



4th National Conference on Ecosystem Restoration

The Spirit of Cooperation



AUGUST 1-5, 2011 | BALTIMORE, MARYLAND • USA | BALTIMORE MARRIOTT WATERFRONT

Field Trip Opportunities – Wednesday, August 3, 2011

Tidal Wetland and Vernal Pool Restoration Site Tour (Tour is limited to 20 people)

Itinerary:

11:30am	Depart Baltimore Marriott Hotel Eat box lunch on bus in transit to site
12:30pm-2:30pm	Arrive at Cox Creek Mitigation Site and tour
2:45pm	Leave for Hollyneck Mitigation Site
3:00pm-5:00pm	Arrive at Hollyneck Mitigation Site and tour
5:15pm	Leave for Dinner
5:30pm	Arrive at Al's Seafood Restaurant www.als-seafood.com
7:30pm	Bus returns to hotel

Description:

The Cox Creek mitigation site is associated with the Cox Creek Dredged Material Management Facility (DMMF). The reconstruction of the Cox Creek DMMF resulted in the need for mitigation. The 12-ac mitigation site was an 8-ac monotypic *Phragmites* stand and a four-acre still pond (both above the influence of tide). The mitigation project involved the excavation and removal of the *Phragmites*, lowering the site into the intertidal range.



The mitigation target was to create a mosaic of unvegetated open water, vegetated marsh, and a beach strand dominated by supra-tidal shrub community. This was accomplished through over-excavation of areas to create sub-tidal ponds, grading of other areas to intertidal marsh elevations for both *Spartina alterniflora* and *Spartina patens* communities, and either retention of beach strand or building-up of beach strand to an elevation above normal tidal influence. A tidal channel connection was created, and the site was planted. The presence of Canada geese led to erection of exclusion fencing across the site.

Within one month of project construction and planting, the remains of Hurricane Isabel tore across the site with more than an 8-ft tidal surge, carrying debris (e.g., boats, trees, etc.) into the site and then back out, tearing out goose exclusion fencing. Remarkably, little evidence of storm damage was apparent and the vegetation seemed to be doing well after the storm. However, over the next growing season we witnessed a widespread loss of vegetation. A study was conducted and it was determined that the storm had modified the tidal channel to limit the tide's ebb flow, drowning the vegetated wetland. The site was returned to the initially designed flood dominated tidal regime (tide ebbs to MSL). Almost 10 years later, the tidal marsh is host to a diversity of avian, reptile, fish, and invertebrate life. Mosquito monitoring has documented the site is not a significant source of mosquito production, and the project has been accepted as a successful mitigation project.

The Hollyneck mitigation site is a 125-ac property on the eastern neck peninsula in eastern Baltimore County. The site is 110-ac of preserved forested wetlands and 15-ac of agricultural fields converted to vernal pool habitat.

The site has a shallow perched water table resulting from fine grained surficial soils and an annual precipitation rate which exceeds annual evaporation losses. Four to five feet below the surficial soils, the site is underlain by well drained sand. Vernal pool hydrology was created through surface grading to provide a range of different drainage areas and pool depths an attempt to ensure reliable spawning and rearing habitat year after year, regardless of the significant natural variation in climate conditions.

This project was not planted after grading, based on the relationship between the high interspersed of forested edge with vernal pool edge. Vegetation monitoring is ongoing and minor efforts have been undertaken to supplement natural recruitment and to suppress the distribution of undesirable, non-native or invasive species.

The site has been shown to provide significant habitat for a variety of salamander and frog reproduction and rearing, based on the results of a monitoring effort designed to answer this question.

What to Wear & Bring: Dress for walking---long pants and lightweight long sleeved shirt (ticks, scratchy plants, and poison ivy). Hats, sunscreen and sturdy walking shoes are a must.

Food Offered: Water and lunch will be provided. A dinner stop is included to Al's Seafood so bring money for dinner. The location to the restaurant is: www.als-seafood.com/contact.html

Driving Distance: Is approximately 15 miles from Baltimore. www.tidal-map.notlong.com

Cost of Tour: \$75.00 per person
(Fees include lunch and transportation)

For Questions about the Tour Site, Contact:

Joe Berg

Biohabitats, Inc.

Phone: 410-554-0156 | Email: jberg@biohabitats.com

For Questions about Tour Logistics, Contact:

Sharon Borneman

UF/IFAS Office of Conferences & Institutes

Phone: (352) 392-5930 | Email: spb@ufl.edu

Tour Leader:

Ed Morgereth, Biohabitats

Phone: (410) 554-0156 | Email: emorgereth@biohabitats.com