

HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: HM 193 w/CS Indian River Lagoon Restoration Plan
SPONSOR(S): Harrell
TIED BILLS: None **IDEN./SIM. BILLS:** SB 1504

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR
1) <u>Natural Resources</u>	<u>17 Y, 0 N w/CS</u>	<u>Camechis</u>	<u>Lotspeich</u>
2) _____	_____	_____	_____
3) _____	_____	_____	_____
4) _____	_____	_____	_____
5) _____	_____	_____	_____

SUMMARY ANALYSIS

The memorial urges prompt action by the United States Army Corps of Engineers to complete the Indian River Lagoon Restoration Plan and forward it to the U.S. Congress for authorization in order to keep the restoration plan on schedule.

The memorial does not have a fiscal impact.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. DOES THE BILL:

- | | | | |
|--------------------------------------|------------------------------|-----------------------------|---|
| 1. Reduce government? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| 2. Lower taxes? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| 3. Expand individual freedom? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| 4. Increase personal responsibility? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| 5. Empower families? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |

For any principle that received a "no" above, please explain:

B. EFFECT OF PROPOSED CHANGES:

The 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

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

Ecological status of the Indian River Lagoon

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.

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

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

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

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 hydro patterns in the Everglades area. 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 Floridan 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

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

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

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

C. SECTION DIRECTORY:

The memorial format does not contain sections.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues: The purpose of the memorial is to urge federal agencies to take action; therefore, the memorial does not have a fiscal impact.
2. Expenditures: The purpose of the memorial is to urge federal agencies to take action; therefore, the memorial does not have a fiscal impact.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues: The purpose of the memorial is to urge federal agencies to take action; therefore, the memorial does not have a fiscal impact.
2. Expenditures: The purpose of the memorial is to urge federal agencies to take action; therefore, the memorial does not have a fiscal impact.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

The purpose of the memorial is to urge federal agencies to take action; therefore, the memorial does not have a fiscal impact.

D. FISCAL COMMENTS:

The total cost of the recommended Indian River Lagoon Restoration Plan is expected to reach \$1,232,913,960. Annual operation and maintenance costs are estimated at \$6,144,700, which includes \$1,954,500 for project monitoring.

Generally speaking, the cost of implementing the restoration plan should be allocated equally between the state and federal government. However, the 50/50 split is intended to apply to all CERP projects, over the life of the entire project; therefore, the exact cost allocation for the Indian River Lagoon Restoration Plan has not been determined.

¹³ Draft Project Implementation Report and Supplement to the Final Environmental Impact Statement, U.S. Army Corp of Engineers & SFWMD, December 2003.
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III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not applicable. This bill does not appear to affect municipal or county government.

2. Other: None.

B. RULE-MAKING AUTHORITY: The memorial does not impact the rule-making authority of any state agency.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/COMMITTEE SUBSTITUTE CHANGES

On February 4, 2003, the Committee on Natural Resources adopted two clarifying amendments, neither of which altered the Memorial in a substantive manner.