

The Florida Senate
BILL ANALYSIS AND FISCAL IMPACT STATEMENT

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

Prepared By: The Professional Staff of the Committee on Environmental Preservation and Conservation

BILL: CS/SB 1664

INTRODUCER: Environmental Preservation and Conservation Committee and Senator Simmons

SUBJECT: Onsite Sewage Treatment and Disposal Systems

DATE: January 22, 2018

REVISED: _____

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Mitchell	Rogers	EP	Fav/CS
2.			AEN	
3.			AP	

Please see Section IX. for Additional Information:

COMMITTEE SUBSTITUTE - Substantial Changes

I. Summary:

CS/SB 1664:

- Requires the development of an onsite sewage treatment and disposal system remediation plan as part of a basin management action plan (BMAP) if DEP determines that remediation is necessary to meet a total maximum daily load (TMDL).
- Authorizes DEP to identify one or more priority focus areas in order to promote cost-effective remediation.
- Requires DEP, as part of the development of a BMAP to:
 - Evaluate the need for the creation or improvement of wastewater treatment facilities to meet a TMDL; and
 - Identify funding sources available to the relevant local governments for the creation or improvement of wastewater treatment facilities.
- Authorizes and encourages DEP and the relevant WMDs to enter into cost-share agreements with the relevant local governments for the creation or improvement of wastewater treatment facilities.
- Provides criteria for projects to which DEP must give priority for funding purposes.
- Provides that onsite sewage treatment and disposal systems on lots of 1 acre or less must conform to the requirements of the remediation plan.
- Requires DEP to help develop a public education plan about water pollution from onsite sewage treatment and disposal systems.

II. Present Situation:

Total Maximum Daily Loads

A total maximum daily load (TMDL), which must be adopted by rule, is a scientific determination of the maximum amount of a given pollutant that can be absorbed by a waterbody and still meet water quality standards.¹ Waterbodies or sections of waterbodies that do not meet the established water quality standards are deemed impaired. Pursuant to the federal Clean Water Act, the Department of Environmental Protection (DEP) is required to establish a TMDL for impaired waterbodies.² A TMDL for an impaired waterbody is defined as the sum of the individual waste load allocations for point sources and the load allocations for nonpoint sources and natural background.³ Waste load allocations are pollutant loads attributable to existing and future point sources. Load allocations are pollutant loads attributable to existing and future nonpoint sources. Point sources are discernible, confined, and discrete conveyances including pipes, ditches, and tunnels. Nonpoint sources are unconfined sources that include runoff from agricultural lands or residential areas.⁴

Basin Management Action Plans and Best Management Practices

DEP is the lead agency in coordinating the development and implementation of TMDLs. basin management action plans (BMAPs) are one of the primary mechanisms DEP uses to achieve TMDLs. BMAPs are plans that use existing planning tools to address the entire pollution load, including point and nonpoint discharges, for a watershed. BMAPs generally include:

- Permitting and other existing regulatory programs, including water quality based effluent limitations;
- Non-regulatory and incentive-based programs, including best management practices (BMPs), cost sharing, waste minimization, pollution prevention, agreements, and public education;⁵
- Public works projects, including capital facilities; and
- Land acquisition.⁶

DEP may establish a BMAP as part of the development and implementation of a TMDL for a specific waterbody. First, the BMAP equitably allocates pollutant reductions to individual basins, to all basins as a whole, or to each identified point source or category of nonpoint sources.⁷ Then, the BMAP establishes the schedule for implementing projects and activities to meet the pollution

¹ Section 403.067, F.S.

² *Id.*

³ Section 403.031(21), F.S.

⁴ Fla. Admin. Code R. 62-620.200(37). Point source means any discernible, confined, and discrete conveyance, including any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. Nonpoint sources of pollution are essentially sources of pollution that are not point sources. They can include runoff from agricultural lands or residential areas; oil, grease and toxic materials from urban runoff; and sediment from improperly managed construction sites.

⁵ Section 403.061, F.S., grants the Department of Environmental Protection (DEP) the power and the duty to control and prohibit pollution of air and water in accordance with the law and rules adopted and promulgated by it. Furthermore, s. 403.061(21), F.S., allows DEP to advise, consult, cooperate, and enter into agreements with other state agencies, the federal government, other states, interstate agencies, etc.

⁶ Section 403.067(7), F.S.

⁷ *Id.*

reduction allocations. The BMAP development process provides an opportunity for local stakeholders, local government and community leaders, and the public to collectively determine and share water quality clean-up responsibilities.⁸

BMAPs must include milestones for implementation and water quality improvement. They must also include 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 5 years and revisions to the BMAP must be made as appropriate.⁹

Producers of nonpoint source pollution included in a BMAP must comply with the established pollutant reductions by either implementing the appropriate BMPs or by conducting water quality monitoring.¹⁰ A nonpoint source discharger may be subject to enforcement action by DEP or a water management district (WMD) based on a failure to implement these requirements.¹¹ BMPs are designed to reduce the amount of nutrients, sediments, and pesticides that enter the water system and help reduce water use. BMPs are developed for agricultural operations as well as for other activities, such as nutrient management on golf courses, silviculture (forestry) operations, and stormwater management.¹²

Sources of Pollutants

Onsite sewage and disposal systems

Onsite sewage treatment and disposal systems, hereafter referred to as septic systems, can contain any one of the following components: a septic tank; a subsurface drainfield; an aerobic treatment unit; a graywater tank; a laundry wastewater tank; a grease interceptor; a pump tank; a waterless incinerating or organic waste-composting toilet; and a sanitary pit privy.¹³ Septic systems are located underground and treat sewage without the presence of oxygen. Sewage flows from a home or business through a pipe into the first chamber, where solids settle out. The liquid then flows into the second chamber where anaerobic bacteria in the sewage break down the organic matter, allowing cleaner water to flow out of the second chamber into a drainfield.¹⁴

The Department of Health (DOH) administers septic system programs, develops statewide rules, and provides training and standardization for county health department employees responsible for issuing permits for the installation and repair of septic systems within the state.¹⁵ An

⁸ DEP, *Basin Management Action Plans (BMAPs)*, available at <https://floridadep.gov/dear/water-quality-restoration/content/basin-management-action-plans-bmaps> (last visited January 17, 2018).

⁹ Section 403.067(7)(a)5., F.S.

¹⁰ Section 403.067(7)(b)2.g., F.S. BMPs for agriculture, for example, include activities such as managing irrigation water to minimize losses, limiting the use of fertilizers, and waste management.

¹¹ Section 403.067(7)(b)2.h., F.S.

¹² DEP, *NPDES Stormwater Program*, available at <https://floridadep.gov/Water/Stormwater> (last visited January 19, 2018).

¹³ DEP, *Wastewater: Septic Systems*, <https://floridadep.gov/water/domestic-wastewater/content/septic-systems> (last visited January 17, 2018).

¹⁴ *Id.*

¹⁵ Section 381.0065(3), F.S.

estimated 2.7 million septic systems are in use statewide, serving approximately one third of the state's population.¹⁶

In Florida, development in some areas is dependent on septic systems due to the cost and time it takes to install central sewer systems. For example, in rural areas and low-density developments, central sewer systems are not cost effective. Less than one percent of septic systems in Florida are actively managed.¹⁷ The remainder of systems are generally serviced only when they fail, often leading to costly repairs that could have been avoided with routine maintenance.¹⁸ In Florida, approximately 30-40 percent of the nitrogen levels are reduced in a system that is installed 24 inches or more from groundwater.¹⁹ This still leaves a significant amount of nitrogen to percolate into the groundwater, which makes nitrogen from septic systems a potential contaminant in groundwater.²⁰ Nitrogen sensitivity of Florida watersheds varies greatly, and includes areas of extremely high sensitivity to nitrogen loading and other areas where nitrogen loading from septic systems may be less critical.²¹

Section 373.807(3), F.S., requires DEP, DOH, relevant local governments, and relevant local public and private wastewater utilities to develop septic system remediation plans as part of a BMAP that includes an Outstanding Florida Spring,²² if DEP determines that septic systems within a priority focus area contribute at least 20 percent of nonpoint source nitrogen pollution or if DEP determines remediation is necessary to achieve the TMDL. The remediation plan must include cost-effective and financially feasible projects necessary to reduce the nutrient impacts from septic systems within the area.²³

Wastewater Treatment Facilities

The proper treatment and disposal or reuse of domestic wastewater is an important part of protecting Florida's water resources. Management of wastewater is necessary to protect public health, water quality, and recreational and environmental values. The majority of Florida's domestic wastewater is controlled and treated by centralized treatment facilities regulated by DEP. Florida has approximately 1,900 permitted domestic wastewater treatment facilities.²⁴

Chapter 403, F.S., requires that any facility or activity which discharges wastes into waters of the state or which will reasonably be expected to be a source of water pollution must obtain a permit from DEP. Generally, persons who intend to collect, transmit, treat, dispose or reuse wastewater

¹⁶ Florida Department of Health (DOH), *Florida Onsite Sewage Nitrogen Reduction Strategies Study Final Report*, 17 (Dec. 31, 2015), available at <http://www.floridahealth.gov/environmental-health/onsite-sewage/research/documents/rrac/10212016-finalnitrogenreport.pdf> (last visited January 17, 2018).

¹⁷ DOH, *Report on Range of Costs to Implement a Mandatory Statewide 5-Year Septic Tank Inspection Program*, 1 (Oct. 1, 2008), available at <http://www.floridahealth.gov/environmental-health/onsite-sewage/research/documents/rrac/2008-11-06.pdf> (last visited January 17, 2018).

¹⁸ *Id.*

¹⁹ *Id.* at 18.

²⁰ University of Florida Institute of Food and Agricultural Sciences (IFAS), *Onsite Sewage Treatment and Disposal Systems: Nitrogen*, 3 (Feb. 2014), available at <http://edis.ifas.ufl.edu/pdf/SS/SS55000.pdf> (last visited January 17, 2018).

²¹ DOH, *Florida Onsite Sewage Nitrogen Reduction Strategies Study Final Report*, 14 (December 31, 2015).

²² See s. 373.802, F.S., for the definition of the term "Outstanding Florida Spring."

²³ Section 373.807(3), F.S.

²⁴ DEP, *General Facts and Statistics about wastewater in Florida*, available at <https://floridadep.gov/water/domestic-wastewater/content/general-facts-and-statistics-about-wastewater-florida> (last visited January 19, 2018).

are required to obtain a wastewater permit. A wastewater permit issued by DEP is required for both operation and certain construction activities associated with domestic or industrial wastewater facilities or activities. A DEP permit must also be obtained prior to construction of a domestic wastewater collection and transmission system.²⁵

The National Pollution Discharge Elimination System (NPDES) Program is a federal program established by the Clean Water Act (CWA) to control point source and stormwater discharges.²⁶ Under section 402 of the CWA, any discharge of a pollutant from a point source to surface waters (i.e., the navigable waters of the United States or beyond) must obtain an NPDES permit. The NPDES permit requires compliance with both technology-based as well as surface water quality standards (e.g., Water Quality Based Effluent Limitations or WQBELs).²⁷

Wastewater facilities that discharge to surface waters are subject to NPDES program requirements. In 1995, DEP received authorization from the U.S. Environmental Protection Agency to administer the NPDES wastewater program in Florida. Since that time, federal NPDES permit requirements for most wastewater facilities or activities (domestic or industrial) that discharge to surface waters are incorporated into a state-issued permit, thus giving the permittee one set of permitting requirements rather than one state and one federal permit.²⁸

According to the American Society of Civil Engineers, the state's wastewater system is increasing in age and the condition of installed treatment and conveyance systems is declining. As existing infrastructure ages, Florida utilities are placing greater emphasis on asset management systems to maintain service to customers. Florida is a national leader in reclaimed water use, which helps offset the state's potable water needs and is a vital component of water resource and ecosystem management, but population growth, aging infrastructure, and sensitive ecological environments are increasing the need to invest in Florida's wastewater infrastructure. Florida is projected to have \$18.4 billion in wastewater infrastructure needs over the next 20 years.²⁹

Water Project Funding Sources

Clean Water State Revolving Fund

Florida's Clean Water State Revolving Fund is funded through money received from federal grants as well as state contributions. These funds then "revolve" through the repayment of previous loans and interest earned. While these programs offer loans, grant-like funding is also available for qualified small, disadvantaged communities, which reduces the amount owed on loans by the percentage that the community qualifies. The Clean Water State Revolving Fund Program provides low-interest loans to local governments to plan, design, and build or upgrade wastewater, stormwater, and nonpoint source pollution prevention projects. Certain agricultural

²⁵ DEP, *Wastewater Permitting*, available at <https://floridadep.gov/water/domestic-wastewater/content/wastewater-permitting> (last visited January 18, 2018).

²⁶ 33 U.S.C. s. 1342.

²⁷ DEP, *Wastewater Permitting*, available at <https://floridadep.gov/water/domestic-wastewater/content/wastewater-permitting> (last visited January 18, 2018).

²⁸ Sections 403.061, 403.087, F.S.

²⁹ American Society of Civil Engineers, *2016 Florida Infrastructure Report Card*, available at <https://www.infrastructurereportcard.org/state-item/florida/> (last visited January 18, 2018).

best management practices may also qualify for funding. Very low interest rate loans, grants and other discounted assistance for small communities is available. Interest rates on loans are below market rates and vary based on the economic wherewithal of the community. Generally, local governments and special districts are eligible loan sponsors.³⁰

The priority given to funding an eligible project is dependent upon the extent the project is intended to remove, mitigate, or prevent adverse effects on surface or ground water quality and public health. The relative costs of achieving environmental and public health benefits are also taken into consideration. DEP must give priority to projects that:

- Eliminate public health hazards;
- Enable compliance with laws requiring the elimination of discharges to specific water bodies;
- Assist in the implementation of total maximum daily loads adopted under this section;
- Enable compliance with other pollution control requirements, including, but not limited to, toxics control, wastewater residuals management, and reduction of nutrients and bacteria;
- Assist in the implementation of surface water improvement and management plans and pollutant load reduction goals developed under state water policy;
- Promote reclaimed water reuse;
- Eliminate failing onsite sewage treatment and disposal systems or those that are causing environmental damage; or
- Reduce pollutants to and otherwise promote the restoration of Florida's surface and ground waters.³¹

DEP has adopted a priority system by rule.³²

Small Community Sewer Construction

The Small Community Sewer Construction Assistance Act requires DEP to use funds specifically appropriated to award grants to assist financially disadvantaged small communities³³ with their needs for adequate sewer facilities. DEP may provide grants for up to 100 percent of the costs of planning, designing, constructing, upgrading, or replacing wastewater collection, transmission, treatment, disposal, and reuse facilities, including necessary legal and administrative expenses.

III. Effect of Proposed Changes:

CS/SB 1664 requires the Department of Environmental Protection (DEP), the Department of Health, relevant local governments, and relevant local public and private wastewater utilities to develop an onsite sewage treatment and disposal system remediation plan, as part of a basin management action plan (BMAP), if DEP determines that remediation is necessary to achieve a total maximum daily load (TMDL). The bill provides that in order to promote cost-effective remediation, DEP is authorized to identify one or more priority focus areas.

³⁰ DEP, *State Revolving Fund*, available at <https://floridadep.gov/wra/srf> (last visited January 18, 2018).

³¹ Section 403.1835(7), F.S.

³² Fla. Admin. Code R. 62-503.300.

³³ A “financially disadvantaged small community” is a county, municipality, or special district that has a population of 10,000 or fewer, according to the latest decennial census, and a per capita annual income less than the state per capita annual income as determined by the United States Department of Commerce.

The bill requires DEP to identify priority focus areas by considering:

- Soil conditions;
- Groundwater or surface water travel time;
- Proximity to surface waters, including predominantly marine waters as defined by DEP rule;
- Hydrogeology;
- Onsite system density;
- Nutrient load; and
- Other factors that may lead to water quality degradation.

The remediation plan must identify cost-effective and financially feasible projects that are necessary to reduce the nutrient impacts from onsite sewage treatment and disposal systems. The plan is required to be completed and adopted as part of the BMAP within 5 years of the effective date of the bill.

The bill provides that DEP is the lead agency in coordinating the preparation and adoption of the remediation plan. In developing and adopting the plan, DEP must:

- Collect and evaluate credible scientific information on the effect of nutrients on surface and groundwater;
- Work with local stakeholders to develop a public education plan to provide area residents with reliable, understandable information about onsite sewage treatment and disposal systems and surface and groundwater pollution;
- Ensure that the plan includes options, if appropriate, for:
 - System repair, upgrade, or replacement;
 - Drainfield modification;
 - The addition of effective nutrient-reducing features;
 - Connection to a central sewerage system; or
 - Other actions addressing onsite sewage treatment and disposal system issues.
- Include in the plan a priority ranking for each onsite system, or group of systems, that requires remediation. The priority ranking must be used to ensure the most effective, efficient use of the funding provided for onsite system remediation. In awarding funds for onsite system remediation, DEP may consider the:
 - Expected nutrient reduction benefit per unit cost;
 - Size and scope of the project;
 - Local financial contribution to the project relative to the overall cost; and
 - Financial impact on property owners and the community; and
- Ensure that the plan includes an implementation schedule for completion of the actions related to reducing onsite sewage treatment and disposal system nutrient loads, with milestones, periodic progress evaluations, and a completion date necessary to achieve the TMDL within the timeframe established in the BMAP.

For the purpose of awarding funds, DEP is authorized, at its discretion, to totally or partially waive consideration of the local contribution for proposed projects within an area designated as a rural area of opportunity under s. 288.0656, F.S.

The bill requires that the installation, repair, modification, or upgrade of onsite sewage treatment and disposal systems on lots of 1 acre or less within the boundaries of a BMAP with an onsite sewage treatment and disposal system remediation plan must conform to the requirements of the remediation plan.

The bill requires DEP, as part of the development of a BMAP, to:

- Evaluate the need for the creation or improvement of wastewater treatment facilities to meet a TMDL; and
- Identify funding sources available to the relevant local governments for the creation or improvement of wastewater treatment facilities. The bill authorizes and encourages DEP and the relevant WMDs to enter into cost-share agreements with the relevant local governments for the creation or improvement of wastewater treatment facilities.

If a wastewater treatment facility is identified for funding, DEP and the WMDs must give priority to projects according to the extent each project is intended to remove, mitigate, or prevent adverse effects on surface or groundwater quality and public health. The relative costs of achieving environmental and public health benefits must be taken into consideration during DEP's or the WMD's assignment of project priorities.

DEP must adopt a priority system by rule. In developing the priority system, DEP or the WMD must give priority to projects that:

- Eliminate public health hazards;
- Enable compliance with laws requiring the elimination of discharges to specific water bodies;
- Assist in the implementation of total maximum daily loads;
- Enable compliance with other pollution control requirements, including, but not limited to, toxics control, wastewater residuals management, and reduction of nutrients and bacteria;
- Assist in the implementation of surface water improvement and management plans and pollutant load reduction goals developed under state water policy;
- Promote reclaimed water reuse;
- Eliminate failing onsite sewage treatment and disposal systems or those that are causing environmental damage; or
- Reduce pollutants to and otherwise promote the restoration of Florida's surface and groundwater.

The bill has an effective date of July 1, 2018.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

V. **Fiscal Impact Statement:**

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

Within local government areas where septic systems represent a significant water quality problem, now or in the future, as determined by DEP, some property owners may be required as a result of the BMAP process to upgrade or replace their septic systems or connect to an available central sewer system, which would result in a negative, indeterminate cost to property owners. However, this cost may be offset by state, WMD, or local government contributions.

C. Government Sector Impact:

The bill may have a positive, indeterminate impact on local governments from increased DEP or WMD funding through cost-share agreements.

VI. **Technical Deficiencies:**

None.

VII. **Related Issues:**

None.

VIII. **Statutes Affected:**

This bill substantially amends section 403.067 of the Florida Statutes.

IX. **Additional Information:**

A. Committee Substitute – Statement of Substantial Changes:

(Summarizing differences between the Committee Substitute and the prior version of the bill.)

CS by Environmental Preservation and Conservation on January 22, 2018:

- Removes the requirement that DEP, DOH, and relevant local governments and local public and private wastewater utilities develop a public wastewater treatment plant remediation plan as part of a BMAP.
- Removes references to a public wastewater treatment plant remediation plan from the bill.
- Requires onsite sewage treatment and disposal system remediation plans required by the bill to be in place within five years of the effective date of the bill.

- Adds requirements that DEP, as part of the development of a BMAP:
 - Evaluate the need for the creation or improvement of wastewater treatment facilities to meet a TMDL; and
 - Identify funding sources available to the relevant local governments for the creation or improvement of wastewater treatment facilities.
- Authorizes and encourages DEP and the relevant WMDs to enter into cost-share agreements with the relevant local governments for the creation or improvement of wastewater treatment facilities.
- Provides that, if wastewater treatment facilities are identified for funding in a BMAP, the priority given to funding an eligible project is dependent upon the extent to which the project is intended to remove, mitigate, or prevent adverse effects on surface or ground water quality and public health. The relative costs of achieving environmental and public health benefits are also taken into consideration. DEP must give priority to projects that:
 - Eliminate public health hazards;
 - Enable compliance with laws requiring the elimination of discharges to specific water bodies;
 - Assist in the implementation of total maximum daily loads;
 - Enable compliance with other pollution control requirements, including, but not limited to, toxics control, wastewater residuals management, and reduction of nutrients and bacteria;
 - Assist in the implementation of surface water improvement and management plans and pollutant load reduction goals developed under state water policy;
 - Promote reclaimed water reuse;
 - Eliminate failing onsite sewage treatment and disposal systems or those that are causing environmental damage; or
 - Reduce pollutants to and otherwise promote the restoration of Florida's surface and ground waters.

B. Amendments:

None.