

# 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.)

---

Prepared By: Agriculture Committee

---

BILL: CS/SB's 1338 & 1794

INTRODUCER: Environmental Preservation Committee and Senators Constantine and Baker

SUBJECT: Wekiva Onsite Sewage Treatment and Disposal System Compliance Grant Program

DATE: April 25, 2006

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

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	<u>Branning</u>	<u>Kiger</u>	<u>EP</u>	<u>Fav/ Combined CS</u>
2.	<u>Albee</u>	<u>Poole</u>	<u>AG</u>	<u>Favorable</u>
3.	_____	_____	<u>HE</u>	_____
4.	_____	_____	<u>HA</u>	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____

---

## I. Summary:

The committee substitute establishes the Wekiva Onsite Sewage Treatment and Disposal System Compliance Grant Program in the Department of Health. The purpose of the program is to provide grants to low-income property owners in the Wekiva Study Area or the Wekiva River Protection Area. The amount of the grant is limited and cannot exceed \$10,000 per property. The grant is in the form of a rebate. The Department of Health, in coordination with the Department of Environmental Protection and the St. Johns River Water Management District, shall continue to evaluate the level of nitrogen in the Wekiva Study Area caused by onsite sewage treatment and disposal systems.

## II. Present Situation:

### The Wekiva River Basin

The Wekiva Basin, consisting of the Wekiva River, the St. Johns River, and their tributaries, along with associated lands in central Florida, is part of a wildlife corridor that connects northwest Orange County with the Ocala National Forest. In recent years, the state has acquired more than 60,000 acres of conservation lands in this area at a cost of \$139 million. These conservation lands provide habitat for the Florida black bear, burrowing owl, sandhill crane, Florida scrub jay, gopher tortoise, and the limpkin.

The Wekiva River and its tributaries have been designated an Outstanding Florida Water, a National and Scenic River, a Florida Wild and Scenic River, and a Florida Aquatic Preserve. The river is a spring-fed system associated with 19 springs that are connected to the Floridan Aquifer. Eleven of these springs are second and third magnitude springs, meaning those springs

discharge 10 to 100 cubic feet of water per second or 1 to 10 cubic feet of water per second, respectively.

### **The Wekiva Basin Area Task Force**

The central Florida region has experienced significant growth in the last 20 years, resulting in increased transportation demands and development pressure on lands within the Wekiva Basin. During the period between 1980 and 1990, the growth rate in Lake, Seminole, and Orange Counties exceeded 30 percent. The growth rate for this three-county area is expected to exceed 20 percent through the year 2010. While projected growth for the state between 2010 and 2020 is 13 percent, the growth rate for central Florida is expected to be 17 percent.

The desire to balance the transportation needs associated with this projected growth and protection of the Wekiva Basin prompted Governor Bush to create the "Wekiva Basin Area Task Force" on September 26, 2002.<sup>1</sup> The task force was charged with evaluating and making recommendations on the most appropriate location for a highway route connecting State Road 429 to Interstate 4 while providing the greatest protection to the Wekiva Basin. Also, the Task Force was asked to evaluate and recommend a transportation plan that considered the potential expansion of roads and corridors within the Wekiva Basin to address, among other issues, land acquisition, springshed protection, innovative road design, protection of rural character, protection of habitat, utilization of financial resources, and the adequacy of local governments relating to transportation corridors.<sup>2</sup>

The Task Force completed its work in 2003, and provided over a dozen recommendations in its final report. Legislation to implement the Task Force's recommendations was considered during the 2003 Legislative Session, but did not pass.

### **The Wekiva Parkway and Protection Act of 2004 (Ch. 2004-384, L.O.F.)**

On July 1, 2003, Governor Bush issued Executive Order No. 03-112, creating a 28-member Wekiva River Basin Coordinating Committee, chaired by Senator Lee Constantine. The Committee was to be a forum to identify enhanced land use planning strategies and development standards that are consistent with protecting property rights and which improve and assure protection of surface and groundwater resources, including the recharge potential of the Wekiva Study Area. The Committee was charged with considering the recommendations of the Wekiva Basin Area Task Force; the most current and new information being developed regarding quantity, quality, distribution and timing of groundwater recharge in the Wekiva Study Area; and wildlife in the Wekiva Study Area.<sup>3</sup>

The Committee was also directed to consider the use of innovative planning and development strategies, such as rural land stewardship and other mechanisms for concentrating development in appropriate areas, and the use of the latest science-based information and methods, performance-based-planning strategies, and development standards. In addition, the Committee

---

<sup>1</sup> See Executive Order No. 2002-259.

<sup>2</sup> Wekiva Basin Area Task Force, *Final Report: Recommendations for Planning and Locating the Wekiva Parkway While Preserving the Wekiva River Basin Ecosystem*, January 15, 2003.

<sup>3</sup> Executive Order Number 03-112, July 1, 2003, page 3.

was to address issues of compatibility with the existing comprehensive plans and land development regulations of those local governments with jurisdiction over lands located within the Wekiva River Protection Area.<sup>4</sup>

The Wekiva River Basin Coordinating Committee issued its final report on March 16, 2004. The Committee's recommendations were adopted and passed into law (ch. 2004-384, L.O.F.). The law created part III of ch. 369, F.S., consisting of ss. 369.314-369.324, F.S., as the Wekiva Parkway and Protection Act. Some of the major provisions of the law include:

- Statements of legislative findings and intent;
- A legal description of the Wekiva Study Area, including the majority of the land within the Wekiva Study Area which contributes groundwater recharge to the Wekiva River and springs (counties and municipalities located within the Wekiva Study Area include: Lake County and the municipalities of Eustis and Mount Dora; Orange County and the municipalities of Apopka, Eatonville, Maitland, Oakland, Ocoee, Orlando and Winter Garden; and Seminole County and the municipalities of Lake Mary, Longwood and Altamonte Springs);
- Guiding principles for the Wekiva Parkway Design Features and Construction and, a requirement that, if any improvements are considered to SR 44 through the Wekiva River Protection Area, then the guiding principles apply;
- A requirement that the Department of Transportation (DOT), the Department of Environmental Protection (DEP), the St. Johns River Water Management District, the Orlando-Orange County Expressway Authority, and other land acquisition entities cooperate and establish funding responsibilities and partnerships by agreement, to the extent funds are available to the various entities, to develop the Wekiva Study Area;
- A requirement that the DOT, subject to an appropriation by the Legislature, purchase lands in the Wekiva Study Area necessary for the construction of the Wekiva Parkway and the preservation of environmentally sensitive lands; and,
- Requirements for several studies and rulemaking related to the development and protection of the Wekiva Study Area, including looking at methods to reduce nitrates from leeching into the watershed from onsite sewage treatment and disposal systems and the reduction of agricultural nonpoint sources of pollution.

One of the studies required by the Wekiva Parkway and Protection Act requires the Department of Health (DOH), in consultation with the DEP, to:

“study the efficacy and applicability of onsite disposal system standards needed to achieve nitrogen reductions protective of groundwater quality within the Wekiva Study Area including publicly owned lands and report to the Governor and the Department of Community Affairs no later than December 1, 2004. Based on the December 2004 report,

---

<sup>4</sup> Ibid.

DOH shall, if appropriate, by March 1, 2005, initiate rulemaking to achieve nitrogen reductions protective of water quality or recommend legislation for any additional statutory authority needed to implement the report recommendations. The study shall consider:

(a) For new developments within the Wekiva Study Area and any existing development within the Wekiva River Protection Area using onsite disposal systems, a more stringent level of wastewater treatment, including, but not limited to, the use of multiple tanks to combine aerobic and anaerobic treatment to reduce the level of nitrates.

(b) The implementation of a septic tank maintenance and inspection program which includes upgrading certain onsite disposal systems permitted prior to 1982 to meet minimum DOH standards; replacement of failing systems and systems not meeting current standards; and providing funding mechanisms for supporting a septic tank inspection and maintenance program.”<sup>5</sup>

The DOH completed its report, which was published on December 1, 2004.<sup>6</sup> The study found that the Wekiva Study Area is underlaid by a karst geology characterized by limestone or dolostone bedrock with caves and springs. The report states that onsite sewage treatment and disposal systems have been used for many years as a relatively low maintenance, low cost method of safely treating and disposing of human waste, and that there are an estimated 87,000 septic tanks used for onsite sewage disposal by property owners in the Wekiva Study Area.

The typical, conventional onsite sewage treatment and disposal system consists of a septic tank distribution piping, and drainfield. The treatment process begins in the septic tank. The septic tank is designed to skim off fats, oils, and greases; settle out the larger solids; and partially treat the sewage through breakdown by anaerobic bacteria. The waste then leaves the tank through the distribution piping and is distributed into the soil by the drainfield. Unsaturated soil surrounding the drainfield is extremely effective at removing disease-causing viruses, bacteria, and parasites. In 1983, the department adopted a requirement that there be two feet of unsaturated soil beneath the drainfield to achieve effective removal of these disease-causing agents.

The study goes on to find that the conventional septic system is generally less effective at removing nutrients, particularly nitrogen, than disease-causing viruses, bacteria, and parasites. Onsite sewage system treatment and disposal system research has shown that certain environments have a higher capability of naturally removing the nitrogen once it leaves the drainfield. However, in the karst environment, such as the Wekiva Study Area, nitrogen responds differently. The Department of Health conducted a study designed to measure the influence of a conventional onsite sewage treatment and disposal system on the groundwater in karst areas. In this study, nitrogen levels were found as high as 60 mg/L in the groundwater adjacent to the drainfield, indicating that there was little or no removal.

---

<sup>5</sup> S. 369.318(2), F.S.

<sup>6</sup> *Wekiva Basin Onsite Sewage Treatment and Disposal System Study*, Bureau of Onsite Sewage Programs, Division of Environmental Health, Florida Department of Health. December 1, 2004.

Using existing Florida research data, it is estimated that a family of four will discharge 25 pounds of nitrogen per year into the drainfield of a conventional onsite sewage treatment and disposal system. A conventional system costs from \$5,500 to \$7,500. A comparable system that also reduces nitrates costs from \$7,500 to \$9,000.

The study concluded that in areas where development densities are low, the overall costs of onsite sewage treatment and disposal systems are less than sewerage, and that onsite sewage treatment and disposal systems can provide protection of the environment and the public health that is comparable to a central sewer system. Based on these findings, the DOH provided the following recommendations:

- Set a discharge limit of 10 milligrams per liter of total nitrogen for new systems, systems being modified, and for existing systems in the primary and secondary Wekiva Study Area protection zones.
- Prohibit the land spreading of septage and grease trap waste in the Wekiva Study Area. Septage waste would be required to be disposed of at wastewater treatment plants.
- Evaluate the economic feasibility of sewerage versus nutrient removal upgrades to existing onsite sewage treatment and disposal systems. A phased-in approach to replacing the remaining existing systems should be developed with a target completion date of 2010.

Establish new regional wastewater management entities or modify existing ones to oversee the maintenance of all wastewater discharged from onsite sewage treatment and disposal systems in the study area. These programs should take the privatization approach and contract with existing licensed septic tank contractors.

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

This committee substitute establishes the Wekiva Onsite Sewage Treatment and Disposal System Compliance Grant Program in the Department of Health. The purpose of the program is to provide grants to low-income property owners in the Wekiva Study Area or the Wekiva River Protection Area using onsite disposal systems to assist the property owners in complying with rules for onsite sewage treatment and disposal systems. The rules were developed by the Department of Health, the Department of Environmental Protection, or the St. Johns River Water Management District to enforce compliance with onsite sewage treatment and disposal system standards. The grant program shall become effective upon final adoption of department rules and shall apply to costs incurred on or after that date.

The grants are available to any property owner in the Wekiva Study Area or the Wekiva River Protection Area having an income less than or equal to 200 percent of the federal poverty level who is required by rule of the Department of Health, the Department of Environmental Protection, or the St. Johns River Water Management District to alter, repair, or modify any existing onsite sewage treatment and disposal system to a nitrogen-reducing performance-based treatment system on such property. The grants are to be used to assist the owner with the costs of compliance.

The amount of the grant is limited to the cost differential between the replacement of a comparable existing onsite sewage treatment and disposal system and that of an upgraded nitrogen-reducing performance-based treatment system, but may not exceed \$10,000 per property. The grant will be in the form of a rebate to the property owner for costs incurred in complying with requirements for onsite sewage treatment and disposal system. The property owner must apply to the Department of Health and provide documentation of the costs incurred.

The Department of Health shall adopt rules providing forms, procedures, and requirements for applying for and disbursing grants including bid requirements and for documenting compliance costs incurred.

The Department of Health, in coordination with the Department of Environmental Protection and the St. Johns River Water Management District, shall continue to evaluate, by any means the DOH deems appropriate, the level of nitrogen deposited in the Wekiva Study Area caused by onsite sewage treatment and disposal systems.

#### **IV. Constitutional Issues:**

##### **A. Municipality/County Mandates Restrictions:**

This bill does not require cities and counties to expend funds or limit their authority to raise revenue or receive state-shared revenues as specified by s. 18, Art. VII, State Constitution.

##### **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:**

Low-income private property owners' costs associated with installing new or modifying existing onsite sewage treatment and disposal systems would be offset by the grant award.

**C. Government Sector Impact:**

The committee substitute requires the DOH to administer the Wekiva Onsite Sewage Treatment and Disposal System Compliance Grant Program. The department has indicated that to administer the program, it would need an additional Environmental Health Program Consultant (SES Pay Grade 425). The base bi-weekly salary for this position would be \$1,640.55 (or a base of \$42,654.30 annually), with benefits of 29 percent. To administer the grant program there would be recurring costs including application reviews, grant disbursements, mailing, and travel.

The DOH has indicated that there are approximately 55,417 onsite sewage treatment and disposal systems in the Wekiva area. Of those, 50,972 systems are in the Wekiva Sewer Service Areas and many of these systems are expected to be connected to central sewers by 2011.

The grant program is for the cost difference between replacing an onsite sewage treatment and disposal system with a traditional onsite system and a nitrogen-reduction system, which is more expensive. A traditional onsite system would cost approximately \$5,000 and the more expensive nitrogen-reduction system is approximately \$10,800. The cost difference for which a grant may be applied for is approximately \$5,800. The committee substitute allows for grant amounts up to \$10,000.

The DOH estimates that the number of systems that would need to be upgraded in the Wekiva area are 583. The grant program would only be available to persons in the Wekiva Area having an income less than or equal to 200 percent of the federal poverty level. Of the 583 systems, approximately 27 percent would qualify for the grant program. Based on these estimates, the total annual grant needs would be \$912,978.<sup>7</sup>

The committee substitute does not provide an appropriation to fund the grant program. The grant program become effective upon final adoption of the DOH's rules and would apply to costs incurred on or after that date.

**VI. Technical Deficiencies:**

None.

**VII. Related Issues:**

None.

---

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

---

---

<sup>7</sup> This is arrived at by multiplying the cost difference to upgrade (\$5,800) by the number of upgrades (583) by 27 percent.





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

None.

---

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

---