at or near the surface for 4 to 6 months during most years, and most low-lying areas are ponded for 3 to 6 months after flooding during rainy seasons. The NRCS Ecological Community typical for this soil type is shrub bog.

Rutlege-Pamlico Complex: This nearly level, very poorly drained, frequently flooded soil complex occurs mainly in drainageways and a few wide depressional areas. The natural vegetation consists of sweetbay, black gum, red maple, sweet gum, slash pine, black titi, wax myrtle, sweet azalea, sweet gallberry, and smilax species. The Rutlege soils have a water table near the surface for 4 to 6 months in most years and may be ponded after flooding. The Pamlico soils may be ponded for 4 to 6 months in most years after flooding, and when the soils are not flooded, the water table is within 20 inches of the surface most of the time. Pantego soils (10% of unit) have a water table within 10 inches of the surface for 2 to 4 months during most years and at a depth of 40 inches for 3 to 6 months. The NRCS Ecological Community typical for this soil type is typically swamp hardwoods, but may also be cypress swamp, shrub bog, or pitcher plant bog.

#### Walton County

Dorovan-Pamlico Association, frequently flooded: This complex of nearly level, very poorly drained soils occurs mainly in large, hardwood swamps and floodplains of major drainageways. Dorovan soils occur in the middle of the drainageways and Pamlico on the outer parts. Natural vegetation is mostly bald cypress, black gum, sweetbay, white titi, scattered slash pine, bracken fern, greenbrier, muscadine vine, and wax myrtle. The Dorovan soil has a high water table near or above the surface for most of the year and floods more often than once every two years for periods of more than 1 month. The Pamlico soil has a high water table near or above the surface for most of the year and floods more often than once every two years for periods of 7 days to 1 month. The NRCS Ecological Communities typical for this soil type are often swamp hardwoods and sometimes shrub bog.

Foxworth Sand, 0 to 5 % Slopes: This moderately well drained and nearly level to gently sloping soil occurs on uplands and in elevated areas in flatwoods. Natural vegetation is mostly slash pine, loblolly pine, longleaf pine, live oak, post oak, bluejack oak, turkey oak, laurel oak, red oak, water oak, huckleberry, gallberry, and dogwood. This soil has a water table that fluctuates between depths of 40 and 72 inches for 1 to 3 months during most years and between 30 and 40 inches for less than 1 month in some years. The NRCS Ecological Community typical for this soil type are longleaf pine-turkey oak hills and mixed hardwood & pine.

Lakeland Sand, 0 to 5 % Slopes: This excessively drained and nearly level to gently sloping soil occurs on broad ridgetops on uplands. Natural vegetation is mostly sand pine or longleaf pine, live oak, turkey oak, saw palmetto, wiregrass, bluestem grasses, and reindeer moss. This soil does not have a high water table within a depth of 6 feet. The NRCS Ecological Community typical for this soil type is longleaf pine-turkey oak hills.

Leon Sand: This soil consists of deep, poorly drained, moderately to moderately rapidly permeable soils that formed in thick, sandy marine sediment in broad, nearly level areas of the flatwoods. Natural vegetation is mostly longleaf pine, loblolly pine, slash pine, water oak, and wax myrtle. The water table is at a depth of 10 to 40 inches for more than 9 months during most years. During periods of high rainfall, the water table is less than 10 inches deep; the water table recedes to a depth of more than 40 inches during extended dry periods. The NRCS Ecological Community typical for this soil type is north Florida flatwoods.

Rutlege Fine Sand: This unit consists of deep, very poorly drained, rapidly permeable soils that formed in thick, sandy sediment on marine terraces. It occurs in shallow depressions and on stream or creek floodplains and on flats. Natural vegetation consists of hardwoods, pond pines or

slash and loblolly pines, huckleberry, wax myrtle, greenbriers, wiregrass, and sedges. These soils are saturated in winter and early spring. The water table is at or near the surface for long periods, and shallow ponding is common. The NRCS Ecological Community typical for this soil type are cypress swamp, swamp hardwoods, shrub bog, and pitcher plant bog.

Hurricane Sand, 0 to 5 % Slopes: This somewhat poorly drained and nearly level soil occurs on slightly elevated areas in flatwoods. Natural vegetation consists of slash pine, loblolly pine, longleaf pine, bluejack oak, turkey oak, post oak, yaupon, saw palmetto, gallberry, broomsedge, and wiregrass. This soil has a high water table within 20 to 40 inches of the soil surface for 3 to 6 months in most years and below a depth of 40 inches for the rest of the year. The NRCS Ecological Community typical for this soil type is longleaf pine-turkey oak hills.

Pickney Sand, Depressional: This soil consists of deep, very poorly drained, rapidly permeable, sandy soils that formed in marine sediment on nearly level drainageways and in depressions on flatwoods. Natural vegetation consists of hardwoods, swamp cyrilla, bald cypress, yaupon, pond pines, slash pine, loblolly pine, greenbriers, wiregrass, sweet gallberry, and sedges. This soil is ponded for more than 4 months annually. The NRCS Ecological Community typical for this soil type is shrub bog.

Pamlico Muck: This poorly drained and nearly level soil occurs in depressional areas of the flatwoods. Natural vegetation consists of swamp cyrilla, greenbrier, bald cypress, pond pine, and sweetbay. This soil has a water table up to 2 feet above the surface for 6 months in most years. The NRCS Ecological Community typical for this soil type is swamp hardwoods.

## **2.4 Land Uses**

The proposed mitigation bank is primarily planted slash or sand pine plantation, comprising approximately 54.4% and 4.5% of the site, respectively, of various ages from about 5 years to 25 years. Some of the older plantings have recently been thinned every third row. Much of the site was furrowed during planting, and furrow depths range from about 6 to 15 inches, typically 6 to 8 inches deep. Due to fire suppression, shrub percent cover is some to much higher than would naturally occur in the historical natural communities. There has been no infrastructure constructed on the site other than logging roads and ditches to support silviculture use.

Unpaved logging roads criss-cross the site and traverse both upland and wetland communities. Most of the on-site roads are clearly visible on the 1949 aerials of the DSMB, which was well before pine planting was begun on the site. Most roads are 30 to 40 feet wide. At least one north-south road (County Line Road) and one east-west road are wider, about 50 feet. Road crossings of wetlands are more often culverted; where crossings are not culverted, they are sometimes slightly raised, but may flood frequently.

Water cover, depth, and flow direction across the site have been affected by activities related to silviculture – construction of ditches and logging roads, bedding and furrowing, and skidder trails – and by the ICW and spoil areas and reservoirs associated with and located along the ICW. In addition, dense pine plantings and shrub cover have undoubtedly increased evapotranspiration. The reduction of dense pine, as proposed, will lower the evapotranspiration rate.

## **2.5 Groundwater**

The normal wet season groundwater table elevations in this area are controlled by the ditching and are estimated to range between 6 inches to 2 feet below land surface. The Soil Survey data was field verified by WilsonMiller in December 2003.

## **2.6 Floodplain**

Floodplain delineations are obtained from the Federal Emergency Management Agency (FEMA) Flood Hazard Insurance Rate Map for Bay and Walton Counties. A majority of the project is located within the 100-year flood plain and is illustrated in Exhibit 2-3. (FEMA, September 2002).

## 2.7 Drainage Patterns

The Devil's Swamp area stormwater runoff collects from the area identified within the project boundaries. Very little runoff enters the project area from outside the project boundaries. Runoff generated from within the project area is collected in a series of manmade ditches. Drainage features and patterns are shown in Exhibit 2-4.

The eastern side of the project area (Bay County side) discharges towards the north into Nine Mile Branch and to the south into Broomstraw Branch. Nine Mile Branch is a naturally formed creek that is approximately ten feet lower in elevation than that of the project area. The Broomstraw Branch is a naturally formed creek that is also approximately ten feet lower in elevation than that of the project area.

The western side of the project area (Walton County side) discharges towards the north into Nine Mile Branch (with final outfall to Ten Mile Branch) and to the south into the Intracoastal Waterway. Nine Mile Branch is a naturally formed creek that in this location is approximately twenty feet lower in elevation than that of the project area. The Intracoastal Waterway is an excavated shipping channel that is approximately thirty feet lower in elevation than that of the project area. Precondition drainage flows, existing culvert locations and water features are illustrated in Exhibit 2-4.

## 3 Hydrologic and Hydraulic Analyses

### 3.1 Model Development

This section describes the methods used to compile data for the hydrologic restoration evaluation. The goal of the hydrologic report is to conduct an evaluation on pre and post hydrologic conditions that will occur during the rehydration of the Devil's Swamp mitigation area.

The Devil's Swamp primary stormwater management system (PSWMS) consists of connected series of natural creeks and ditched canals. Characteristic data was obtained from a new field survey, site visits, interviews, topographic and aerial maps. Survey locations and data are illustrated in Exhibits 3-1 and 3-2.

For this study, the existing Devil's Swamp PSWMS (on-site and off-site) was represented with eight (8) hydrologic basins connected by seven (7) link (conveyance/structure) nodes. A nodal diagram is included in Exhibit 3-3. The nodes identified in the Devil's Swamp PSWMS can be classified as either conveyance or storage elements. Conveyance elements include closed conduits, open channels, and road overflows that collect and route runoff through the system. Storage elements (basin nodes) include closed basins, natural depression areas that store and attenuate runoff within the system. Eight basins were delineated for this study and are identified in Exhibit 3-4 and represented symbols labeled N-10 through N-80. Link structures (culverts, road crossings, low areas) at basin outflows are also represented in Exhibit 3-4 and are labeled as L-011 through L-121. Several basins and discharge structures are outside the project boundaries but were required to perform the model analysis.

### 3.2 Model Methodology

To develop an understanding of the behavior of the stormwater system, WilsonMiller used the recent version of the Advanced ICPR (ICPR) stormwater model. This tool has been verified for stormwater design and master plan uses throughout Florida.

Runoff volume calculations are based on the Runoff Curve Number (CN) method. Hydrological soil group, defined by capacity to hold water, and ground cover conditions within a watershed are used to determine CN values, which, in turn, are used to estimate available soil storage capacity. Runoff volume is then calculated for a specified storm event based on rainfall depth and available soil storage capacity. The rainfall runoff relationship is based on the SCS method.

Peak discharge calculations are based on the Graphical Peak Discharge method. The watershed CN, Time of Concentration (Tc), drainage area and rainfall depth are used to determine peak discharge for a specified storm event.

The next step was the creation of a simplified numerical representation of the actual primary stormwater system. The primary stormwater management system model schematic is presented in Exhibit 3-4. The schematic shows the delineation of hydrologic units, the model nodes into which simulated runoff is input, conveyance channels and structures, as well as, the storage node. Identification numbers for various system elements are also shown on the schematic. The schematic provides a reference between the actual, physical location and the numerical model.

### **3.3 Hydrologic Unit Delineation**

Hydrologic units were determined using topographic maps, aerial photographs, survey data and ground truthing. Hydrologic units are generally defined by natural features or constructed stormwater conveyance systems. Surface areas were determined by using a Geographic Information System (GIS), which assisted in determining the corresponding acreage. These defined units are illustrated in Exhibit 3-4.

### **3.4 Conveyance Elements**

In order to properly determine culvert information for each culvert crossing, survey data was collected by Buchanan & Harper Inc. The pipe diameter was measured, and the length and inverts located then surveyed. This information was the foundation for the model representation of the hydraulic system. In addition to the structure inventory, cross-section survey information of natural channels was obtained at selected points along the canals and creeks. In order to represent channel floodplains, survey data was extended in the hydraulic model based on the topographic maps in order to represent channel floodplains. A copy of the survey data is included in Exhibits 3-1 and 3-2.

### **3.5 Stage-Area Storage**

The stage-area storage relationship for each basin was determined by using topographic survey data, USGS topographic maps and aerial photographs. The average-end area method was used to develop storage volumes within the identified basins.

### **3.6 Design Storms**

Since rainfall gauges were not located in a relative close proximity to the project area, WilsonMiller used the Florida Department of Transportation (FDOT) rainfall distribution information during modeling efforts. Storm return frequencies of 5-year, 10-year, 25-year and 100-year events were modeled. Rainfall depths for the 24-hour duration are 7.92 inches, 9.12 inches, 10.8 inches and 13.44 inches, respectively. The 24-hour duration was selected in order to create enough stormwater runoff to understand the mechanics of the system.

## **4 Model Results**

The model was applied to the various design storm events in the current drainage configuration pattern and is identified in the report as preconditions (Pre). Once the Preconditions model results were obtained and verified, modifications were made to the model that would simulate the proposed improvements for re-hydration of the project area. The proposed improvement model runs are identified in the report as Postconditions (Post).

WilsonMiller, in order to determine the required surface water elevation, reviewed the historic flow patterns and re-establish the desirable plant communities within the project area. The surface water elevations for the desirable plant communities were established throughout the project area by the project ecologists.



Peak stages for the four design events are shown for the selected basin nodes in pre and postconditions in Table 4-1. The locations of the selected basin nodes referenced in the table are shown in Exhibit 3-3. Postcondition for the basin nodes located inside the project area (N-10, N-20 & N-70) show resulting peak water levels greater than or equal to precondition levels. The larger storm events that occur less frequently reflect a slight difference in water elevations. The smaller more frequent storm events show greater increases between 3.2 and 0.5 feet. The basin nodes outside the project area (N-30, N-60 & N-80) show resulting peak water levels equal to or lower than preconditions.

**Table 4-1. Peak Stages (feet, NGVD) in Devil's Swamp Area for Various Design Storms**

DESIGN STORM EVENT	CONDITION	BASIN NODE					
		N-10	N-20	N-30	N-60	N-70	N-80
100-YEAR	PRE	38.0	40.7	36.8	27.4	30.7	16.3
24-HOUR	POST	38.6	40.7	36.8	27.4	33.0	15.9
25-YEAR	PRE	37.5	40.3	36.4	26.9	29.8	16.1
24-HOUR	POST	38.2	40.6	36.4	26.9	32.5	15.7
10-YEAR	PRE	37.2	39.9	36.2	26.5	29.2	15.9
24-HOUR	POST	38.0	40.4	36.2	26.5	32.1	15.5
5-YEAR	PRE	36.9	39.6	36.0	26.2	28.6	15.8
24-HOUR	POST	37.8	40.2	35.9	26.2	31.8	15.4

Peak flows for the four design events are again illustrated for the selected structure nodes in pre and postconditions. The locations of the selected basin nodes referenced in the table are shown in Exhibit 4-1. Postconditions for the structures show resulting peak flow adjustments based on the proposed improvements.

**Table 4-2. Peak Flows (cfs) in Devil's Swamp Area for Various Design Storm Events**

DESIGN STORM EVENT	CONDITION	STRUCTURE NODE					
		L-011	L-021	L-031	L-061	L-091	L-121
100-YEAR	PRE	173	1369	51	0	40	147
24-HOUR	POST	91	1417	23	0	1	416
25-YEAR	PRE	128	906	33	0	31	129
24-HOUR	POST	32	923	19	0	13	217
10-YEAR	PRE	99	640	22	0	24	118
24-HOUR	POST	5	638	16	0	12	32
5-YEAR	PRE	73	463	15	0	17	107
24-HOUR	POST	2	438	14	0	10	31

#### 4.1 Proposed Improvements

The preconditions model was modified and the following improvements have been proposed at the following structure locations. The following structure locations are illustrated and identified numerically in Exhibit 4-1.

1. At structure node **L-011**, install an earthen dam structure south of Bunker Road, out of the Walton County right-of-way. The existing culverts under Bunker Road shall remain intact. The earthen structure south (upstream) of the roadway shall include an adjustable stop log system shall be installed to allow for adjustment of the surface water elevation and allow wet season base flow to exit the system. This adjustable stop log system will be mounted to the upstream end of a new 44-inch by 32-inch

culvert. An illustrative representation of the control structure system is included in Exhibit 4-2. Once permanent surface water elevations are established, a hardened low water crossing will be installed. Exhibit 4-3 illustrates the proposed crossing design and elevations based on current post model results. These improvements will establish the desirable surface water elevations and prevent surface water from exiting basin N-70.

2. At structure node **L-021**, install a stabilized earthen dam structure south of Steelfield Road, out of the Bay County right-of-way. The existing culverts under Steele Field Road shall remain intact. The stabilized earthen structure south (upstream) of the roadway will not include an adjustable stop log system but will require a stabilized surface (geoweb) due to the anticipated velocities. An illustrative representation of the control structure system is included in Exhibit 4-3. Once permanent surface water elevations are established, the earthen structure will be hardened to create a low water crossing. Exhibit 4-3 illustrates the proposed crossing design and elevations based on current post model results. These improvements will establish the desirable surface water elevations and restrict surface water from exiting basin N-10.
3. At structure node **L-031**, an adjustable stop log system shall be installed to allow for adjustment of the surface water elevation and allow wet season base flow to exit the system. This adjustable stop log system will be mounted to the upstream end of the existing 44-inch by 32-inch culvert. The additional existing culvert at this location will be plugged. An illustrative representation of the control structure system is included in Exhibit 4-2. Once permanent surface water elevations are established, a hardened low water crossing will be installed. Exhibit 4-3 illustrates the proposed crossing design and elevations based on current post model results. These improvements will establish the desirable surface water elevations in basin N-10.
4. At structure node **L-091**, an adjustable stop log system shall be installed to allow for adjustment of the surface water elevation and allow wet season base flow to exit the system. This adjustable stop log system will be mounted to the upstream end of the existing 44-inch by 32-inch culvert. An illustrative representation of the control structure system is included in Exhibit 4-2. Once permanent surface water elevations are established, a hardened low water crossing will be installed. Exhibit 4-3 illustrates the proposed crossing design and elevations based on current post model results. These improvements will establish the desirable surface water elevations in basin N-20.
5. At structure node **L-121**, install an earthen dam structure south of Steele Field Road, out of the Bay County right-of-way. The existing culverts under Steele Field Road shall remain intact. The earthen structure south (upstream) of the roadway shall include an adjustable stop log system shall be installed to allow for adjustment of the surface water elevation and allow wet season base flow to exit the system. This adjustable stop log system will be mounted to the upstream end of a new 36-inch culvert. An illustrative representation of the control structure system is included in Exhibit 4-2. Once permanent surface water elevations are established, a hardened low water crossing will be installed. Exhibit 4-3 illustrates the proposed crossing design and elevations based on current post model results. These improvements will establish the desirable surface water elevations in basin N-20.

The above improvements are illustrated in Exhibit 4-4 and will require coordination of construction activities with dry periods (minimal rainfall). WilsonMiller recommends that this work be performed during months with less rainfall (October through March). If scheduling requires work during periods with higher rainfall (wet season) additional stormwater pollution control measures will need to be implemented to protect the surrounding environment from contaminants (sedimentation) derived from construction activities. A stormwater pollution prevention plan shall be prepared based upon the proposed construction activities and time period (wet or dry periods).

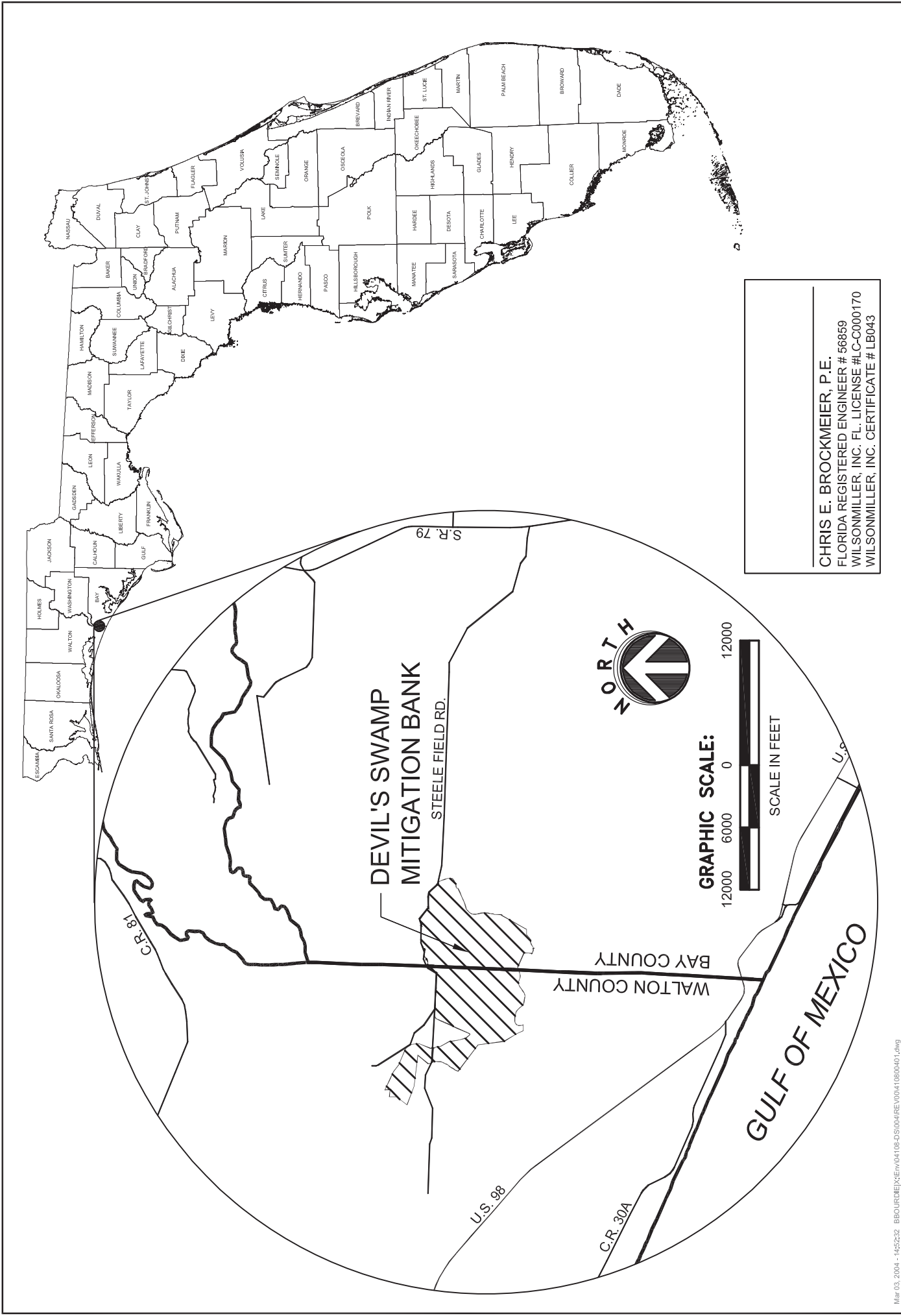
## 4.2 Monitoring Plan

The proposed structures listed in this section are proposed to create enhanced connectivity, re-establishment of the historic surface water flow and hydroperiod, and maximization of sheetflow within the project area. These proposed structures have been designed for an acceptable service life span, are expected to meet the conditions set forth in the plan, and will be constructed using best management practices (BMPs) to safeguard the site from impacts derived from construction activities. The modeled system has demonstrated that the desired surface water elevations are obtainable and that no off-site flooding impacts are created.

A monitoring plan for the DSMB has been included as Attachment B-8 in the Mitigation Plan Document for Devil's Swamp Mitigation Bank.

## References

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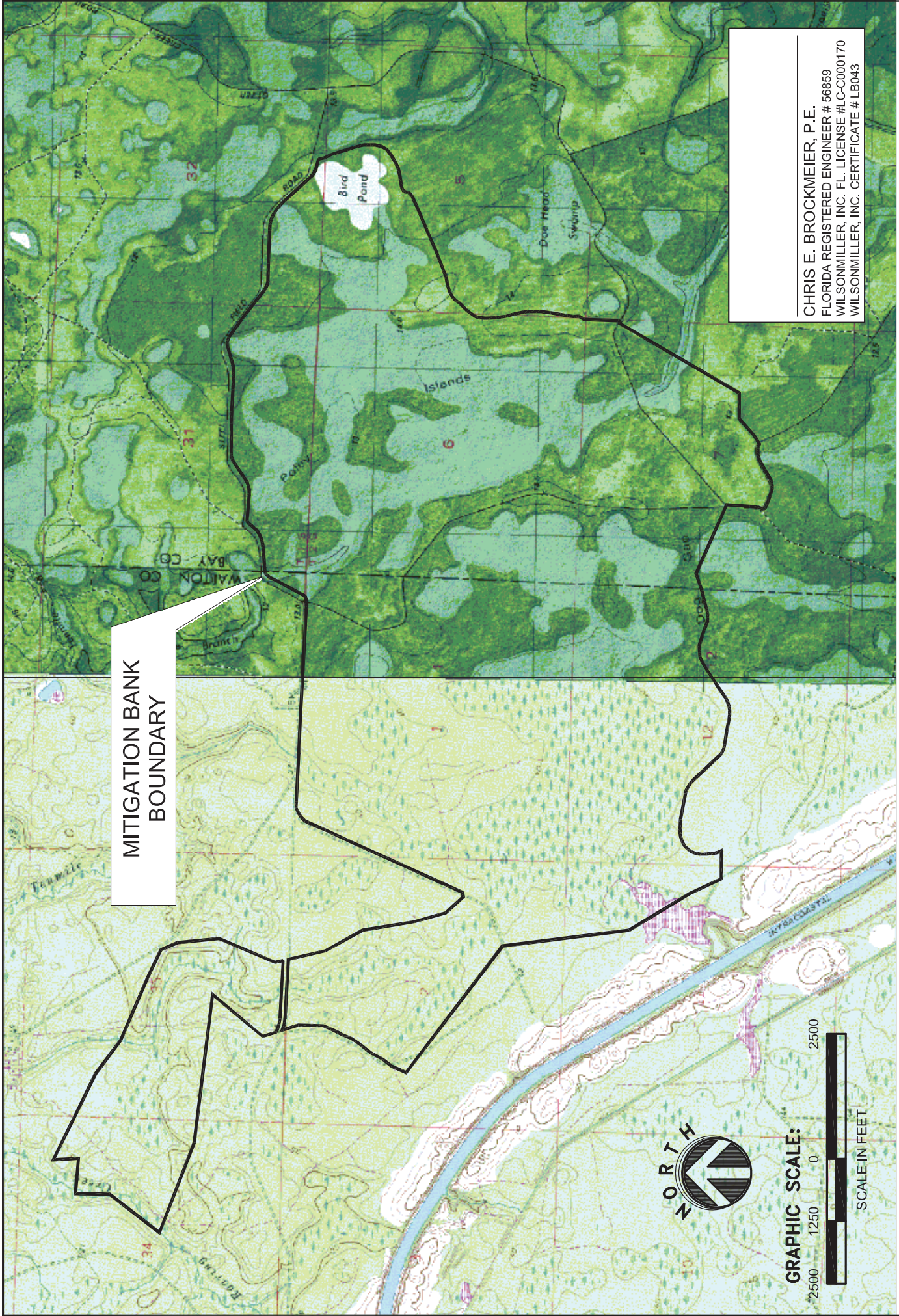


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 WILSONMILLER, INC. FL. LICENSE # LC-C000170  
 WILSONMILLER, INC. CERTIFICATE # LB043

PROJECT NO: 04108-000-000		DATE: FEB. 2004	
DRAWN BY/EMP. NO: WMB/1467		SCALE: 1" = 12,000'	
SHEET NUMBER: 1		REVISION: 11	
PROJECT: DEVIL'S SWAMP MITIGATION BANK		EXHIBIT 1-1	
CLIENT: ST. JOE LAND COMPANY		PROJECT NO: 04108-000-000	
TITLE: LOCATION MAP		DATE: FEB. 2004	



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MITIGATION BANK  
BOUNDARY

GRAPHIC SCALE:  
2500 1250 0 2500  
SCALE IN FEET



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WILSONMILLER, INC. FL LICENSE # LC-C000170  
WILSONMILLER, INC. CERTIFICATE # LB043

PROJECT NO: 04108-000-000	DATE: Feb. 2004	PROJECT: DEVIL'S SWAMP MITIGATION BANK
DRAWN BY/E/MP NO: WMB/1467	SCALE: 1"=2500'	CLIENT: ST. JOE COMPANY
SHEET NUMBER: 2	REVISION: 11	TITLE: QUAD TOPOGRAPHY MAP

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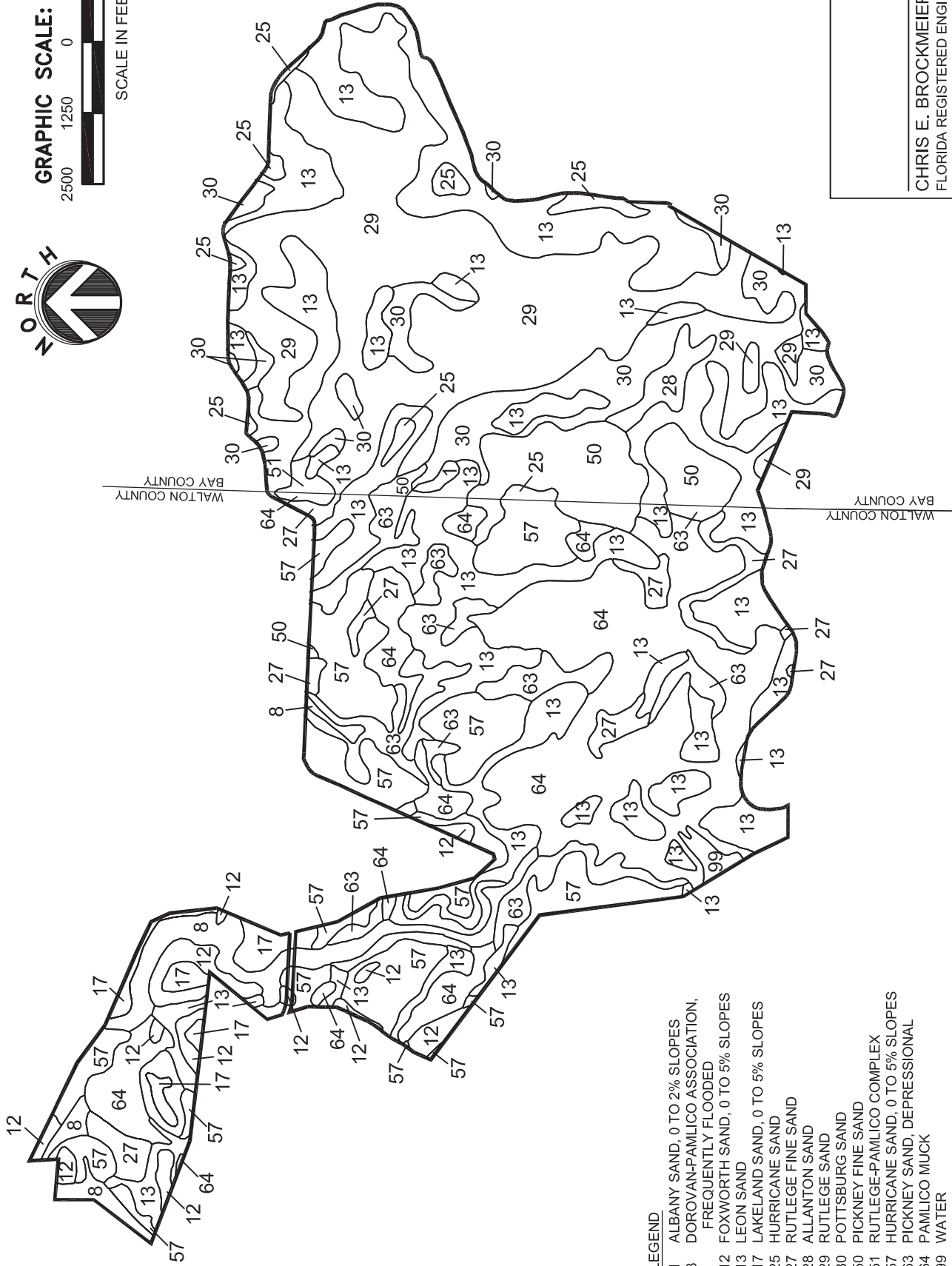
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GRAPHIC SCALE:  
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SCALE IN FEET



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WILSONMILLER, INC. CERTIFICATE # LB043

- LEGEND**
- 1 ALBANY SAND, 0 TO 2% SLOPES
  - 8 DOROVAN-PAMLICO ASSOCIATION, FREQUENTLY FLOODED
  - 12 FOXWORTH SAND, 0 TO 5% SLOPES
  - 13 LEON SAND
  - 17 LAKELAND SAND, 0 TO 5% SLOPES
  - 25 HURRICANE SAND
  - 27 RUTLEGE FINE SAND
  - 28 ALLANTON SAND
  - 29 RUTLEGE SAND
  - 30 POTTSBURG SAND
  - 50 PICKNEY FINE SAND
  - 51 RUTLEGE-PAMLICO COMPLEX
  - 57 HURRICANE SAND, 0 TO 5% SLOPES
  - 63 PICKNEY SAND, DEPRESSIONAL
  - 64 PAMLICO MUCK
  - 99 WATER

PROJECT: DEVIL'S SWAMP MITIGATION BANK  
CLIENT: ST. JOE COMPANY  
TITLE: SOILS MAP

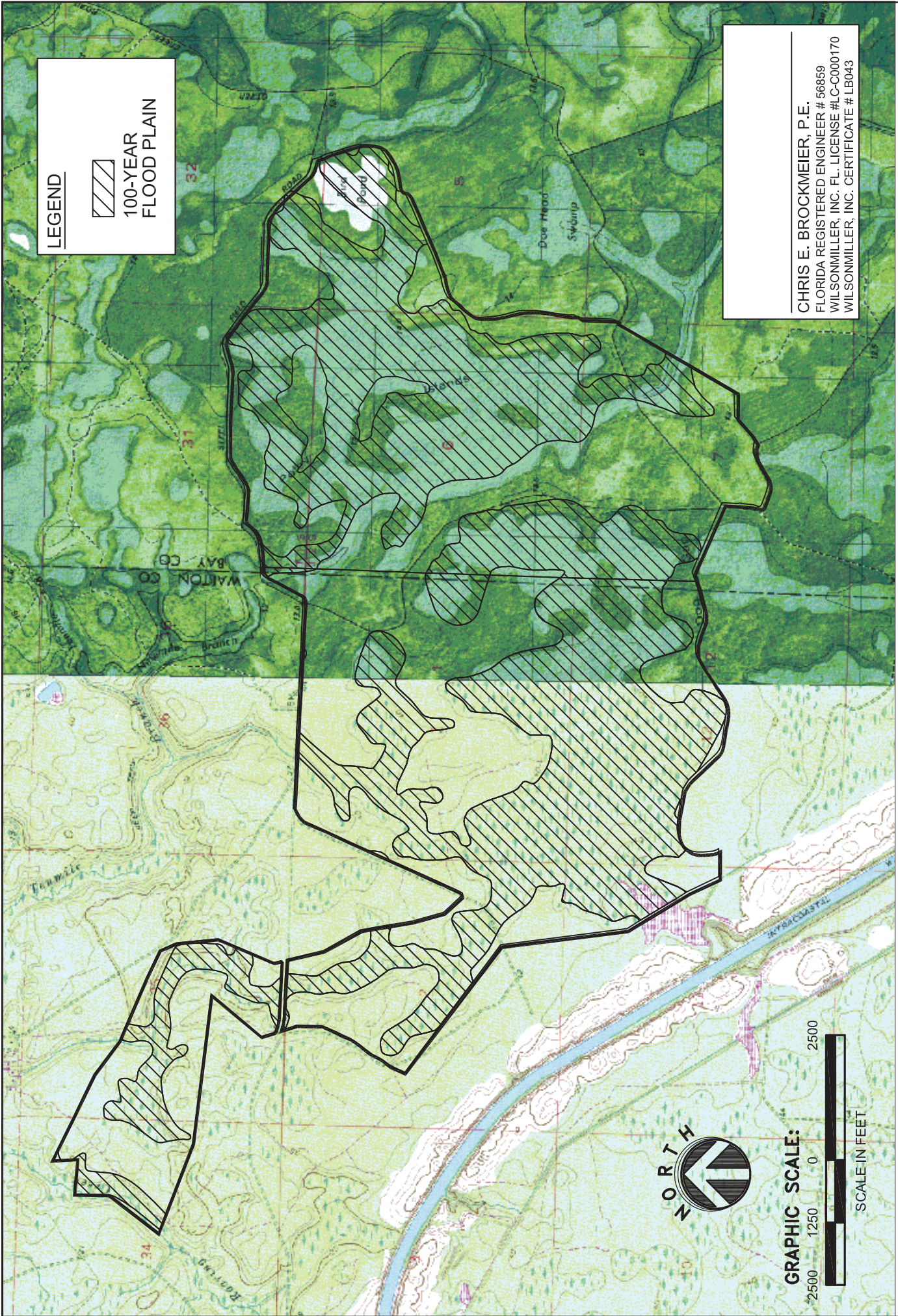
EXHIBIT 2-2

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PROJECT NO. 04108-000-000	DATE Feb. 2004
DRAWN BY/EMP. NO. WMB/1467	SCALE: 1"=2500'
SHEET NUMBER: 3	REVISION: 11

FILED: 2004-12-23 09:38 AM BROWARD COUNTY PLANNING AND DEVELOPMENT DEPARTMENT



**LEGEND**  
  
 100-YEAR  
 FLOOD PLAIN

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 WILSONMILLER, INC. FL. LICENSE # LC-C000170  
 WILSONMILLER, INC. CERTIFICATE # LB043

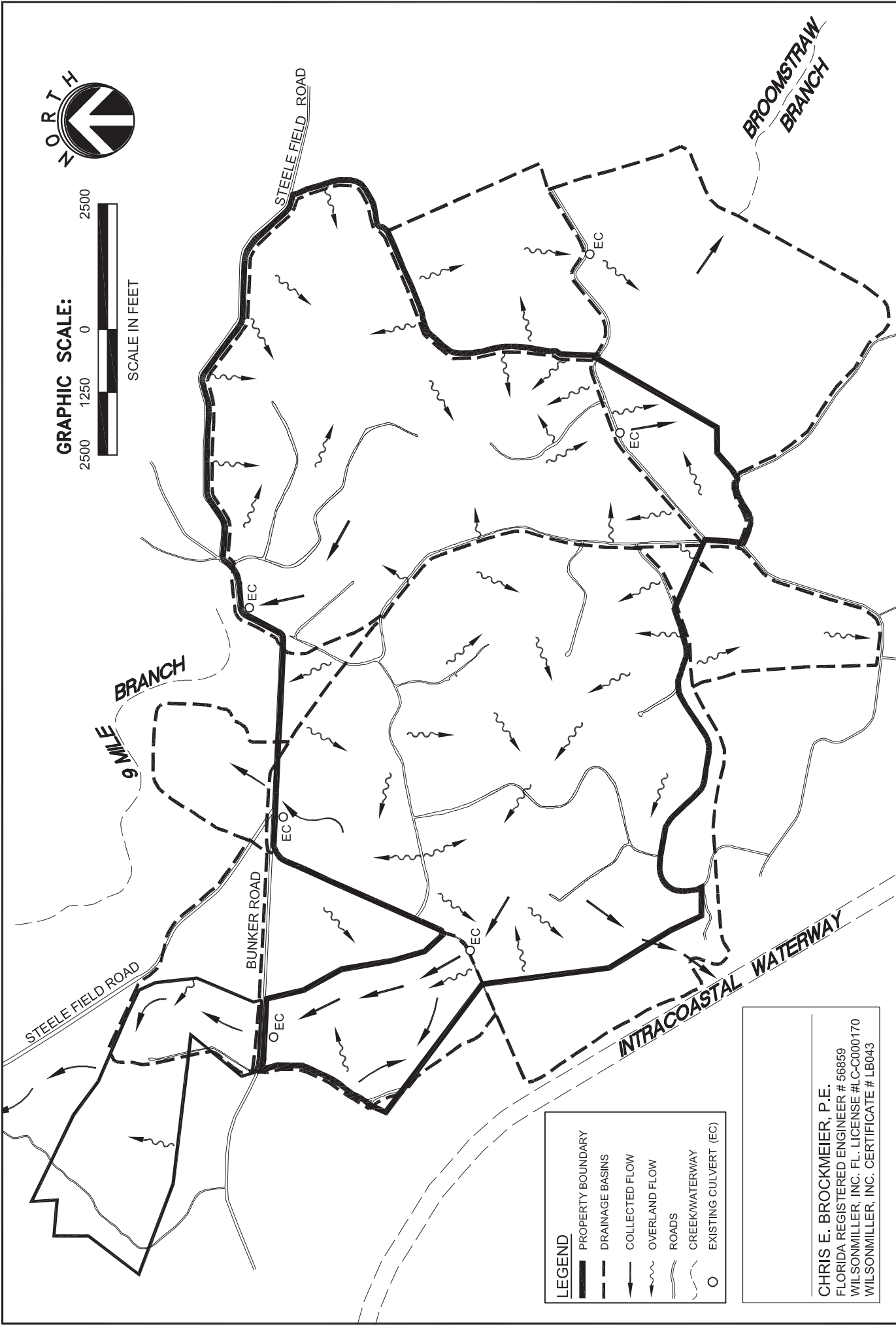
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 CLIENT: **ST. JOE COMPANY**  
 TITLE: **100-YEAR FLOOD PLAIN MAP**

EXHIBIT 2-3



PROJECT NO:	04108-000-000	DATE:	Feb. 2004
DRAWN BY/EMP NO:	WMB/1467	SCALE:	1"=2500'
SHEET NUMBER:	4	REVISION:	
	OF		11

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LEGEND	
	PROPERTY BOUNDARY
	DRAINAGE BASINS
	COLLECTED FLOW
	OVERLAND FLOW
	ROADS
	CREEK/WATERWAY
	EXISTING CULVERT (EC)

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 WILSONMILLER, INC. CERTIFICATE # LB043

PROJECT NO: 04108-000-000	DATE: Feb. 2004	PROJECT: DEVIL'S SWAMP MITIGATION BANK
DRAWN BY/EMP NO: WMB/1467	SCALE: 1"=2500'	
SHEET NUMBER: 5	REVISION: 11	TITLE: PRECONDITION DRAINAGE FLOWS

Map 03\_2004 - 142748 - BBOURDEI\B\EW04108-D\0404\REV\0041080405.dwg

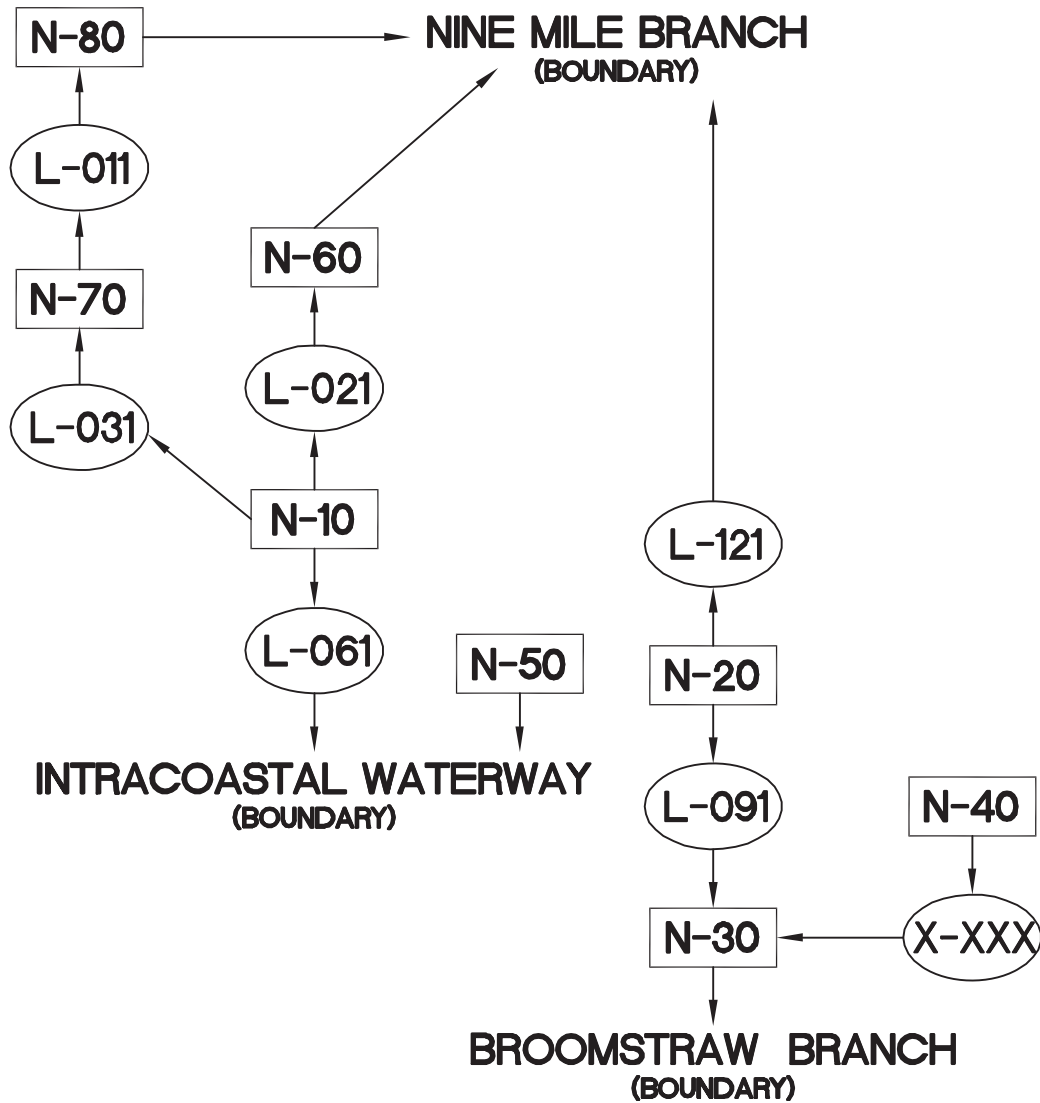
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EXHIBIT 2-4









**LEGEND**

- ← PRE AND POST CONDITIONS FLOW
- (L-201) STRUCTURE NODE NAME
- [N-20] HYDROLOGIC BASIN ID

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PROJECT: DEVIL'S SWAMP MITIGATION BANK

CLIENT: ST. JOE COMPANY



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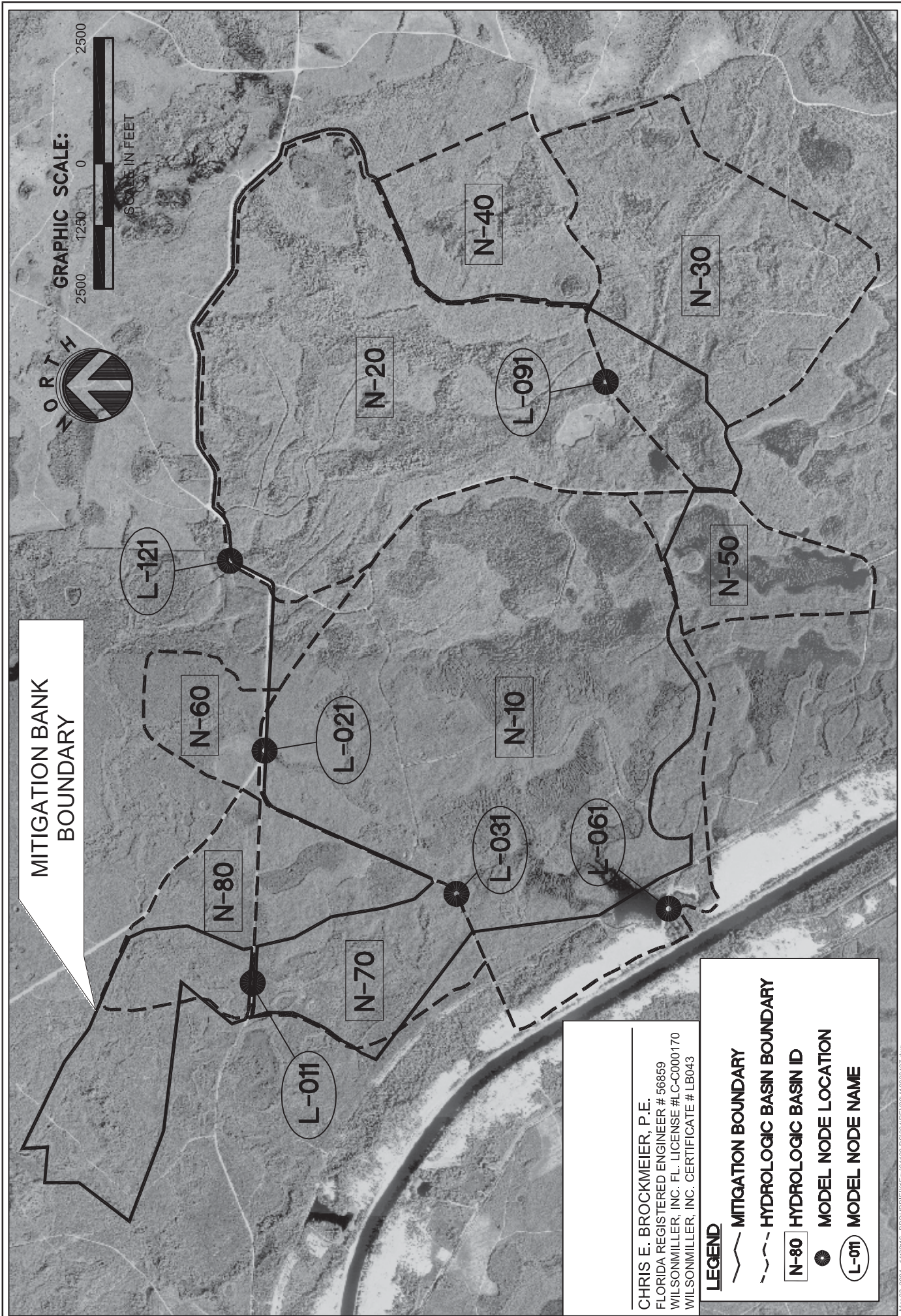
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**EXHIBIT 3-3 NODAL DIAGRAM**

SCALE:	NONE	DATE:	Feb. 2004
SEC:	TWP:	RGE:	REV NO:
PROJECT NO.	04108-000-000		INDEX NO:
DRWN BY/EMP NO.	TRC/01679		SHEET NO: 6 of 11



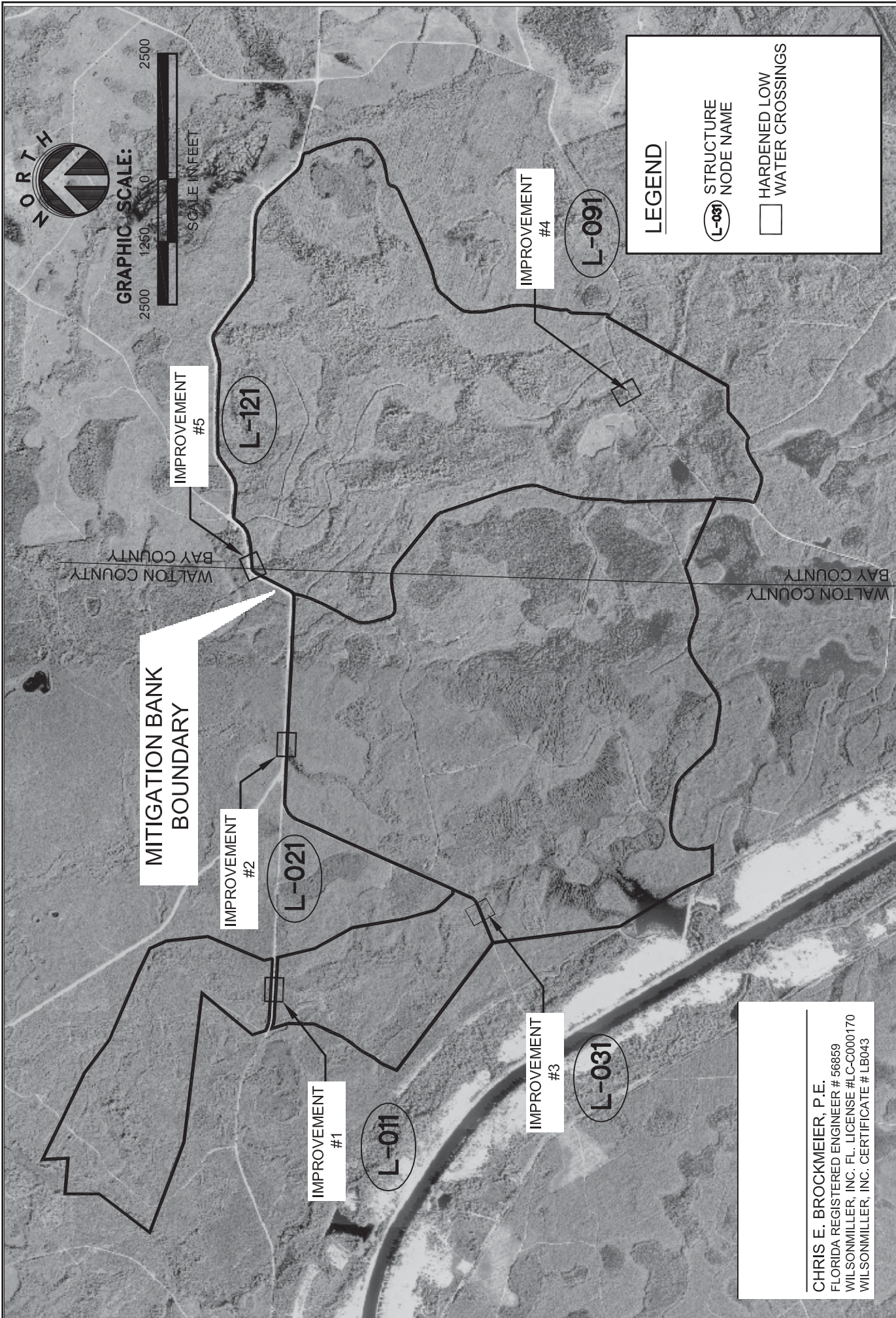
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PROJECT NO. 04108-000-000		DATE: Feb. 2004
DRAWN BY/EMP. NO. WMB/1467		SCALE: 1" = 2500'
SHEET NUMBER: 7		REVISION:
		OF 11
<b>EXHIBIT 3-4</b>		
PROJECT: DEVIL'S SWAMP MITIGATION BANK		
CLIENT: ST. JOE COMPANY		
TITLE: PRIMARY STORMWATER SYSTEM MODEL SCHEMATIC		



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PROJECT: DEVIL'S SWAMP MITIGATION BANK  
 CLIENT: ST. JOE COMPANY  
 TITLE: PROPOSED IMPROVEMENTS LOCATION

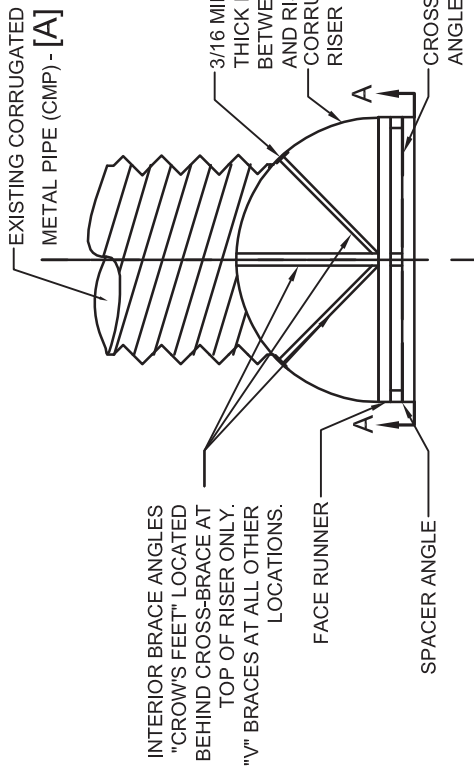
EXHIBIT 4-1

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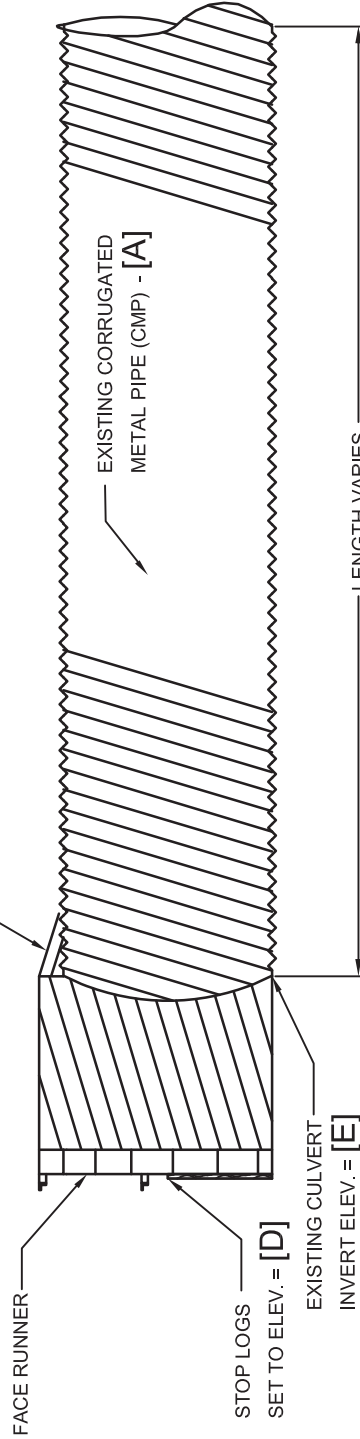
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04108-000-000	Feb. 2004
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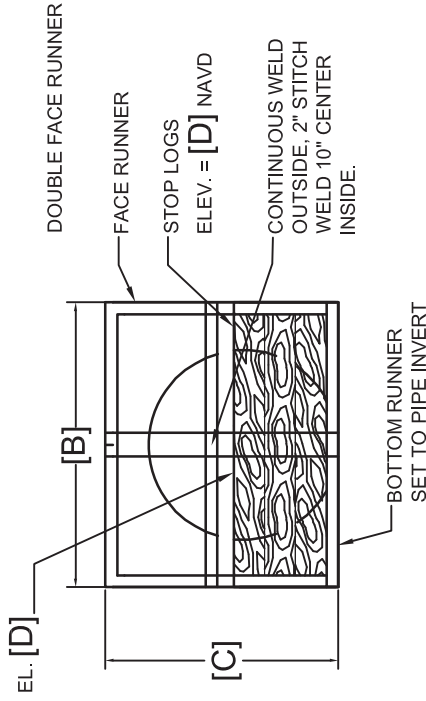
## PLAN VIEW

ANGLE BRACE PLACED 1'-0" UP FROM TOP OF STUB OR PER MANUFACTURER'S RECOMMENDATIONS



## ELEVATION VIEW

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## SECTION A-A

IMPROVEMENT SUMMARY TABLE

IMPROVEMENT LOCATION NO.	A	B	C	D**	E
1*	44"x32"	60"	60"	31.5'	25.73'
2*	--	--	--	--	31.08'
3	44"x32"	60"	60"	36.5'	35.59'
4	30"x18"	60"	36"	38.5'	37.47'
5*	36"	60"	72"	38.5'	35.16'

\* NEW CULVERT INSTALLATION  
 EXISTING ELEVATION FROM  
 CULVERTS UNDER COUNTY ROAD.  
 \*\* PROPOSED CONTROL ELEVATION  
 OF HARDENED LOW WATER  
 CROSSINGS WHICH MAY BE  
 ADJUSTED BASED ON 3 YEARS OF  
 MONITORING DATA.

PROJECT NO. 04108-000-000

DATE: Feb. 2004

DRAWN BY/EMP. NO. WMB/1467

SHEET NUMBER: 9 OF 11



EXHIBIT 4-2

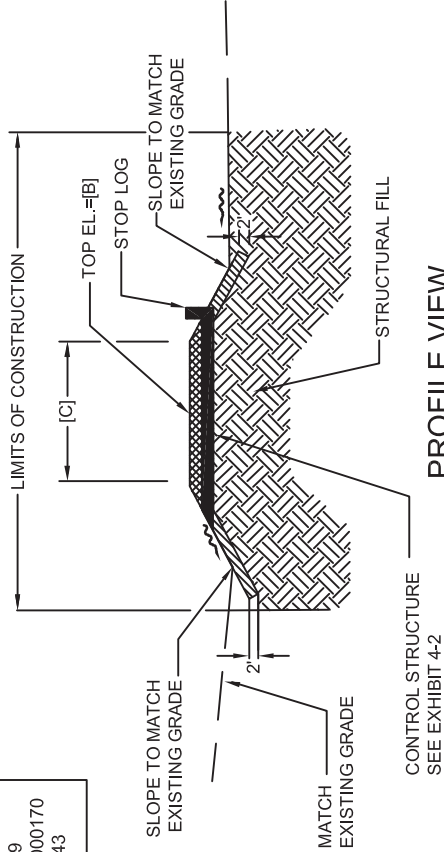
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 CLIENT: ST. JOE COMPANY  
 TITLE: DETAILS

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 WILSONMILLER, INC. CERTIFICATE # LB043

IMPROVEMENT LOCATION NO.	A	B*	C
1	30'	31.5'	12'
2	100'	37.0'	12'
3	30'	36.5'	12'
4	30'	38.5'	12'
5	30'	38.5'	12'

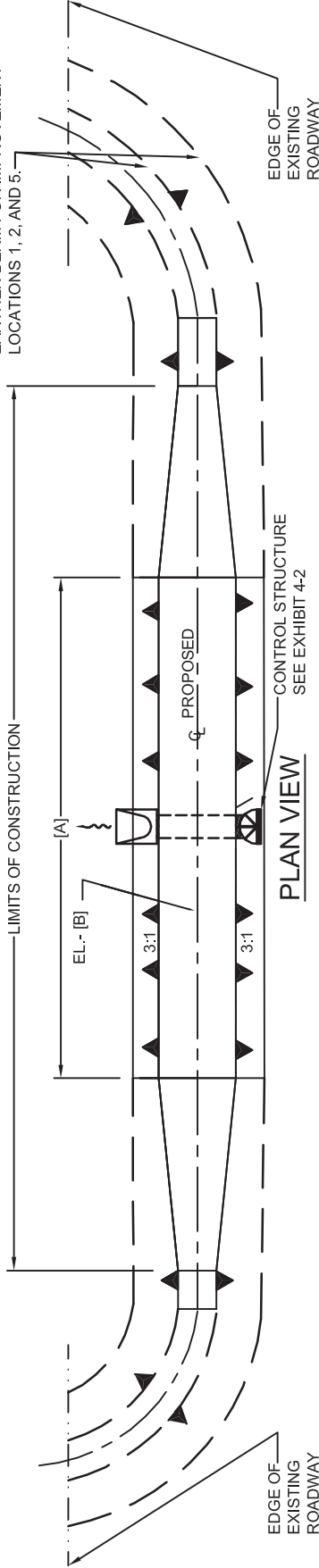
\* PROPOSED CONTROL ELEVATION OF HARDENED LOW WATER CROSSINGS WHICH MAY BE ADJUSTED BASED ON 3 YEARS OF MONITORING DATA.



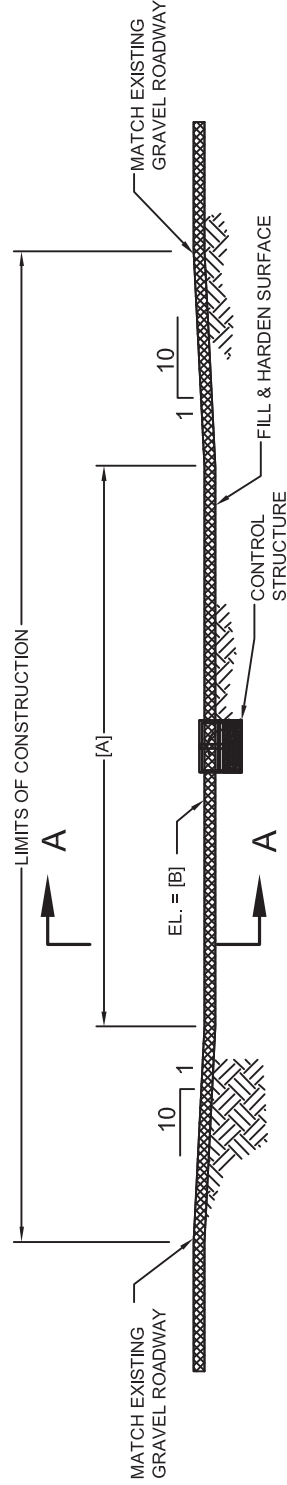
PROFILE VIEW

CONTROL STRUCTURE SEE EXHIBIT 4-2

NOTE: IMPROVEMENTS WITH DASHED LINES ONLY APPLY TO CONSTRUCTION OF EARTHEN BERM FOR IMPROVEMENT LOCATIONS 1, 2, AND 5.



PLAN VIEW



ELEVATION VIEW

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PROJECT NO.	04108-000-000
DRAWN BY/EMP. NO.	WMB/1467
SHEET NUMBER:	10 OF 11
DATE:	Feb. 2004
SCALE:	N.T.S.
REVISION:	

**Wilson Miller**

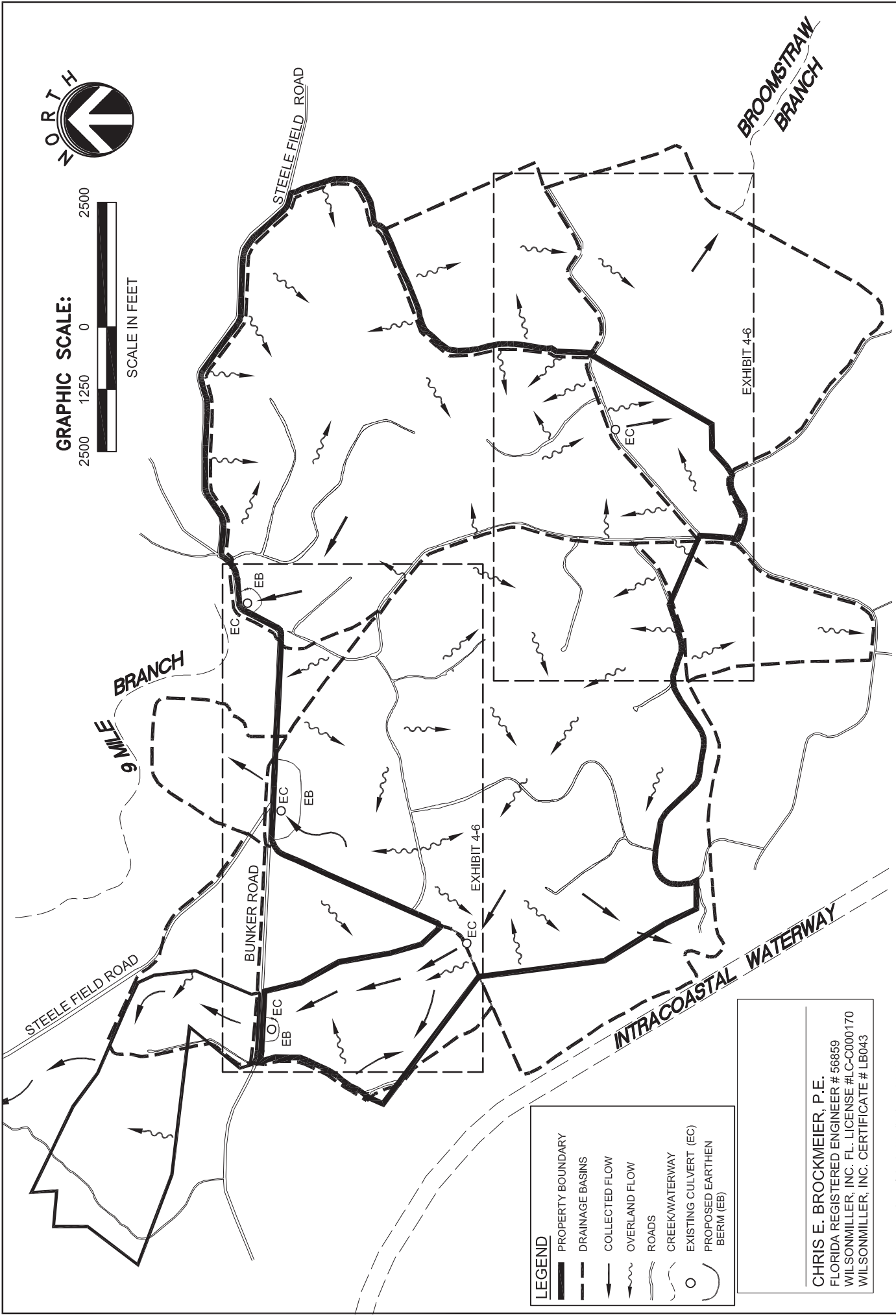
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PROJECT: DEVIL'S SWAMP MITIGATION BANK

CLIENT: ST. JOE COMPANY

TITLE: TYPICAL LOW WATER CROSSING

EXHIBIT 4-3



**LEGEND**

- PROPERTY BOUNDARY
- - - DRAINAGE BASINS
- COLLECTED FLOW
- ~ OVERLAND FLOW
- ROADS
- CREEKWATERWAY
- EXISTING CULVERT (EC)
- PROPOSED EARTHEN BERM (EB)

**CHRIS E. BROCKMEIER, P.E.**  
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 WILSONMILLER, INC. CERTIFICATE # LB043

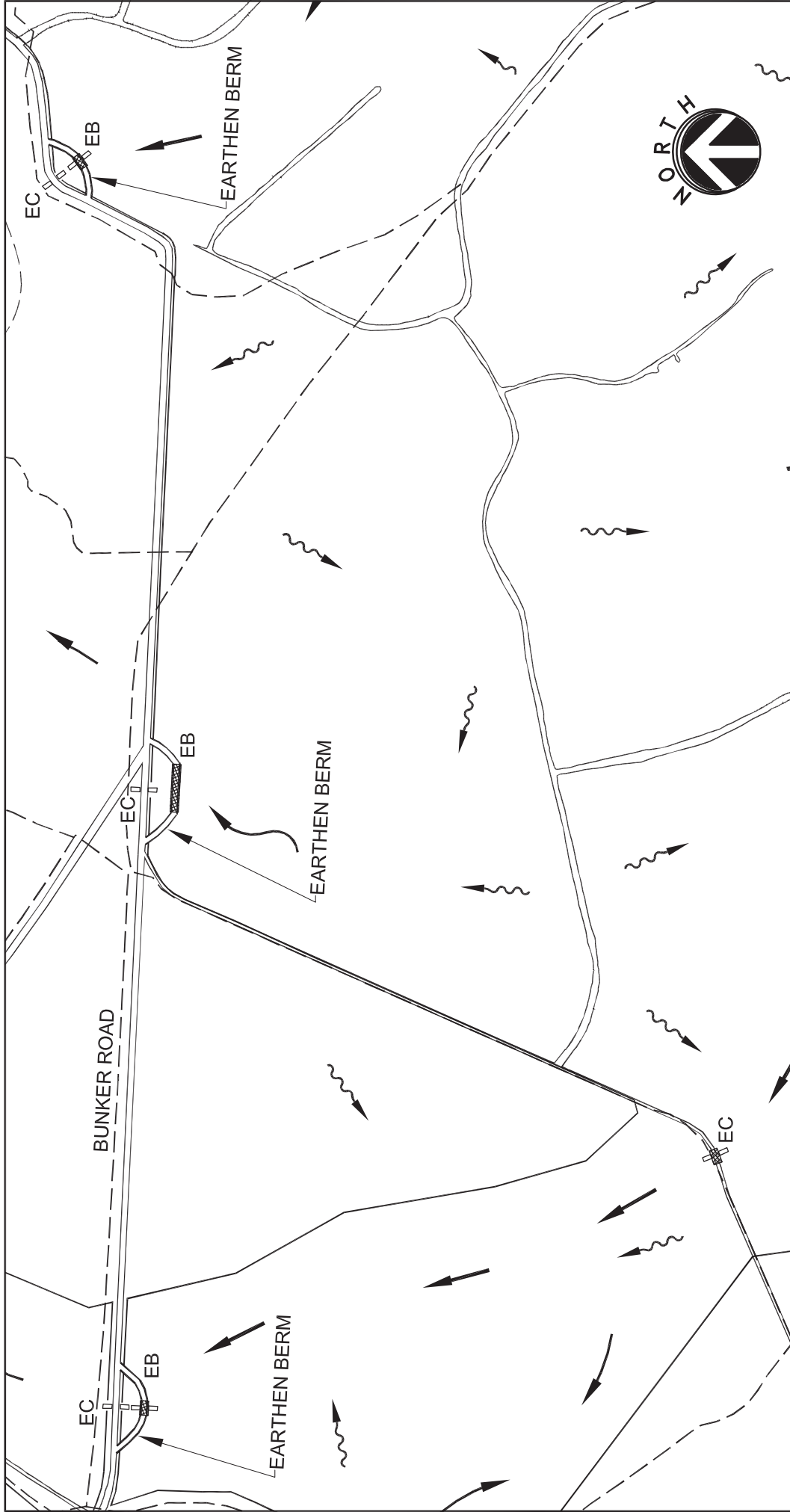
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DRAWN BY/EMP. NO. WMB/1467	SCALE: 1"=2500'	
SHEET NUMBER: 11 OF 11	REVISION:	TITLE: <b>POSTCONDITION DRAINAGE FLOWS</b>

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**LEGEND**

- PROPERTY BOUNDARY
- - - DRAINAGE BASINS
- COLLECTED FLOW
- ~ OVERLAND FLOW
- ROADS
- CREEK/WATERWAY
- EXISTING CULVERT (EC)
- ▨ PROPOSED EARTHEN BERM (EB)



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 WILSONMILLER, INC. FL. LICENSE # C-C000170  
 WILSONMILLER, INC. CERTIFICATE # LB043

PROJECT NO: 04108-000-000		DATE: Feb. 2004	
DRAWN BY/EMP NO: WMB/1467		SCALE: 1"=300'	
SHEET NUMBER: OF		REVISION:	
PROJECT: DEVIL'S SWAMP MITIGATION BANK		CLIENT: ST. JOE COMPANY	
EXHIBIT 4-5		TITLE: POSTCONDITION DRAINAGE FLOWS	

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**GRAPHIC SCALE:**



**LEGEND**

- PROPERTY BOUNDARY
- - - DRAINAGE BASINS
- COLLECTED FLOW
- ~ OVERLAND FLOW
- ROADS
- CREEK/WATERWAY
- EXISTING CULVERT (EC)
- PROPOSED EARTHEN BERM (EB)

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 WILSONMILLER, INC. CERTIFICATE # LB043

PROJECT NO: 04108-000-000		DATE: Feb. 2004	PROJECT: <b>DEVIL'S SWAMP MITIGATION BANK</b>
DRAWN BY/EMP. NO: WMB/1467		SCALE: 1"=300'	
SHEET NUMBER: OF		REVISION:	TITLE: <b>POSTCONDITION DRAINAGE FLOWS</b>

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## ATTACHMENT B-10 – REFERENCES

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## ATTACHMENT B-11 – REAL-ESTATE PROVISIONS

**DEED OF CONSERVATION EASEMENT**

THIS DEED OF CONSERVATION EASEMENT is given this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, by THE ST. JOE COMPANY/ST. JOE TIMBERLAND COMPANY OF DELAWARE, L.L.C., having an address at 245 Riverside, Suite 500 Jacksonville, Florida 32202

(Grantor) to the [STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION] or [BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA (BOARD OF TRUSTEES)], 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 shall include any successor or assignee of Grantee.

**WITNESSETH**

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

WHEREAS, the Department and St. Joe executed an Ecosystem Management Agreement, dated \_\_\_\_\_, (Agreement), which authorizes certain activities which affect waters in or of the State of Florida;

WHEREAS, the Agreement requires that the Grantor preserve, enhance, or restore wetlands or uplands within specified mitigation areas; and

WHEREAS, Grantor grants this conservation easement as a condition of the Agreement issued by Grantee to offset or prevent adverse impacts to water quality and natural resources, such as fish, wildlife, and wetland or other surface water functions.

WHEREAS, the U.S. Army Corps of Engineers (Army Corps) General Permit No. \_\_\_\_\_(Corps Permit) authorizes certain activities in the waters of the United States and requires this conservation easement over the lands identified in Exhibit A as part of the mitigation for such activities;

WHEREAS The Army Corps is not authorized to hold conservation easements and the Grantee has agreed to hold the easement on behalf of the Corps;

NOW THEREFORE, 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. Purpose. The purpose of this conservation easement is to retain land or 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 which are to be enhanced or restored pursuant to the Agreement shall be retained and maintained in the enhanced or restored conditions required by the Agreement.

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

a. The right to take action to restore, 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 terms and conditions of this conservation easement, and to require the restoration of areas or features of the Property that may be damaged by any activity inconsistent with the terms and conditions of this conservation easement.

c. The right to enter upon and inspect the Property in a reasonable manner and at reasonable times, including the right to use vehicles and all necessary equipment to determine if Grantor or its successors and assigns are complying with the covenants and prohibitions contained in 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 by any inconsistent activity or use.

3. Prohibited Uses. The following activities and uses are expressly prohibited, except for restoration, enhancement, maintenance and monitoring activities allowed by the provisions of Section 4:

a. Construction or placing of buildings, roads, signs, billboards or other advertising, utilities, docks, or other structures on or above the ground;

b. Dumping or placing of soil or other substance or material as landfill, or dumping or placing of trash, waste, or unsightly or offensive materials;

c. Removal or destruction of trees, shrubs, or other vegetation, except for timbering done in accordance with the St. Joe Forest and Wildlife Management Plan approved and on file with the Grantee at the time of the recording of this conservation

easement and for the purpose of enhancing or restoring wetlands or uplands in the mitigation area;

d. Planting or seeding of plants that are outside its natural range or zone of dispersal and has or is able to form self-sustaining, expanding, and free-living populations in a natural community with which it has 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 condition;

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 and fencing;

h. Acts or uses detrimental to such aforementioned retention of land or water areas;

i. Acts or uses detrimental to the preservation of the structural integrity or physical appearance of sites or properties of historical, architectural, archaeological, or cultural significance.

4. Authorized activities. The following activities on the Property are allowed:

a. Fire fighting or fire suppression activities;

b. Machine clearing of fire lines/fire breaks as part of controlled burn activities, fire fighting, or fire suppression;

c. Installation of fences for land management or habitat protection purposes;

d. Removal or extermination of nuisance or exotic animal species;

e. Hunting of deer, quail and other indigenous animal species pursuant to properly issued hunting permits only where consistent with the St. Joe Hunt Plan approved by and on file with the Grantee at the time of the recording of this conservation easement;

f. Installation of signs for land management, facilitating passive recreation or habitat protection purposes;

g. Maintenance of unpaved nature trails; and



- h. Installation of interpretive signs for nature trails.
5. Reserved Rights. Grantor reserves all rights as owner of the Property, including the right to engage in uses of the Property that are not prohibited herein and which are not inconsistent with the terms and conditions of this conservation easement or any Department rule, criteria, and Agreement.
6. Public Access. No right of access by the general public to any portion of the Property is conveyed by this conservation easement.
7. Responsibilities of Parties. Grantor, its successors or assigns, shall take responsibility for any costs or liabilities related to the operation, upkeep or maintenance of the Property. In addition Grantee its successors or assigns, shall have no responsibility for any costs or liabilities related to the operation, upkeep or maintenance of the Property.
8. Taxes. Grantor, its successors or assigns, shall pay before delinquency any and all taxes, assessments, fees, and charges of whatever description levied nor assessed by competent authority on the Property, and shall furnish Grantee with satisfactory evidence of payment upon request
9. Liability. Grantee shall not assume any liability for any injury or damage to the person or property of Grantor or third parties which may occur on the Property, except to the extent caused by Grantee or its employees or agents. 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, except to the extent caused by Grantee or its employees or agents. 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 caused by Grantee or its employees or agents.
10. Hazardous Waste. Grantor covenants and represents that to the best of its 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.
11. Enforcement Discretion. 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's rights.
12. Venue and Enforcement Costs. Venue to enforce the terms of this conservation easement shall be in Leon County, Florida. In the event the Army Corps takes enforcement action, venue shall be in a state or federal court of competent jurisdiction. If the Grantee prevails in an enforcement action, it shall be entitled to recover the 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 Agreement.

13. Assignment of Rights. Grantee will hold this conservation easement exclusively for conservation purposes. Grantee will not assign its rights and obligations under this conservation easement except to another organization qualified to hold such interests under applicable state laws. The Army Corps reserves the right approve successor grantees for the purpose of meeting the continuing compensatory mitigation requirements of its permit or permits.

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

15. Successors. 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. Notices. 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.

17. Severability. 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.

18. Alteration or Revocation. This conservation easement may be amended, altered, released or revoked only by Agreement 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 \_\_\_\_\_ County.

19. Controlling Law. The interpretation and performance of this conservation easement shall be governed by the laws of the State of Florida.

20. Rights of U.S. Army Corps of Engineers. Where a corresponding general permit is issued by the U.S. Army Corps of Engineers, the Army Corps shall have all the rights of grantee under this easement. The Army Corps shall be a party to a modification, alteration, release, or revocation of the conservation easement, and shall review and approve as necessary any additional structures or activities that require approval by the Grantee.

21. Limitation. This provision shall not be construed to entitle Grantee to bring any action against Grantor for any injury to or change in the property resulting from natural

causes beyond Grantor's control including, without limitation, fire, flood, storm and earth movement, or from any necessary action taken by Grantor under emergency conditions to prevent, abate or mitigate significant injury to the property or to persons resulting from such causes.

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 Property.

Grantor hereby covenants with said Grantee that Grantor is lawfully seized of Property in fee simple; that the Property is free and clear of all encumbrances that 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 conservation easement; and that it hereby fully warrants and defends the title to conservation easement hereby conveyed against the lawful claims of all persons whomsoever.

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

Signed, sealed and delivered  
in our presence as witnesses:

\_\_\_\_\_

\_\_\_\_\_  
Print Name:

By: \_\_\_\_\_

Print Name:

Title: \_\_\_\_\_

\_\_\_\_\_  
Print Name:

STATE OF FLORIDA  
COUNTY OF \_\_\_\_\_

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, by \_\_\_\_\_ as \_\_\_\_\_ of the (corporation's name) \_\_\_\_\_ He/She is personally known to me or has produced \_\_\_\_\_ as identification.

(SEAL)

\_\_\_\_\_  
Notary Public Signature

\_\_\_\_\_  
Printed/Typed Name of Notary

## **ATTACHMENT B-12 – FINANCIAL ASSURANCE**

STATE OF FLORIDA  
MITIGATION BANK PERFORMANCE BOND  
TO DEMONSTRATE CONSTRUCTION AND IMPLEMENTATION FINANCIAL ASSURANCE

Date bond executed: \_\_\_\_\_

Period of coverage: \_\_\_\_\_

Effective date: \_\_\_\_\_

Principal:

\_\_\_\_\_  
Legal Name and Business Address of Mitigation Banker  
\_\_\_\_\_

Type of Organization:            \_\_\_\_\_ Individual  
  \_\_\_\_\_ Joint Venture  
  \_\_\_\_\_ Partnership  
  \_\_\_\_\_ Corporation

State of Incorporation: \_\_\_\_\_

Surety(ies): \_\_\_\_\_  
  Name(s) and Business Address(es)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Scope of coverage:    Construction and implementation of the \_\_\_\_\_ Mitigation Bank pursuant to the requirements of permit number \_\_\_\_\_ issued by the Florida Department of Environmental Protection including the plans approved by said permit.

Total penal sum of bond: \_\_\_\_\_

Surety's bond number: \_\_\_\_\_

Know All Persons By These Presents, that we, the Principal and Surety(ies) hereto are firmly bound to the Florida Department of Environmental Protection in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be full amount of the penal sum.

WHEREAS, said Principal is required, under Section 373.4136, Florida Statutes, as amended, to have a permit in order to construct, implement and manage the Mitigation Bank identified above, and

WHEREAS, said Principal is required by Section 373.4136, Florida Statutes, and the administrative rules of the Department to provide financial assurance for construction and implementation of the Mitigation Bank as a condition of the permit(s) as further described in the scope of coverage above, and

WHEREAS, said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

NOW, THEREFORE, the conditions of the obligation are such that if the Principal shall faithfully construct and implement the \_\_\_\_\_ Mitigation Bank, for which this bond guarantees construction and implementation, as required by Department permit number \_\_\_\_\_ and the plans approved by such permit, as such permit and plans may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended,

Or, if the Principal shall provide alternate financial assurance, as specified in the administrative rules of the Department, and obtain the Department's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the Department from the Surety(ies), then this obligation shall be null and void, otherwise it is to remain in full force and effect.

Such obligation does not apply to any of the following:

- (a) Any obligation of (insert banker's name) under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;
- (b) Bodily injury to an employee of (insert banker's name) arising from, and in the course of, employment by (insert banker's name);
- (c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;
- (d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by (insert banker's name) that is not the direct result of a construction or implementation activity for the \_\_\_\_\_ Mitigation Bank required pursuant to Department permit number \_\_\_\_\_;
- (e) Bodily injury or property damage for which (insert banker's name) is obligated to pay damages by reason of the assumption of liability in a contract or agreement.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by the Secretary of the Department that the Principal has been found in violation of the requirements of permit number \_\_\_\_\_ by failing to perform the construction and implementation activities for the \_\_\_\_\_ Mitigation Bank for which this bond guarantees performance, the Surety(ies) shall, within 60 days of receiving such notice, either perform such construction and implementation in accordance with the permit and other permit requirements and pursuant to the written directions of the Department, or place the bond amount guaranteed for the \_\_\_\_\_ Mitigation Bank (the total penal sum of this bond) into the standby trust fund as directed by the Department.

Upon notification by the Secretary of the Department that the Principal has failed to provide alternate financial assurance and obtain written approval of such assurance from the Department during the 90 days following receipt by both the Principal and the Department of a notice of cancellation of the bond, the Surety(ies) shall place funds in the amount guaranteed for the \_\_\_\_\_ Mitigation Bank (the total penal sum of this bond) into the standby trust fund as directed by the Department.

The Surety(ies) hereby waive(s) notification of amendments to the \_\_\_\_\_ Mitigation Bank plans, permits, applicable laws, statutes, rules, and regulations and agree(s) that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum shown on the face of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and the Department; provided, however that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the Department, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies); provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the Department.

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond every two years so that it guarantees increased or decreased construction and implementation cost provided that no decrease in the penal sum takes place without the written permission of the Department.

IN WITNESS WHEREOF, the Principal and Surety(ies) have executed this Performance Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this Performance Bond is substantially similar to Form No. 62-342.900(1) which form has been incorporated by reference as an administrative rule in section 62-342.900 of the Florida Administrative Code.

**PRINCIPAL**

**CORPORATE SURETY(IES)**

For each co-surety provide the following

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name and Address

\_\_\_\_\_  
Type Name and Title

\_\_\_\_\_  
State of Incorporation

Liability Limit \$ \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Type Name and Title

Corporate Seal

Corporate Seal

STATE OF FLORIDA

MITIGATION BANK STANDBY TRUST FUND AGREEMENT  
TO DEMONSTRATE CONSTRUCTION/IMPLEMENTATION FINANCIAL ASSURANCE

TRUST AGREEMENT, the "Agreement," entered into as of \_\_\_\_\_ by and  
Date  
between \_\_\_\_\_  
Name of Mitigation Banker  
a \_\_\_\_\_ (the Grantor,) Name of State Insert "corporation, partnership, association, or proprietorship",  
and \_\_\_\_\_  
Name and Address of Corporate Trustee  
\_\_\_\_\_ (the Trustee.)  
Insert "incorporated in the State of \_\_\_\_" or "a national bank"

WHEREAS, Grantor is the owner of certain real property in \_\_\_\_\_ County, Florida, and has received from the Florida Department of Environmental Protection ("Department") that certain permit number \_\_\_\_\_ ("Mitigation Bank Permit") which authorizes the construction and implementation of the \_\_\_\_\_ Mitigation Bank;

WHEREAS, the Department, a Florida agency created under section 20.255 of the Florida Statutes, has established certain regulations applicable to the Grantor, requiring that a Mitigation Bank permittee shall provide assurance that funds will be available when needed for corrective action if Grantor fails to construct and implement that Mitigation Bank,

WHEREAS, the Grantor has elected to establish \_\_\_\_\_  
[insert either a "surety bond" or "letter or credit"]  
to provide all or part of such financial assurance for the \_\_\_\_\_ Mitigation Bank identified herein and is required to establish a standby trust fund able to accept payments from that instrument,

WHEREAS, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

NOW, THEREFORE, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the \_\_\_\_\_ who enters into  
[insert Mitigation Banker's name]  
this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means \_\_\_\_\_ the Trustee who  
[insert trustee's name]  
enters into this Agreement and any successor Trustee.

(c) The term "Department " means the Florida Department of Environmental Protection, a public entity in the State of Florida or any successor thereof.

(d) The term "investment obligations" means:

(i) United States of America Treasury and Federal agency securities or other obligations issued or unconditionally guaranteed as to principal and interest by the United States of America, in each case with maturities of not more than one year from the date acquired;

(ii) Demand deposits, certificates of deposit, bankers acceptances and time deposits of any bank organized or licensed to conduct a banking business under the laws of the United States of America or any state



thereof having capital, surplus and undivided profits of not less than \$100,000,000, and whose deposits are insured by the Federal Deposit Insurance Corporation or any successor thereof;

(iii) Securities of entities incorporated under the laws of the United States of America or any State thereof commonly known as "commercial paper" that at the time of purchase have been rated and the ratings for which are not less than "P1" if rated by Moody's Investors Services, Inc., and not less than "A1" if rated by Standard and Poor's Corporation, in each case with maturities of not more than one year from the date acquired;

(iv) State or local government securities, which debt obligations at the time of purchase are rated investment grade by one or more nationally recognized rating agencies, in each case with maturities of not more than one year from the date acquired;

(v) Repurchase obligations with any banking or financial institution described in clause (ii) above which are fully collateralized at all times by any of the foregoing obligations;

(vi) Corporate fixed income securities whose ratings at the time of purchase are rated not less than "A-" if rated by Standard and Poor's Corporation and "A3" if rated by Moody's Investors Services, Inc. in each case with maturities of not more than one year from the date acquired; and

(vii) Investments in any one or more professionally managed money market funds generally regarded as investment grade with a portfolio size of not less than \$100,000,000.

Section 2. Identification of Cost Estimates. This Agreement pertains to the cost estimate for construction and implementation of the \_\_\_\_\_ Mitigation Bank identified in Attachment A hereto.

Section 3. Standby Trust. This trust shall remain dormant until funded with the proceeds from the financial mechanism listed on Attachment "A". The Trustee shall have no duties or responsibilities beyond safekeeping this Document. Upon funding this trust shall become active and be administered pursuant to the terms of this instrument.

Section 4. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund (the Fund), for the benefit of the Department. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as a standby to receive payments and shall not consist of any property. Payments made by the Grantor pursuant to the Department's instructions are transferred to the Trustee and referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST for the benefit of the Department, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the Department.

Section 5. Initial Payments Comprising the Fund. \_\_\_\_\_ Initial Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee and shall consist initially of proceeds from the \_\_\_\_\_ identified in

Insert "Letter of Credit" or "Surety Bond"  
Attachment A hereto.

Section 6. Additional Payments to the Fund. After the initial deposit of principal into the Fund, the Grantor shall increase the principal if so required by the Department pursuant to its administrative regulations and the requirements of the Mitigation Bank Permit. Such deposit may be in cash or securities acceptable under Section 1(d) hereof.

Section 7. Payment for Completing Construction and Implementation. The Trustee shall make payments from the Fund as the Secretary of the Department, or the Secretary's designee, shall direct in writing to provide for the payment of the costs of completing construction and implementation of the Mitigation Bank covered by this

Agreement pursuant to the requirements of the Mitigation Bank permit. The Trustee shall reimburse persons specified by the Department from the Fund for construction and implementation expenditures in such amounts as the Department shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the Department specifies in writing as unnecessary or excessive corpus for purposes of the trust. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

The Fund may not be drawn upon to cover any of the following:

- (a) Any obligation of Grantor under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;
- (b) Bodily injury to an employee of Grantor arising from, and in the course of employment by Grantor;
- (c) Bodily injury or non-realty property damage arising from the ownership, maintenance, use, or entrustment to others by Grantor of any aircraft, motor vehicle, or watercraft;
- (d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by Grantor that is not the direct result of the construction and implementation of the Mitigation Bank; or
- (e) Bodily injury or property damage for which Grantor is obligated to pay damages by reason of the assumption of liability in a contract or agreement.

Section 8. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund in one or more investment obligations and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge its duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

- (a) Securities or other obligations of the Grantor, or any other owner or operator of the Mitigation Bank, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a state government;
- (b) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or a state government; and
- (c) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 9. Commingling and Investment. The Trustee is expressly authorized in its discretion:

- (a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and
- (b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 10. Express Power of Trustee. Without in any way limiting the powers and discretion conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

- (a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;
- (b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;
- (c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;
- (d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or a State government; and
- (e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 11. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 12. Annual Valuation. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the Department a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the fund. The failure of the Grantor or the Department to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the Department shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 13. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 14. Trustee Compensation. Grantor shall pay the Trustee any necessary fees for services rendered. Where the Grantor is no longer in existence, the Trustee is authorized to charge against the Trust its published Trust fee schedule in effect at the time services are rendered. However, all Trustee compensation charged against the Trust shall be paid from trust income, unless the Department authorizes in writing payment from the trust principal.

Section 15. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor Trustee, the successor is approved by the Department, and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Department may nominate a successor. If the Department does not act, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Department, and

the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 14.

Section 16. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by \_\_\_\_\_ or such other designees as the Grantor may designate by amendment to this agreement. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Department to the Trustee shall be in writing, signed by the Department's Secretary, or the Secretary's designee, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Department hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Department, except as provided for herein.

Section 17. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Department, or by the Trustee and the Department if the Grantor dies, is legally incapacitated, is administratively or judicially dissolved or otherwise ceases to exist.

Section 18. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 17, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Department, or by the Trustee and the Department, if the Grantor dies, is legally incapacitated, is administratively or judicially dissolved or otherwise ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered pursuant to the written agreement terminating the trust or, where Grantor has ceased to exist, then to the Department.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Department issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Florida.

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

IN WITNESS WHEREOF the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written.

\_\_\_\_\_  
Signature of Grantor

\_\_\_\_\_  
Signature of Trustee

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest:

Attest:

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Seal

Seal

STATE OF FLORIDA  
COUNTY OF \_\_\_\_\_

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 199\_, by \_\_\_\_\_, the \_\_\_\_\_ of \_\_\_\_\_, a Florida corporation, on behalf of the corporation. Such person did not take an oath and:

- \_\_\_\_\_ is/are personally known to me
- \_\_\_\_\_ produced a current Florida driver's license as identification
- \_\_\_\_\_ produced \_\_\_\_\_ as identification

\_\_\_\_\_  
Signature of Notary

(Notary Seal)

\_\_\_\_\_  
Name of Notary (typed, printed or stamped)  
Commission number (if not legible on seal) \_\_\_\_\_  
My commission expires: (if not legible on seal) \_\_\_\_\_

STATE OF FLORIDA  
COUNTY OF \_\_\_\_\_

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 199\_, by \_\_\_\_\_, the \_\_\_\_\_ of \_\_\_\_\_ Bank, on behalf of the corporation. Such person did not take an oath and :

- \_\_\_\_\_ is/are personally known to me
- \_\_\_\_\_ produced a current Florida driver's license as identification
- \_\_\_\_\_ produced \_\_\_\_\_ as identification

\_\_\_\_\_  
Signature of Notary

(Notary Seal)

\_\_\_\_\_  
Name of Notary (typed, printed or stamped)  
Commission number (if not legible on seal) \_\_\_\_\_  
My commission expires: (if not legible on seal) \_\_\_\_\_

STATE OF FLORIDA

MITIGATION BANK TRUST FUND AGREEMENT  
TO DEMONSTRATE PERPETUAL MANAGEMENT FINANCIAL ASSURANCE

TRUST AGREEMENT, the "Agreement," entered into as of \_\_\_\_\_ by and  
Date  
between \_\_\_\_\_  
Name of Mitigation Banker  
a \_\_\_\_\_ (the Grantor,) Name of State Insert "corporation, partnership, association, or proprietorship",  
and \_\_\_\_\_  
Name and Address of Corporate Trustee  
\_\_\_\_\_ (the Trustee.)  
Insert "incorporated in the State of \_\_\_\_" or "a national bank"

WHEREAS, Grantor is the owner of certain real property in \_\_\_\_\_ County, Florida, and has received from the Florida Department of Environmental Protection ("Department") that certain permit number \_\_\_\_\_ ("Mitigation Bank Permit") which authorizes the construction and implementation of the \_\_\_\_\_ Mitigation Bank;

WHEREAS, the Department, a Florida agency created under section 20.255 of the Florida Statutes, has established certain regulations applicable to the Grantor, requiring that a Mitigation Bank permittee shall provide assurance that funds will be available when needed for corrective action if Grantor fails to perpetually manage that Mitigation Bank pursuant to the requirements of the Mitigation Bank Permit,

WHEREAS, the Grantor has elected to establish this trust fund agreement to provide such financial assurance for the \_\_\_\_\_ Mitigation Bank identified herein,

WHEREAS, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

NOW, THEREFORE, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the \_\_\_\_\_ who enters into this  
[insert Mitigation Banker's name]  
Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means/ \_\_\_\_\_ the Trustee who  
[insert trustee's name]  
enters into this Agreement and any successor Trustee.

(c) The term "Department" means the Florida Department of Environmental Protection a public entity in the State of Florida or any successor thereof.

(d) The term "investment obligations" means:

(i) United States of America Treasury and Federal agency securities or other obligations issued or unconditionally guaranteed as to principal and interest by the United States of America, in each case with maturities of not more than one year from the date acquired;

(ii) Demand Deposits, certificates of deposit, bankers acceptances and time deposits of any bank organized or licensed to conduct a banking business under the laws of the United States of America or any state thereof having capital, surplus and undivided profits of not less than \$100,000,000, and whose deposits are insured by the Federal Deposit Insurance Corporation or any successor thereof;

(iii) Securities of entities incorporated under the laws of the United States of America or any State thereof commonly known as “commercial paper” that at the time of purchase have been rated and the ratings for which are not less than “P1” if rated by Moody’s Investors Services, Inc., and not less than “A1” if rated by Standard and Poor’s Corporation, in each case with maturities of not more than one year from the date acquired;

(iv) State or local government securities, which debt obligations at the time of purchase are rated investment grade by one or more nationally recognized rating agencies, in each case with maturities of not more than one year from the date acquired;

(v) Repurchase obligations with any banking or financial institution described in clause (ii) above which are fully collateralized at all times by any of the foregoing obligations;

(vi) Corporate fixed income securities whose ratings at the time of purchase are rated not less than “A-” if rated by Standard and Poor’s Corporation and “A3” if rated by Moody’s Investors Services, Inc. in each case with maturities of not more than one year from the date acquired; and

(vii) Investments in any one or more professionally managed money market funds generally regarded as investment grade with a portfolio size of not less than \$100,000,000.

Section 2. Identification of Cost Estimates. This Agreement pertains to the cost estimate for perpetual management of the \_\_\_\_\_ Mitigation Bank identified in Attachment A hereto.

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund (the Fund), for the benefit of the Department (hereafter sometimes referred to as the “Beneficiary”) The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established by the Grantor’s deposit of \$\_\_\_\_\_ into the Fund. Such monies and other monies subsequently placed in the Fund are referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, for the benefit of the Department as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the Department.

Section 4. Additional Payments Into the Fund. After the initial deposit of principal into the Fund, the Grantor shall increase the principal if so required by the Department pursuant to its administrative regulations and the requirements of the Mitigation Bank Permit. Such deposit may be in cash or securities acceptable under Section 1(d) hereof.

Section 5. Payment for Undertaking Perpetual Management Activities. The Trustee shall make payments from the Fund as the Grantor or the Secretary of the Department, or the Secretary’s designee, shall direct in writing to provide for the payment of the costs of undertaking activities to provide for the perpetual management of the Mitigation Bank covered by this Agreement pursuant to the requirements of the Mitigation Bank Permit. The Trustee shall reimburse persons specified by the Grantor or the Department from the Fund for perpetual management expenditures in such amounts as the Grantor or the Department shall direct in writing. In the event of conflicting instructions from the Grantor and the Department, the Department’s instructions shall prevail. The Trustee shall not make any payments from the principal of the Fund pursuant to the Grantor’s direction without the Department’s written consent. The Trustee shall cease honoring Grantor’s instructions if so directed by the Department in writing. In addition, the Trustee shall refund to the Grantor such amounts as the Department specifies in writing as unnecessary or excessive corpus for purposes of the trust. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

The Fund may not be drawn upon to cover any of the following:

- (a) Any obligation of Grantor under a workers' compensation, disability benefits, or unemployment compensation law or other similar law:
- (b) Bodily injury to an employee of Grantor arising from, and in the course of employment by Grantor:
- (c) Bodily injury or non-realty property damage arising from the ownership, maintenance, use, or entrustment to others by Grantor of any aircraft, motor vehicle, or watercraft:
- (d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by Grantor that is not the direct result of the construction and implementation of the Mitigation Bank;
- (e) Bodily injury or property damage for which Grantor is obligated to pay damages by reason of the assumption of liability in a contract or agreement.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund in one or more investments and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge its duties with respect to the trust fund solely in the interest of the Department and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

- (a) Securities or other obligations of the Grantor, or any other owner or operator of the Mitigation Bank, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a state government;
- (b) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or a state government; and
- (c) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

- (a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and
- (b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Power of Trustee. Without in any way limiting the powers and discretion conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

- (a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;
- (b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;



- (c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;
- (d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or a State government; and
- (e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. The Trust shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the Department a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the fund. The failure of the Grantor or the Department to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the Department shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. Grantor shall pay the Trustee any necessary fees for services rendered. Where the Grantor is no longer in existence, the Trustee is authorized to charge against the Trust its published Trust fee schedule in effect at the time services are rendered. However, all Trustee compensation charged against the Trust shall be paid only from trust income unless the Department authorizes payment from the trust principal in writing.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor Trustee, the successor is approved by the Department, and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Department may nominate a successor. If the Department does not act, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Department, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 12.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by \_\_\_\_\_ or such other designees as the Grantor may designate by amendment to this agreement. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Department to the Trustee shall be in writing,

signed by the Department's Secretary, or the Secretary's designee, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Department hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Department, except as provided for herein.

Section 15. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Department, or by the Trustee and the Department if the Grantor dies, is legally incapacitated, is administratively or judicially dissolved or otherwise ceases to exist.

Section 16. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 15, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Department, or by the Trustee and the Department, if the Grantor dies, is legally incapacitated, is administratively or judicially dissolved or otherwise ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered pursuant to the written agreement terminating the trust or where Grantor has ceased to exist, then to the Department.

Section 17. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Department issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 18. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Florida.

Section 19. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

IN WITNESS WHEREOF the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written.

\_\_\_\_\_  
Signature of Grantor

\_\_\_\_\_  
Signature of Trustee

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

\_\_\_\_\_  
Attest:

\_\_\_\_\_  
Attest:

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Seal

Seal

STATE OF FLORIDA  
COUNTY OF \_\_\_\_\_

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 199\_, by \_\_\_\_\_, the \_\_\_\_\_ of \_\_\_\_\_, a Florida corporation, on behalf of the corporation. Such person did not take an oath and:

- \_\_\_\_\_ is/are personally known to me
- \_\_\_\_\_ produced a current Florida driver's license as identification
- \_\_\_\_\_ produced \_\_\_\_\_ as identification

\_\_\_\_\_  
Signature of Notary

(Notary Seal)

\_\_\_\_\_  
Name of Notary (typed, printed or stamped)  
Commission number (if not legible on seal) \_\_\_\_\_  
My commission expires: (if not legible on seal) \_\_\_\_\_

STATE OF FLORIDA  
COUNTY OF \_\_\_\_\_

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 199\_, by \_\_\_\_\_, the \_\_\_\_\_ of \_\_\_\_\_ Bank, on behalf of the corporation. Such person did not take an oath and :

- \_\_\_\_\_ is/are personally known to me
- \_\_\_\_\_ produced a current Florida driver's license as identification
- \_\_\_\_\_ produced \_\_\_\_\_ as identification

\_\_\_\_\_  
Signature of Notary

(Notary Seal)

\_\_\_\_\_  
Name of Notary (typed, printed or stamped)  
Commission number (if not legible on seal) \_\_\_\_\_  
My commission expires: (if not legible on seal) \_\_\_\_\_

STATE OF FLORIDA

MITIGATION BANK STANDBY TRUST FUND AGREEMENT  
TO DEMONSTRATE PERPETUAL MANAGEMENT FINANCIAL ASSURANCE

TRUST AGREEMENT, the "Agreement," entered into as of \_\_\_\_\_ by and  
Date  
between \_\_\_\_\_  
Name of Mitigation Banker  
a \_\_\_\_\_ (the Grantor),  
Name of State Insert "corporation, partnership, association, or proprietorship",  
and \_\_\_\_\_  
Name and Address of Corporate Trustee  
\_\_\_\_\_ (the Trustee.)  
Insert "incorporated in the State of \_\_\_\_" or "a national bank"

WHEREAS, Grantor is the owner of certain real property in \_\_\_\_\_ County, Florida, and has received from the Florida Department of Environmental Protection ("Department ") that certain permit number 4- \_\_\_\_\_ ("mitigation bank permit") which authorizes the construction and implementation of the \_\_\_\_\_ Mitigation Bank;

WHEREAS, the Department , a Florida public entity created under Chapter 373, Florida Statutes, has established certain regulations applicable to the Grantor, requiring that a mitigation bank permittee shall provide assurance that funds will be available when needed for corrective action if Grantor fails to perpetually manage that mitigation bank pursuant to the requirements of the mitigation bank permit,

WHEREAS, the Grantor has elected to establish \_\_\_\_\_  
[insert either a "surety bond" or "letter or credit"]  
to provide the perpetual management financial assurance for the \_\_\_\_\_ Mitigation Bank identified herein and is required to establish a standby trust fund able to accept payments from that instrument,

WHEREAS, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

NOW, THEREFORE, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means \_\_\_\_\_ the who enters into this Agreement and  
[insert mitigation banker's name]  
any successors or assigns of the Grantor.

(b) The term "Trustee" means \_\_\_\_\_ the Trustee who enters into this Agreement  
[insert trustee's name]  
and any successor Trustee.

(c) The term "Department " means the Florida Department of Environmental Protection a public entity in the State of Florida or any successor thereof.

(d) The term "investment obligations" means:

(i) United States of America Treasury and Federal agency securities or other obligations issued or unconditionally guaranteed as to principal and interest by the United States of America, in each case with maturities of not more than one year from the date acquired;

(ii) Demand deposits, certificates of deposit, bankers acceptance and time deposits of any bank organized or licensed to conduct a banking business under the laws of the United States of America or any state thereof having capital, surplus and undivided profits of not less than \$100,000,000, and whose deposits are insured by the Federal Deposit Insurance Corporation or any successor thereof;

(iii) Securities of entities incorporated under the laws of the United States of America or any State thereof commonly known as “commercial paper” that at the time of purchase have been rated and the ratings for which are not less than “P1” if rated by Moody’s Investors Service, Inc., and not less than “A1” if rated by Standard and Poor’s Corporation, in each case with maturities of not more than one year from the date acquired;

(iv) State or local government securities, which debt obligations at the time of purchase are rated investment grade by one or more nationally recognized rating agencies, in each case with maturities of not more than one year from the date acquired;

(v) Repurchase obligation with any banking or financial institution described in clause (ii) above which are fully collateralized at all times by any of the foregoing obligations;

(vi) Corporate fixed income securities whose ratings at the time of purchase are rated not less than “A-” if rated by Standard and Poor’s Corporation and “A3” if rated by Moody’s Investors Service, Inc. in each case with maturities of not more than one year from the date acquired; and (vii) Investments in any one or more professionally managed money market funds generally regarded as investment grade with a portfolio size of not less than \$100,000,000.

Section 2. Identification of Cost Estimates. This Agreement pertains to the cost estimate for perpetual management of the \_\_\_\_\_ Mitigation Bank identified in Attachment A hereto.

Section 3. Standby Trust. This trust shall remain dormant until funded with the proceeds from the financial mechanism listed on Attachment “A”. The Trustee shall have no duties or responsibilities beyond safekeeping this document. Upon funding this trust shall become active and be administered pursuant to the terms of this instrument.

Section 4. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund (the Fund), for the benefit of the Department (hereafter sometimes referred to as the “Beneficiary”) The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as a standby to receive payments and shall not consist of any property. Payments made by the Grantor pursuant to the Department’s instructions are transferred to the Trustee and referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, for the benefit of the Department as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the Department .

Section 5. Initial Payments Comprising the Fund. Initial payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee and shall consist solely of proceeds from the \_\_\_\_\_ identified in

[ Insert "Letter of Credit" or "Surety Bond" ]

Attachment A hereto.

Section 6. Additional Payments Into the Fund. After the initial deposit of principal into the Fund, the Grantor shall increase the principal if so required by the Department pursuant to its administrative regulations and the requirements of the mitigation bank permit. Such deposit may be in cash or Securities acceptable under Section 1(d) hereof.

Section 7. Payment for Undertaking Perpetual Management Activities. The Trustee shall make payments from the Fund as the Secretary of the Department or the Secretary’s designee shall direct in writing, to provide for the payment of the costs of undertaking activities to provide for the perpetual management of the mitigation bank covered by this Agreement pursuant to the requirements of the mitigation bank permit. The Trustee shall reimburse persons specified by the Department from the Fund for perpetual management expenditures in such amounts as the Department shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the

Department specifies in writing as unnecessary or excessive corpus for purposes of the trust. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

The Fund may not be drawn upon to cover any of the following:

- (a) Any obligation of Grantor under a workers' compensation, disability benefits, or unemployment compensation law or other similar law:
- (b) Bodily injury to an employee of Grantor arising from, and in the course of employment by Grantor.
- (c) Bodily injury or non-realty property damage arising from the ownership, maintenance, use, or entrustment to others by Grantor of any aircraft, motor vehicle, or watercraft:
- (d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by Grantor that is not the direct result of the construction and implementation of the mitigation bank;
- (e) Bodily injury or property damage for which Grantor is obligated to pay damages by reason of the assumption of liability in a contract or agreement.

Section 8. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund in one or more investments and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge its duties with respect to the trust fund solely in the interest of the Department and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

- (a) Securities or other obligations of the Grantor, or any other owner or operator of the mitigation bank, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a state government;
- (b) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or a state government; and
- (c) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 9. Commingling and Investment. The Trustee is expressly authorized in its discretion:

- (a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and
- (b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 10. Express Power of Trustee. Without in any way limiting the powers and discretion conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

- (a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

- (b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;
- (c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;
- (d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or a State government; and
- (e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 11. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 12. Annual Valuation. The Trust shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the Department a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the fund. The failure of the Grantor or the Department to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the Department shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 13. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 14. Trustee Compensation. Grantor shall pay the Trustee any necessary fees for services rendered. Where the Grantor is no longer in existence, the Trustee is authorized to charge against the Trust its published Trust fee schedule in effect at the time services are rendered. However, all Trustee compensation charged against the Trust shall be paid from trust income unless the Department authorizes payment from the trust principal in writing.

Section 15. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor Trustee, the successor is approved by the Department, and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Department may nominate a successor. If the Department does not act, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Department, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 12.

Section 16. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by \_\_\_\_\_ or such other designees as the Grantor may designate by amendment

to this agreement. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Department to the Trustee shall be in writing, signed by the Department's Secretary, or the Secretary's designee, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Department hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Department, except as provided for herein.

Section 17 Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Department, or by the Trustee and the Department if the Grantor dies, is legally incapacitated, is administratively or judicially dissolved or otherwise ceases to exist.

Section 18. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 15, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Department, or by the Trustee and the Department, if the Grantor dies, is legally incapacitated, is administratively or judicially dissolved or otherwise ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered pursuant to the written agreement terminating the trust or, where Grantor has ceased to exist, then to the Department.

Section 19. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Department issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 20. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Florida.

Section 21. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

IN WITNESS WHEREOF the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written.

_____ Signature of Grantor	_____ Signature of Trustee
_____ Title	_____ Title
Attest:	Attest:
_____ Title	_____ Title
Seal	Seal

STATE OF FLORIDA  
COUNTY OF \_\_\_\_\_



The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 199\_, by \_\_\_\_\_, the \_\_\_\_\_ of \_\_\_\_\_, a Florida corporation, on behalf of the corporation. Such person did not take an oath and:

\_\_\_\_\_ is/are personally known to me  
\_\_\_\_\_ produced a current Florida driver's license as identification  
\_\_\_\_\_ produced \_\_\_\_\_ as identification

\_\_\_\_\_  
Signature of Notary

(Notary Seal)

\_\_\_\_\_  
Name of Notary (typed, printed or stamped)  
Commission number (if not legible on seal) \_\_\_\_\_  
My commission expires: (if not legible on seal) \_\_\_\_\_

STATE OF FLORIDA  
COUNTY OF \_\_\_\_\_

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 199\_, by \_\_\_\_\_, the \_\_\_\_\_ of \_\_\_\_\_ Bank, on behalf of the corporation. Such person did not take an oath and :

\_\_\_\_\_ is/are personally known to me  
\_\_\_\_\_ produced a current Florida driver's license as identification  
\_\_\_\_\_ produced \_\_\_\_\_ as identification

\_\_\_\_\_  
Signature of Notary

(Notary Seal)

\_\_\_\_\_  
Name of Notary (typed, printed or stamped)  
Commission number (if not legible on seal) \_\_\_\_\_  
My commission expires: (if not legible on seal) \_\_\_\_\_

## ATTACHMENT A-13 – HUNTING LEASE CONDITIONS

- 1) Hunting leases will be reviewed every two years to assure that activities are not contrary to the overall mitigation bank goals. Hunting is being allowed because of the stewardship history and security benefits exhibited by the hunt Clubs. These conditions are tied into the Mitigation Bank Security Plan. It is expected that hunt club members shall function as the primary security apparatus in place for this area. Conditions are subject to modification pending evaluation of bi-annual reviews.
- 2) Hunting leases authorize access for hunt club members and their supervised guests for hunting, fishing and security checks only. Hunting pressure is limited to one hunter per 150 acres. Low intensity and low frequency visitation by individuals not associated with the hunt lease that would not negatively affect the integrity of the mitigation bank project may occur.
- 3) All club members and their guest must abide by all State and Federal laws and regulations regarding the taking of fish and wildlife. Additional restrictions on the taking and reporting of game species are specified below:
  - a) Hunting is restricted to the following species:
    1. White-tailed deer
    2. Feral hog
    3. Wild turkey
    4. Gray squirrel
    5. Mourning and white-winged dove
    6. Coyote

Only these species may be hunted. No other game or non-game species may be hunted, taken, harassed or otherwise disturbed. This applies to all other species including reptiles and amphibians.
  - b) All leases are required to participate in a Quality Deer Management program that protects young bucks. Harvest regulations require bucks to have at least one branched antler to be legal to take.
  - c) Leases must participate in the FWC antlerless deer program.
  - d) The use of dogs to hunt deer and hogs is authorized during day light hours only. All dogs are required to be caught and removed from the area by the end of each day.
  - e) Only adult male turkeys are legal to take.
  - f) There is no size restriction, bag limit or season on the taking of feral hogs.
  - g) An annual harvest report must be submitted to St. Joe Timberland Company no later than June 1 of each year.. Additional harvest restrictions may be established depending on harvest reports.
- 4) No unauthorized modification or disturbance of habitats is allowed.
- 5) Off-road use of 4X4 or ATV vehicles is prohibited. Vehicles use is restricted to named/numbered roads. The only allowable uses for vehicles are hunting, fishing and security checks.

- 6) St. Joe Timberland Company shall convene an annual meeting with all hunt clubs leasing property within the area to educate club members on the goals of the mitigation bank, area regulations and review compliance with these conditions.
- 7) No hunting is allowed within 750 feet of any bald eagle nest. "No trespassing" signs will be posted along the perimeter of these zones.

## **ATTACHMENT B-14 – IMPLEMENTATION COST ESTIMATE**



## **ATTACHMENT B-15 – PERPETUAL MANAGEMENT COST ESTIMATES**

# Section 9 - Ongoing Tasks and Cost, Perpetual Management

Property Title: Devils Swamp

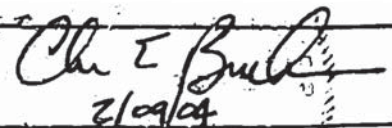
Dataset: FL001

PAR ID: 0410801

02/10/2004

Budget: PAR

Task list	Specificaton	Unit	Number of Units	Cost / Unit	Annual Cost	Divide Years	Total Cost
<b>HABITAT MAINTENANCE</b>							
Exotic Plant Control	Herbicide 41% con.	Gal.	10.00	108.60	1,086.00	1	1,086.00
Exotic Plant Control	Herbicide	Gal.	10.00	17.50	175.00	1	175.00
Exotic Plant Control	Backpack Spray	L. Hours	32.00	15.00	480.00	1	480.00
Controlled Burning	Helitorch, average ac. burned	Acre	422.00	27.50	11,605.00	1	11,605.00
Fire Breaks	Maintenance	L. Hours	8.00	15.00	120.00	1	120.00
Sub-Total							13,466.00
<b>WATER MANAGEMENT</b>							
Water Control	Weir Maintenance	L. Hours	60.00	15.00	900.00	1	900.00
Water Control	Weir	Item	5.00	15,000.00	75,000.00	35	2,142.86
Sub-Total							3,042.86
<b>PUBLIC SERVICES</b>							
Other	Fences/gates	Item	1.00	1,000.00	1,000.00	1	1,000.00
Sub-Total							1,000.00
<b>REPORTING</b>							
Photodocumentation	Field Survey	L. Hours	16.00	45.00	720.00	1	720.00
Aerial Photo, 2 sets color	Infrared 9"x 9"	Flight	1.00	899.00	899.00	6	179.80
Monitoring Reports	Monitoring Documentation	L. Hours	96.00	45.00	4,320.00	1	4,320.00
Sub-Total							5,219.80
<b>OFFICE MAINTENANCE</b>							
Taxes and Fees	Property or District	Year	1.00	7,409.00	7,409.00	1	7,409.00
Sub-Total							7,409.00
<b>CONTINGENCY &amp; ADMINISTRATION</b>							
Contingency							3,013.77
Administration							3,315.14
Sub-Total							6,328.91
<b>Total</b>							<b>36,466.57</b>

  
 2/09/04  
 CHRIS E. BROCKMEIER, P.E.  
 FLORIDA REGISTERED ENGINEER # 58859  
 WILSONMILLER, INC. FL. LICENSE # LC-C000170  
 WILSONMILLER, INC. CERTIFICATE # LB043

Section 10 - Financial Summary

Property Title: Devils Swamp

Dataset: FL001

PAR ID: 0410801

02/10/2004

PAR(3049 ac.)

	Rate %	Total \$
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INITIAL FINANCIAL REQUIREMENTS

Initial costs are attached.

ANNUAL ONGOING FINANCIAL REQUIREMENTS (BASED ON 99 YEARS OF MANAGEMENT)

Ongoing Costs		30,137
Ongoing Contingency Expense	10.00	3,014
Total Ongoing Management Costs		33,152
Ongoing Administrative Costs of Total Ongoing Management costs	10.00	3,315
Total Ongoing Costs		36,467

ENDOWMENT REQUIREMENTS FOR ONGOING STEWARDSHIP

Endowment to Provide Income of \$ 36,467		607,783
Endowment per Acre is \$ 199.		
Ongoing Management Costs Based on 6.00% of Endowment per Year.		
Ongoing Management Funding is \$ 36,467 per Year Resulting in \$12 per Acre per Year.		

TOTAL CONTRIBUTION		607,783
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*Chris E. Brockmeier*  
2/10/04

CHRIS E. BROCKMEIER, P.E. FLORIDA REGISTERED ENGINEER # 56859 WILSONMILLER, INC. FL. LICENSE #LC-C000170 WILSONMILLER, INC. CERTIFICATE # LB043
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## **ATTACHMENT B-16 – PRINCIPLES OF FOREST AND WILDLIFE MANAGEMENT**

*Principles for Forest and Wildlife Management of  
Conservation Units within the Regional General Permit Area  
and Ecosystem Management Area*



Prepared by:  
Kevin Smith, Steve Shea and Jim Moyers  
St. Joe Timberland Company



## Purpose

To provide an outline for forest and wildlife management within the Breakfast Point and Devil's Swamp Mitigation Banks (BPMB and DSMB) and Conservation Units (CUs) included in the West Bay to East Walton Regional General Permit and Ecosystem Management Agreement (RGP/EMA) areas. This document provides a general framework that will guide the development of future land management plans for the banks and CUs.

## Methodology

Using the Revised Land and Resource Management Plan for National Forests in Florida and the Cecil Field Timber Management Plan as a framework, the guidelines will prescribe forest and wildlife management strategies that enhance conservation, habitat restoration, and ecological functions within the banks and CUs.

## History

The primary land management goal for most of the RGP/EMA area historically has been the production of forest products. Intensive silvicultural management of slash pine (*Pinus elliottii*) and sand pine (*P. clausa*) plantations has occurred on the CUs for the past 30 to 40 years. Silvicultural practices implemented on the area include clear-cutting, roller chopping, site-preparation burning, bedding, planting, and fertilization. Most stands within the RGP/EMA area have been through one or more rotations of planted pine. While forest management practices have degraded the natural habitats of many uplands and wetlands, some wetlands within the CUs have experienced little or no silvicultural impacts.

## Prescribed Management

The primary forest management objective for this area is to prescribe management activities that will restore and enhance the vegetative communities and function of historic ecosystems. Restoration forestry practices will replace historical intensive silvicultural practices within the banks and CUs. Harvest operations, controlled burning and other restoration prescriptions will be used to convert the existing even-aged pine monoculture to an uneven-aged management regime. Proposed objectives, suggested management prescriptions and benefits are summarized below. Management prescriptions support the long term vision of ecological restoration, management and vitality of native Coastal Plain Ecosystem habitats.

### I. Forest Management

1. **Objective**-To implement harvest, planting, and management operations that restore and maintain the vegetative species composition, stem density, basal area, understory, hydrology, wildlife species diversity and ecological functions of historically naturally occurring ecosystems.
2. **Prescription**
  - All forest management operations will adhere to the *Silviculture Best Management Practices* (BMPs) outlined by the Florida Division of Forestry.
  - In CUs, slash pine plantations will be thinned to 28-112 trees per acre with an overall goal of 30-60 BA. Replanting of longleaf will be limited to no more than 400 trees per acre. Some small patch clear-cuts will be established in areas where longleaf pine (*P. palustris*) establishment is prescribed.
  - In the BPMB or DSMB, tree harvesting will be according to Attachment A-1 or B-1, respectively.
  - Clear-cut size will be limited to 50 acres. However, series of clear-cuts may be connected by narrow skid-row corridors. Clear-cuts may

exceed 50 acres in areas where tree mortality (i.e., wind, fire, insect damage) necessitate larger reforestation patches. Clear-cut size limitations do not apply to the Cypress and Wet Pine Flats CU, where a larger timber harvest may be required to facilitate County water treatment objectives.

- In the CUs, thinning operations are not economically feasible until stands reach merchantable age. Therefore, harvest prescriptions will not be implemented until stands attain minimum volume specifications.
- Harvest activities in all wet pine flatwoods and other jurisdictional wetlands will adhere to Wetland BMPs.
- Silvicultural activities deemed detrimental to ecosystem functioning (herbicide application, fertilization, bedding, roller-chopping, row planting) will be excluded except where appropriate to meet restoration objectives.
- Patch clear-cutting combined with longleaf reestablishment will be used to convert some even-aged slash and sand pine stands to uneven-aged longleaf stands over time.
- Longleaf pine reestablishment sites will be selected by evaluating the vegetative communities, soils and hydrology of prospective restoration areas.
- Uneven-aged management of naturally regenerated slash pine stands can be difficult due to high mortality rates of young pines when regularly burned. Therefore, the establishment of a diverse juxtaposition of small even-aged stands will be used to create the same effect as uneven-aged management.
- Limited use of herbicides also may be used to complement burning to create uneven-aged slash pine stands.

### 3. **Benefits**

- Reduction in stand density will promote the restoration and establishment of a naturally occurring understory vegetative community and restoration of natural hydrology.
- Harvest, planting and burning operations will promote and maintain longleaf pine restoration within the banks and CUs.
- Thinning will reduce tree density and promote canopy development, restoration and establishment of a naturally occurring under-story vegetative community and increase the aesthetics and natural beauty of the banks and CUs.
- Thinning operations also will reduce mid-story fuel levels and improve conditions for the use of prescribed fire.

## II. **Prescribed Fire**

1. **Objective**-To establish a prescribed fire regime that restores and maintains the ecological functions of naturally occurring upland and wetland communities in the banks and CUs.

2. **Prescription**

- Remove existing fire-lines around wetlands to enhance hydrologic function and ensure inclusion of fire into formerly fire-suppressed areas.
- After burning, reclaim and disk all new fire lines to minimize impacts to hydrology.
- Implement dormant-season fire in all fire-dependent upland and wetland ecosystems to reduce fuel loads. In the CUs, dormant-season fire will be implemented on a 2-5-year rotation for two rotations.
- In the CUs, implement growing-season fire on a 2- to 3-year rotation after fuel reduction is accomplished.

- Fire prescriptions for each bank are detailed in Attachments A-1 and B-1.
- Use site-preparation fire before reestablishing longleaf pine.

**3. Benefits**

- Fire inclusion in wetlands will reduce woody vegetation and restore and maintain the natural under-story and ground cover plant communities.
- Dormant-season fire will reduce fuel loads, the risk of catastrophic fire and prepare sites for implementation of growing-season fire.
- Growing-season prescriptions will mimic natural fire regimes which will enhance and maintain fire-dependent ecosystems, understory, and ground cover.
- Growing-season fire will improve habitat for many species of wildlife and rare plants.
- Prescribed fire will promote successful natural regeneration of longleaf pine, prepare sites for restoration planting and control noxious vegetation.
- Prescribed fire will promote and enhance the aesthetic value and outdoor recreational opportunities in CUs.

**III. Wildlife Management**

**1. Objective-**To prescribe and implement wildlife habitat and population management strategies that enhance species diversity and population levels.

**2. Prescription**

- Determine the presence, location, and population status of threatened, endangered and other protected species.
- Monitor and evaluate responses of protected species to habitat management activities.
- Identify and implement habitat and population management measures that improve the recovery and status of protected species.
- Promote and develop inter-agency partnerships that will enhance the management of protected species in the banks and CUs.
- Identify, promote and establish protocol for public recreational consumptive and non-consumptive uses of wildlife species in the CUs.
- Promote and establish educational and public outreach opportunities related to wildlife species in the CUs.

**3. Benefits**

- Species monitoring will help ensure permit compliance, increase public outreach opportunities and assist in evaluating management efforts.
- Species-specific management prescriptions and development of partnerships will promote population growth and recovery of protected species and improve communication and relationships with regulators.
- Promotion of recreational opportunities in the CUs will encourage public participation and improve attitudes about and acceptance of land management objectives.
- Restoration efforts will create and maintain diverse and healthy biotic communities that will serve as keystone ecosystems for evaluating future management decisions.

**IV. Exotic Vegetation**

**1. Objective-**To identify, control and eradicate exotic and nuisance plant and animal species.

**2. Prescription**

- Conduct vegetation and wildlife surveys in the CUs to identify the occurrence, location and severity of exotic plant and animal infestations.

- For the CUs, develop and implement an exotic plant control and eradication plan. Exotic and nuisance plant control plans for the banks are described in Attachments A-1 and B-1.
- Implement herbicide, fire, and other management prescriptions to meet eradication objectives.
- Implement lethal and non-lethal measures to control exotic animals. In the banks, see Attachments A-13 and B-13.
- Monitor infestation sites (none in the banks) and evaluate the success of control measures to determine ecological lift.

**3. Benefits**

- Control of exotic plants will improve habitat quality and reduce competition with native species.
- Control of exotic wildlife species will reduce habitat degradation and competition with native wildlife species.
- competition with native wildlife species.