



Indian River Lagoon South Restoration Project: Restoring Florida's Natural Jewel on the Treasure Coast



Breaking ground on the Indian River Lagoon South restoration project (IRL) is a significant milestone in Everglades restoration that will improve the health of the Indian River Lagoon and St. Lucie Estuary. Spanning Martin and St. Lucie Counties, the Indian River Lagoon and St. Lucie Estuary is one of the most biologically diverse and productive estuarine systems in the continental United States.

Restoration of this region will improve the timing and distribution of inflows to the Estuary, increase water quantity, improve water quality, and restore the North Fork of the St. Lucie River and its floodplain.

Historically, the Everglades delivered freshwater south from Lake Okeechobee in a slow uninterrupted movement called sheetflow. As south Florida became more populated, and to allow for development and agriculture, the natural sheetflow was replaced by a complex system of canals, levees, and ditches.

This change in water flow has caused damage and degraded water quality in the Lagoon and Estuary. In the past several years, after multiple large rain events, sizeable quantities of freshwater from Lake Okeechobee have been released into the Estuary. These water releases have altered salinity levels and introduced contaminants into both the Lagoon and Estuary. The freshwater releases tend to temporarily shock the ecosystem. Repeated releases overtime may reduce the ability of the ecosystem to recover from the sudden change in salinity levels. In addition to the freshwater releases from Lake Okeechobee, runoff from residential and agriculture around the Estuary and Lagoon have negatively impacted the ecosystem's health and water quality.

An Ecological Treasure

The Indian River Lagoon and St. Lucie Estuary are Florida's natural jewels on the Treasure Coast, supporting more than 4,300 plant and animal species. The North Fork of the St. Lucie River supports rookeries for the endangered *Wood Stork* and is home to rare fish species such as the *mangrove rivulus*. The Indian River Lagoon and its watershed has more than 50 endangered and threatened species, including *West Indian Manatees* and five species of sea Turtles- hawksbill, green, leatherback, loggerhead, and Kemp's Ridley. The St. Lucie River is designated an Outstanding Florida Water, and supports more species of fish than any other river in Florida. This treasure trove of wildlife depends on the availability of clean and abundant water year-round.

*Wood Storks in the
North Fork St. Lucie
River Aquatic
Preserve.
Photo Courtesy of
Florida Department of
Environmental
Protection*



*Seagrass shoals of Sebastian Inlet
Photo Courtesy of University of Florida IFAS*



Photo Courtesy of Mac Stone



In March, almost 250 representatives from private sector contracting firms attended a pre-proposal meeting for IRL construction projects. Photo courtesy of Mark Perry

Ecological Benefits of Indian River Lagoon Restoration

The Indian River Lagoon South project is expected to provide significant ecological benefits to Florida. The project's three new stormwater treatment areas will improve water quality by cleaning phosphorus, nitrogen, and other sediments from the water before it enters the Indian River Lagoon and St. Lucie River and Estuary. The project will provide 12,000 acres of above ground storage, capturing water that would otherwise flow out to tide. Water from the C-23/24 basin will be redirected to the North Fork of the St. Lucie River, helping attenuate fresh water flows into the estuary and improve salinity levels to better support habitat for abundant wildlife. The project will also restore wetland and upland habitats through ditch plugging, berm construction, and periodic fire maintenance. Muck will be removed from the middle estuary and the north and south forks of the St. Lucie River and oyster shell, reef balls, and artificial submerged aquatic vegetation will be added to improve habitat. It is predicted that the project will create 2,650 acres of benthic habitat in St. Lucie River and Estuary and restore 922 acres of submerged aquatic vegetation and 889 acres of oyster habitat.

Economic Benefits of Indian River Lagoon Restoration

Phase 1 of the Indian River Lagoon South project is projected to harness direct economic benefits for south Florida. The large scope and multi-year nature of restoration construction contracts provide economic stability for companies working on the project, while at the same time moving us closer to recovering the abundance of life that makes the Everglades such a unique natural treasure. It is estimated that indirect, direct and induced economic impact will include 490 jobs during the first year of the contract and 310 jobs during the second year. The United States Army Corps of Engineers predicts that the project will also foster an additional \$6.1 million in improved agricultural productivity through improved fresh water supplies.

The Indian River Lagoon South restoration project is an important step toward progress in restoring the Greater Everglades to nurture a healthy environment and healthy economy in Florida.