

LIVE OAK POINT MITIGATION SITE
Annual Monitoring Report, Year 3 of 5
January 6, 2012

PROJECT OVERVIEW

Impact: US 331 (from US 98 to Choctawhatchee Bay)
USACE Permit No.: SAJ-2007-1175 IP-AWP, issued 3/3/2008
Mitigation: Live Oak Point, Walton County
Permittee/Consultant: Northwest Florida Water Management District (NFWFMD)
Responsible Party for Monitoring: NFWFMD
81 Water Management Dr.
Havana, FL 32333
Date of Inspection: November 8, 2011
Inspectors: Kim Branciforte, Linda Chaisson, Graham Lewis, Robert Lide

Purpose of the Approved Project

This project provides mitigation for the loss of 6.05 acres of forested and freshwater marsh wetlands (3.77 functional units) associated with the widening of US 331 from its intersection with US 98 to Choctawhatchee Bay in south Walton County.

Location and Directions

Two mitigation sites for this project are located on Live Oak Point in south Walton County, Florida (30°24'40.5"N, 86°14'48"W) in Sections 15 and 16, Township 2S, Range 20W ([Figure 1](#)). The sites, known as the Lee and Woolley tracts, can be accessed from US 98 by driving north on CR 393 for approximately two miles and taking a left on West Nursery Road. Travel west on Nursery Road about one-half mile until reaching the intersection with North Church Road. Continue west through the intersection to reach the sites via a single lane, unimproved dirt road ([Figure 2](#)).

Project Summary

Live Oak Point, located along the southern shoreline of Choctawhatchee Bay ([Figure 2](#)), contains approximately 1,000 acres of salt marsh. To the east, the salt marsh grades into hydric pine flatwoods which is under development pressures. Functions associated with the Live Oak Point wetlands include shoreline stabilization, buffering upland areas from storm surges, providing nursery and foraging habitat for a variety of aquatic organisms, bird habitat, and the natural filtering of runoff from adjacent uplands.

NFWFMD currently owns about 514 acres on Live Oak Point ([Figure 2](#)). The northern tract was used for previous FDOT mitigation needs associated with the widening of US 98. The Lee and Woolley tracts were acquired in 2009 as mitigation for the widening of US 331.

The Lee tract is about 20 acres, with 18 acres of palustrine forested/emergent and 2 acres estuarine emergent wetlands. Hydric pine flatwoods predominates on the higher elevation portions of the site ([Figure 3](#)). Native habitats, including freshwater marsh, salt marsh, and forested wetlands, will be enhanced through perpetual ecological management including control of nuisance and exotic plant and animal species and re-introduction of fire. The 40-acre Woolley tract consists solely of estuarine emergent wetlands and was acquired for perpetual preservation and management. This parcel is contiguous with a large expanse of undisturbed salt marsh owned by the State of Florida/Board of Trustees (Section 16 lands).

MITIGATION ACTIVITIES

Work Schedule

- Acquisition of both parcels. **Completed in 2009**
- Site boundaries posted. **Planned for 2012**
- Annual monitoring. **Annual monitoring complete for three years**
- Re-introduction of fire through cool season burn. **Ongoing, as needed**
- Inspect for exotics with follow-up herbicide treatment, if necessary. **Ongoing, as needed**

Description of management activities

No management activities have been initiated to date. Herbicide treatment of torpedo grass patch on the access road is recommended, although not required as it is offsite. Development of a burn schedule for the Lee tract is also suggested.

MONITORING REQUIREMENTS

- Annual site inspection and, for detecting changes in inaccessible portions of site, examination of up-to-date/current digital ortho photography, if available.
- Qualitative monitoring via pedestrian survey.
- Photo-documentation of site.
- Annual report posted at www.NFWMDwetlands.com for duration of monitoring.

SUMMARY OF MONITORING ACTIVITIES

Monitoring Observations

Both sites were visited on November 8, 2011, with surveys done from the access road and 360 degree photo points taken within each site. Field sheets are attached documenting [site conditions](#) and [listing observed species](#); no new vegetation species were found during 2011 monitoring. Both sites remain in good condition with no evidence of exotic or nuisance species invasion. Representative photos are shown for the Lee ([Figures 4-6](#)) and Woolley ([Figure 7](#)) tracts. A small patch of invasive exotic torpedo grass (*Panicum repens*) was noted along the access road but it was not found within either site. This patch was mentioned in the previous annual report; herbicide treatment is recommended.

Considerable dumping of trash was noted along the access road ([Figures 8-9](#)) as has been mentioned in previous reports; however, no dumping was noted within either of the mitigation sites. Some debris (e.g., weathered pieces of lumber, plastic bottles) was found on the sites, likely the result of high tides and storm surge. It is unclear what can be done to prevent this illegal dumping along the entry road as the property is not owned by the NFWMD.

Success Criteria

The following restoration and preservation performance standards, taken from the Northwest Florida Umbrella, Watershed-based, Regional Mitigation Plan (NFWFMD July 2006, revised March 2009) were evaluated during the recent site inspection; all success criteria were met.

	Restoration Success Criteria – Lee Tract	Condition Met
RC1	Desired species showing evidence of increasing coverage.	Yes
RC2	Invasive exotic species cover ≤ 1% and nuisance native and non-invasive exotic species cover ≤ 5% of sites.	Yes
RC3	Increase in appropriate herbaceous, shrub and/or tree species.	Yes
RC4	Kind and total coverage of herbaceous species appropriate for management goals and target natural community.	Yes
RC5	Kind and total coverage of shrub species appropriate for management goals and target natural community.	Yes
RC6	Kind and total coverage of tree species appropriate for management goals and target natural community.	Yes
RC7	Maintain the ecological conditions so that the mitigation UMAM scores are met for each of the specified community types.	Yes

	Preservation Success Criteria – Woolley Tract	Condition Met
PC1	No observable decline in natural community health.	Yes
PC2	Stable or increase in species diversity per wetland type.	Yes
PC3	Invasive exotic species cover ≤ 1% and nuisance native and non-invasive exotic species cover ≤ 5% of sites unless specified in management plan.	Yes
PC4	Maintain a dominant cover of native, suitable species in the wetland and upland buffer areas appropriate for management goals and target natural community.	Yes
PC5	Maintain the ecological conditions so that the mitigation UMAM scores are met for each of the specified community types.	Yes

CONCLUSIONS

Environmental conditions appear healthy at both mitigation sites on Live Oak Point based on the 2011 annual monitoring survey. All performance criteria were met. Illegal trash dumping was observed along the entry road but not at either site. A small patch of invasive torpedo grass (*Panicum repens*) was found on the access road; no evidence of invasive/exotic species was observed on either site. It is recommended that plans be developed to burn the Lee Tract as well as investigate the management of illegal dumping offsite along the access road.

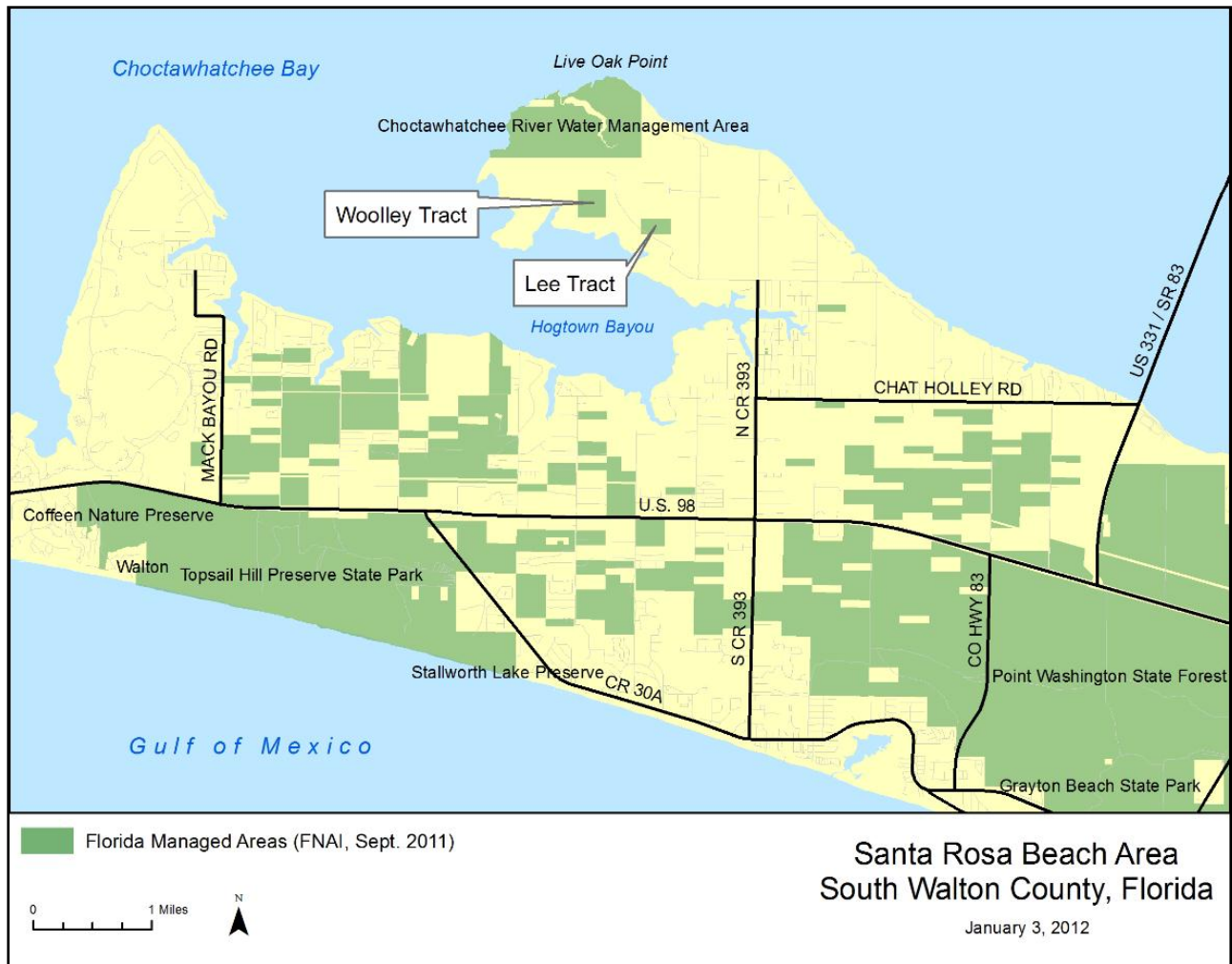


Figure 1. General location map for the Live Oak Point mitigation sites. Lee and Woolley tracts are shown in relation to other Florida managed areas. [RTN](#)

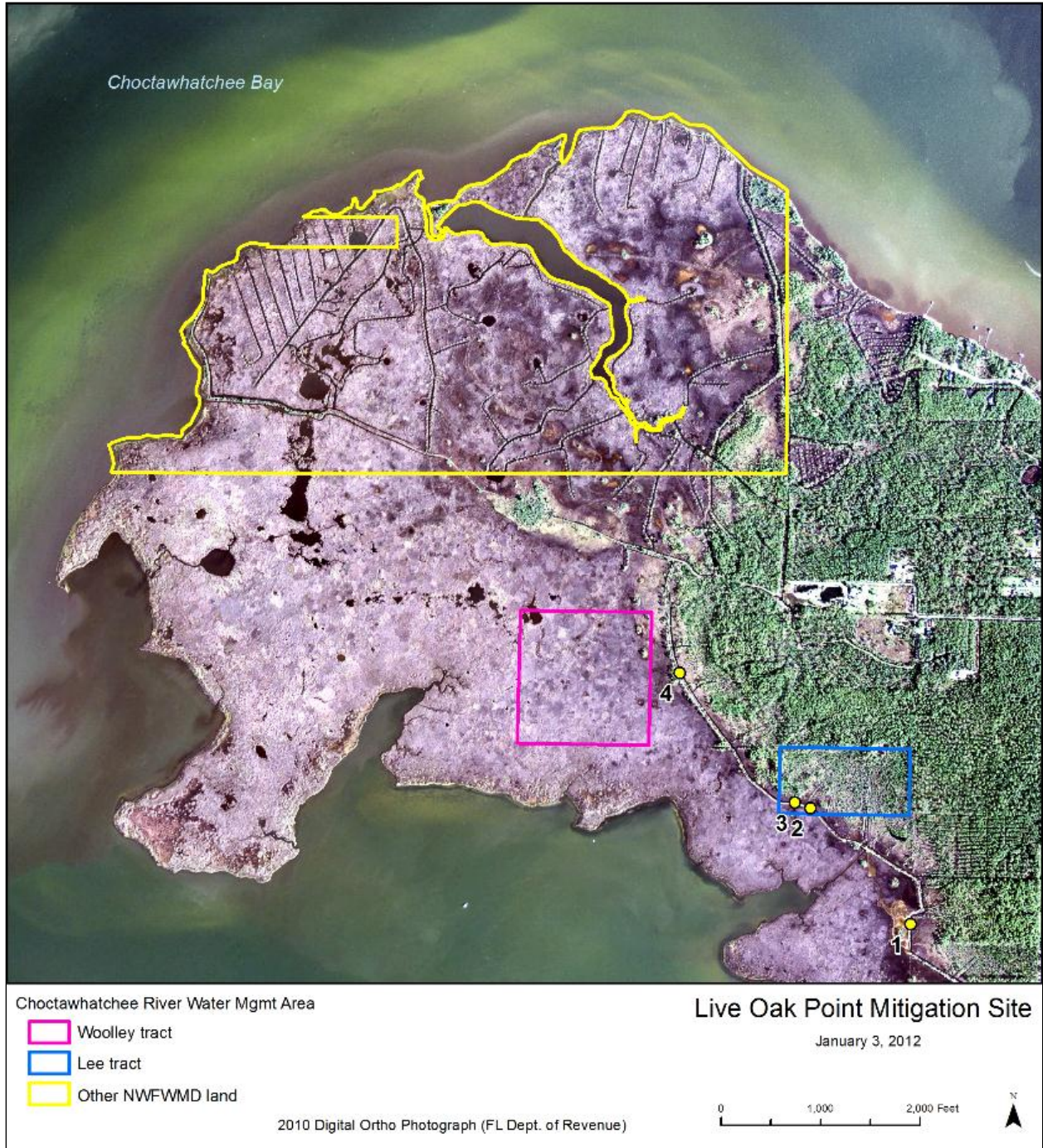


Figure 2. Aerial photo of Live Oak Point showing locations for the individual mitigation sites (i.e., Lee and Woolley tracts) and nearby NFWMD properties. A majority of the point is low elevation salt marsh that is tidally inundated; higher elevation pine flatwoods are found to the east (see elevation map Figure 3). Photo points are indicated as 1-4. [RTN](#)

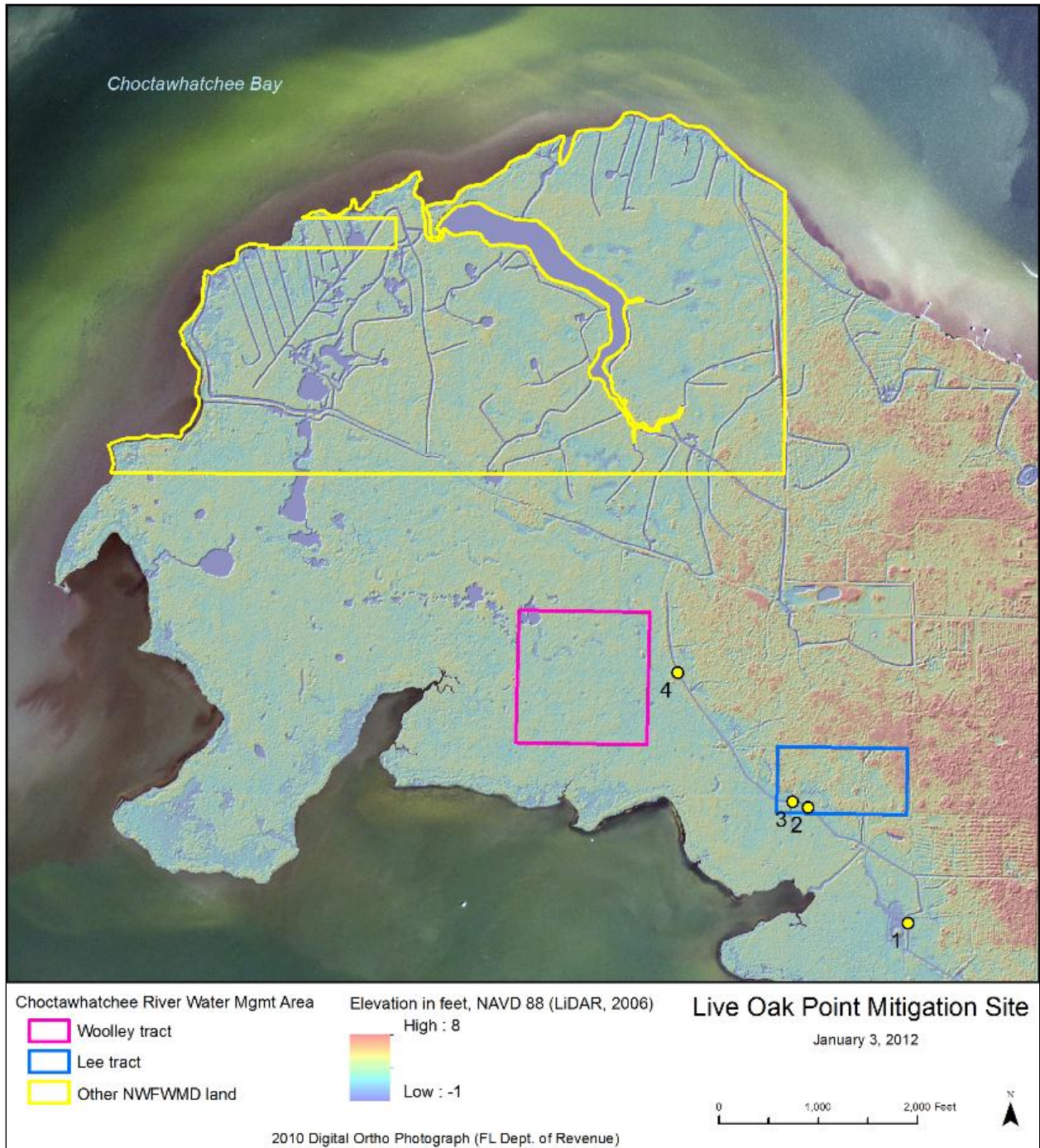


Figure 3. Topography of the Live Oak Point mitigation sites taken from LiDAR imagery (2006); note low elevations over the majority of the point with higher elevations to the east. Photo points are indicated as 1-4. [RTN](#)



Figure 4. Lee Tract taken from access road, looking east from photo point 2 (11/8/11).



Figure 5. Lee Tract taken from access road, looking north from photo point 2 (11/8/11).



Figure 6. Lee Tract taken from access road, looking south from photo point 3 (11/8/11). Old intersecting road through marsh shows little use unlike main access road. [RTN](#)



Figure 7. Woolley Tract taken from road, looking west from photo point 4 (11/8/11); note continuous expanse of *Juncus* marsh. Photo includes Woolley Tract and portions of the Section 16 lands owned by the State of Florida/Board of Trustees. [RTN](#)



Figure 8. Evidence of illegal trash dumping along access road to mitigation sites, photo point 1 (11/8/11).



Figure 9. Additional dumping along access road, photo point 1; note scattered trash in background (11/8/11). Lee Tract is located in the upper left corner of photo, north of road.

[RTN](#)

Site Inspection Field Form	
Project: Woolley-Lee Tracts/Live Oak Point	Date: November 8, 2011
Name(s) of Data Collectors: Kim Branciforte, Linda Chaisson, Graham Lewis, Robert Lide	Weather: sunny, wind light (<5mph)
Environmental Description: salt marsh and upland hydric pine flatwoods	
Polygon: Both parcels GPS Location: approx. 30°24'40.5"N, 86°14'48"W Time: 1:30pm	
<p>On at least a yearly basis, the site will be inspected as follows:</p> <p>A: Perimeter for signs of trespassing, fencing and signage integrity and infestation by exotic or nuisance vegetation:</p> <p>No locks on main access gate, no fence/signage noted, considerable trash dumping along access road, yet none on two mitigation sites. Numerous spent shotgun shells south of parcels along access road indicating hunting or target shooting in area.</p>	
<p>B: Internal Roads (Both public and maintenance) for signs of dumping or trespassing, erosion, bridges and road integrity, and exotic or nuisance species infestations:</p> <p>Access road largely impassable, dumping/trespassing noted offsite along access road.</p> <p>Minor amount of <i>Panicum repens</i> on access road – less than 1% coverage overall. No other exotic or invasive species noted.</p>	
<p>C: All construction areas for stabilization and re-vegetation, structure, operation, and integrity: N/A</p>	
<p>D: Representative polygons for each UMAM community for fuel load, exotic or nuisance species, planted material survival, groundcover, and shrub condition:</p> <p>-fuel load low to moderate on Woolley tract with load moderate to high in hydric pine flatwoods on Lee tract. -no exotic/invasive species noted at either site -native species in salt marsh and flatwoods show no signs of stress with numerous species reproducing and colonizing area. Fire in upland portion of Lee tract is recommended but difficult given restricted access to site.</p>	

Vegetation Assessment Field Form Qualitative Assessment	
Project: Woolley-Lee Tracts/Live Oak Point	
Date: November 8, 2011	
Name(s) of Data Collectors: Kim Branciforte, Linda Chaisson, Graham Lewis, Robert Lide	Weather: sunny, wind light (<5mph)
Environmental Description: salt marsh and upland hydric pine flatwoods	
Polygon: GPS Location: N 30.4134, W 86.2484	
Nuisance Species: none observed	
Wildlife Observations: Numerous saltmarsh avifauna, fiddler crabs.	
Water depth: Saturated throughout. Inundated up to approximately 6 inches or deeper in some areas.	
Is the community observed along the walk path representative of the community being measured? Yes	
To what degree is the restoration in this area trending towards success? NA	
Potential Problems and solutions: Suggest better control of unauthorized access at gate. Trash dumping evident along access road from unauthorized entry; no dumping on either mitigation site.	

Scientific Name	Common Name	2009	2010	Dominant
<i>Andropogon glomeratus</i>	Broomsedge	X	X	
<i>Baccharis angustifolia</i>	Salt bush	X		
<i>Baccharis halimifolia</i>	Groundsel tree		X	
<i>Cladium jamaicense</i>	Saw-grass	X	X	
<i>Cynanchum angustifolium</i>	Gulf coast sallow wort	X	X	
<i>Distichilis spicata</i>	Salt grass	X	X	X
<i>Eupatorium serotinum</i>	Late-flowering thoroughwort		X	
<i>Euthamia graminifolia</i>	Flat-topped goldenrod	X	X	
<i>Fimbristylis spadicea</i>	Marsh fimbry	X	X	
<i>Ilex glabra</i>	Gall-berry	X	X	
<i>Ilex vomitoria</i>	Yaupon	X	X	
<i>Ipomoea sagittata</i>	Saltmarsh morning glory	X	X	
<i>Juncus roemarianus</i>	Black needlerush	X	X	X
<i>Limonium carolinianum</i>	Sea lavender	X	X	
<i>Muhlenbergia capillaris</i>	Muhly grass		X	
<i>Myrica cerifera</i>	Wax myrtle	X	X	
<i>Osmunda regalis</i>	Royal fern	X	X	
<i>Pinus elliotii</i>	Slash pine	X	X	X
<i>Salicornia bigelovii</i>	Annual glasswort	X	X	
<i>Sarcocornia ambigua</i>	Perennial glasswort		X	
<i>Scirpus robustus</i>	Salt marsh bullrush	X	X	
<i>Serenoa repens</i>	Saw-palmetto	X	X	
<i>Seteria geniculata</i>	Foxtail grass	X	X	
<i>Smilax bonna-nox</i>	Green briar	X	X	
<i>Smilax laurifolia</i>	Green briar	X	X	
<i>Soladago sempervirens</i>	Seaside goldenrod	X	X	
<i>Spartina alterniflora</i>	Smooth cordgrass	X	X	
<i>Spartina patens</i>	Salt meadow cordgrass	X	X	
<i>Spartina spartinae</i>	Gulf coast cordgrass	X	X	
<i>Toxicodendron radicans</i>	Poison ivy	X	X	
<i>Vitis rotundifolia</i>	Muscadine grape	X	X	

*Note: This species list was developed from previous annual reports; no new species were added in 2011. The Woolley parcel is overwhelming dominated by black needlerush, while black needlerush, salt grass and slash pine predominate on the Lee parcel. [RTN](#)