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: Health Care Committee

BILL:	CS/CS/SB 1874
INTRODUCER:	Health Care Committee, Community Affairs Committee, and Senator Argenziano
SUBJECT:	Sewage Treatment and Disposal Systems
DATE:	April 20, 2006 REVISED:

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Herrin	Yeatman	CA	**Fav/CS**
2.	Garner	Wilson	HE	**Fav/CS**
3.				
4.				
5.				
6.				

I. Summary:

The bill requires each county water and sewer district and local government proposing to extend or build new central sewerage facilities to prepare a study that includes certain information. The study must include a comparison of the cost to the average property owner of connecting to the centralized system versus installing, operating, and properly maintaining an onsite system, and other factors determined appropriate for the study.

The bill allows local governments to satisfy growth management concurrency requirements for sanitary sewer facilities for new development with onsite sewage treatment and disposal systems approved by the Department of Health (DOH or department).

This bill also allows a local government or water and sewer district responsible for the operation of a centralized sewage system to grant a variance to the owner of a performance-based onsite sewage treatment and disposal system from mandatory connection to a central sewerage system, as long as the system is functioning appropriately. A local government or water and sewage district is not required to grant the variance. Certain local governments are not required to issue a variance under any circumstances.

The bill allows the department or its agent to issue an order requiring the owner of an onsite sewage treatment and disposal system that is in improper condition to repair or replace the system and increases the number of continuing education credits necessary for septic tank contractors and master septic tank contractors.

This bill substantially amends the following sections of the Florida Statutes: 153.54, 153.73, 163.3180, 180.03, 381.00655, 381.0067, and 489.554.

II. Present Situation:

Federal Clean Water Act

The federal Water Pollution Control Act of 1972, commonly referred to as the "Clean Water Act" (CWA),[1] established the foundation for wastewater discharge control in the United States. According to the federal 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."[2] The CWA created a control program for ensuring that communities have clean water by regulating the release of contaminants into the 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 to build the improvements required to meet these new limits.

Municipal Centralized Wastewater Collection and Treatment Facilities
Approximately 16,000 municipal centralized wastewater collection and treatment facilities are in operation nationwide. The term "centralized wastewater collection and treatment" refers to a system of pipes that carry wastewater to a centralized treatment plant for treatment and disposal. The CWA requires that a municipal wastewater treatment plant's discharges meet a minimum of 'secondary treatment.' Over 30 percent of the wastewater treatment facilities today produce cleaner discharges by providing even greater levels of treatment than secondary.

Use of Decentralized Wastewater Treatment Systems

In 1997, the U.S. Environmental Protection Agency (EPA) issued a report on the use of decentralized wastewater treatment systems in response to a request from the House Appropriations Committee.[3] This report discussed some of the benefits of decentralized (or onsite) systems, including:

- Protection of public health and the environment because advanced treatment units are available for additional nutrient removal and disinfection.
- Large transfers of water between watersheds are avoided with decentralized treatment.
- Suitability for low-density communities where it is the most cost effective option.
- Suitability for varying site conditions such as shallow water tables or bedrock, low-permeability soils, and small lot sizes.
- Suitability for ecologically sensitive areas where advanced nutrient removal or disinfection is necessary.[4]

In addition to discussing the benefits of decentralized wastewater systems, the EPA report identified regulatory and fiscal constraints on using these systems. The report noted the lack of knowledge regarding decentralized systems, the absence of technical training on such systems,

[1] *See* Public Law 92-500.
[2] *See* http://www.epa.gov/owm/primer.pdf (last visited on April 7, 2006)
[3] See *Response to Congress on Use of Decentralized Wastewater Treatment Systems*, U.S. Environmental Protection Agency, Officer of Water, April 1997.
[4] *See id.* at ii.

and the perception that centralized systems improve property values. Another consideration for decentralized systems is the complexity of the permitting process for such a system and the confusion that may occur when the state and local governments attempt to regulate these systems. The report also notes the lack of management programs in most communities that is necessary to effectively manage decentralized systems and avoid the unintended result of inadequate treatment of wastewater. The fiscal constraints discussed in the report include the liability concerns of homeowners and developers. Also, engineers who base their fees on a percentage of the project cost have no incentive to consider the lower costs of a decentralized system. Finally, state and federal grant and loan programs for wastewater treatment typically favor public entities and are not available for decentralized systems.

Onsite Sewage Treatment and Disposal Systems

According to the 1999 census, approximately 23 percent of an estimated 115 million occupied homes in the United States are served by onsite systems. This percentage has changed little since 1970.[5] Nearly one-third of Florida's population is served by individual onsite sewage treatment and disposal systems, primarily septic tanks. Over 2.5 million systems are in use within the state as of 2005. Approximately 35,000 new and 20,000 repair permits are issued or existing systems are repaired each year. These systems provide a safe and economical means of wastewater disposal when properly constructed and maintained. However, improper sitting, design, construction, use and maintenance of these systems can result in unsanitary conditions, contaminated drinking water, and recreational waters. There is growing concern over the impact of onsite systems on Florida's ground and surface waters in areas of high-density development with poor site conditions.

The typical, conventional onsite sewage treatment and disposal system consists of a septic tank, distribution piping, and drainfield,[6] and the newer or "alternative" onsite treatment technologies use pumps, recirculation piping, aeration, and other features that require routine monitoring and maintenance.[7] The conventional onsite sewage treatment and disposal 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, DOH adopted a requirement that there be two feet of unsaturated soil beneath the drainfield to achieve effective removal of these disease-causing agents.

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[5] *See* http://www.epa.gov/ORD/NRMRL/Pubs/625R00008/html/600R00008chap1.htm (last visited on April 7, 2006), *Background and Use of Onsite Wastewater Treatment Systems*, U.S. Environmental Protection Agency, EPA600/R-00/008 at 1.4.

[6] *See id.* at 1.1

[7] Section 381.0065(2)(j), F.S., defines an onsite sewage treatment and disposal system as a "system that contains a standard subsurface, filled, or mound drainfield system; an aerobic treatment unit; a graywater system tank; a laundry wastewater system tank; a septic tank; a grease interceptor; a pump tank; a solids or effluent pump; a waterless, incinerating, or organic waste-composting toilet; or a sanitary pit privy that is installed or proposed to be installed beyond the building sewer on land of the owner or on other land to which the owner has the legal right to install a system."

Performance-Based Treatment Systems
The department requires performance-based treatment systems for use in environmentally sensitive areas, such as Monroe County (the Florida Keys) and other areas of the state where conditions exist that limit centralized treatment center development or the installment of a conventional onsite system is not feasible. Performance-based treatment systems are designed by professional engineers and incorporate methods, materials, processes, and techniques designed to reduce the total biological, chemical, hydraulic, organic, bacterial and viral effects on onsite sewage treatment and disposal systems. These alternative treatment systems allow for reductions in setbacks to surface waters and increase potential lot densities. According to the department, there are approximately 550 performance-based treatment systems permitted in the state, primarily in Monroe County. About 50 permits for new performance-based treatment systems are approved each year.

State Regulation of Sewage Systems

Chapter 153, F.S., authorizes local governments to:

- Construct water supply systems and sewage disposal systems.
- Operate, manage, control, and make improvements to the systems.
- Issue bonds to pay for the costs associated with the construction of the systems, and
- Levy rates and fees to pay for the management of the systems.

Part II of ch. 153, F.S., provides for the creation of special taxing districts, county water and sewer districts, in order to reach and provide services to unincorporated areas in need of sewer and water services.

Municipalities are authorized to provide similar services under ch. 180, F.S. The construction and expansion of central sewerage systems are typically financed through bonds that are issued based on a guarantee of a given capacity over time. Knowing how many citizens will be connecting to a central system allows local governments to predict revenue, which, in turn, assists local governments in securing funding for projects from lending institutions.

Chapter 381, F.S., governs the regulation of public water systems and onsite sewage treatment and disposal systems. The responsibilities of DOH under ch. 381, F.S., include adopting and administering rules relating to:[8]

- Definitions;
- Decreases to setback requirements where no health hazard exists;
- Increases for the lot-flow allowance for performance-based systems;
- Requirements for separation from water table elevation during the wettest season;
- Requirements for the design and construction of any component part of an onsite sewage treatment and disposal system;
- Application and permit requirements for persons who maintain an onsite sewage treatment and disposal system;

[8] S. 381.0065(3), F.S.

- Requirements for maintenance and service agreements for aerobic treatment units and performance-based treatment systems; and
- Recommended standards, including disclosure requirements, for voluntary system inspections to be performed by individuals who are authorized by law to perform such inspections and who shall inform a person having ownership, control, or use of an onsite sewage treatment and disposal system of the inspection standards and of that person's authority to request an inspection based on all or part of the standards.

Section 381.0065, F.S., provides for onsite sewage treatment permitting for the construction, installation, modification, abandonment, or repair of onsite sewage treatment and disposal systems in areas where publicly-owned or investor-owned sewerage systems are not available. The Legislature intends that these onsite systems should "not adversely affect the public health or significantly degrade the groundwater or surface water."[9] When central systems are made available, local governments have the authority to require connection of onsite systems to central sewerage systems within 365 days after written notice of the central system's availability.[10]

Sanitary Sewer Facilities and Concurrency

As part of the comprehensive planning process in Florida, a local government must address the provision of public facilities and services as they relate to future land use projections, including sanitary sewer, solid waste, stormwater management, potable water and natural groundwater aquifer recharge element. The required information is included in the potable water element of a local comprehensive plan.[11] Sanitary facilities must be available to serve new development no later than the issuance of a certificate of occupancy or its functional equivalent.[12] For existing sanitary sewer and water facilities, the needs of the local government's jurisdiction shall be based on:

- A facility capacity analysis, by geographic service area, indicating capacity surpluses and deficiencies;
- The general performance of existing facilities, based on best available data, evaluating the adequacy of the facilities' current level of service, the condition and expected life of the facilities, and the impact of the facilities on adjacent natural resources;
- An analysis of the problems and opportunities for sanitary sewer facilities replacement, expansion, and new facility siting; and
- An analysis of soil surveys for areas served by septic tanks and an explanation of suitability of those soils for such facilities based on the best available data from the United States Department of Agriculture's Soil Conservation Service.[13]

[9] S. 381.0065(1), F.S.
[10] S. 381.00655(1)(a), F.S.
[11] S. 163.3177(6)(c), F.S.
[12] S. 163.3180(2)(a), F.S.
[13] Rule 9J-5.011(1)(f), F.A.C.

Regulation of Septic Tank Contractors

Part III of ch. 489, F.S., regulates the registration and certification of septic tank contractors. In addition to other qualifications, each person desiring to register as a septic tank contractor or a master septic tank contractor must complete a specified number of hours of approved coursework in their profession. To renew this registration, current law requires that, at a minimum, the annual renewal must include continuing education requirements of not less than 6 classroom hours annually for septic tank contractors and not less than 12 classroom hours annually for master septic tank contractors. The 12 classroom hours of continuing education required for master septic tank contractors may include the 6 classroom hours required for septic tank contractors, but at a minimum must include 6 classroom hours of approved master septic tank contractor coursework.

III. Effect of Proposed Changes:

Section 1. Amends s. 153.54, F.S., to require a county that is planning to construct a new sewerage system or extend an existing sewerage system that was not previously approved to prepare a report, including a study of available information from DOH on the history of onsite sewage treatment and disposal systems in the area. The study must include a comparison of the projected cost to the owner of a typical lot or parcel of connecting to and using the proposed system versus installing, operating, and maintaining an onsite system approved by DOH that provides a comparable level of environmental and health protection. The study must also include other factors deemed relevant by the local authority.

Section 2. Amends s. 153.73, F.S., requiring each county water and sewer district that proposes to expand or build new central sewerage system to prepare a study as discussed above in section 1.

Section 3. Amends s. 163.3180, F.S., allowing local governments to satisfy growth management concurrency requirements for sanitary sewer facilities for new development with onsite sewage treatment and disposal systems approved by DOH.

Section 4. Amends s. 180.03, F.S., requiring each municipality that proposes to expand or build a new central sewerage system to prepare a study as described above in section 1 before adopting a resolution or ordinance under s. 180.03(1), F.S. The results of the study must be included in the resolution or ordinance.

Section 5. Amends s. 381.00655, F.S., allowing a local government or water and sewer district responsible for the operation of a centralized sewer system under s. 381.0065, F.S., to grant a variance to an owner of a performance-based onsite sewage treatment and disposal system permitted by DOH from mandatory connection to a publicly-owned or investor-owned sewerage system, as long as the onsite system is functioning properly and satisfying the conditions of an operating permit. This paragraph does not require a local government to issue a variance, and a local government or water and sewer district located in certain areas is not required to issue a variance under any circumstances. This paragraph does not limit the authority of a local government to enact ordinances under s. 4 of ch. 99-395, L.O.F.

Section 6. Amends s. 381.0067, F.S., allowing DOH or its agent to issue an order requiring the owner of an onsite sewage treatment and disposal system to repair or replace the drainage field or repair or replace the entire system if the system has failed; and providing a description of a failed onsite system.

Section 7. Amends s. 489.554, F.S., increasing continuing education hours required for the renewal of a registration as a septic tank contractor or master septic tank contractor.

Section 8. The bill takes effect July 1, 2006.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

The provisions of this bill have no impact on municipalities and the counties under the requirements of Article VII, Section 18 of the Florida Constitution.

B. Public Records/Open Meetings Issues:

The provisions of this bill have no impact on public records or open meetings issues under the requirements of Article I, Section 24(a) and (b) of the Florida Constitution.

C. Trust Funds Restrictions:

The provisions of this bill have no impact on the trust fund restrictions under the requirements of Article III, Subsection 19(f) of the Florida Constitution.

V. Economic Impact and Fiscal Note:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

This bill allows a local government or water and sewer district responsible for the operation of a centralized sewer system under s. 381.0065, F.S., to grant a variance to the owner of a performance-based onsite sewage treatment and disposal system in certain areas from mandatory connection to a publicly-owned or investor-owned sewerage system. The onsite system must be permitted by DOH, function properly, and satisfy the conditions of the operating permit.

Decentralized or onsite systems are typically less expensive and this bill would allow some individuals to enjoy those cost savings. Conversely, a decrease in the number of customers for a treatment facility may result in higher costs for those individuals who must use the centralized sewer system.

C. Government Sector Impact:

The bill requires each county water and sewer district and municipality proposing to extend or build new central sewerage systems to prepare a study that includes certain information. An approximate cost of this detailed feasibility study is not available at this time.

To the extent a local government or water and sewer district responsible for the operation of a centralized sewer system under s. 381.0065, F.S., grants variances to owners of performance-based onsite sewage treatment and disposal systems from mandatory connection to a publicly-owned or investor-owned sewerage system, this would affect the number of customers that a local government water and sewer district may reasonably rely on when determining the cost effectiveness of a new facility or expansion of an existing facility.

VI. Technical Deficiencies:

None.

VII. Related Issues:

The Department of Environmental Protection (DEP) has raised several concerns regarding the proliferation of onsite systems. The DEP estimates there are 2.5 million onsite systems in Florida, the majority of which do not meet existing design or siting requirements.[14] One concern is that an increase in the number of onsite systems, combined with the 2.5 million systems in existence, may exacerbate the costs to clean up surface and ground waters, springs, Outstanding Florida Waters, and other unique water bodies.[15] Another concern is the inability to use septic tank effluent for purposes of reuse.[16] An estimated 630 million gallons of reclaimed wastewater from central sewerage facilities are reused each day for urban and agricultural irrigation, ground water recharge, industrial cooling water, wetland hydration, and other uses.[17] An increase in the number of onsite systems may reduce the opportunity for reuse.[18]

[14] *See* Draft Bill Analysis for SB 1874, Department of Environmental Protection, section II.A.
[15] *See id.* at section III.A.3.
[16] *See id.* at section II.B.
[17] *See id.*
[18] *See id.*

VIII. Summary of Amendments:

None.