

**THE RESERVE AT SWEETWATER ESTUARY**  
**SALTMARSH MITIGATION PLAN**

## SALTMARSH MITIGATION PLAN

This Saltmarsh Mitigation Plan describes proposed mitigation to off-set saltmarsh impacts associated with a proposed development, golf course and passive recreational amenities for *The Reserve at Sweetwater Estuary* project located near Dekle Beach Road and CR 361 in Taylor County, FL (Figure 7.2-1 Project Location Map). The plan includes a description of site conditions and identification of mitigation types and locations. Avoidance measures have been taken to reduce proposed impacts to wetlands on-site. Minimization efforts were incorporated into the project location and design including but not limited to site selection, wetland quality assessment, utilization of uplands, and downsizing the project footprint within the wetlands. With the removal of the marina, approximately 36.5 acres of saltmarsh impacts have been eliminated from the proposed project design. The 0.49 acres of unavoidable impacts to saltmarshes relating to the conceptual golf course and passive recreational trails have been reduced to the greatest extent possible.

The saltmarsh impact assessment and on-site mitigation evaluation was conducted by Birkitt Environmental Services, Inc. (BES) scientists. The nature and functions provided by the existing on-site saltmarsh and the amount that those functions would be reduced by the proposed activity and the functions provided by the proposed mitigation were evaluated. The Uniform Mitigation Assessment Method (UMAM), Chapter 62-345 Florida Administrative Code (F.A.C.) has been conducted to evaluate the loss of function and the off-set of that loss by the proposed mitigation.

Mitigation for the proposed saltmarsh impacts includes creation, restoration, and enhancement of saltmarsh habitat within the proposed project area.

### **Project Impacts and Mitigation Assessment**

The proposed project consists of a conceptual golf course and associated resort development with a Phase I construction component. Project impacts to the saltmarsh will occur by construction of the conceptual golf course and passive recreational amenities (Figure 7.2-2 Proposed Saltmarsh Impacts). Figure 7.2-3 Proposed Saltmarsh Impacts and Mitigation and Figure 6.4D Site Development Mitigation shows proposed saltmarsh mitigation sites.

Saltwater Marsh (642) areas within the project area predominantly consist of black needle rush (*Juncus roemerianus*), smooth cordgrass (*Spartina alterniflora*), saltmeadow cordgrass (*Spartina patens*), and saltgrass (*Distichlis spicata*) bordered by a sawgrass fringe (*Cladium jamaicense*).

Proposed mitigation includes the creation of saltmarsh from uplands near the golf course area, and restoration by the removal of an existing logging road on the western side of the property (Marsh Road). This road removal will also reconnect and enhance the saltmarsh system and restore the natural hydrologic flow to the marsh system north of the road. A raised boardwalk will be constructed on a portion of the removed road to provide recreational access to an island. Refer to Section 7.2.3 and 7.2.4 of this Saltmarsh Mitigation Plan for more details regarding proposed saltmarsh mitigation areas.

Assessments have been conducted in accordance with UMAM for the proposed impact and mitigation areas. The dredge and fill impacts and direct and secondary impacts were assessed

separately. See Tables 7.2-1 through 7.2-4 below for saltwater wetland impacts, for both Conceptual and Phase I Construction. Refer to Table 7.2-5 for Conceptual Mitigation Areas Assessment. The UMAM sheets for both the impact and mitigation sites have been provided at the end of Section 7.2

**TABLE 7.2-1  
CONCEPTUAL SITE PLAN INCLUDING PHASE I CONSTRUCTION  
SALTWATER WETLAND DIRECT IMPACT SUMMARY**

Location	FLUCCS/Habitat Type	Impact Type	Direct Impact (acres)	FL
Golf Course	E	Fill	0.49	0.44
<b>Total Direct Wetland Impacts</b>			<b>0.49</b>	<b>0.44</b>

**TABLE 7.2-2  
CONCEPTUAL SITE PLAN INCLUDING PHASE I CONSTRUCTION  
SALTWATER WETLAND SECONDARY IMPACT SUMMARY**

Location	FLUCCS/Habitat Type	Impact Type	Direct Impact (acres)	FL
<b>Total Secondary Wetland Impacts</b>				<b>0.00</b>

**TABLE 7.2-4  
PHASE I CONSTRUCTION SITE PLAN ONLY  
SALTWATER WETLAND SECONDARY IMPACT SUMMARY**

LOCATION	FLUCCS/Habitat Type	IMPACT TYPE	SECONDARY IMPACT (acres)	FL
<b>Total Secondary Wetland Impacts</b>				<b>0.00</b>

**TABLE 7.2-5  
CONCEPTUAL SALTWATER WETLAND MITIGATION  
UMAM CHAPTER 62-3245 F.A.C.**

Assessment Area	Location	Mitigation Area (acres)	FLUCCS/Habitat Type	RFG	FG
<b><i>Saltmarsh Creation Areas</i></b>					
SM 1-4 Creation	Western Edge of Golf Course	1.49	E	0.29	0.43
<b><i>Existing Fill Road Removal- Near Dekle Beach Road</i></b>					
SM 2a Restoration	Within footprint of marsh road and adjacent ditches -no boardwalk	0.67	E	0.43	0.29
SM 2b Restoration - with boardwalk	Within footprint of marsh with new boardwalk and adjacent ditches	0.39	E	0.43	0.17
SM 2c - Enhancement	Hydrologic enhancement area north of marsh road	20.41	E	0.08	1.63
<b>Total</b>		22.96			2.52

\*Note: Footprint of the boardwalk was not included in Saltmarsh Mitigation 2b acreage

\*RFG: Relative Functional Gain

\*FG: Functional Gain

The score for the functional loss (FL) of wetlands was calculated as 0.44 from fill impacts, respectively. The score for the relative functional gain (RFG) of wetlands was calculated as 0.29 for creation and 0.94 for restoration and enhancement. In order to determine the mitigation needed to off-set impacts, the functional gain (FG) was calculated for each mitigation type. The sum of FG, 2.52 was then compared against the FL, 0.44 according to the rule calculation (FL<FG). Therefore, the proposed mitigation for wetland impacts is more than sufficient.

### **Conceptual Saltmarsh Mitigation**

#### **Saltmarsh Creation**

The creation of additional saltmarsh adjacent to existing saltmarsh habitat will provide appropriate mitigation to fully offset the 0.49 acres of unavoidable impacts associated with the conceptual golf course.

### ***Proposed Creation Areas***

The proposed creation areas are currently upland areas located on the western portion of the project assessment area. They have been historically impacted by logging activities that removed much of the canopy, disturbed the mid and understory vegetation, and disturbed soil horizons. Refer to Figure 7.2-4 Proposed Creation Areas for locations of the proposed creation sites and Figure 7.2-5 Proposed Creation Areas - FLUCCS. The combination of historic impacts and immediate proximity to the existing saltmarsh make the creation sites an optimal location for saltmarsh creation. Approximately 1.49 acres of upland adjacent to the existing saltmarsh have been identified for wetland creation.

The upland areas selected for saltmarsh creation was historically dominated by tree species. The FLUCCS designation for the four areas is Hardwood Conifer Mixed (FLUCCS 434). Most of the pine canopy has been removed by harvesting, and the areas are between 70 percent and 90 percent open (Photograph A). Based on a reconnaissance survey, sub-mature slash pine (*Pinus elliotii*), red cedar (*Juniperus virginiana*), and cabbage palm (*Sabal palmetto*) form the sparse canopy and midstory that does remain. Other vegetation currently occupying the salt marsh creation sites in the mid and understory include slender goldenrod (*Euthamia minor*), sea myrtle (*Baccharis halimifolia*), sand live oak (*Quercus virginiana*), yaupon holly (*Ilex vomitoria*), saw greenbrier (*Smilax bona-nox*), wax myrtle (*Myrica cerifera*), broomsedge (*Andropogon* spp.), and lovegrasses (*Eragrostis* spp.).



Photograph A. - View of one upland habitat selected for a saltmarsh creation area.

The surficial soils and subsoils in this area have been subject to horizon inversions that have turned and mixed the natural layering of the substrates due to decades of silvicultural activities.

The soil type in the uplands proposed for saltmarsh creation is Leon Fine Sand. Leon Fine Sand, rarely flooded, is usually found on the lower Coastal Plain in flatwood areas (Figure 7.2-6 Proposed Creation Areas - Soils). This soil type is predominantly associated with timber production and wildlife habitats. (Watts et al, 2000). Leon soils can be defined as having a very dark gray fine sand surface layer with a grayish brown and light gray fine sand subsurface layer (Photograph B). This soil type is poorly drained and the depth to the Seasonal High Water Table is 6 to 18 inches. Slopes for Leon soils are 0 to 2 percent (Watts et al., 2000).



Photograph B. - Picture of the Leon soils at one of the upland habitats selected for a saltmarsh creation areas.

The sites are not currently utilized by protected species based on the Florida Natural Areas Inventory report dated November 3, 2005 and site inspections.

### **Creation Methods**

The uplands will be cleared and graded to the appropriate elevation that is consistent with the adjacent saltmarsh and provides adequate hydrology for planted vegetation to create areas of contiguous saltmarsh. Survey elevations will be taken to relate elevation limits of the existing marsh to creation sites. Creation sites will have slopes of 1 to 3 percent to ensure adequate surface runoff at low tide (Broone, 1990). The mitigation sites lie adjacent to existing saltmarsh. Therefore, the appropriate tidal flushing and hydrologic conditions will exist for the created salt marsh.

The creation sites are located above Mean High Water (MHW) and will therefore be classified as a high marsh system. Two (2) zones will be created to mimic the system that occurs on site and includes: 1) The habitat between MHW and Mean Higher High Water (MHHW) and 2) a five

(5) feet wide habitat above MHHW herein referred to as the “transition zone”. See Figure C-2.1 Proposed Creation Areas – Plan View showing creation locations and planting areas.

**Planting Plan**

High marsh habitats are generally found above MHW. The area above MHHW found on site is quite small and is therefore referred to as the “transition zone”. Planted species in both the transition zone and below the MHHW line will be similar to those of the adjacent saltmarsh. The species selected to be planted in the transition zone include saltmeadow cordgrass (*Spartina patens*), sea ox-eye (*Borrchia arborescens*), black needlerush (*Juncus roemerianus*) and saltgrass (*Distichlis spicata*). Most of these high saltmarsh species are succulents that are adapted to soils of high salinity (Myers and Ewel, 1991). Black needlerush dominates the high saltmarsh habitat on site and generally grows in large monotypic stands along the Gulf Coast of Florida (Kurz and Wagner, 1957). Therefore, blackneedle rush (*Juncus roemerianus*) will be the only species planted in the mitigation habitats below the MHHW line. Natural recruitment from adjacent areas is also expected over time. Please refer to Table 7.2-6 below for the number and species of plants proposed for planting in the saltmarsh creation area.

Bare root to four (4) inch liner sized saltmarsh species will be transplanted during the establishment period at a maximum of 60 centimeters or approximate two (2) foot centers. The preferred planting range for the selected species falls between +0.3 meters to 0.6 meters (NGVD) and will be planted accordingly (Lewis, 1990).

Other suitable species may be substituted or included in the planting plan depending on availability and cost. Please see Figure C-2.1 Proposed Creation Areas-Plan View and Figure C-2.3 Proposed Creation Areas – Planting Cross Section and Table 7.2-6 for the saltmarsh creation planting plan.

**TABLE 7.2-6.  
SALTWATER WETLAND CREATION PLANTING PLAN**

Common Name	Scientific Name	DEP Status	Zone	Spacing	Total # of Plants
Black needle rush	<i>Juncus roemerianus</i>	OBL	High Marsh below MHHW and in the Transition Zone	2 foot centers	15,050
Saltmeadow cordgrass	<i>Spartina patens</i>	FACW	High Marsh Transition Zone	2 foot centers	2,352
Salt grass	<i>Distichlis spicata</i>	OBL	High Marsh Transition Zone	2 foot centers	2,352
Sea ox-eye	<i>Borrchia frutescens</i>	OBL	High Marsh Transition Zone	2 foot centers	2,352

OBL – Obligate, FACW – Facultative Wet

### ***Construction Schedule and Methods***

Construction of the proposed saltmarsh creation areas will occur concurrent with future phase development construction. Final grades achieved will mimic the natural elevation and contours of the adjacent wetland and provide appropriate elevations for saltmarsh species. Detailed construction plans will be provided with the final construction plans for the golf course, and other conceptual phases of development to be submitted for future phase construction permit applications. Plans will include design drawings, cross sections, construction methods, and construction schedules.

### ***Monitoring, Maintenance, and Management of Saltmarsh Creation Areas***

Monitoring, maintenance, and management plans for the proposed saltmarsh creation acres are provided below.

#### Proposed Success Criteria – Saltmarsh Creation

1. Success of saltmarsh creation is proposed as the establishment and survival of 80 percent planted vegetation as documented through monitoring events.
2. Exotic or Invasive species shall not exceed 5 percent.
3. 80 percent coverage by salt marsh species

The monitoring schedule and maintenance activities for the proposed creation sites are described below.

#### Monitoring Plan

All creation areas will be monitored by a qualified environmental scientist according to the following conditions:

1. A saltmarsh creation completion report will be prepared and submitted to regulatory agencies following completion of construction and planting for the creation areas.
2. The monitoring program shall be initiated upon agency inspection and approval of the area(s) upon construction completion. The monitoring schedule includes semi-annual monitoring conducted for three (3) years; or until all applicable agencies have determined that the success criteria have been met. A monitoring report will be submitted following each monitoring event.
3. The report shall provide documentation of maintenance inspections activities. Maintenance inspections will be conducted annually or as determined from monitoring efforts. The performance of maintenance inspections and/or maintenance activities may occur more frequently than the monitoring events if applicable.
4. The monitoring report will include the following:
  - a) Date of planting and number of plants installed;
  - b) Date and time of monitoring
  - c) Percent of desirable species coverage for all planted and naturally recruited species;
  - d) Number of plants replanted by species, if necessary, to meet 85 percent desirable species coverage and date planted;
  - e) Wildlife observed;

- f) Photographic documentation;
- g) Problems encountered and corrective actions recommended

5. Nuisance species cover must not exceed 5 percent.

The source of the plant materials shall be from a Florida certified nursery or other approved source.

Maintenance Plan and Schedule

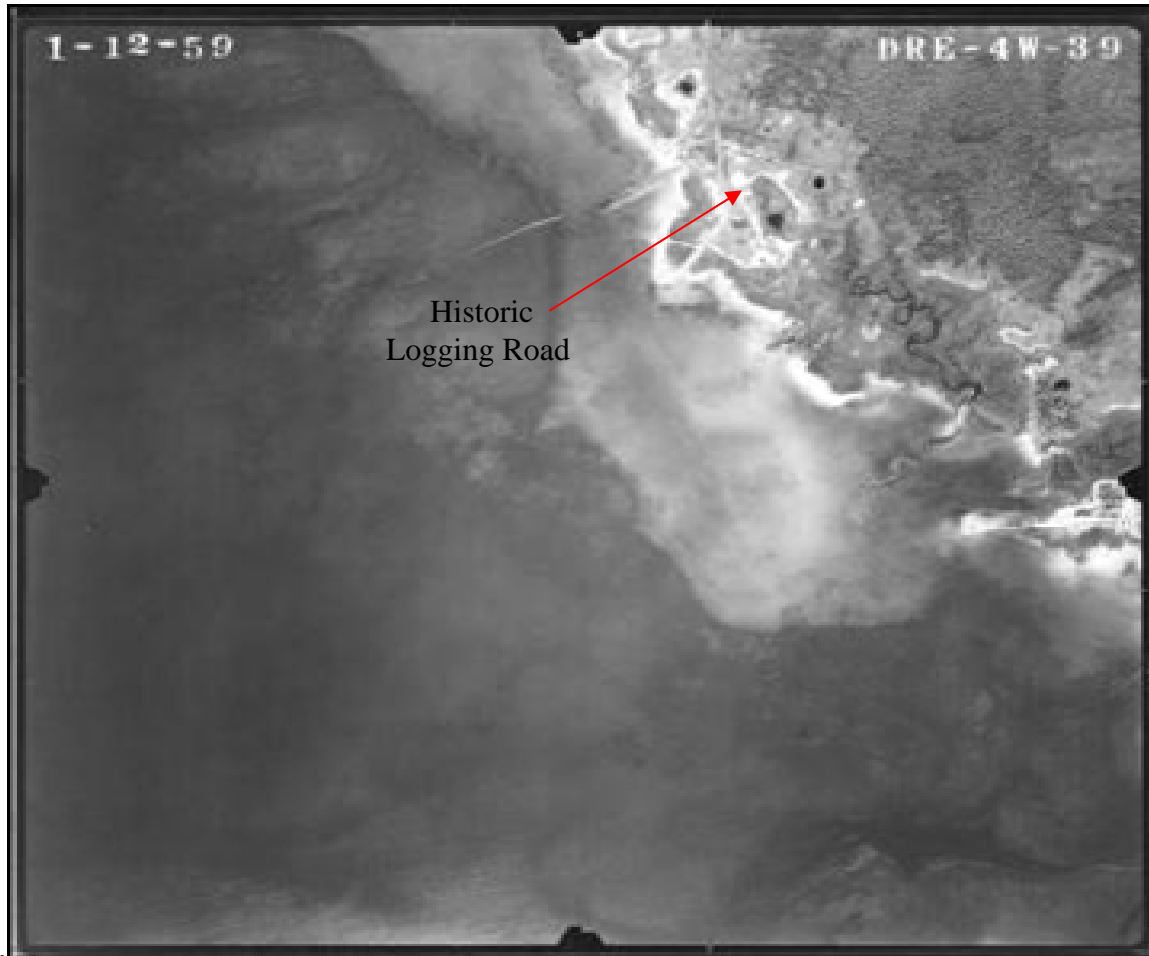
Nuisance exotic species should be of little concern post construction because of the lack of nuisance species seed source in the surrounding environment. However, implementation of a maintenance plan will include the removal of nuisance or exotic species, should they occur, to avoid potential colonization.

The creation areas will be subject to the following maintenance regimen:

1. Nuisance and exotic species are defined as those listed on the Florida Exotic Pest Plant Council (FLEPPC) Category I and II nuisance and exotic species list and will be maintained to less than 5 percent coverage in perpetuity.
2. Maintenance will be performed annually or as determined from monitoring efforts in order to ensure the continued success of the creation areas.
3. Maintenance will be performed by a qualified local contractor versed in agency requirements.
4. Exotic and nuisance vegetation will be controlled using both manual methods and approved herbicides, as necessary. Herbicides may be used to control nuisance and exotic species, as necessary. Acceptable methods of application include cutting and treating stumps, wicking, and hand held or backpack sprayer. All applications are to be in accordance with the product label and under appropriate weather conditions. A water soluble dye will be added to the herbicides to mark the areas of application.

**Saltmarsh Restoration and Enhancement**

A historic logging road currently bisects the saltmarsh system on the western side of the project boundary known as Marsh Road. Photodocumentation provided by the University of Florida shows the road had been constructed sometime prior to 1959 (Photograph C). Restoration and enhancement of saltmarsh is proposed by removal of Marsh Road.



Photograph C. - Historic logging road constructed prior to silviculture exemption regulations.

### **Proposed Restoration Area**

Please see Figure 7.2-7 for the Proposed Restoration and Enhancement Areas. An 1158 foot logging road (Marsh Road) currently bisects the system from east to west. Planting of the area in the footprint of the removed road is proposed to restore natural vegetation and is described below (Figure C-2.4 Proposed Restoration Plan View).

An approximately 530 foot long six foot high boardwalk will be constructed on a portion of the restoration area road to provide access to an island feature located in the middle of the system. Planting will also occur under and around the boardwalk area since the growth of planted vegetation will have adequate light (Figure C-2.4 Proposed Restoration Plan View).

The removal of the existing logging road will restore 1.06 acres of saltmarsh habitat in the footprint of the road and adjacent ditches. It is expected that enhancement of the northern portion of the saltmarsh will occur with the reconnection of hydrologic flow between the divided saltmarsh system. Approximately 20 acres of saltmarsh north of the road will be enhanced by reconnecting to the southern system and will regain its historic tidal influence.

### **Construction Schedule and Plans**

Construction of the proposed saltmarsh restoration areas will occur concurrent with future phase development construction. Detailed construction plans will be submitted with future phase construction permit applications. See Figure C-2.4 Proposed Restoration Plan View. An approximately 530 foot boardwalk, six (6) feet in width with eight (8) inch pilings, will be constructed six feet above ground to ensure adequate light to planted saltmarsh.

### **Planting Plan**

The Marsh Road bisects a saltmarsh system that is dominated primarily by black needle rush (*Juncus roemerianus*) with saltmeadow cordgrass (*Spartina patens*) present. In order to re-establish a natural wetland system, a planting plan will be implemented after the restoration of the logging road. The proposed planting site will be located within the former logging road and adjacent ditch footprint which will be restored to wetland elevation and grade. Planting will occur in two (2) sections along the restored road. The first section (Section 1 – Saltmarsh Restoration Area with Boardwalk) will consist of the former logging road footprint with planting occurring in the area outside the proposed boardwalk. The second planting site (Section 2 – Saltmarsh Restoration area without Boardwalk) will be adjacent to section one and consist of the remaining area of the restored logging road footprint (Figure 7.2-7 Proposed Restoration and Enhancement Areas). This section will not contain a boardwalk.

The selection of specific species to be planted is based on the type of wetlands found in the surrounding area, the biogeographic (Taylor County) distribution of species, climate, and desired wildlife habitat or ecological system. The species selected for planting are present on site and listed for occurrence within Taylor County by the Atlas of Florida Vascular Plants. Tables 7.2-6 and Table 7.2-7 illustrates the planted species, plant spacing, and number of plants to be installed.

All herbaceous and grass species will be planted on two (2) foot centers and vary in size from bare root to contained in a four (4) inch liner. The initial planting of herbaceous/grass species will provide stabilization within the recently restored site (Lewis, 1990). Grids will be used as the

primary planting arrangements with individual species offset at a starting point to create a random distribution of species throughout the planting site. This distribution will create a natural effect and help in the maturation of the site. The size selection and planting arrangement will also allow for natural selection and recruitment to occur on site.

Nursery raised plants of the recommended size and height will be utilized. All plants will be delivered and staged on site prior to planting. Upon delivery, plants will be inspected to ensure that they are in good health, are not potbound, and are the correct species. The holes dug for potted species should be sufficiently larger in circumference than the pot so that loose soil can be filled in around the plant. For most species, the depth of the hole should equal the depth of the plant container.

Planting will also occur under and around the proposed six (6) foot high boardwalk as shading would not inhibit the planted vegetation from establishment (Figure C-2.4 Proposed Restoration Plan View). The planting plan will include these species with spacing at 2 foot centers as indicated in Tables 7.2-7 and 7.2-8. The preferred planting range for species listed falls between +0.3 meters to 0.6 meters NGVD and will be planted accordingly. (Lewis, 1990)

Once planting has been completed, monitoring and maintenance will be initiated per the Monitoring Plan provided below.

**TABLE 7.2-7  
SALTMARSH RESTORATION W/ BOARDWALK PLANTING PLAN**

<b>Common Name</b>	<b>Scientific Name</b>	<b>DEP Status</b>	<b>Zone</b>	<b>Spacing</b>	<b>Total # of Plants</b>
Black needle rush	<i>Juncus roemerianus</i>	OBL	High Marsh below MHHW and in the Transition Zone	2 foot centers	5,655
Saltmeadow cordgrass	<i>Spartina patens</i>	FACW	High Marsh Transition Zone	2 foot centers	95
Salt grass	<i>Distichlis spicata</i>	OBL	High Marsh Transition Zone	2 foot centers	95
Sea ox-eye	<i>Borrchia frutescens</i>	OBL	High Marsh Transition Zone	2 foot centers	95

OBL – Obligate, FACW – Facultative Wet

**TABLE 7.2-8  
SALTMARSH RESTORATION PLANTING PLAN WITHOUT BOARDWALK**

Common Name	Scientific Name	DEP Status	Zone	Spacing	Total # of Plants
Black needle rush	<i>Juncus roemerianus</i>	OBL	High Marsh below MHHW and in the Transition Zone	2 foot centers	6,950
Saltmeadow cordgrass	<i>Spartina patens</i>	FACW	High Marsh Transition Zone	2 foot centers	240
Salt grass	<i>Distichlis spicata</i>	OBL	High Marsh Transition Zone	2 foot centers	240
Sea ox-eye	<i>Borrchia frutescens</i>	OBL	High Marsh Transition Zone	2 foot centers	240

OBL – Obligate, FACW – Facultative Wet

***Monitoring, Maintenance, and Management of the Restoration Area***

Upon completion of the road restoration, a Monitoring, Maintenance, and Management Plan will be implemented.

Proposed Success Criteria – Saltmarsh Restoration

The following are proposed success criteria that must be attained before the mitigation can be considered successful.

1. Removal of Marsh Road to natural grade elevations
2. Success of saltmarsh creation is proposed as the establishment and survival of 80 percent planted vegetation as documented through monitoring events.
3. Exotic or Invasive species shall not exceed 5 percent.
4. 80 percent coverage by salt marsh species

Monitoring Plan

The restoration area will be monitored by a qualified environmental scientist according to the following conditions:

1. A saltmarsh restoration completion report will be prepared and submitted following completion of construction and planting for the enhanced areas.
2. The monitoring program shall be initiated upon agency inspection and approval of the area(s) upon construction completion. The monitoring schedule includes semi-annual monitoring conducted for three (3) years; or until all applicable agencies have determined that the success criteria have been met. A monitoring report will be submitted following each monitoring event. Success of saltmarsh restoration is proposed as the establishment and survival of 85 percent planted vegetation as documented through monitoring events and invasive species will not exceed 5 percent.

3. The report shall provide documentation that a sufficient number of maintenance inspection/activities were conducted to ensure success of the site. The performance of maintenance inspections and/or maintenance activities may occur more frequently than the monitoring events if applicable. Maintenance inspections will be conducted annually or as determined from monitoring efforts.
4. The monitoring report will include the following:
  - a) Date of planting and number of plants installed;
  - b) Date and time of monitoring
  - c) Soil stabilization measures, if needed;
  - d) Percent of desirable species coverage for all planted and naturally recruited species;
  - e) Number of plants replanted by species, if necessary, to meet 85 percent desirable species coverage and date planted;
  - f) Depth of water at monitoring;
  - g) Wildlife observed;
  - h) Water quality observations;
  - i) Photographic documentation;
  - j) Problems encountered and corrective actions recommended
5. Nuisance species cover must not exceed 5 percent.
6. The source of the plant materials will be from a Florida certified nursery or other approved source.

#### Maintenance Plan and Schedule

Nuisance exotic species should be of little concern post construction because of the lack of nuisance species seed source in the surrounding environment. However, implementation of a maintenance plan will include the removal of nuisance or exotic species, should they occur, to avoid potential colonization.

The restoration areas will be subject to the following maintenance regimen:

1. Nuisance and exotic species are defined as those listed on the Florida Exotic Pest Plant Council (FLEPPC) Category I and II nuisance and exotic species list and will be maintained to less than 5 percent coverage in perpetuity.
2. Maintenance will be performed annually or as determined from monitoring efforts in order to ensure the continued success of the creation areas.
3. Maintenance will be performed by a qualified local contractor versed in agency requirements.
4. Exotic and nuisance vegetation will be controlled using both manual methods and approved herbicides, as necessary. Herbicides may be used to control nuisance and exotic species, as necessary. Acceptable methods of application include cutting and treating stumps, wicking, and hand held or backpack sprayer. All applications are to be in accordance with the product label and under appropriate weather conditions. A water soluble dye will be added to the herbicides to mark the areas of application.

### **Saltmarsh Enhancement**

Marsh Road obstructs the natural hydrologic connection of the marsh system thus impeding historic flow to the north. The saltmarsh enhancement will be achieved through hydrological restoration of the proposed mitigation sites. The enhanced system is indicated in Figure 7.2-7 Proposed Restoration and Enhancement Areas. To restore the historic hydrology, the logging road will be removed and the topography graded down to the existing natural grade of the surrounding marsh system. The logging road currently bisects the system and is slightly impeding the tidal influence to the north. The conceptual mitigation effort will result in a total of approximately 20 acres of wetland enhancement.

#### Proposed Success Criteria

1. Removal of Marsh Road and regrading to natural grades adjacent to the logging road
2. Assessment to confirm that no blockage or interference with tidal flow is present following road removal.

#### Conceptual Site Protection and Maintenance

Legal site protections will be established for the mitigation sites via conservation easement or fee simple transfer. A maintenance plan, invasive species control plan, and maintenance schedule have been provided.