

**The Florida Senate**  
**PROFESSIONAL STAFF ANALYSIS AND ECONOMIC IMPACT STATEMENT**

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

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Prepared By: General Government Appropriations Committee

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BILL: CS/CS/SB 392

INTRODUCER: General Government Appropriations Committee, Environmental Preservation and Conservation Committee, and Senator Saunders

SUBJECT: Everglades Restoration

DATE: March 16, 2007

REVISED: \_\_\_\_\_

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Kiger	Kiger	EP	<b>Fav/CS</b>
2.	Kynoch	DeLoach	GA	<b>Fav/CS</b>
3.				
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5.				
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## **I. Summary:**

This bill substantially amends section 373.4595, Florida Statutes, known as the Lake Okeechobee Protection Act. The existing Phase II of the Lake Okeechobee Protection Plan is modified to require that the plan reflect the following: new measurements, additional detail on project schedules, an identification of additional types of projects to be considered, and the creation of the Total Maximum Daily Load (TMDL) program. In addition, the modified plan is required to be submitted to the Legislature for ratification during the 2008 Regular Session.

The bill creates two new water protection programs: one for the Caloosahatchee River watershed and the other for the St. Lucie River watershed. Each protection program contains a series of sub-component programs: a watershed protection plan, a watershed construction project, a watershed pollutant control program, and a watershed research and water quality monitoring program. Requirements of the programs, goals, and objectives are also created.

Finally, the bill modifies provisions related to the Save Our Everglades Trust Fund to extend the trust fund through Fiscal Year 2019-2020 and allow for the deposit and expenditure of funds related to the new protection programs. The bill extends the South Florida Water Management District's match requirements for the life of the trust fund and allows funds to be distributed for implementation of the River Watershed Protection Plans and agricultural nonpoint source controls.

The bill takes effect July 1, 2007.

This bill amends the following sections of the Florida Statutes: 215.619, 373.026, 373.4595, 373.470, and 373.472.

## **II. Present Situation:**

### **Lake Okeechobee Protection Plan**

Lake Okeechobee is the second largest freshwater lake in the continental United States, covering 730 square miles. A relatively shallow lake, it has an average depth of nine feet. The watershed of the lake stretches from just south of Orlando to areas that border the lake on the south, east, and west and covers approximately 3.45 million acres.

The lake provides a number of benefits to society and nature, including: water supply for agriculture, urban areas, and the environment; flood protection; a multi-million dollar sport and commercial fishery; and habitat for numerous birds. These benefits have been threatened in recent decades by excessive phosphorus loading, harmful high water levels, and rapid expansion of invasive exotic species.

The Lake Okeechobee Protection Act was passed by the 2000 Legislature to establish a restoration and protection program for the lake. The goal of the protection plan is to achieve and maintain compliance with state water quality standards through a watershed-based, phased, comprehensive process designed to meet the Total Maximum Daily Loads (TMDLs) for the lake and its tributary waters. The legislation required the following: a formal Lake Okeechobee Protection Plan with annual reports; implementation of the Lake Okeechobee Construction Project; and a watershed phosphorous control program.

In January 2004, the initial Lake Okeechobee Protection Plan was delivered. The plan details an integrated management strategy based on the implementation of phosphorous control programs, including best management practices, water flow control projects, and in-lake remediation activities.

The Lake Okeechobee Construction Project is being implemented in two phases. Phase I construction is complete for the two critical projects, Taylor Creek and Nubbin Slough, and start-up operations have begun. Phase II, referred to as the Lake Okeechobee Watershed Project, will construct reservoir storage and stormwater treatment facilities. In addition, land will be acquired for wetland and habitat restoration efforts.

To date, total expenditures for implementing the Lake Okeechobee Protection Act are \$175 million. State sources are approximately \$140 million and South Florida Water Management District contributions are \$35 million.

### **Conditions and Release of Water from Lake Okeechobee**

Section 373.4595(5), F.S., prohibits the South Florida Water Management District from diverting water from Lake Okeechobee to the St. Lucie River, the Indian River Estuary, the Caloosahatchee River and its estuary, or the Everglades National Park “in such a way that the state water quality standards are violated, that the nutrients in such diverted waters adversely

affect indigenous vegetation communities or wildlife, or that fresh waters diverted to the St. Lucie River or the Caloosahatchee or Indian River estuaries adversely affect the estuarine vegetation or wildlife, unless the receiving waters will biologically benefit by the diversion. However, diversion of waters from the Lake is permitted when an emergency is declared by the South Florida Water Management District if the Secretary of Environmental Protection concurs.”

The South Florida Water Management District, in collaboration with the U.S. Army Corps of Engineers, has developed a “regulation schedule” for the lake designed to provide floodwater storage capacity during the wet season and to supplement water supply during the dry season. However, when water levels are extremely high, water discharges are sent through the canals to the St. Lucie and Caloosahatchee Rivers and estuaries in order to prevent a breach of the Hoover Dike surrounding the lake.

During the period of August through October 2004, Lake Okeechobee received a large volume of water from four hurricanes that crossed the state during a six-week period. Water levels in the lake increased by about six feet, and the lake received 83 percent of its annual total phosphorus load. To prevent a catastrophic failure of the Hoover Dike, discharges to the St. Lucie and Caloosahatchee Rivers were authorized. Related windy conditions re-suspended and distributed large amounts of phosphorus-laden sediments throughout the lake, causing significant reductions in the amount of light available to submerged aquatic vegetation and increasing the amount of blue-green algae in the lake.

### **St. Lucie River**

The St. Lucie River and estuary are located on the central coast of Florida, with the watershed covering about 780 square miles. The St. Lucie River’s headwaters lie between the lands west of Ft. Pierce in St. Lucie County to near the north boundary of Jonathan Dickinson State Park in Martin County. The south fork of the St. Lucie River connects with the cross-state Okeechobee Waterway, built by the U.S. Army Corps of Engineers and completed in 1937.

The purpose of the Okeechobee Waterway is to provide a means for releasing water from the lake when it reaches flood stage. As water is released, the accumulated pollutants in the discharged water, along with sediment from the banks of the waterway, all have negative effects on the water quality of the St. Lucie River. The estuarine environment is sensitive to freshwater releases, and these alterations have placed severe stress on the entire ecosystem. Extreme salinity fluctuations and ever-increasing inflows have contributed to major changes in the structure of the communities within the estuary, as seen by seagrass and oyster losses.<sup>1</sup>

### **Caloosahatchee River**

The Caloosahatchee River and estuary are located on the southwest coast of Florida. The Caloosahatchee River connects Lake Okeechobee to the Caloosahatchee estuary. The river, originally a shallow meandering stream, has gone through numerous dredging and re-channeling projects over a long period of time, which have drastically altered the hydrology of the river. In the early 1930s, locks and water control structures were constructed on the river. Some of the

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<sup>1</sup> <http://www.sfwmd.gov/org/exo/mslsc/slr/index.html>

locks act as salinity barriers, as the river is composed of freshwater entering from Lake Okeechobee and saltwater from the Gulf of Mexico, where it empties.

### **III. Effect of Proposed Changes:**

The bill amends provisions related to the uses of the Save Our Everglades Trust Fund and the Lake Okeechobee Protection Program. In addition, new watershed restoration programs are established for the St. Lucie and Caloosahatchee Rivers.

#### **Lake Okeechobee Protection Program (s. 373.4595, F.S.)**

The bill renames this section the “Northern Everglades and Estuaries Protection Program.” In addition, legislative intent and findings sections are amended. Changes made will:

- Expand existing legislative findings related to the Lake Okeechobee watershed to include the Caloosahatchee and St. Lucie Rivers watersheds as additional areas of critical importance to the state.
- Amend an existing finding to include “loss of surface water storage” as having a negative impact on water quality.
- Update findings to reflect the creation of the TMDLs and the role this program will play in meeting water quality standards.
- Create a finding to recognize that other pollutants, aside from phosphorus, are contributing to water quality problems within the watersheds.
- Amend a finding concerning private-public partnerships to include opportunities for water storage on private lands and water quality credit trading.

New definitions are created for: “Caloosahatchee River watershed,” “Northern Everglades,” “River Watershed Protection Plans,” and “St. Lucie River watershed.”

The bill renames the Lake Okeechobee Protection Program to the Lake Okeechobee Watershed Protection Program.

A number of changes are also made to the Phase II provisions of the program. Specifically, the bill directs that a detailed technical plan be developed. Included in this plan shall be:

- Measures for the improvement of quality, quantity, timing, and distribution of water in the northern Everglades system.
- A process for the development and engineering component to finalize the detail and design of projects and develop additional measures as needed.
- An identification of facilities, including size and location, designed to contribute to the achievement of TMDLs.
- Provide construction schedules, which shall detail the necessary land acquisitions, costs, and environmental impacts.
- An identification of additional measures, such as water storage and quality improvements on private lands, that may be used to achieve applicable water quality and water discharge goals. In developing these measures, the plan shall provide for an appropriate water quantity storage goal.

- An identification of additional source control measures that could be used to enhance performance of the Phase II projects.

The Lake Okeechobee Watershed Phosphorus Control Program (s. 373.4595(3)(c), F.S.) is amended to:

- Direct the Department of Agriculture and Consumer Services to work with the University of Florida's Institute of Food and Agriculture Sciences to review and revise nutrient application rates within the watershed.
- Prohibit the Department of Environmental Protection (DEP), after December 31, 2007, from authorizing the disposal of domestic wastewater residuals within the watershed unless the applicant can demonstrate that such disposal will not add to phosphorus loadings in the lake or its tributaries. This prohibition will not apply to Class AA residuals that are marketed and sold as fertilizer.

The bill renames the Lake Okeechobee Research and Water Quality Monitoring Program (s. 373.4595(3)(d), F.S.), to include the term "watershed." Additional changes to this program include requirements that a reevaluation occur every three years and that a water volumes and timing assessment be done.

The bill provides that the Phase II technical plan, substantially expanded and modified by this legislation, be submitted to Legislature prior to the 2008 Regular Session. Should the Legislature take no action the plan will be deemed approved.

### **Caloosahatchee and St. Lucie River Watershed Protection Program**

The bill creates these two new protection programs (373.4595(4), F.S.) along with a series of program components and requirements. Though individual protection programs are created for each river watershed, the requirements are duplicative. Specific provisions created provide that the protection programs shall:

- Address the reduction of pollutant loads utilizing the TMDL process.
- Seek to restore the natural hydrology.
- Attain compliance with applicable state water quality standards.
- Maximize federal and state cost-sharing programs.
- Be implemented using a phased approach.
- Seek private-public partnerships.
- Develop a goal for salinity envelopes and freshwater inflow targets.

### **River Watershed Protection Plans**

The South Florida Water Management District, in cooperation with other agencies, Lee County (Caloosahatchee River), Martin County (St. Lucie River), and other affected counties and municipalities, is directed to complete, by January 1, 2009, the River Watershed Protection Plans.

These plans shall: identify the geographic extent of the watershed, be coordinated with the Lake Okeechobee Watershed Protection Plans, contain an implementation schedule for pollutant load reductions, and comply with applicable state water quality standards.

The DEP and the South Florida Water Management District are designated as the parties responsible for implementing the plans. These entities shall jointly develop the annual funding priorities and the highest priorities shall be assigned to those projects with the greatest potential for achieving the goals and objectives of the plans. In addition, these entities shall establish priorities and an implementation schedule for the achievement of the TMDLs.

The bill provides that the protection plans be submitted to Legislature prior to the 2008 Regular Session. Should the Legislature take no action, the plan will be deemed approved.

By March 1, 2012, and every three years thereafter, the protection plans shall be evaluated. The evaluation shall review progress towards the reduction goals and identify necessary modifications.

Each plan shall include a “River Watershed Construction Project,” which shall be designed to improve the hydrology, water quality, and habitats of the watersheds. The South Florida Water Management District shall, by January 1, 2012, plan, design, and construct the initial phases of the construction project. In implementing the construction project, the water management district shall:

- Develop and designate the necessary facilities needed to meet the protection plans goals and objectives.
- Conduct the necessary scientific studies to support the facilities.
- Identify the size and location of each facility.
- Provide a construction schedule.
- Provide a land acquisition schedule.
- Provide a schedule of costs and benefits for each project along with the funding source.
- Ensure coordination with affected agencies and other parties.

### **Watershed Pollutant Control Program**

These programs are created and designed to provide for a multifaceted approach to managing the pollutant sources within the watersheds. They are to be implemented through regulations, the use of best management practices, and utilization of alternative technologies.

The coordinating agencies are directed to facilitate the use of federal programs that offer opportunities for water quality treatment, including those designed to preserve, restore, or create wetlands on agricultural lands.

Additional components of these programs:

- Direct the expedited implementation of nonpoint source best management practices.

- Permit the DEP or the South Florida Water Management District to require compliance with applicable state environmental laws.
- Allow the awarding of grant funds to projects that make use of private lands or lands held in trust for Indian tribes.
- Require an assessment of the current water management practices within the watersheds. Such assessment shall contain recommendations on the necessary structural, nonstructural, and operation improvements that may be needed to balance water supply, flood control, estuarine salinity, estuarine habitat, and water quality.
- Prohibit the DEP, after December 31, 2007, from authorizing the disposal of domestic wastewater residuals within the watershed unless the applicant can demonstrate that such disposal will not add to phosphorus loadings in the lake or its tributaries. This prohibition will not apply to Class AA residuals that are marketed and sold as fertilizer.
- Direct the Department of Health to require all entities disposing of sewage within the watersheds to develop and submit an agricultural use plan that limits applications based upon nutrient loading. All sites that are applying these nutrients will also be required to meet limits established by the South Florida Water Management District. Such compliance shall be achieved by July 1, 2008.
- Direct the Department of Agriculture and Consumer Services to initiate rulemaking to require entities within these watersheds that land-apply animal manure to develop resource management system level conservation plans.

### **Watershed Research and Water Quality Monitoring Program**

The South Florida Water Management District, in cooperation with affected local governments and other parties, must establish a program that builds upon existing research and will ensure that adequate data is generated to determine the effectiveness of the projects created by the programs.

An additional provision created in the bill, s. 373.4595(5), F.S., directs the DEP to expedite the development and implementation of TMDLs for the Caloosahatchee River and estuary. These TMDLs are to be proposed for final agency action no later than December 31, 2008. Upon adoption of the TMDLs, the DEP shall initiate development of the basin management action plans as follows: as soon as practicable after the establishment of the TMDLs; in coordination with the protection plans developed pursuant to this legislation; by developing complementary projects to those in the protection plans; and by September 30, 2008 for those provisions contained in the ratified plans.

Section 373.4595(6), F.S., is created to direct the South Florida Water Management District to include the following additional information in their annual report:

- A summary of the water quality and habitat conditions in the newly defined watersheds.
- The status of the watershed construction programs.
- A detailed accounting of the expenditure of funds from the Save Our Everglades Trust Fund. At a minimum, this accounting shall detail the amount and use of funds from all sources and an indication of what funds were designated to meet matching fund requirements.

### **Save Our Everglades Trust Fund**

The bill amends existing statutory provisions to extend the trust fund through Fiscal Year 2019-2020 and allow for the deposit into and the expenditure of funds from this trust fund, for the purposes of implementing the Caloosahatchee River and St. Lucie River Watershed Protection Plans.

The bill also creates a provision that ties the release of funds to the submission by the South Florida Water Management District to the DEP of an annual work plan for the protection projects.

Finally, the bill extends the South Florida Water Management District's match requirements for the life of the trust fund; allows funds to be distributed for implementation of the River Watershed Protection Plans including a local match requirement for Lee and Martin counties; and allows funds to be distributed to the Department of Agriculture and Consumer Services for implementation of agricultural nonpoint source controls.

#### **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:

This bill appropriates no new revenues. For the new requirements set for in the bill for Lake Okeechobee, the Caloosahatchee River, and the St. Lucie River, the South Florida Water Management District estimates the total cost to complete the plans as follows:



**Total Project Cost:**

Lake Okeechobee	\$2.1 billion
Caloosahatchee River	\$300 million
St. Lucie River	\$300 million

Funds appropriated by the state and distributed to the South Florida Water Management District will be equally matched by the South Florida Water Management District through Fiscal Year 2019-2020.

**VI. Technical Deficiencies:**

None.

**VII. Related Issues:**

None.

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This Senate staff analysis does not reflect the intent or official position of the bill's introducer or the Florida Senate.

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## **VIII. Summary of Amendments:**

None.

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This Senate Professional Staff Analysis does not reflect the intent or official position of the bill's introducer or the Florida Senate.

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