

RESTORE Act Ecosystem Restoration Project Proposals
for consideration in the Gulf Coast Ecosystem Restoration Council's Comprehensive Plan
2012

Contact Information: David E. Lindsay-East County Water Control District-dlindsay@ecwcd.com					Date of Submittal: October 31, 2012		
Name of Project: West Marsh Project					Org and Rank: 1		
Project Description: The West Marsh Project will add approximately 208 acres of additional storage and wildlife habitat contiguous to the existing 566-acre Harns Marsh system. The benefits of this project include: - Less freshwater discharge to the Orange River, Caloosahatchee River and it's estuarial system, and the Gulf of Mexico, during periods of wet season high-flows - Better water quality treatment prior to discharge into the Orange River - Restoration of approximately 60 acres of oak hammocks, etc. - Creation of approximately 150 acres of wetlands, littoral shelves and deeper water habitats - Groundwater recharge - Flood protection - Future low-impact recreational use							
Project Location: Lee County. 26° 38' 54.87" N Lat., 81° 42' 09.95" W Long.							
Responsible Party: East County Water Control District				Partners: Lee County Government 20/20 SFWMD			
NEP: CHNEP		Project Cost: \$5,415,000			Dollars Needed: 12/13 - \$150,000; 14/15 - \$5,115,000.		
Start: January 1, 2013				Completion: December 31, 2015			
Status of Project Design and Permitting: Planned. Matching Funds to date: SFWMD Watershed Grant \$20,000; ECWCD Funds \$85,716.92.							
What Date or Year could Construction Feasibly Begin: 14/15							
Your Proposed Timing of Funding (given permits, phasing, staging, etc.)							
FY	12/13	13/14	14/15	15/16	16/17	17/18	Total
	\$300,000		\$5,115,000				
Quantify Environmental Results and How to Measure Them: 1) Water Quality Improvement- upstream/downstream sampling and analysis. 2) Groundwater Recharge – monitor wells 3) Habitat Creation – species inventory and bioassays 4) Removal of Exotic/Invasive Vegetation – periodic inspection							
Economic Benefits (including ecosystem services): \$21,200,000 The project will generate temporary employment for design and construction workers. It is anticipated there may be a slight permanent staff increase for ECWCD and/or Lee County for management of the property. In addition, visitors to the site are anticipated to patronize local business. There will also be avoidance of flood related damage expense for downstream property owners. Ecosystem services provided include aesthetic environments, recreational and educational opportunities, cultural identity, existence, property protection, food quality, pollution treatment, climate stability, food supply, scientific resources and ornamental resources.							
Estimated number of Jobs Created or Preserved: 141							

How much Habitat will be restored and conserved?:

Approximately 208 Acres of Habitat will be restored and conserved

Quantify pollutant reductions: 248 Kg/yr Total Phosphorus and 914 Kg/yr Total Nitrogen -

Data obtained from ECWCD upstream and downstream of adjacent Harns Marsh indicate about a 3% reduction in Nitrogen and a 98% reduction in Phosphorus by the treatment wetlands.

Similar performance is expected from the West Marsh. Peak flows will also be reduced by 3,400 Ac-Ft/yr.

What living coastal/marine resources will be improved and by how much?:

Living coastal/marine resources of the Caloosahatchee River/Estuary system that will be improved by the water quality enhancement produced by the project include marine mammals, sea turtles, fish, invertebrates, coastal and marine birds, seagrasses, mangroves, corals and plankton.

How will community resilience be enhanced?

Community resilience will be enhanced primarily through reduction of flood related damage to property. Secondly, resilience will be enhanced through the offering of ecosystem services attributes.

Additional Justification: see attached.

Add any photos or maps that explain project: See attached supporting documents.

Figure 1: Location Map

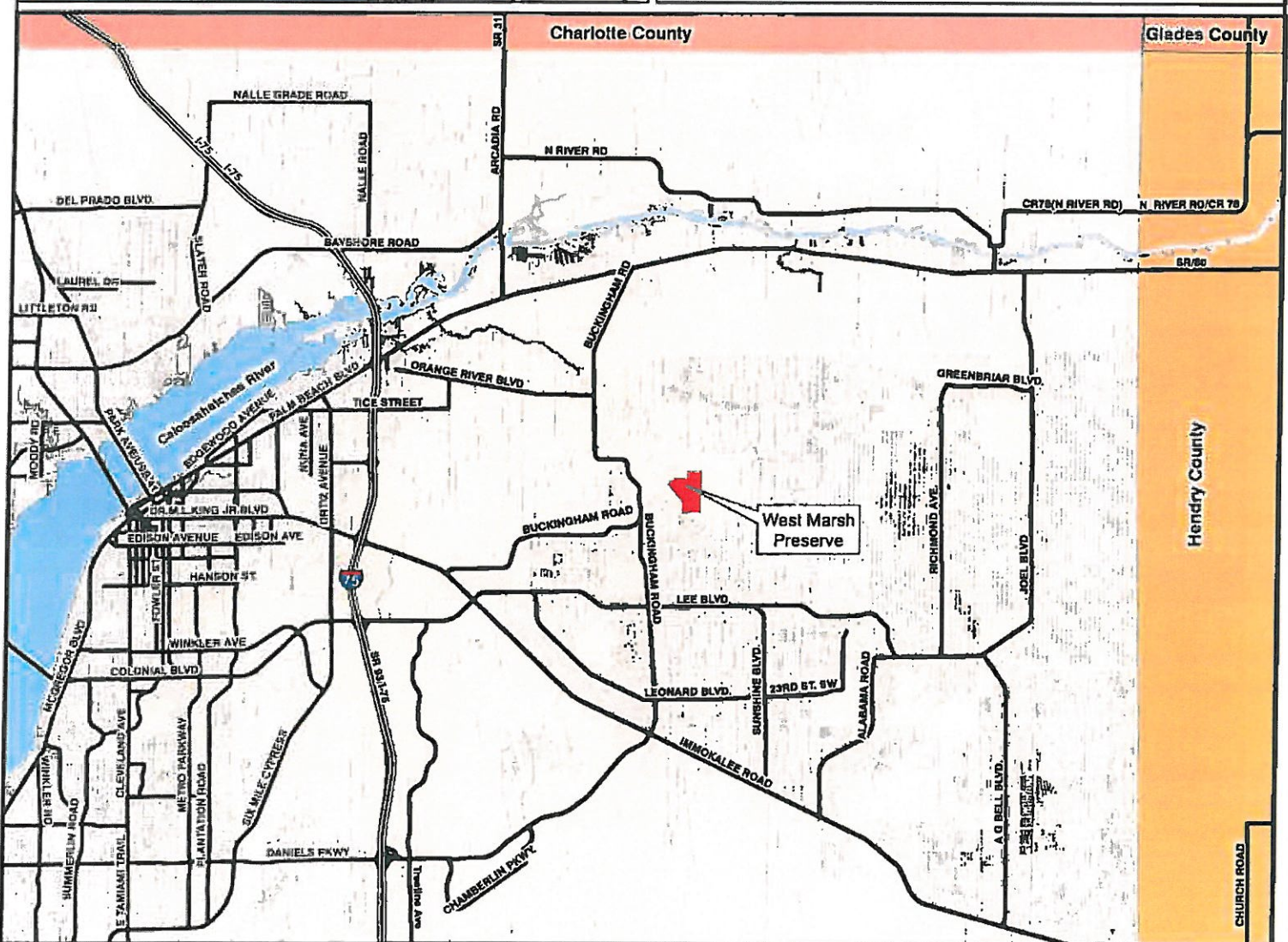
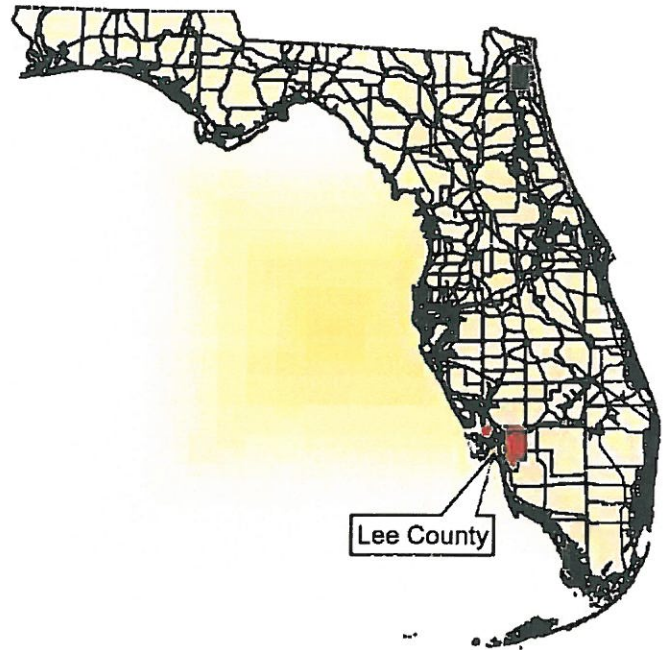
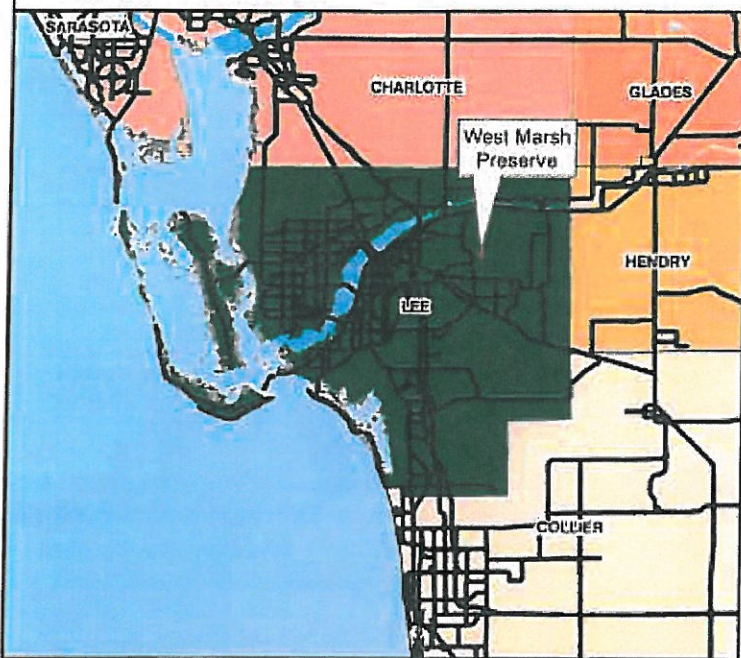


Figure 2: 2010 Aerial Photograph

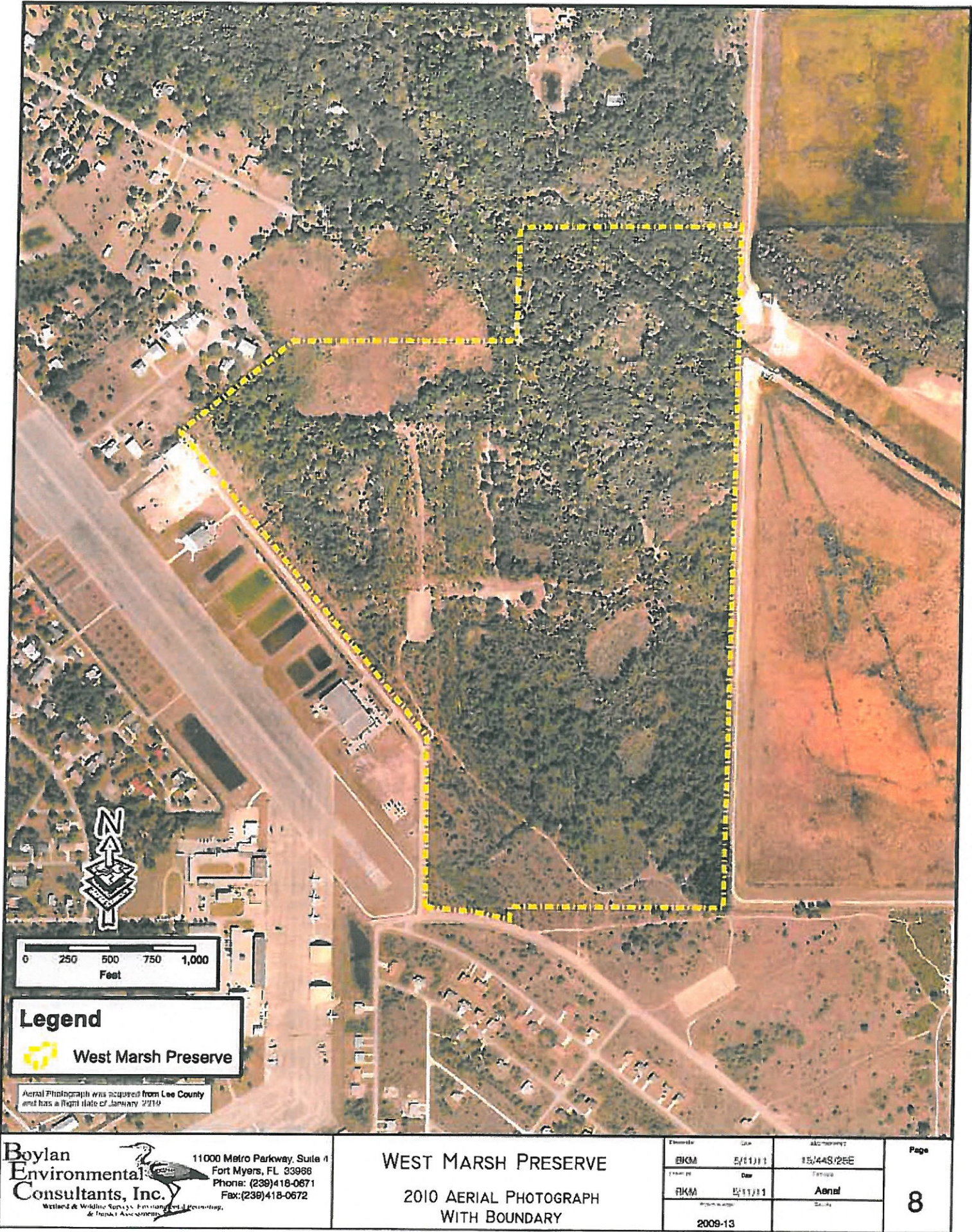


Figure 8: National Wetland Inventory

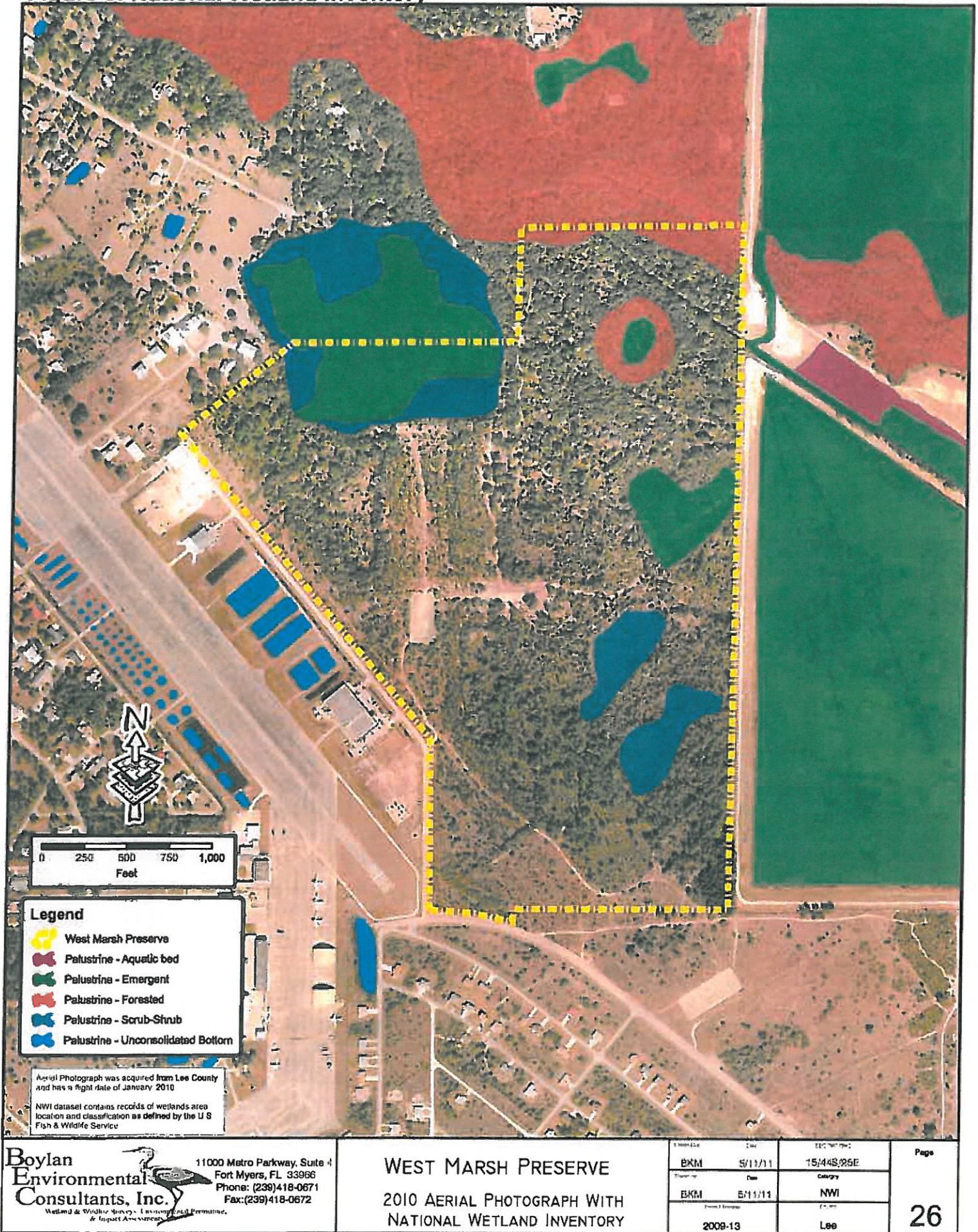


Figure 9: Natural Plant Communities

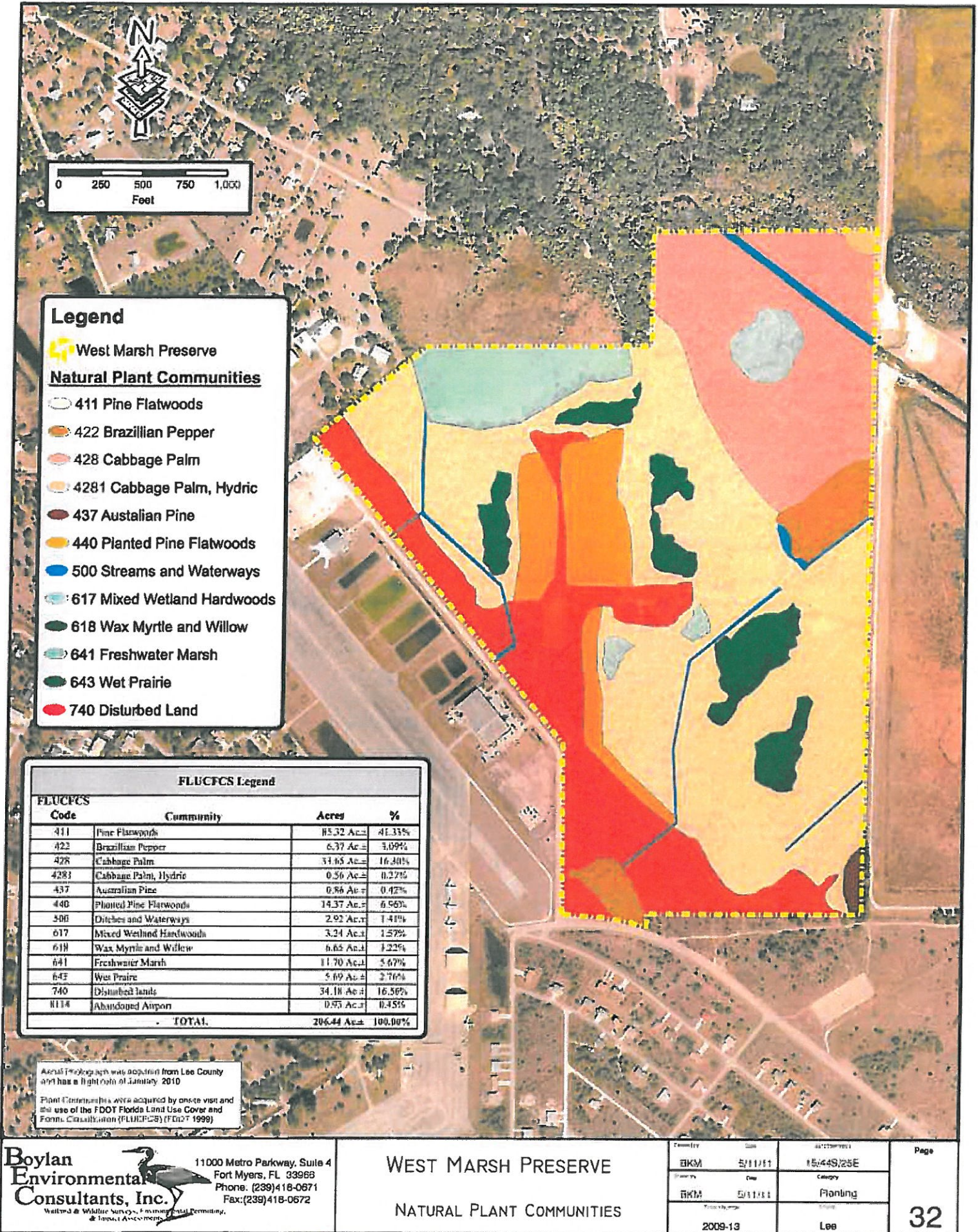


Figure 10: Designated Species Map

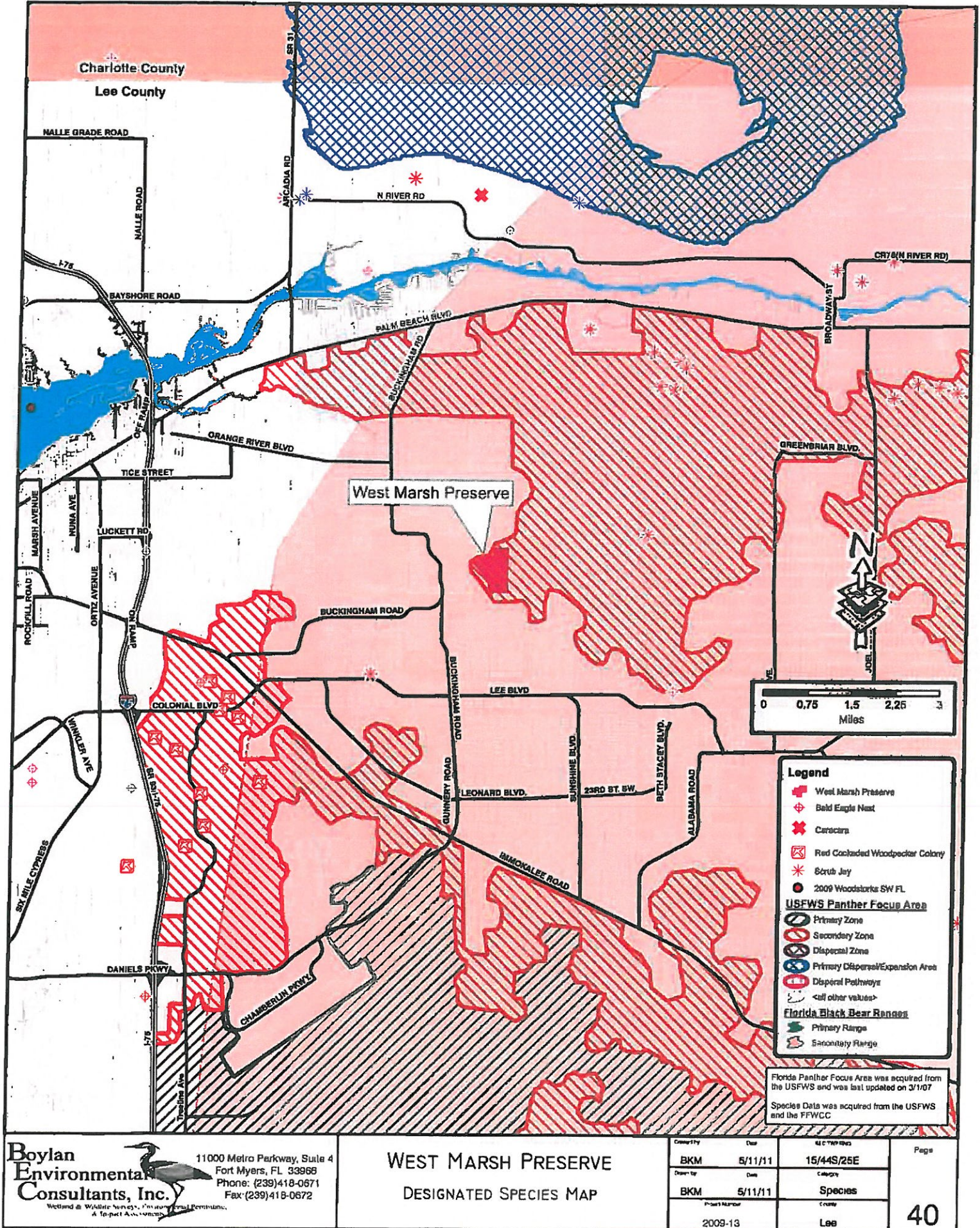


Figure 21: Proposed Master Site Plan

