PGA Boulevard Improvement Project

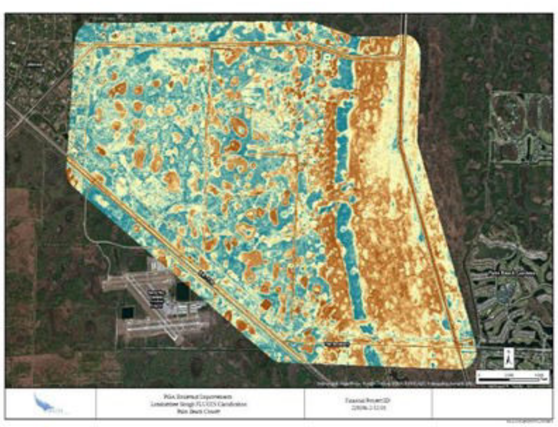
Services Provided: Environmental Permitting, Wetland Evaluation & GIS Habitat Mapping	
Client:	FDOT District 4 / Stanley Consultants
Location:	Palm Beach County, FL

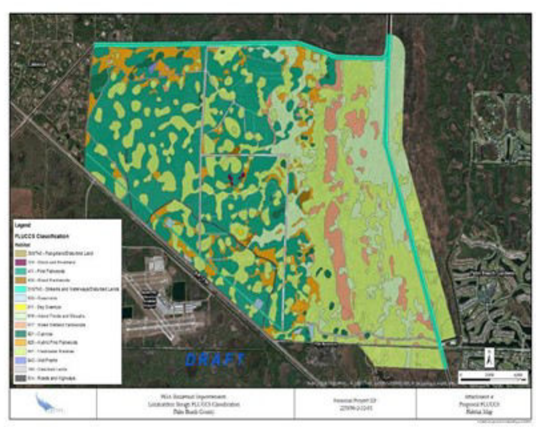

Freshwater marsh in Loxahatchee Slough

DESCRIPTION OF WORK:

This project involved the reconstruction of PGA Boulevard by raising the centerline grade within existing right-of-way (ROW) to provide safety improvements, alleviate flooding, and restore hydrologic connectivity between Loxahatchee Slough and Grassy Waters Preserve. One potential benefit of restored connectivity was the opportunity for the Florida Department of Transportation (FDOT) to establish an onsite Permittee-Responsible Regional Off-Site Mitigation Area (PROMA). The resulting freshwater wetland credits/functional gain units will be based on the Uniform Mitigation Assessment Method (UMAM) to mitigate in-kind wetland impacts resulting from future FDOT road projects. CECOS staff also assisted in the development of the Design-Build RFP, served as part of the Technical Advisory Group (TAG) for the Design-Build phase; and is currently providing post design services.

CECOS was the lead environmental firm for this project and responsible for: a) GIS mapping of wetland and upland habitats within Loxahatchee Slough, b) wetland delineation of impacts adjacent to PGA Boulevard, c) regulatory agency coordination, d) upland and wetland habitat evaluation, e) PROMA coordination and, f) environmental permitting assistance. A habitat map was created for the +/-6,200-acre Loxahatchee Slough using a combination of GIS mapping, NDVI aerial interpretation, and ground truthing. Fifteen unique habitats were identified in the project study area and identified using Florida Land Use Cover and Classification System (FLUCCS) nomenclature. FLUCCS nomenclature was selected, in lieu of the existing Florida Natural Areas Inventory (FNAI) nomenclature developed by Palm Beach County's Environmental Resource Management Department (PBC ERM) as future habitat impacts will be classified using FLUCCS. Consistent nomenclature ensures that appropriate mitigation is provided.





The project team modeled existing and projected water flows into Loxahatchee Slough as a result of the proposed hydrologic improvement and then evaluated their potential benefit to the natural system. An integrated and cooperative approach between CECOS staff and the hydrologic modelers was necessary to facilitate this effort. CECOS evaluated existing habitat quality and those results incorporated into the model. UMAM baseline condition assessments were conducted on each discrete wetland habitat for comparison to proposed conditions. These modeling efforts are on-going.

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