



## FULL ANALYSIS

### I. SUBSTANTIVE ANALYSIS

#### A. HOUSE PRINCIPLES ANALYSIS:

**Provide limited government and promote personal responsibility** —The bill creates a grant program in DOH. Administering the program will increase workload and costs for DOH. The grant program is intended to assist certain property owners in defraying costs associated with consistency onsite waste disposal system requirements in the Wekiva River Protection Area.

#### B. EFFECT OF PROPOSED CHANGES:

##### Current Situation

###### **Central Wastewater Collection and Treatment**

The most common form of pollution control in the United States consists of a system of sewers and wastewater treatment plants. The sewers collect municipal wastewater from homes, businesses, and industries and deliver it to facilities for treatment before it is discharged to water bodies or land, or reused<sup>1</sup>. Conventional wastewater collection systems transport sewage from homes or other sources by gravity flow through buried piping systems to a central treatment facility. These systems are usually reliable and consume no power. However, the slope requirements to maintain adequate flow by gravity may require deep excavations in hilly or flat terrain, as well as the addition of sewage pump stations, which can significantly increase the cost of conventional collection systems. Manholes and other sewer appurtenances also add substantial costs to conventional collection systems.

###### **On-site Systems**

Generally, septic systems are used to treat and dispose of relatively small volumes of wastewater, usually from houses and businesses. Septic systems are also called onsite wastewater treatment systems, decentralized wastewater treatment systems, on-lot systems, individual sewage disposal systems, cluster systems, package plants, and private sewage systems. Systems are considered “decentralized” because they do not involve central wastewater collection and treatment.

According to the EPA, the typical septic treatment system includes a septic tank, which digests organic matter and separates matter that floats (e.g., oils and grease) and settling solids from the wastewater. Soil-based systems discharge the liquid (effluent) from the septic tank into a series of perforated pipes buried in a leach field, leaching chambers, or other special units designed to slowly release the effluent into the soil or surface water, sometimes referred to as a drainage field.

Alternative systems use pumps or gravity to help septic tank effluent trickle through sand, organic matter (e.g., peat, sawdust), constructed wetlands, or other media to remove or neutralize pollutants like disease-causing pathogens, nitrogen, phosphorus, and other contaminants. Some alternative systems are designed to evaporate wastewater or disinfect it before it is discharged to the soil or surface waters.<sup>2</sup> The EPA developed guidelines to assist communities in establishing comprehensive management programs for onsite/decentralized wastewater systems to improve water quality and protect public health. The voluntary guidelines address the sensitivity of the environment in the community and the complexity of the system used. The five model management programs include:

- System inventory and awareness of maintenance needs
- Management through maintenance contracts
- Management through operating permits
- Utility operation and maintenance

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<sup>1</sup> <http://www.epa.gov/owm/primer.pdf>

<sup>2</sup> <http://cfpub2.epa.gov/owm/septic/home.cfm> - Frequently Asked Questions

- Utility ownership and management<sup>3</sup>

According to the U.S. Census Bureau, approximately 26 million homes (one-fourth of all homes) in America are served by decentralized wastewater treatment systems. The Census Bureau reports that the distribution and density of septic systems vary widely by region and state, from a high of about 55 percent in Vermont to a low of around 10 percent in California. The New England states have the highest proportion of homes served by septic systems: New Hampshire and Maine both report that about one-half of all homes are served by individual systems. More than one-third of the homes in the southeastern states depend on these systems, including approximately 48 percent in North Carolina and about 40 percent in both Kentucky and South Carolina. More than 60 million people in the nation are served by septic systems. About one-third of all new development is served by septic or other decentralized treatment systems.<sup>4</sup> According to the Florida Department of Health, 31 percent of the Florida population is served by an estimated 2.3 million onsite sewage treatment and disposal systems (OSTDS). These systems discharge over 426 million gallons of treated effluent per day into the subsurface soil environment.<sup>5</sup>

In Florida, the effect of waste disposal, whether through an on-site system or a centralized system, will implicate laws relating to the Total Maximum Daily Load Program (TMDL), which describes the amount of each pollutant a water body can receive without violating state water quality standards.

### **The Federal Clean Water Act and Wastewater Discharge**

The federal Water Pollution Control Act of 1972, commonly referred to as the Clean Water Act (CWA)<sup>6</sup>, established the basic framework for pollution control in the nation's water bodies. Its primary goal was to have the nation's water bodies clean and useful. By setting national standards and regulations for the discharge of pollution, the CWA was intended to restore and protect the health of the nation's water bodies.

The CWA established the foundation for wastewater discharge control in the United States. According to the Environmental Protection Agency (EPA), the CWA's primary objective is to "restore and maintain the chemical, physical and biological integrity of the nation's waters."<sup>7</sup> The CWA established a control program for ensuring that communities have clean water by regulating the release of contaminants into our country's waterways. Permits that limit the amount of pollutants discharged are required of all municipal and industrial wastewater dischargers under the National Pollutant Discharge Elimination System (NPDES) permit program. In addition, a construction grants program was set up to assist publicly owned wastewater treatment works build the improvements required to meet these new limits.

### **TMDL Program**

Section 305(b) of the CWA requires states to submit to Congress a biennial report on the water quality of their lakes, streams, and rivers. A partial list of water bodies that qualify as "impaired" (i.e., do not meet specific pollutant limits for their designated uses) must be submitted to the U.S. EPA under section 303(d) of the CWA. States are required to develop TMDLs for each pollutant that exceeds the legal limits for that water body. Section 303(d) and the development of TMDLs were generally ignored by the states until numerous lawsuits were filed by environmental groups.<sup>8</sup>

Currently, DEP develops and implements TMDLs through a watershed-based management approach that addresses the state's 52 major hydrologic basins into five groups. Each basin group is subject to a five phase TMDL cycle on a rotating basis. Phase 1 is a preliminary evaluation of the quality of a water body, phase two is monitoring and assessing to verify water quality impairments, phase 3 is the development and adoption of TMDLs for waters verified as impaired, phase 4 is the development of basin management action plans to achieve the TMDL, and phase 5 is the implementation of the plan

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<sup>3</sup> [http://www.epa.gov/owm/septic/pubs/septic\\_guidelines\\_factsheet.pdf](http://www.epa.gov/owm/septic/pubs/septic_guidelines_factsheet.pdf)

<sup>4</sup> [http://cfpub2.epa.gov/owm/septic/faqs.cfm?program\\_id=70#358](http://cfpub2.epa.gov/owm/septic/faqs.cfm?program_id=70#358)

<sup>5</sup> <http://www.doh.state.fl.us/environment/ostds/intro.htm>

<sup>6</sup> Public Law 92-500

<sup>7</sup> <http://www.epa.gov/owm/primer.pdf>

<sup>8</sup> Florida implements the TMDL program in s. 403.067, F.S.

and monitoring of results.

### **Basin Management Action Plan**

DEP develops Basin Management Action Plans (BMAPs) as part of the development and implementation of a TMDL for a water body. First the BMAP establishes a pollution allocation. Then the BMAP establishes the schedule for implementing projects and activities to meet the pollution reduction allocations and the basis for evaluating the plan's effectiveness and making adaptive changes, and funding strategies. DEP works with stakeholders to develop effective BMAPs, which then must be adopted by Secretarial order pursuant to s. 403.067(7), F.S.

BMAPs must include milestones for implementation and water quality improvement, and an associated water quality monitoring component sufficient to evaluate whether reasonable progress in pollutant load reductions is being achieved over time. An assessment of progress toward these milestones must be conducted every five years, and revisions to the plan must be made as appropriate.

### **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. 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 Florida 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**

On September 26, 2002, Governor Bush established the "Wekiva Basin Area Task Force" to balance the transportation needs associated with projected growth and protection of the Wekiva Basin.<sup>9</sup> The task force was charged with evaluating and providing recommendations for appropriate highway routes connecting State Road 429 to Interstate 4 (while providing the greatest protection to the Wekiva Basin), in addition to evaluating and providing recommendations for the potential expansion of roads and corridors within the Wekiva Basin. The task force was charged with considering, 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>10</sup> The task force completed its work in 2003, and provided over a dozen recommendations in its final report.

### **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. Membership of the committee included the Commissioner of Agriculture, the Secretaries of the Department of Community Affairs, the Department of Environmental Protection, and the Department of Transportation, the Executive Directors of the St. Johns River Water Management District (SJRWMD), the Executive Director of the Florida Fish and Wildlife Conservation Commission, and the East Central Florida Regional Planning Council. The committee also included eight appointed individuals with balanced representation from citizen groups, the agricultural community, property owners, and environmental or conservation organizations.

The committee was charged with considering the recommendations of the Wekiva Basin Area Task Force, and was 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 was to address issues of

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<sup>9</sup> See Executive Order No. 2002-259

<sup>10</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. See links at <http://www.dca.state.fl.us/fdcp/dcp/wekiva/wekivatf/index.cfm>

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>11</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 (chapter 2004-384, Laws of Florida). The law created part III of chapter 369, F.S., consisting of s. 369.314-369.324, F.S., known 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.
- 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 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.
- Requirements for several studies and rule making 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.

### **Wekiva Basin Onsite Sewage Treatment and Disposal System Study**

Within the Wekiva Parkway and Protection Act, several studies are listed. One of the studies required DOH, in consultation with 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. The DOH published the Wekiva Basin Onsite Sewage Treatment and Disposal System Study report on December 1, 2004.<sup>12</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.<sup>13</sup> 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.

The study concluded that in areas where development densities are low, the overall costs of onsite sewage treatment and disposal systems are less than a central sewer system and that onsite sewage treatment and disposal systems can provide protection of the environment and the public health that is

<sup>11</sup> Executive Order Number 03-112, July 1, 2003, may be found at [http://www.dep.state.fl.us/secretary/news/2003/july/0701\\_eo.htm](http://www.dep.state.fl.us/secretary/news/2003/july/0701_eo.htm)

<sup>12</sup> <http://www.doh.state.fl.us/environment/ostds/wekiva/wekivastudyrt.pdf>

<sup>13</sup> According to the report, a family of four will discharge approximately 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.

comparable to a central sewer system.<sup>14</sup>

Based on these findings, 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 (raw, untreated solids and liquids) 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.

### **Proposed Rule 64E-6.001**

In June 2005, based on the recommendations of the Wekiva Basin Onsite Sewage Treatment and Disposal System Study, DOH proposed a rule to limit nitrogen input from onsite sewage treatment and disposal systems within the Wekiva Study Area to 10 mg/L. The rule language was modified and republished in November 2005. The proposed rule came under considerable opposition from those who questioned the findings and recommendations in the study, including property owners and builders. Specifically, stakeholders raised concerns regarding whether sufficient data exists on the extent to which onsite sewage treatment and disposal systems directly contribute to increased nitrogen levels in the Wekiva watershed. Based on the lack of a causal link between the systems and nitrogen levels, they argued that the cost of upgrading or replacing conventional systems is not justified.

Further, in a letter dated March 1, 2006, the chair of DOH's Technical Review and Advisory Panel (TRAP)<sup>15</sup> reported that the proposed rule could affect up to 55,000 existing homes and any new construction in the Wekiva Study Area. TRAP estimates that the cost of installing a nitrogen reduction system could be up to \$15,000 per household, and a capital/operating/maintenance cost of \$189 a month. In the letter, the TRAP panel made the following comments and recommendations regarding the Wekiva and OSTDS:

- The Legislature should appropriate the necessary monies to fund a study to be conducted by the state to identify and quantify the various sources of nitrogen within the Wekiva Study Area (as it is typically done in determining appropriate solutions) and to identify cost-effective options for reducing source impacts. In this regard, the TRAP voted to support legislation during the 2006 legislative session to achieve funding for such outcomes.
- Suggested to the Department of Health to bring back a model proposal for a statewide operation and maintenance program for OSTDS.
- Expressed support for a mandatory once every 5-years pump out of all OSTDS within the Wekiva Study Area and upgrading of all failing systems to present standards if state monies were made available for such upgrades.
- Agreed to assemble a work group to come up with other recommendations or alternatives for improvements in OSTDS that could result in overall reduction of nitrogen from these systems.

### **Federal Poverty Threshold**

There are two slightly different versions of the federal poverty measure:

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<sup>14</sup> The report considered utilizing 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.

<sup>15</sup> The Technical Review and Advisory Panel (TRAP) is established in s. 381.0068, F.S., for the purpose of assisting DOH in rulemaking and decision making that affects the regulation, location, and technology of onsite sewage treatment and disposal systems in Florida.

- The poverty thresholds, and
- The poverty guidelines.

The poverty thresholds are the original version of the federal poverty measure. They are updated each year by the Census Bureau. The thresholds are used mainly for statistical purposes — for instance, preparing estimates of the number of Americans in poverty each year. (In other words, all official poverty population figures are calculated using the poverty thresholds, not the guidelines.) Poverty thresholds since 1980 and weighted average poverty thresholds since 1959 are available on the

Census Bureau’s Web site. The poverty guidelines are the other version of the federal poverty measure. They are issued each year in the Federal Register by the Department of Health and Human Services (HHS). The guidelines are a simplification of the poverty thresholds for use for administrative purposes — for instance, determining financial eligibility for certain federal programs.<sup>16</sup>

### 2007 HHS Poverty Guidelines

Persons in Family or Household	48 Contiguous States and D.C.	Alaska	Hawaii
1	\$10,210	\$12,770	\$11,750
2	13,690	17,120	15,750
3	17,170	21,470	19,750
4	20,650	25,820	23,750
5	24,130	30,170	27,750
6	27,610	34,520	31,750
7	31,090	38,870	35,750
8	34,570	43,220	39,750
For each additional person, add	3,480	4,350	4,000

**SOURCE:** *Federal Register*, Vol. 72, No. 15, January 24, 2007, pp. 3147–3148

### Effect of Proposed Changes

Subject to specific appropriation, the Wekiva Onsite Sewage Treatment and Disposal System Compliance Grant Program is established and administered by the DOH. The program would provide grants to low-income property owners in the Wekiva Study Area or the Wekiva River Protection Area using onsite disposal systems. It would assist the property owners in complying with rules for onsite sewage treatment and disposal systems developed by the DOH, DEP, or the SJRWMD. The program is effective upon final adoption of rules by DOH and may be applied to costs incurred by property owners on or after such date.

The bill allows any property owner in the identified areas with an income less than or equal to 200 percent of the federal poverty level to apply to DOH for a grant to offset the cost of altering, repairing, or modifying any existing onsite disposal system on such property to a nitrogen-reducing, performance-based treatment system. 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 DOH shall adopt rules providing forms, procedures, and requirements for applying for and disbursing grants, including bid requirements, and for documenting compliance costs incurred.

The DOH, in coordination with the DEP and the SJRWMD, is required to continue to evaluate the level of nitrogen deposited in the Wekiva Study Area by onsite sewage treatment and disposal systems.

<sup>16</sup> <http://aspe.hhs.gov/poverty/07poverty.shtml> The poverty guidelines are sometimes loosely referred to as the “federal poverty level” (FPL), but that phrase is ambiguous and should be avoided, especially in situations (e.g., legislative or administrative) where precision is important.

C. SECTION DIRECTORY:

**Section 1:** Creates s. 381.00656, F.S., establishing the Wekiva Onsite Sewage Treatment and Disposal System Compliance Grant Program in the Department of Health for the purpose of providing grants to low-income property owners, contingent upon specific appropriation; specifying eligibility and grant amounts; requiring the department to adopt rules; directing the department, the Department of Environmental Protection, and the St. John's River Water Management District to conduct specified evaluations; providing that funding for the program is contingent upon specific appropriation by the Legislature.

**Section 2:** Provides an effective date of July 1, 2008.

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

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None.

2. Expenditures:

See Fiscal Comments

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

None.

2. Expenditures:

See Fiscal Comments

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

The bill creates a grant program to provide grants to low-income property owners in the Wekiva Study Area or the Wekiva River Protection Area using onsite disposal systems. It would assist the property owners in complying with rules for onsite sewage treatment and disposal systems developed by the DOH, DEP, or the SJRWMD. The septic service industry would likely see an increase in business and the owner may see a reduction of septic system failures and longer system life, along with reduction in pollution of ground and surface waters.

D. FISCAL COMMENTS:

The DOH estimated the anticipated amount needed for the grant program based on the number of pre-1983 onsite systems in the Wekiva Study Area and the percentage of Orange County residents at 200 percent of the poverty level from the 2000 census (31.1 percent). During the five year inspection program it is estimated that 182 low income property owners would qualify for assistance each year. The cost difference could range from \$1,750 to \$8,400. Using an average of \$5,000 a grant, a budget of \$1.82 million would be required for each of the next 5 years for the grants. With the DOH administrative costs included, the fiscal impact of the bill in the first year is \$1,906,301.

**III. COMMENTS**

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

This bill does not appear to require counties or municipalities to take an action requiring the expenditure of funds, reduce the authority that counties or municipalities have to raise revenue in the aggregate, nor reduce the percentage of state tax shared with counties or municipalities.

2. Other:

None

B. RULE-MAKING AUTHORITY:

The bill provides the DOH rulemaking authority to implement the grant program created by the bill.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None

D. STATEMENT OF THE SPONSOR

**IV. AMENDMENTS/COUNCIL SUBSTITUTE CHANGES**

On April 21, 2008, the Policy & Budget Council adopted a strike-all amendment and passed CS/HB 975 as a council substitute. CS/CS/HB 975 retains the grant program created in CS/CS/HB 975, but does not include the proposed study or inspection cycle provided for in CS/HB 975.