

## HOUSE OF REPRESENTATIVES STAFF ANALYSIS

**BILL #:** HB 31 Springs Protection

**SPONSOR(S):** Boyd

**TIED BILLS:** **IDEN./SIM. BILLS:**

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| REFERENCE   | ACTION           | ANALYST               | STAFF DIRECTOR     |
|---|------------------|-----------------------|--------------------|
| 1) <u>Committee on Conservation &amp; State Lands</u> | <u>10 Y, 0 N</u> | <u>Palmer</u>         | <u>Zeiler</u>      |
| 2) <u>Environment &amp; Natural Resources Council</u> | <u></u>          | <u>Palmer/Perkins</u> | <u>Dixon/Hamby</u> |
| 3) <u>Policy &amp; Budget Council</u>                 | <u></u>          | <u></u>               | <u></u>            |
| 4) <u></u>  | <u></u>          | <u></u>               | <u></u>            |
| 5) <u></u>  | <u></u>          | <u></u>               | <u></u>            |

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### SUMMARY ANALYSIS

The bill creates the Florida Springs Stewardship Act and the Florida Springs Stewardship Task Force (task force). The bill defines the task force structure, function and membership and directs the task force, with assistance from all necessary state agencies, to collect and inventory all existing data and to identify zones of influence for each of Florida's first magnitude springs. The task force is also to identify and list best management practices (BMP's) for land uses in the zones of influence and to identify existing and potential sources of funding for implementing these BMP's. The task force is to solicit public input and testimony and propose a program of increased emphasis on education and outreach regarding implementing BMP's. The bill requires a report to the President of the Senate and the Speaker of the House of Representatives specifying the task force's findings. The bill requires the task force be appointed no later than August 1, 2008 and for the task force to expire on January 31, 2009.

The bill does not appear to have a significant fiscal impact on state or local governments.

The bill would become effective on July 1, 2008.

## FULL ANALYSIS

### I. SUBSTANTIVE ANALYSIS

#### A. HOUSE PRINCIPLES ANALYSIS:

Provide Limited Government: The bill creates the *Florida Springs Stewardship Task Force* to evaluate existing data, identify zones of influence, and make recommendations for protection of Florida's springs.

#### B. EFFECT OF PROPOSED CHANGES:

##### Present Situation

The term spring is generally understood to mean a place on the Earth's surface where underground water emerges onto the surface – including the ground beneath surface water features. Although this is accurate in general, there is some ambiguity in this definition for specific usage since it does not differentiate among the different types of springs. In Florida, most springs are one of two general types, seeps (water-table springs) or karst (artesian) springs. Water-table springs occur when rainwater percolates downward through permeable sediments to a much less permeable or impermeable formation which forces the water to move laterally. Eventually, the water may intersect the surface in a low area and form a seep. Karst springs form when confined groundwater discharges to the surface through an opening or vent in the confining layer. Seeps may also form in karst areas when water discharging through a breach in the confining layer does not reach the surface but diffuses into the unconfined surficial or water-table aquifer.

Independent of their type, springs are most often classified based upon their median flow. Median flow is used since spring flow is a dynamic process with individual springs exhibiting variable discharge depending upon rainfall, recharge and groundwater withdrawals within their recharge areas. However, one discharge measurement is enough to place a spring into one of eight flow ranges or magnitude categories. This can result in a spring being initially observed as a certain magnitude spring and later as another magnitude spring. Historically, a spring assigned a magnitude when it was first described continued with that magnitude designation even though the discharge may have changed considerably over time. If a spring had been previously classified as a higher magnitude spring than the magnitude class it would have been assigned in the 2003 Florida Springs Classification System, it retains the higher classification but with the leading descriptor "historical".

There are more than 700 identified springs in Florida. Of particular interest to this bill are the largest discharge springs, classified as first-magnitude springs, which have a flow greater than or equal to 100 cubic feet per second (64.6 million gallons per day). Thirty-three first-magnitude springs have been identified in Florida.

The majority of Florida's springs and all of the first-magnitude springs are karst springs. These karst springs originate in the Floridian aquifer. The Floridian is one of the most prolific aquifers in the world and extends throughout an area that includes all of the Florida Peninsula, and parts of the Florida Panhandle, Alabama, Georgia and South Carolina, as well as parts of the Gulf of Mexico and Atlantic Ocean. The surface of this area is underlain by permeable, unconsolidated deposits of clay, sand, gravel and shell beds. Beneath these permeable surface materials are layers of semi-consolidated and consolidated carbonate rock (limestone and dolostone). Beneath the surface layer a low permeability layer of clastic limestone, known as the Hawthorn Formation, overlays and confines the thick, more permeable layer of limestone which contains the Floridian Aquifer. The Floridian is confined below by a layer of low permeability anhydrate beds referred to as the Cedar Keys Formation. Within the Floridian Aquifer is a discontinuous, low permeability layer that, in places, divides the Floridian into the sub-layers known as the Upper Floridian and the Lower Floridian. The Upper Floridian contains high quality fresh water while the Lower Floridian may contain more saline water. The Floridian is not flat but tilts and has a variable thickness. In certain places the Floridian formation reaches the surface and

precipitation and run-off can be in direct contact with the aquifer. In other places the Hawthorn Formation is thin and may be fractured or breached by sinkholes. In all of these places, the Floridian may either discharge as a spring, diffuse into the surficial aquifer, or be recharged from the water-table aquifer depending on the elevation of the land surface, elevation of the Floridian's potentiometric surface, and the elevation of the water-table surface. The potentiometric surface is the elevation to which the water in a confined aquifer would rise if it were unconfined.

Recent studies of Florida's springs have concluded that many have begun to exhibit signs of distress, including increasing nutrient loading and lowered discharge. This distress is attributed to changes occurring in the spring's discharge basin. A discharge basin is that area within the groundwater basin or surface water basin that contributes to the discharge of the spring. The boundaries of a discharge are very dynamic and vary as a result of changes in the potentiometric surface of the Floridian aquifer relative to changes in the elevation of the water-table. Thus, discharge basins are composed of three different zones of influence: the surface basin which contributes direct runoff; the water-table flow basin which may be into or out-of the spring flow; and the Floridian discharge source basin. It is very difficult to identify the specific boundaries of these zones since the three basins typically do not cover the same regions. The surface runoff basin can be defined with reasonable precision and remains fairly constant unless artificially modified. However, the flow and water quality in the other two basins vary depending on recharge situations and are likely affected by conditions and events that may be remote from the spring and occur in different places for each basin.

In 1999, in response to the perceived decline in spring water flows and quality, the Department of Environmental Protection (DEP) convened the *Florida Springs Task Force* to assess the condition of Florida's springs. The findings of the task force then led the Florida Legislature to authorize the *Florida Springs Initiative* in 2001 with a funding appropriation of 2.5 million dollars. This program was designed to investigate the sources of spring-flow, determine, to the extent possible, the zones that most affect the water quantity and quality of spring discharge, monitor spring water quality, assist landowners in implementing spring protection actions, and promote the value of springs through extensive public education. DEP reports that maps delineating zones of influence have been generated for many of the state's first magnitude springs.

#### Effect of Proposed Change

The bill amends chapter 369, F.S., creating the *Florida Springs Stewardship Act* relating to protection of Florida's springs, establishes the *Florida Springs Stewardship Task Force* (task force), and specifies the Task Force's duties.

By way of this bill, the Legislature recognizes that Florida's springs are valuable resources that provide recreational and tourism opportunities and are a great financial benefit to local economies and that Florida's springs provide critical habitat for endangered or threatened species of plants and animals. Furthermore, the flow and water quality of Florida's springs are direct reflections of the aquifer systems in Florida and consequently are indicators of the condition of a significant portion of the state's water resources. The Legislature states its belief that cooperative efforts can best develop the mechanisms to identify best management practices for the protection, restoration, and preservation of Florida's water resources, including springs, that the citizens of Florida desire to be good stewards of the state's resources, and that through educational awareness programs the state's citizens will voluntarily implement best management practices into their daily activities.

The *Florida Springs Stewardship Task Force* is to be appointed no later than August 1, 2008. The bill establishes a nine member task force with a chair and a vice-chair to be elected by the task force from among its membership. The task force membership shall be:

- one representative from the DEP, to be appointed by the Secretary of the DEP;
- one representative from the Department of Agriculture and Consumer Protection, to be appointed by the Commissioner of Agriculture;

- one representative from the Department of Community Affairs, to be appointed by the Secretary of the Department of Community Affairs;
- one representative from the water management district with the greatest number of first magnitude springs within its jurisdiction, to be appointed by the executive director of that water management district;
- one representative from the development community, to be appointed by the President of the Senate;
- one representative from a local chamber of commerce, to be appointed by the President of the Senate;
- one representative who is a locally elected county or municipal official, to be appointed by the Speaker of the House of Representatives;
- one representative from the environmental community, to be appointed by the Speaker of the House of Representatives; and
- one member from the agricultural community, to be appointed by the Commissioner of Agriculture;

The task force is to collect and inventory all existing data and to identify zones of influence for each of Florida's thirty-three known first magnitude springs. They are to identify land uses in these zones and to identify and compile a list of existing best management practices (BMP's) and other water pollutant controls for the identified land uses. The task force is also directed to identify any and all existing and reasonably expected funding sources available to implement BMP's and other water pollutant controls that would protect Florida's first magnitude springs and propose a priority list of projects for the funding.

The task force is to conduct public meetings for the purpose of taking public input and testimony regarding issues related to springs protection, restoration, and preservation. The task force is directed to then propose a program of increased emphasis on education and outreach that encourages the implementation of BMP's and other water pollutant controls for agricultural and nonagricultural land uses, including specific provisions for cost-share assistance with the implementation BMP's. The task force is to propose a means for recognition of agricultural and nonagricultural landowners who participate in the BMP's program.

The task force is to prepare a report summarizing the data collected, public input and testimony, and its findings and proposals. This report is to be submitted to the President of the Senate and the Speaker of the House of Representatives no later than January 31, 2009.

All state agencies are directed, and all other agencies and local governments are requested, to render assistance to and to cooperate with the task force.

The bill provides for the task force to expire January 31, 2009.

The bill would become effective on July 1, 2008.

#### C. SECTION DIRECTORY:

Section 1: Creates Part IV of ch. 369, F.S., consisting of: s. 369.401, creating a short title; s 369.402, establishing Legislative intent and findings; s 369.403, establishing definitions; and s. 369.404, creating the Florida Springs Stewardship Task Force and specifying duties of the task force.

Section 2: Creates an effective date.

## 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:

None.

## 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:

No rulemaking authority is granted to implement the provisions of this bill.

### C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

### D. STATEMENT OF THE SPONSOR

No statement submitted.

## IV. AMENDMENTS/COUNCIL SUBSTITUTE CHANGES

N/A