

CFEOR Groundcover Restoration Workshop Summary

Location: NWFMD - Sand Hill Lakes Mitigation Bank (SHLMB), Greenhead Florida

Date: Presented November 18, 2010 at 10:00 a.m. at the FWC Check Station

Presenters: Introductions (Bill Cleckley & Holly Ober) Overview of the SHLMB and FWC management (David Clayton, John Valenta and Justin Davis)

Number of Attendees: 53

Summary contents:

- 1-Objective and description
- 2- Workshop schedule
- 3 and 4- workshop maps
- 5- Station discussion topics
- 6- List of attendees

1.) Objective:

Interest in restoring the composition, structure, and ecological functioning of the understory component of forest ecosystems has grown in recent years. This workshop will distribute and review the CFEOR handbook “Groundcover Restoration in Forests of the Southeastern United States” and a field tour of the Sandhill Lakes Mitigation Bank restoration sites.

Program description:

Descriptions of effective restoration methods and results can be difficult to find, as they are published within a diverse array of scientific journals and agency project reports. CFEOR is excited to present a handbook/guide on the state of the science and art of understory vegetation restoration techniques within forests of the Southeastern U.S. Holly Ober (Assistant professor, North Florida Research and Education Center) will be discussing the handbook which contains a compilation of the lessons learned and a catalogue of existing restoration project sites intended to provide land managers with a needed reference and guide.

The Sandhill Lake Mitigation Bank (SHLMB) is publicly owned and operated by the Northwest Florida Water Management District (NFWMD). Situated in the Sand Hill Lakes region of the Dougherty Karst Plain, it is preserving, enhancing and restoring 2,155.3 acres of wetlands, natural lakes and upland buffers. Natural communities consist of approximately 850 acres of wetlands, 150 acres of lakes and ponds, and 1,150 acres of uplands. Workshop tour includes upland restoration sites for longleaf pine / wiregrass and oak / pine forest communities.

2.) Workshop Schedule

Travel to Groundcover Restoration Stations

10:30 a.m. Station 1

1) *View/discuss upland groundcover habitat restoration “control” site – Four growing season burns (2003 through 2010 – John Valenta)*

2) *View/discuss adjacent restoration site for comparison to control – Six treatments since June 2003*

3) *View/discuss FWC management activities - herp trapping efforts, i.e. drift fence/trap*

11:00 a.m. Station 2

1) *View/discuss upland groundcover habitat restoration on a former sand pine plantation site with no groundcover habitat restoration – three treatments since August 2007*

2) *View/discuss upland groundcover habitat restoration on a former agricultural field – Four treatments since August 2007*

11:30 a.m. Station 3

1) *View/discuss wetland groundcover habitat restoration – Six treatments since July 2007*

2) *View/discuss groundcover seed bank “release” research plots*

12:00 p.m. Lunch at Black Pond (Sponsored by International Forest Company, Sandy Ford Restorations, LLC, RSC Equipment Rental and NFWFMD)

*Overview of CFEOR’s “**Groundcover Restoration in Forests of the Southeastern United States**” handbook (Holly Ober)*

1:00 p.m. Station 4

View/discuss wetland groundcover habitat restoration – five treatments since May 2007

1:45 p.m. Station 5

1) *View/discuss wetland groundcover habitat restoration (Toothache grass) – four treatments since May 2008*

2) *View Dry Pond*

2:15 p.m. Return to FWC Check Station

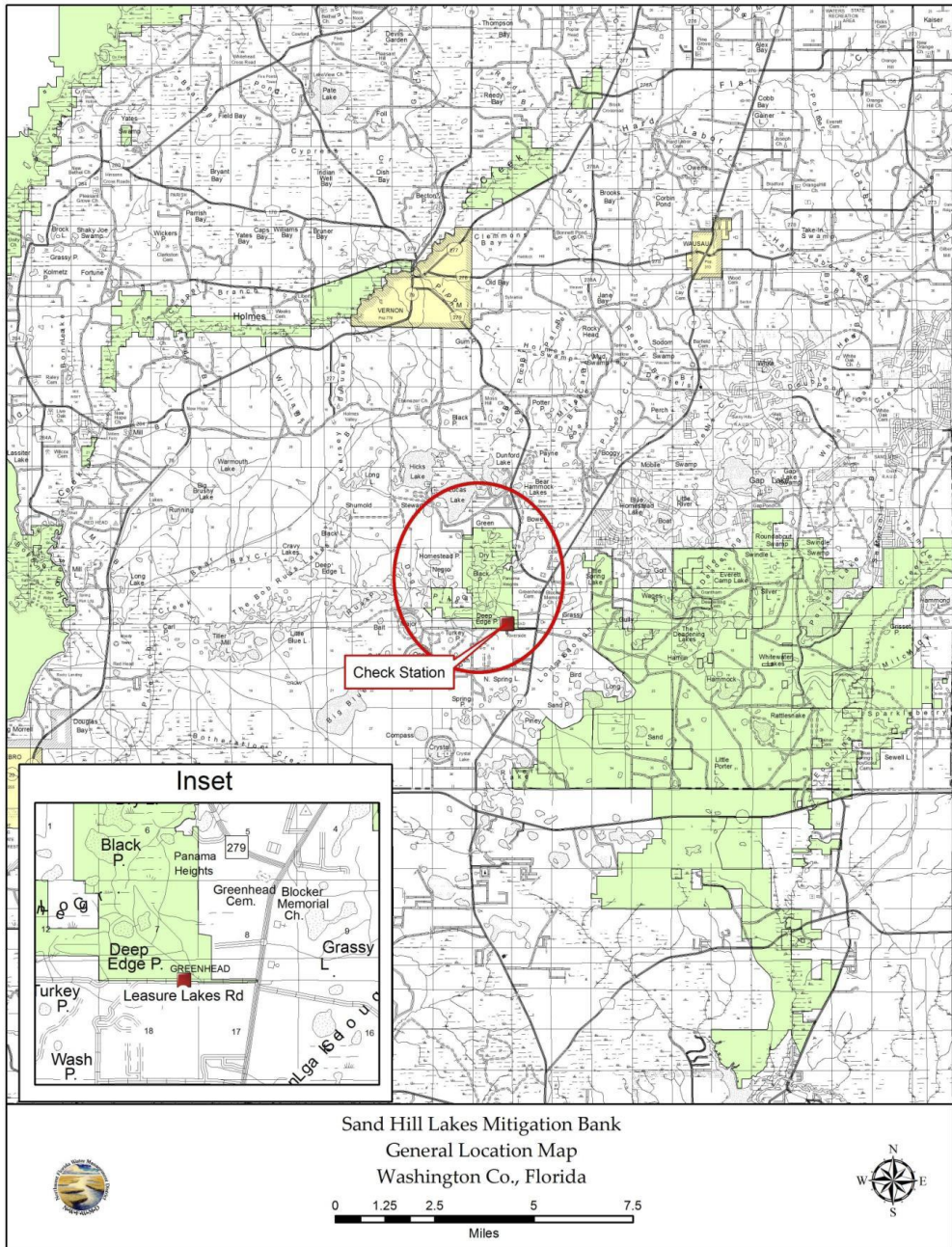
2:30 p.m. Wrap Up

1) *Handout copies of the “Groundcover Restoration in the Forests of the Southeastern United States” handbook (Holly Ober)*

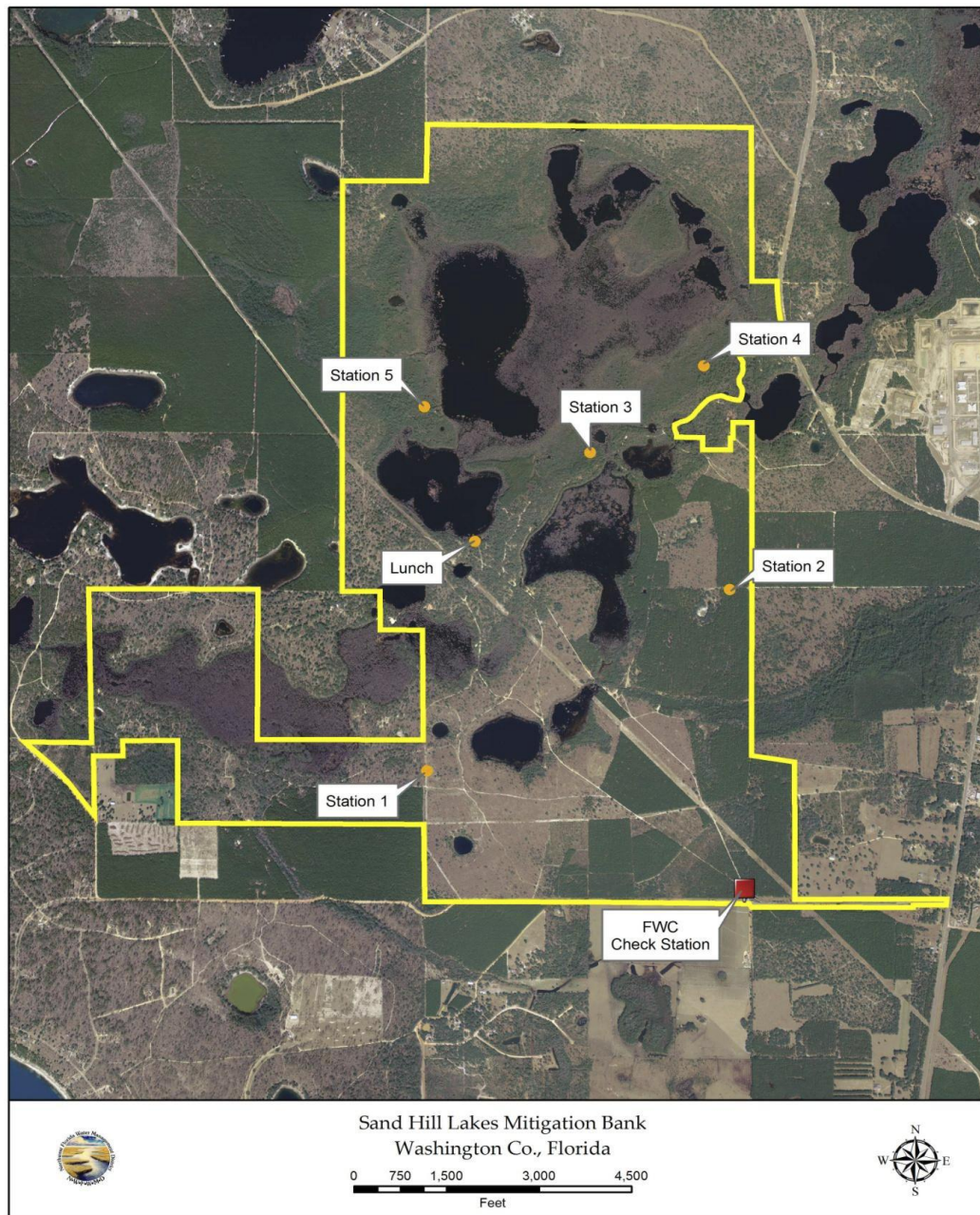
2) *Handout and complete workshop evaluation forms (Melissa Kreye)*

3) *Handout CFE certificates (Melissa Kreye)*

2:45 p.m. Depart for Home



3.)



4.)

5.) CFEOR Groundcover Restoration Workshop

(Station Discussion Topics)

FWC Check Station: Introductions – *Bill Cleckley/Holly Ober*

Sand Hill Lakes Mitigation Bank Overview – *David Clayton*

FWC Management – *Justin Davis*

Station #1

Mitigation Goal(s): Control Site (Mgt. Unit 10): Passive Restoration Activities

Active Site (Mgt. Unit 11): Overstory and Groundcover Restoration Activities

Control Site - West Side (*John Valenta*)

Treatment(s) – Growing season prescribed burns.

4 growing season burns - June 2003, June 2005, June 2008 and May 2010.

Note wiregrass seed head development and seed was collected the week of Nov. 15th.

FWC activities - Herp trapping, species, results, habitat enhancement discussion.

Active Site - East Side (*John Valenta*)

Treatment(s) – Growing/dormant season prescribed burns, longleaf restoration, hardwood eradication, aerial herbicide application

Growing season burn - June 2003, due to the abundance of natural wiregrass, no planting or sowing of wiregrass occurred in this area.

Longleaf pine restoration – December 2004, stocking @ 10' x 10' or 436 trees/A

Hardwood eradication - July 2005, manual cutting of hardwoods and stump spraying with Garlon 4 (*Note: Mixed results using a 15% solution – hotter mix recommended on future sites*).

Dormant season burn – February 2008, fuel reduction burn due to excessive fuel loading caused by hardwood eradication activities.

2nd Hardwood eradication – June 2009, due to continuous hardwood growth, the site was aerial herbicide treated with Velpar ULV @ 1.67 pounds per acre. (*Note: Low initial Velpar dose, but we speculate that some overlap may have occurred during the aerial application as some longleaf and wiregrass was killed*).

Dormant season burn - January 2010.

Station #2

Mitigation Goal(s) – North Side (Former Sand Pine Plantation): Active Overstory Restoration and

Passive Groundcover Restoration Activities

South Side (Former Water Melon Field/Pasture): Active Overstory and

North Side (*John Valenta*)

- Treatment(s) – Offsite timber harvest, prescribed burn and longleaf restoration

Sand pine harvest – August 2007

Site preparation prescribed burn - October 2008.

Longleaf pine restoration – January 2009, stocking @ 10' x 10' or 436 trees/A

Groundcover restoration – N/A, due to the abundance of natural wiregrass, i.e. 40% cover, no planting or sowing of wiregrass occurred on this area.

South Side (*John Valenta*)

- **Treatment(s)** - Offsite timber harvest, prescribed burn, longleaf pine and wiregrass restoration

Sand pine harvest - August 2007.

Site preparation prescribed burn - October 2008.

Longleaf pine restoration – January 2009, stocking @ 10' x 10' or 436 trees per acre.

Xeric wiregrass restoration – February 2010, stocking @ 3' x 3' or 4840 plugs per acre due to the lack of natural wiregrass groundcover.

Handout (*Tyler Macmillan*): Summary of District Habitat Restoration Costs – General and Restoration Activity Specific

Station #3

Mitigation Goal(s) – Wet Pine Flatwoods/Wet Prairie Habitat Restoration Activities
(*David Clayton/John Valenta*)

- **Treatment(s)** – Thinning harvest, mechanical hardwood control, prescribed burn, wet prairie wiregrass restoration and herbicide treatment

Slash pine thinning harvest - June 2007.

Mechanical (Gyro-track) hardwood (titi) treatment – July 2007.

Dormant season prescribed burn - January 2009.

Wet Prairie wiregrass restoration – January 2009, stocking @ 3' x 3' or 4840 plugs/A

Herbicide treatment – April and October 2009, nuisance scrub species (titi and others)

Dormant season prescribed burn - March 2010

Wetland wiregrass/wet pine flatwoods seed mix plugs will be planted Dec.-Feb.

Note: Discussion of David Mitchell's Master's Thesis – Dormant (viable) Seed Bank Species

Station #4

Mitigation Goal(s) – Wet Pine Flatwoods/Wet Prairie (Westside of Road) Habitat Restoration Activities

(David Clayton/John Valenta)

Treatment(s) – Mechanical hardwood control, prescribed burn, wet prairie wiregrass restoration and herbicide treatment

Mechanical hardwood (titi) treatment – May 2007.

Dormant season prescribed burn - January 2009.

Wet Prairie wiregrass restoration – January 2009, stocking @ 3' x 3' or 4840 plugs/A

Site preparation prescribed burn - November 2007.

Wet prairie wiregrass planting – January 2008, stocking @ 3' x 3' or 4840 plugs/A.

Chemical herbicide treatment – April and October 2009 (Garlon 4), nuisance shrub species (mostly titi)

Dormant season prescribed burn November 2009.

Wetland wiregrass/wet pine flatwoods seed mix plugs will be planted Dec.-Feb.

2010/2011.

Station #5

Mitigation Goal(s) - Wet Pine Flatwoods/Wet Prairie Habitat Restoration Activities
(David Clayton/John Valenta/Tyler Macmillan)

Treatment(s) – Mechanical hardwood control, herbicide treatment, prescribed burn, wet prairie wiregrass restoration and direct seeding

Mechanical hardwood (titi) treatment – May 2008.

Chemical herbicide treatment – April and October 2009, nuisance shrub species (mostly titi).

Site preparation prescribed burn - November 2009.

Wet prairie wiregrass planting – January 2010, stocking @ 3' x 3' or 4840 plugs/A.

Toothache grass planting – January 2010, stocking @ 3' x 3' or 4840 plugs/A.

Wetland wiregrass/wet pine flatwoods seed mix plugs will be planted Dec.-Feb.

Other: Brief discussion on obtaining “high quality” seed and seed mixes for direct seeding and contract growing of groundcover restoration plants (plugs).

6.) Attendee list

NAME1	NAME2	COMPANY
KELLY	MCPHERSON	ALACHUA COUNTY ENVIRONMENTAL PROTECTION DEPARTMENT
HEATHER	MARTIN	ALACHUA COUNTY ENVIRONMENTAL PROTECTION DEPT
SANDRA	VARDAMAN	ALACHUA COUNTY EPD
MELISSA	KREYE	CFEOR
NANCY	PETERSON	CFEOR
NORBERTO	FERNANDEZ	FL. FISH & WILDLIFE CON. COM.
ALEX	PRIES	FLORIDA FISH & WILDLIFE COMMISSION
GEORGE	OTTO	FLORIDA FISH & WILDLIFE CONSERVATION COMMISSION
SHARON	CUMMINGS	FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
JUSTIN	DAVIS	FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
KATHERINE	MAROIS	FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
FRED	ROBINETTE	FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
KATHLEEN	SWANSON	FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
MALLORY	WILKINS	FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
GREG	FALSTROM	FLORIDA FISH AND WILDLIFE COSERV. COMM.
JOHN	BENTE	FLORIDA PARKS SERVICE
GREG	KAUFMAN	FLORIDA PARKS SERVICE
SPECTOR	TOVA	FLORIDA PARKS SERVICE
GREG	WALKER	FLORIDA PARKS SERVICE
MEGHAN	HARRIS	FLORIDA STATE PARKS-PUMPKIN HILL CREEK PRESERVE STATE PARK
SCOTLA	TALLEY	FWC

ND		
CINDI	STEWART	HEYWARD
DAVID	STEWART	HEYWARD
WAYNE	BELL	INTERNATIONAL FOREST COMPANY
JIMMIE	ATES	NORTHWEST FLORIDA WATER MAG.
CAROL	BERT	NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
STEVE	BROWN	NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
DAVIS	CLAYTON	NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
SEAN	CREEL	NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
DANNY	DEAN	NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT