

**HOUSE OF REPRESENTATIVES STAFF ANALYSIS**

**BILL #:** HM 1227  
Estuary Recovery Plan

Indian River Lagoon Restoration Project and Lake Okeechobee and

**SPONSOR(S):** Harrell

**TIED BILLS:**

**IDEN./SIM. BILLS:**

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REFERENCE	ACTION	ANALYST	STAFF DIRECTOR
1) Committee on Conservation & State Lands	_____	Palmer	Zeiler
2) Environment & Natural Resources Council	_____	_____	_____
3) Rules & Calendar Council	_____	_____	_____
4) _____	_____	_____	_____
5) _____	_____	_____	_____

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**SUMMARY ANALYSIS**

House Memorial 1227 urges the United States President and the United States Congress to promptly authorize funding to construct the Indian River Lagoon Restoration project and for the development of a comprehensive plan to assist in the implementation of the Lake Okeechobee and Estuary Recovery Plan.

As a House Memorial, HM 1227 has no fiscal impact.

## FULL ANALYSIS

### I. SUBSTANTIVE ANALYSIS

#### A. HOUSE PRINCIPLES ANALYSIS:

The bill does not appear to implicate any of the House Principles.

#### B. EFFECT OF PROPOSED CHANGES:

##### Present Situation

On October 10, 2005, Governor Bush announced the Lake Okeechobee and Estuary Recovery Plan. The Plan is designed to reduce pollution and better manage the flow of water from Lake Okeechobee to the St. Lucie River, thence to the Indian River Lagoon, and to the Caloosahatchee River, thence to the Caloosahatchee River Estuary and Charlotte Harbor, while meeting South Florida's flood control and water supply needs.

The Indian River Lagoon is not a river but a type of estuary called a lagoon. A lagoon is a body of water separated from the ocean by barrier islands which has limited exchange of water with the ocean through inlets. The Indian River Lagoon (lagoon) is located along Florida's Atlantic coast – from Ponce De Leon Inlet to Jupiter Inlet – extending about 150 miles through five coastal counties. The lagoon varies in width from one-half mile to five miles and averages only three feet in depth. It straddles the climate divide between the subtropical zone to the south and the temperate zone to the north.<sup>1</sup>

The Indian River Lagoon is recognized as North America's most diverse estuary with more than 2,200 different species of animals and 2,100 species of plants. It serves as a spawning and nursery ground for many different species of oceanic and lagoon fish and shellfish and has one of the most diverse bird populations in United States. Nearly one-third of the nation's manatee population lives in or migrates through the lagoon. The ocean side of the barrier islands provides one of the densest sea turtle nesting areas found in the Western Hemisphere.<sup>1</sup>

Environmental degradation in the south lagoon, resulting from human settlement and the construction of canals in the lagoon watershed over the past 100 years, threatens the fragile balance of lagoon life. The problems are complex, ranging from changing water flow patterns to excessive nutrient loading that has affected the number and types of plants, fish and wildlife found in the lagoon. The complexities of this lagoon system are what cause it to be a valuable resource. However, it is in peril of losing its unique character and wealth. Work is ongoing to achieve a scientific understanding of the lagoon's ecosystems and dynamics in the hope that the lagoon might be restored and maintained in a healthy state.

Both the South Florida Water Management District (SFWMD) and the U.S. Army Corps of Engineers (USACE) have stated in the *Final Integrated Project Implementation Report*<sup>2</sup> that the southern Indian River Lagoon (IRL-S) ecosystem is in imminent danger of an ecological collapse. The estuary system has been degraded by large and frequently occurring discharges of freshwater, and by excessive accumulation of muck in estuary and lagoon bottoms. This has resulted in a reduction in water clarity and salinities reduced below the tolerances of submerged vegetation and benthic animals. 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.

To avert this eminent environmental disaster, the SFWMD has developed the Indian River Lagoon – South Restoration Plan as one of the highly interrelated components of the Comprehensive Everglades

Restoration Plan<sup>3</sup> (CERP). CERP is a joint federal-state effort to restore and preserve the Everglades and associated areas. The IRL-S Restoration Plan provides for restoration of physically and biologically degraded areas in the southern Indian River Lagoon area, while allowing for other water-related needs of the region, including a sustainable agricultural water supply and maintenance of existing flood protection. The IRL-S Restoration Plan seeks to 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 provide a water supply for agriculture to offset reliance on the Floridan aquifer by building and operating approximately 12,600 acres of new reservoirs and approximately 8,700 acres of new stormwater treatment areas, restoring natural hydrology on approximately 92,000 acres in the watershed, restoring approximately 3,100 acres of floodplain wetlands in the North Fork of the St. Lucie River, and muck removal and habitat restoration actions inside the estuaries. This effort will involve Martin, St. Lucie, and Okeechobee Counties.<sup>2</sup>

The Plan includes building pumps, levees, canals and other water control structures to interconnect the new reservoirs as a means to redirect stormwater discharges. As a result, there will be a significant reduction in harmful discharges into the estuaries, water quality improvement will be achieved, native wetland and upland habitat in the watershed will be restored, and there will be improved habitat for natural populations of flora and fauna, including threatened and endangered species.<sup>2</sup>

While the IRL-S Restoration Plan addresses the restoration needs within the watershed, the balance of the CERP programs are necessary to attain the full restoration of the Indian River Lagoon and the success of the IRL-S Restoration Plan is ultimately dependent upon the implementation of the overall restoration plan for the south Florida ecosystem.

The Caloosahatchee River flows into Charlotte Harbor in Lee County on Florida's Gulf Coast. The SFWMD describes the Caloosahatchee River estuary as an area where the waters of the Gulf of Mexico mix with the freshwater inflows from the river, sloughs and overland sheetflow. In the lower reaches of the river and estuary are sand flats, a shallow bay and extensive seagrass beds, and mangrove forests dominate undeveloped areas of the shoreline. Southwest Florida estuaries are habitat to more than 40 percent of Florida's rare, endangered and threatened species.<sup>3</sup>

Water quality within the Caloosahatchee River basin is threatened by altered freshwater inputs, especially large discharges from Lake Okeechobee, nutrient loads from agricultural activities, trace elements, and overall urban growth and development within the watershed.

The Lake Okeechobee and Estuary Recovery Plan is designed to reduce pollution of the St. Lucie River and the Caloosahatchee River by better management of the flow of water from Lake Okeechobee. As part of the Plan, state agencies are working together with citizens and local governments to improve farming practices, by raising standards and strengthening permitting criteria for new development, and by implementing a new lake regulation schedule developed by the USACE and SFWMD to lower water levels and thus reduce freshwater discharge volumes and frequencies to the St. Lucie and Caloosahatchee Rivers. The Lake Okeechobee and Estuary Recovery Plan involves the following agencies: South Florida Water Management District, Department of Environmental Protection, Department of Community Affairs and Department of Agriculture and Consumer Services.

#### Effect of Proposed Memorial

The memorial urges the United States Congress to promptly enact pending legislation to authorize the Indian River Lagoon Restoration Project and requests the President of the United States to sign that legislation into law. The memorial also requests the President to work with Congress to develop and enact a comprehensive planning and funding initiative to be implemented in coordination with the Lake Okeechobee and Estuary Recovery Plan.

<sup>1</sup> Florida Oceanographic Society, 2007. [http://www.floridaoceanographic.org/enviro/Indian\\_River.htm](http://www.floridaoceanographic.org/enviro/Indian_River.htm)

<sup>2</sup> USACE, 2004. *Final Integrated Project Implementation Report*

<sup>3</sup> SFWMD, 2007. <http://www.evergladesplan.org/index.aspx>

C. SECTION DIRECTORY:

N/A.

**II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT**

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None.

2. Expenditures:

None.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

None.

2. Expenditures:

None.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

None.

D. FISCAL COMMENTS:

The implementation of the IRL-S Restoration Plan is contingent on the appropriation of funds by the United States Congress for the work to be completed. It is currently estimated that \$1.3 billion will be needed to fully implement the IRL-S Restoration Plan.<sup>39</sup>

**III. COMMENTS**

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not applicable because this bill does not appear to require cities or counties to spend funds or take actions requiring the expenditure of funds, nor does it appear to reduce the authority that cities or counties have to raise revenues in the aggregate, nor does it appear to reduce the percentage of a state tax shared with cities or counties.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

None.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

D. STATEMENT OF THE SPONSOR

No statement submitted.

**IV. AMENDMENTS/COUNCIL SUBSTITUTE CHANGES**

N/A