

## UNIVERSITY PARKWAY BENDERSON DEVELOPMENT WETLAND MITIGATION PROJECT Manatee County, Florida



### **DESCRIPTION OF PROJECT**

This project involved the design of a 600-acre development and regional shopping center north of University Parkway and west of I-75 in Manatee County, Florida. Phase I project objectives included the design of a regional shopping center, justification of wetland impacts, permitting and wetland mitigation design. Scheda's scientists performed wildlife surveys, habitat characterizations, wetland jurisdictional determinations, wetland mitigation design (including grading and planting plans, details, and specifications). The design required impacting a 7.2-acre hardwood forested wetland community. Scheda permitted the first and largest hardwood wetland transplantation project within the Southwest Florida Water Management District. It involved

transplanting over 680 large wetland trees from the impact site to the onsite mitigation area. The transplantation process was performed during the winter dormant season (Spring 2000) and the survivorship was approximately 95%. Scheda supervised the installation of another 725 tree saplings to supplement the mitigation area in the Spring of 2001. By transplanting the forested wetland instead of destroying it and creating a new mitigation area with nursery plants, the client saved 6.0 acres of usable uplands for the future residential development and the required 5+ years of typical forested wetland monitoring was significantly reduced.

### **RESEARCH COMPONENT**

In order to document overall success of the project, an experimental design was planned prior to design and construction in order to compare the various wetland creation areas (transplanted trees and nursery stock) to a nearby reference wetland over time. The design included the following four treatments: nursery tree stock only, transplanted trees only, transplanted trees plus herbaceous plugs (from herbaceous area adjacent to donor site) and reference site. Annual data was collected over the next 5 years with regard to various ecological attributes including percent survival and basal area for trees and diversity, percent cover, community resemblance, and importance values for herbaceous. The results of this research effort were presented at numerous conferences both locally and nationally.

