SENATE STAFF ANALYSIS AND ECONOMIC IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

BILL: CS/SM 1504

SPONSOR: Natural Resources Committee and Senator Pruitt

SUBJECT: Indian River Lagoon Restoration Plan

DATE: February 17, 2004 REVISED: _____ _____ _____ _____

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Branning	Kiger	NR	Favorable/CS
2.			RC	
3.				
4.				
5.				
6.				

I. Summary:

This is a memorial to the United States Army Corps of Engineers and the United States Congress, urging prompt action to complete the Indian River Lagoon Restoration Plan on schedule.

II. Present Situation:

Indian River Lagoon

The Indian River Lagoon is a series of three distinct, but interconnected, estuarine systems, which extend 156 miles from Ponce Inlet to Jupiter Inlet on Florida's east coast. The northern portion of the lagoon is within the St. Johns River Water Management District, while the lagoon's southern section is located within the South Florida Water Management District (SFWMD) in St. Lucie, Martin and northern Palm Beach counties.[1]

An estuary is an area where saltwater from the sea mixes with freshwater from the land, such as a bay, the mouth of a river, a salt marsh, or a lagoon. A lagoon is a broad, shallow estuarine system separated from the ocean by a barrier island, generally paralleling the shoreline and limiting exchange with the sea through inlets.[2] Estuarine systems are critical for the survival of many species of birds, mammals, fish and other wildlife, some of them rare and endangered. In addition, saltwater grasses and other estuarine plants help prevent erosion and stabilize shorelines.[3]

[1] www.evergladesplan.org/pm/studies/study_docs/irl_south/121003_irl_s_pir_main_summary.pdf
[2] www.sfwmd.gov/org/wrp/wrp_ce/2_wrp_ce_lagoon/2_wrp_ce_lagoon.html
[3] www.sfwmd.gov/org/wrp/wrp_ce/2_wrp_ce_lagoon/2_wrp_ce_lagoon.html

The Indian River Lagoon has been described as the most biodiverse estuarine system in all of North America, providing shelter to manatees, dolphins, sea turtles, and seahorses. Part of the Indian River Lagoon is an estuary of national significance, recognized by the U.S. Environmental Protection Agency National Estuary Program and designated a Florida Aquatic Preserve and Outstanding Florida Water.[4] Moreover, the lagoon supports multimillion dollar fishing, clamming, tourism, agricultural and recreational industries.[5]

In 1987, the Legislature created the Surface Water Improvement and Management (SWIM) Act, to aid in the restoration of priority water bodies throughout Florida. The Indian River Lagoon was one of the five statutorily named priority water bodies.

According to a recent report issued by the SFWMD and the U.S. Army Corps of Engineers, the southern Indian River Lagoon ecosystem is in imminent danger of ecological collapse.[6] One apparent cause is the hydraulic connection of the lagoon to the Central and Southern Florida Project, which facilitates regional flood protection and drainage, resulting in extensive damage to lagoon bottom vegetation, water transparency, and living organisms. Regional development, drainage and navigation improvements, including connection of the St. Lucie River to the Okeechobee Waterway and other operations of the Central and Southern Florida system, led to discharges of large volumes of freshwater to the estuary during intense rainfall events. Along with the freshwater discharges have come muck deposits, other sediments and excessively high levels of nutrients including phosphorus and nitrogen. Muck has accumulated on estuary bottoms and has covered large areas, impeding penetration of sunlight to the bottom, reducing oxygen levels in the water column, and indirectly causing the disappearance of native seagrass and oyster beds. Because so much of the income of Martin and St. Lucie Counties relies on recreational and commercial fishing and other marine-related activities, further degradation of the lagoon ecosystem may have a direct adverse impact on the regional economy.[7]

Adequately and reliably meeting the water supply demands of the agricultural interests in the area is also an issue. Historically, most rainwater soaked into the ground in the region's short hydroperiod wetland systems. As Martin and St. Lucie Counties developed, some of these wetlands were converted into agricultural and urban land uses. For some of the remaining wetlands, the network of drainage canals worked too efficiently and drained too much water off the land too quickly. The net result is that insufficient water is stored for all agricultural use in the dry season, and agricultural interests are forced to rely on the moderately saline Floridan aquifer to supplement irrigation needs. Reliance on this source for extended periods of time can lead to decline in productivity and potential die-off of crops. According to the SFWMD and U.S. Army Corp of Engineers, without the features contained in the Indian River Lagoon - South recommended plan, these adverse impacts to regional agriculture will continue.[8]

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[4] www.evergladesplan.org/pm/studies/study_docs/irl_south/121003_irl_s_pir_main_summary.pdf
[5] www.sfwmd.gov/org/wrp/wrp_ce/2_wrp_ce_lagoon/2_wrp_ce_lagoon.html
[6] Draft Project Implementation Report and Supplement to the Final Environmental Impact Statement, U.S. Army Corp of Engineers & SFWMD, December 2003. www.evergladesplan.org/pm/studies/study_docs/irl_south/121003_irl_s_pir_main_summary.pdf
[7] Draft Project Implementation Report and Supplement to the Final Environmental Impact Statement, U.S. Army Corp of Engineers & SFWMD, December 2003.
[8] Draft Project Implementation Report and Supplement to the Final Environmental Impact Statement, U.S. Army Corp of Engineers & SFWMD, December 2003. www.evergladesplan.org/pm/studies/study_docs/irl_south/121003_irl_s_pir_main_summary.pdf

The Indian River Lagoon Restoration Plan

The Indian River Lagoon - South Restoration Plan represents one regional set of the highly interrelated components of the Comprehensive Everglades Restoration Plan (CERP), a joint federal-state effort to restore the South Florida ecosystem, including the Everglades. However, the U.S. Congress must authorize the Indian River Restoration Plan in order for restoration activities to proceed.

The recommended restoration plan will allow significant restoration of physically and biologically degraded areas in the southern Indian River Lagoon area, while providing for other water-related needs of the region, including sustainable agricultural water supply and maintenance of existing flood protection.[9] The Final Feasibility Study for the Indian River Lagoon-South project recommends a plan in Martin, St. Lucie, and Okeechobee Counties that will improve water quality within the St. Lucie Estuary and the Indian River Lagoon by reducing the damaging effects of watershed runoff, reducing high peak freshwater discharges to control salinity levels, reducing nutrient loads, pesticides and other pollutants. The project will also provide water supply for agriculture to offset reliance on the Floridian Aquifer. [10] The plan includes 170,000 acre feet of storage in reservoirs and storm water treatment areas, provides storage on 90,000 acres of natural storage areas, and removes 5,500,000 cubic yards of muck from the St. Lucie River and Estuary.[11]

Without the recommended plan, the southern Indian River Lagoon ecosystem will continue to deteriorate and will remain in imminent danger of ecological collapse. [12] A small level of ecological improvement within the south Florida ecosystem is expected to occur by 2050 as a result of implementation of Federal, state, and local projects currently planned outside of the CERP program. Some of these projects would beneficially affect the study area. However, the cumulative, regional benefits from these projects would not result in restoration of the Indian River Lagoon ecosystem and its watershed. While the Indian River Lagoon - South Restoration Plan addresses to a significant degree the restoration needs associated with impacts from the watershed, the balance of the CERP further contributes to the restoration of the Indian River Lagoon by providing additional storage of excess regional water from Lake Okeechobee and its enormous watershed. The success of the Indian River Lagoon - South recommended plan is ultimately dependent upon the implementation of the overall restoration plan for the south Florida ecosystem. [13]

[9] www.evergladesplan.org/pm/studies/study_docs/irl_south/121003_irl_s_pir_main_summary.pdf
[10] www.evergladesplan.org/pm/projects/proj_07_irl_south.
[11] www.evergladesplan.org/pm/projects/proj_07_irl_south.
[12] Draft Project Implementation Report and Supplement to the Final Environmental Impact Statement, U.S. Army Corp of Engineers & SFWMD, December 2003.
www.evergladesplan.org/pm/studies/study_docs/irl_south/121003_irl_s_pir_main_summary.pdf
[13] Draft Project Implementation Report and Supplement to the Final Environmental Impact Statement, U.S. Army Corp of Engineers & SFWMD, December 2003.
www.evergladesplan.org/pm/studies/study_docs/irl_south/121003_irl_s_pir_main_summary.pdf

III. Effect of Proposed Changes:

This is a memorial to the United States Army Corps of Engineers and the United States Congress, urging prompt action to complete the Indian River Lagoon Restoration Plan on schedule.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

V. Economic Impact and Fiscal Note:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

None.

C. Government Sector Impact:

None.

VI. Technical Deficiencies:

Since the U.S. Army Corps of Engineers cannot act without Congressional authorization, this should be a memorial to both the U.S. Army Corps of Engineers and the United States Congress.

VII. Related Issues:

None.

VIII. Amendments:

None.