

Modifications to SR 90/Tamiami Trail

Services Provided:

Wildlife Studies, Environmental Monitoring &

Client: USACE / Kiewit Infrastructure South

Location: Miami-Dade County, FL



DESCRIPTION OF WORK:

The main construction components of this project involved the replacement of one-mile of Tamiami Trail (SR 90/US-41) with a bridge and the removal of this portion of the roadway. This will allow improved fresh water flows southward into Everglades National Park (ENP). Construction activities also included raising and reinforcing an additional 9.7 miles of Tamiami Trail, allowing higher water levels in the adjacent L-29 Canal. Higher water levels in the canal will increase flows into the ENP when water is needed most. The bridge and roadway modifications will supply much needed water to imperiled wildlife and vegetation in the ENP and will result in ecosystem restoration benefits to the greater Everglades.

CECOS primary responsibilities included environmental documentation, water quality monitoring, and wildlife monitoring (nesting wood storks and snail kites, manatee, eastern indigo snake, gopher tortoise and Everglade mink, among other protected species). CECOS staff coordinated extensively with US Army Corps of Engineers, US Fish & Wildlife Service, Florida Department of Environmental Protection and ENP to allow construction activities within

sensitive and restricted areas. CECOS was responsible to determine if nesting activities from protected species are occurring within the 10.7 miles corridor and conducted noise studies to determine if certain construction activities would impact nesting bird behavior. Turbidity monitoring was a key monitoring task, because elevated NTU levels in the ENP could shut down construction activities. CECOS worked with the contractor, USACE, ENP and FDEP to establish monitoring protocols to help expedite construction activities. Our field biologist worked proactively with the contractor to try to avoid exceedance of authorized limits. FDEP was very pleased with the environmental monitoring associated with this major construction project.

CECOS was also responsible for wetland monitoring and utilized high level GIS concepts and skills to document changes in vegetation to gauge construction impacts. As part of this effort, CECOS' GIS Specialist conducted spatial analysis of changes in vegetation health (living, stressed, or dead). The analysis was conducted by tasking a satellite to photograph the project using high-resolution photography. The images were then analyzed for vegetation characteristics and compared at the end of the project to determine wetland impacts that occurred during construction activities.

