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 Agriculture

BILL:	CS/SB 1576
INTRODUCER:	Environmental Preservation and Conservation Committee and Senator Dean and others
SUBJECT:	Springs
DATE:	March 27, 2014 REVISED:

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Hinton	Uchino	EP	**Fav/CS**
2.	Akhavein	Becker	AG	**Pre-meeting**
3.			AP	

Please see Section IX. for Additional Information:

COMMITTEE SUBSTITUTE - Substantial Changes

I. Summary:

CS/SB 1576 provides for the protection of springs in Florida. Specifically, the bill:

- Provides for funding from documentary stamp revenues to pay for the provisions of the bill;
- Requires the establishment of minimum flows and levels (MFLs) in Outstanding Florida Springs (OFSs) by July 1, 2020;
- Creates Part VIII of ch. 373, F.S.;
- Provides findings, intent, and definitions;
- Directs the Department of Environmental Protection (DEP) and the water management districts (WMDs) to delineate spring protection and management zones;
- Directs the DEP to make determinations of impairment for OFSs and develop basin management action plans (BMAPs);
- Requires the DEP to develop spring action plans;
- Directs local governments within spring protection and management zones to adopt ordinances that meet or exceed those of the Model Ordinance for Florida-Friendly Fertilizer Use on Urban Landscapes;
- Requires remediation of domestic wastewater treatment plants and onsite sewage treatment and disposal systems (OSTDSs), and implementation of best management practices (BMPs) for agricultural operations, if funding is available;
- Directs the DEP to create a program to evaluate, select and rank project proposals;
- Prohibits certain activities in spring protection and management zones;
- Assigns duties to several agencies to carry out the provisions of Part VIII of ch. 373, F.S.;

- Provides for variances and exceptions;
- Repeals s. 381.00651, F.S.;
- Requires the Department of Agriculture and Consumer Services (DACS) to study new or revised BMPs;
- Requires a report by the Department of Health (DOH), and the DEP on the creation and operation of responsible management entities (RMEs) by March 1, 2015; and
- Requires a study of the beneficial use of reclaimed water, stormwater, and excess surface water by December 1, 2015.

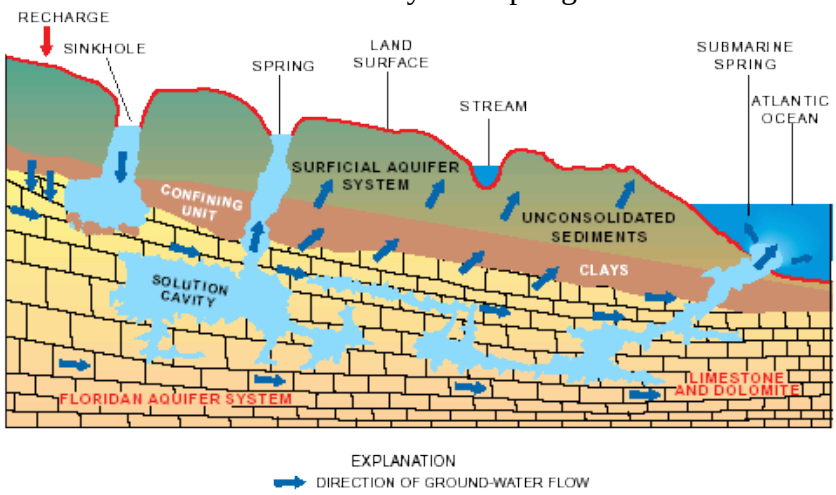
II. Present Situation:

Florida's Springs

Florida's springs are unique and beautiful resources. The historically crystal clear waters provide not only a variety of recreational opportunities and habitats, but also great economic value for recreation and tourism. The springs are major sources of stream flow in a number of rivers such as the Rainbow, Chassahowitza, Homosassa, and Ichetucknee.[1] Additionally, Florida's springs provide a "window" into the Floridan Aquifer system, which provides most of the state's drinking water.

The Floridan Aquifer System is a limestone aquifer that has enormous freshwater storage and transmission capacity. The upper portion of the aquifer consists of thick carbonate rocks that have been heavily eroded and covered with unconsolidated sand and clay. The surficial aquifer is located within the sand deposits and forms the land surface that is present today. In portions of Florida, the surficial aquifer lies on top of deep layers of clay sediments that prevent the downward movement of water. Springs form when groundwater is forced out through natural openings in the ground.[2]

The Water Cycle – Springs[3]



[1] Department of Community Affairs, *Protecting Florida's Springs: An Implementation Guidebook*, 3-1 (Feb. 2008), *available at* http://www.dep.state.fl.us/springs/reports/files/springsimplementguide.pdf (last visited Mar. 27, 2014).
[2] *Id*. at 3-1 to 3-2.
[3] U.S. Environmental Protection Agency, *The Water Cycle: Springs*, http://water.usgs.gov/edu/watercyclesprings.html (last visited Mar. 27, 2014).

Florida has more than 700 recognized springs. First magnitude springs are those that discharge 100 cubic feet of water per second or greater. Florida has 33 first magnitude springs in 18 counties that discharge more than 64 million gallons of water per day. Spring discharges, primarily from the Floridan Aquifer, are used to determine ground water quality and the degree of human impact on a spring's recharge area. Rainfall, surface conditions, soil type, mineralogy, the composition and porous nature of the aquifer system, flow, and length of time in the aquifer all contribute to ground water chemistry.[4]

The springshed is the area within the groundwater and surface water basins that contributes to the discharge of the spring. The spring recharge basin consists of all areas where water can be shown to contribute to groundwater flow discharging from the spring.

Spring protection zones are sub-areas of the groundwater and surface water basins of each spring or spring system that supply water to the spring and within which human activities, such as waste disposal or water use, are most likely to have negative impacts on the water discharging from the spring. When adverse conditions occur within a spring protection zone, the conditions can be minimized by:

- Land-use management and zoning by county or municipal government;
- Adoption of BMPs;
- Educating the public concerning environmental sensitivity; and
- If necessary, regulatory action.[5]

Nutrients

Phosphorus and nitrogen are essential nutrients for plants and animals and are the limiting nutrients in aquatic environments. The correct balance of both of these nutrients is necessary for a healthy ecosystem; however, excessive nitrogen and phosphorus can cause significant water quality problems. Typically, nitrogen is the limiting nutrient in spring systems. Therefore, even modest increases in nitrogen above optimum levels can accelerate algae growth, plant growth, and deplete oxygen levels.[6]

Phosphorus and nitrogen are derived from natural and anthropogenic sources. Natural inputs include the atmosphere, soils, and the decay of plants and animals. Anthropogenic sources include sewage disposal systems (wastewater treatment facilities and septic tanks), overflows of storm and sanitary sewers (untreated sewage), agricultural production and irrigation practices, and stormwater runoff.

Excessive nutrients may result in harmful algal blooms, nuisance aquatic weeds, and alteration of the natural community of plants and animals. Dense, harmful algal blooms can also cause human health problems, fish kills, problems for water treatment plants, and generally impair the

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[4] Florida Geological Survey, *Springs of Florida Bulletin No. 66*, *available at* http://www.dep.state.fl.us/geology/geologictopics/springs/bulletin66.htm (last visited Mar. 27, 2014).
[5] Upchurch, S.B. and Champion, K.M., *Delineation of Spring Protection Areas at Five, First-Magnitude Springs in North-Central Florida (Draft)*, 1 (Apr. 28, 2004), *available at* www.waterinstitute.ufl.edu/suwannee-hydro-observ/pdf/delineation-of-spring-protection-zones.pdf (last visited Mar. 27, 2014).
[6] EPA, *Health and Environmental Effects Research*, http://www.epa.gov/nheerl/research/aquatic_stressors/nutrient_loading.html#decreased_o2 (last visited Mar. 27, 2014).

aesthetics and tastes of waters. Growth of nuisance aquatic weeds tends to increase in nutrient-enriched waters, which can impact recreational activities. Increased algae production, as a result of increased nutrients, can alter plant communities and affect natural systems.

In pristine conditions, spring water is high quality and lacks contaminants. It can be used directly for public water supplies or for irrigation. When pollutants are introduced to the land surface, some will be retained, but some will travel into the aquifer and later appear in spring flow. Often, nutrients introduced close to a spring will quickly reach the spring, especially in unconfined areas of the aquifer. While springs are valuable recreational and tourist attractions, they are also an indicator of reduced quality of the water in the aquifer.[7]

Urban Fertilizer Usage and Florida's Model Ordinance

Application of fertilizer in urban areas impacts springsheds when it runs off lawns and impervious surfaces into stormwater collection systems or directly into the surface water. The DEP has provided guidelines to minimize the impact of urban fertilizer usage and has adopted the "Model Ordinance for Florida-Friendly Fertilizer Use on Urban Landscapes." The model ordinance provides counties and municipalities with a range of ordinances to help minimize fertilizer inputs from urban applications. Some of the suggestions contained in the model ordinance are:

- Restricting the times fertilizer may be applied, such as restricting its application during the rainy season;
- Creating fertilizer free zones around sensitive waterbodies such as ponds, streams, watercourses, lakes, canals, or wetlands;
- Controlling application practices, for example, by restricting fertilizer application on impervious surfaces and requiring prompt cleanup of any fertilizer that is spilled on impervious surfaces; and
- Managing grass clipping and vegetative matter by disposing of such materials properly rather than simply blowing them into the street, ditches, stormwater drains, or waterbodies.[8]

Water Pollution Control Programs

Total Maximum Daily Loads (TMDLs) and Water Quality Standards (WQSs)

Under s. 303 of the federal Clean Water Act (CWA), states are incentivized to adopt WQSs for their navigable waters and must review and update those standards at least once every three years. These standards include:

- Designation of a waterbody's beneficial uses, such as water supply, recreation, fish propagation, and navigation;
- Water quality criteria that define the amounts of pollutants, in either numeric or narrative standards, that the waterbody can contain without impairment of the designated beneficial uses; and
- Anti-degradation requirements.[9]

[7] *Supra* note 1, at 3-4.
[8] DEP, *Model Ordinance for Florida-Friendly Fertilizer Use on Urban Landscapes*, 6-9 (2010), *available at* http://www.dep.state.fl.us/water/nonpoint/docs/nonpoint/dep-fert-modelord.pdf (last visited Mar. 27, 2014).
[9] 33 U.S.C. s. 1313(c)(2)(A) (2014); 40 C.F.R. ss. 131.6 and 131.10-131.12.

In 1999, the Legislature passed the Florida Watershed Restoration Act (WRA),[10] which codified the establishment of TMDLs for pollutants of waterbodies as required by the CWA.[11] Each TMDL, which must be adopted by rule, is a scientific determination of the maximum amount of a given pollutant that can be absorbed by the waterbody while still meeting WQSs. Waterbodies that do not meet the established WQSs are deemed impaired and, pursuant to the CWA, the DEP establishes a TMDL for the waterbody or section of the waterbody that is impaired.[12] 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. Waste load allocations are pollutant loads attributable to existing and future point sources, such as discharges from industry and sewage facilities. Load allocations are pollutant loads attributable to existing and future nonpoint sources such as the runoff from farms, forests, and urban areas. [13]

The U.S. Environmental Protection Agency (EPA) and the DEP enforce WQSs through the implementation and enforcement of the National Pollutant Discharge Elimination System (NPDES) permitting program. Every point source that discharges a pollutant into waters of the United States must obtain an NPDES permit establishing the amount of a particular pollutant that an individual point source can discharge into a specific waterbody. The amount of the pollutant that a point source can discharge under a NPDES permit is determined through the establishment of a technology-based effluent limitation. If a waterbody fails to meet the applicable WQS through the application of a technology-based effluent limitation, a more stringent pollution control program called the water quality based effluent limitation is applied.

Basin Management Action Plans

The DEP is the lead agency in coordinating the implementation of TMDLs and BMAPs through existing water quality protection programs. Such programs include:

- Permitting and other existing regulatory programs, including water quality based effluent limitations;
- Non-regulatory and incentive-based programs, including BMPs, cost sharing, waste minimization, pollution prevention, agreements established pursuant to s. 403.061(21), F.S., and public education;[14]
- Public works, including capital facilities; and
- Land acquisition.[15]

[10] Chapter 99-223, Laws of Fla.
[11] Section 403.067, F.S.
[12] *Id*.
[13] Rule 62-620.200(37), F.A.C. 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.
[14] Section 403.061, F.S., grants the 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 the DEP to advise, consult, cooperate, and enter into agreements with other state agencies, the federal government, other states, interstate agencies, etc.
[15] Section 403.067(7)(b), F.S.

The DEP may establish a BMAP as part of the development and implementation of a TMDL for a specific water body. First, the BMAP equitably allocates pollutant reductions to individual basins, as a whole to all basins, or to each identified point source or category of nonpoint sources.[16] Then the BMAP establishes the schedule for implementing projects and activities to meet the pollution reduction allocations. The BMAP process has the flexibility to allow for adaptive changes if necessary. The BMAP development process provides an opportunity for local stakeholders, local government and community leaders, and the general public to collectively determine and share water quality clean-up responsibilities. The DEP works with stakeholders to develop effective BMAPs.[17]

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 five years and revisions to the plan must be made as appropriate.[18]

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.[19] A nonpoint source discharger may be subject to enforcement action by the DEP or a WMD based upon a failure to implement these responsibilities.[20]

Provisions of a BMAP must be included in subsequent NPDES permits. The DEP is prohibited from imposing limits or conditions associated with an adopted TMDL in a NPDES permit until the permit expires, the discharge is modified, or the permit is reopened pursuant to an adopted BMAP.[21]

NPDES permits issued between the time a TMDL is established and a BMAP is adopted contain a compliance schedule allowing time for the BMAP to be developed. Once the BMAP is developed, a permit will be reopened and individual allocations consistent with the BMAP will be established in the permit. The timeframe for this to occur cannot exceed five years. NPDES permittees may request an individual allocation during the interim, and the DEP may include an individual allocation in the permit.[22]

For an individual point source, reducing pollutant loads established under the TMDL and water quality based effluent limitation regulatory programs can be difficult to accomplish. It may require investment in expensive technology or other costly measures to reduce pollutant loads.[23]

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[16] Section 403.067(7), F.S.
[17] DEP, *Basin Management Action Plans (BMAPs)*, http://www.dep.state.fl.us/central/Home/Watershed/BMAP.htm (last visited Mar. 27, 2014).
[18] Section 403.067(7)(a)5., F.S.
[19] BMPs for agriculture, for example, include activities such as managing irrigation water to minimize losses, limiting the use of fertilizers, and waste management.
[20] Section 403.067(7)(b)1.h., F.S.
[21] Florida Senate Committee on Environmental Preservation and Conservation, *CS/SB 754 Analysis* (Mar. 14, 2013), *available at* http://flsenate.gov/Session/Bill/2013/0754/Analyses/2013s0754.pre.ep.PDF (last visited Mar. 27, 2014).
[22] *Id*.
[23] *Id*.

Agricultural Operations

Only lands that are used primarily for bona fide agricultural purposes are classified as agricultural in Florida.[24] The term "bona fide agricultural purposes" means good faith commercial agricultural use of the land. Certain factors may be taken into account in determining whether an agricultural operation is bona fide:

- The length of time the land has been used for agriculture;
- Whether the use has been continuous;
- The purchase price paid;
- Size, as it relates to specific agricultural use, but a minimum acreage may not be required for agricultural assessment;
- Whether an indicated effort has been made to care sufficiently and adequately for the land in accordance with accepted commercial agricultural practices, including fertilizing, liming, tilling, mowing, reforesting, and other accepted agricultural practices;
- Whether the land is under lease and, if so, the effective length, terms, and conditions of the lease; and
- Other factors as may be applicable.[25]

Concentrated Animal Feeding Operations (CAFOs)

In 2012, the EPA estimated there were slightly more than one million farms with livestock in the United States.[26] The EPA further estimated that 212,000 of those farms were likely to be animal feeding operations (AFOs) - operations where animals are kept and raised in confinement. Of those 212,000 farms, approximately 20,000 of those farms are CAFOs.[27]

In order for a farm to be classified as a CAFO, the farm must first meet the definition of an AFO. Generally, AFOs are facilities with large numbers of animals in a confined area.[28] Federal regulations define AFOs as operations where animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12 month period and where vegetation is not sustained in the confinement area during the normal growing season.[29]

CAFOs are classified under federal regulations as either large, medium, or small depending on the number of animals stabled or confined on an AFO. For example, operations with 700 or more mature dairy cows, 2,500 swine each weighing 55 pounds or more, 10,000 swine, each weighing less than 55 pounds, or 125,000 chickens, if the operation uses a non-liquid manure handling system, are considered large CAFOs.[30]

Using the same types of animals for comparison, an AFO would be considered a medium CAFO if it has 200 to 699 mature dairy cows, 750 to 2,499 swine each weighing 55 pounds or more,

[24] Section 193.461(3)(b), F.S.
[25] *Id*.
[26] The term "livestock" does not include poultry. See s. 212.02(29), F.S.
[27] EPA, *NPDES Permit Writers' Manual for Concentrated Animal Feeding Operations*, Report No. 833-F-12-001, 1-2 (Feb. 2012), *available at* http://www.epa.gov/npdes/pubs/cafo_permitmanual_entire.pdf (last visited Mar. 27, 2014).
[28] DEP, *Animal Feeding Operations (AFOs)*, http://www.dep.state.fl.us/water/wastewater/iw/afo.htm (last accessed Mar. 27, 2014).
[29] 40 C.F.R. s. 122.23 (2013).
[30] *Id*.

3,000 to 9,999 swine, each weighing less than 55 pounds, or 37,500 to 124,999 chickens, if using a non-liquid manure handling system. Further, in order to be classified as a medium CAFO, pollutants from the AFO must be discharged into waters of the United States through a man-made ditch, flushing system, or other similar man-made device, or pollutants are discharged directly into waters of the United States that pass over, across, or through a facility or otherwise come into direct contact with the animals confined in the operation.[31]

Small CAFOs are determined on a case by case basis when they do not rise to the level of large or medium CAFOs. AFOs regulated under the DEP's industrial wastewater program include dairies, poultry, horse, and swine operations. CAFOs are regulated under the federal NPDES program.[32]

Lot Feeding

Lot feeding and intensive finishing are intensive forms of animal production where groups of animals are placed in yards or enclosures of a minimum square footage. These animals are fed scientifically formulated feed to achieve optimal weight gain, usually 2.5 to 4 pounds per day. Based on such a diet, cattle can gain one pound for every six pounds of feed they consume.[33] Advantages include the ability to finish animals more quickly than those raised on pastures, and the production of a more consistent product. Disadvantages include regular health monitoring, death averaging 1.5 percent of the animals, and pollution controls.[34] With large numbers of animals in a small area, waste becomes a problem for producers and requires careful management.[35]

Best Management Practices on Agricultural Lands

Agricultural BMPs are guidelines advising producers how to manage the water, nutrients, and pesticides they use to minimize agricultural impacts on Florida's natural resources. Agricultural activity is dependent on the application of fertilizer and pesticides and is linked to the contamination of watersheds with nutrients such as nitrogen and phosphorus. BMPs tend to cover four major areas, which overlap: nutrient management, or how producers use fertilizers; pest management, or how they use pesticides; water management, or how they use and discard water; and sediment management, or how they affect the sediments on and around their properties.[36]

BMPs reduce the amount of nutrients, sediments, and pesticides that enter the water system, and help reduce water use. Because much of the state is built on limestone, which allows water to return relatively unfiltered to the aquifer, pollutants can enter the water supply quickly, endangering humans and ecosystems.[37]

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[31] *Id*.
[32] *Supra* note 28.
[33] *See* Beef USA, National Cattlemen's Beef Assoc., *Fact Sheet: Feedlot Finishing Cattle*, *available at* http://www.beefusa.org/uDocs/Feedlot%20finishing%20fact%20sheet%20FINAL_4%2026%2006.pdf (last visited Mar. 27, 2014).
[34] *Id*.
[35] *Id*.
[36] University of Florida Institute of Food and Agricultural Sciences, *Best Management Practices*, http://solutionsforyourlife.ufl.edu/hot_topics/agriculture/bmps.html (last visited Mar. 27, 2013).
[37] *Id*.

The Office of Agricultural Water Policy, a division of the DACS, is actively involved in developing BMPs. The DACS works cooperatively with agricultural producers, industry groups, the DEP, the university system, the WMDs, and other interested parties to develop and implement BMP programs that are economically and technically feasible.[38]

Onsite Sewage Treatment and Disposal Systems

In Florida, septic systems are referred to as onsite sewage treatment and disposal systems. An OSTDS can contain any one of the following components: a septic tank; a subsurface drainfield; an aerobic treatment unit (ATU); 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.[39] 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.[40] Engineers licensed in Florida may specially design OSTDSs to meet the needs of individual property owners. Engineer-designed OSTDS plans are subject to review by the local county health department and must be certified by the engineer as complying with all requirements pertaining to such system.[41]

Onsite Sewage Programs, part of the DOH, develops statewide rules and provides training and standardization for county health department employees responsible for issuing permits for the installation and repair of OSTDSs within the state.[42] The Bureau also licenses over 700 septic tank contractors and oversees 2.6 million onsite wastewater systems in Florida. [43]

The EPA concluded in its 1997 Report to Congress that "adequately managed decentralized wastewater systems are a cost-effective and long-term option for meeting public health and water quality goals, particularly in less densely populated areas." In Florida, development is dependent on OSTDSs due to the cost and time it takes to install central sewer. In rural areas and low-density developments, central sewer is not cost effective. Less than one percent of Florida systems are actively managed. The remainder generally only receive maintenance when they fail,

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[38] DACS, Office of Agricultural Water Policy, *Home Page* (Jan. 8, 2014), http://www.freshfromflorida.com/Divisions-Offices/Agricultural-Water-Policy (last visited Mar. 27, 2014).
[39] DEP, *Wastewater: Septic Systems*, http://www.dep.state.fl.us/water/wastewater/dom/septic.htm (last visited Mar. 27, 2014).
[40] EPA, *Primer for Municipal Wastewater Treatment Systems*, 22 (2004), *available at* http://water.epa.gov/aboutow/owm/upload/2005_08_19_primer.pdf (last visited Mar. 27, 2014).
[41] *See* Rules 64E-6.003 and 6.004, F.A.C.
[42] The DOH does not permit the use of onsite sewage treatment and disposal systems where the estimated domestic sewage flow from the establishment is over 10,000 gallons per day (gpd) or the commercial sewage flow is over 5,000 gpd; where there is a likelihood that the system will receive toxic, hazardous or industrial wastes; where a sewer system is available; or of any system or flow from the establishment is currently regulated by the DEP. The DEP issues the permits for systems that discharge more than 10,000 gpd.
[43] Hall, P. and Clancy, S.J., *Statewide Inventory of Onsite Sewage Treatment and Disposal Systems in Florida*, *Final Report*, 6 (June 29, 2009), *available at* http://www.floridahealth.gov/healthy-environments/onsite-sewage/research/_documents/research-reports/_documents/inventory-report.pdf (last visited Mar.27, 2014).

often leading to costly repairs that could have been avoided with routine tank pump outs and service.[44]

Land Spreading of Septage

Septage is defined as a mixture of sludge, fatty materials, human feces, and wastewater removed during the pumping of an OSTDS.[45] Approximately 100,000 septic tanks are pumped each year, generating 100 million gallons of septage requiring treatment and disposal.[46] The septage is treated and disposed of at a number of septage treatment facilities regulated by the DOH. When used for land application, the septage is stabilized by raising the pH to 12 for at least two hours or to a pH of 12.5 for 30 minutes.[47]The treated septage is then spread over the land at DOH-regulated land application sites.[48] In addition to septage, onsite systems serving restaurants include tanks that separate grease from the sewage stream. The grease is collected, hauled, treated, and land applied similarly to septage. There are currently 92 DOH-regulated land application sites that receive treated septage from 108 DOH-regulated septage treatment facilities. Approximately 40 percent of septage removed from septic tanks is treated at septage treatment facilities and then land applied.[49]

In 2010, the Legislature enacted a law prohibiting the land application of septage from septic tanks effective January 1, 2016.[50] In addition, the bill required the DOH, in consultation with the DEP, to provide a report to the Governor and the Legislature recommending alternative methods to establish enhanced treatment levels for the land application of septage by February 1, 2011. The report provided several alternatives to the land application of septage as it is currently performed.[51]

Treatment of septage at domestic wastewater treatment facilities

Treating septage takes advantage of available wastewater treatment facilities' capacity while at the same time centralizing waste treatment operations. However, not all wastewater treatment facilities accept septage because it is a high strength waste, which has the potential to upset facilities' processes and may result in increased operation and maintenance requirements and costs. Furthermore, the distance between central facilities with available treatment capacity and the locations where septage is collected in rural areas can make transport to such facilities cost prohibitive.[52]

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[44] 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.noticeandcomment.com/Report-on-Range-of-Costs-to-Implement-a-Mandatory-Statewide-5-Year-Septic-Tank-Inspection-Program-October-fn-14050.aspx (last visited Mar. 27, 2014).
[45] Section 381.0065(2)(n), F.S.
[46] DOH, *Report on Alternative Methods for the Treatment and Disposal of Septage*, 1 (Feb. 1, 2011), *available at* http://pk.b5z.net/i/u/6019781/f/FINAL_REPORT_ON_ALTERNATIVE_METHODS_FOR_THE_TREATMENT_AND_DISPOSAL_OF_SEPTAGE_03282011__2_.pdf (last visited Mar. 27, 2014).
[47] Rule 64E-6.010(7)(a), F.A.C.
[48] See Rule 64E-6.010, F.A.C.
[49] *Supra* note 46.
[50] Section 381.0065(6), F.S.
[51] *Supra* note 46, at 2.
[52] *Supra* note 46, at 2.

Disposal of septage at landfills

Acceptance of septage at Class I landfills has positive impacts to the landfills because it increases microbial activity within the landfills and results in increased waste decomposition and more rapid waste stabilization. However, landfill instability may result due to disposal of the wet waste stream. Increased difficulty in operating compaction equipment may result due to creation of a slick working surface. Many landfills choose not to accept loads of septage, making land application sites one of the only available options for the disposal of septage.[53]

Advanced Treatment

While most of Florida's OSTDSs are conventional OSTDSs, or passive septic systems, there are other advanced systems capable of providing additional or advanced treatment of wastewater prior to disposal in the drainfield. Advanced OSTDSs can utilize various approaches to improve treatment before discharge to a drainfield, or the drainfield itself can be modified. On occasion, engineers have included the drainfield as part of the treatment process, usually as a means to achieve fecal coliform reduction.[54]

Advanced systems differ in three respects from conventional treatment systems that consist of a septic tank with drainfield. First, the design of advanced systems is more variable than the approach for conventional systems. Second, they need more frequent checkups and maintenance, which is the reason they require operating permits. Third, the performance expectations are more specific, while failures for advanced systems are less defined.[55] Advanced systems are significantly more expensive to purchase, install, and operate.

Aerobic Treatment Units (ATUs) offer advanced treatment for wastewater. ATUs force compressed air through the liquid effluent in the tank to create a highly oxygenated (aerobic) environment for bacteria. Bacteria that thrive in oxygen-rich environments work to break down and digest the wastewater inside the aerobic treatment unit. Aerobic units come in a variety of sizes and shapes and can be made of concrete, fiberglass, or polyurethane. They are designed to collect and treat all the water from a home, including water from toilets, showers, bathtubs, sinks, and laundry. There are as many as three stages that ATUS take wastewater through before the effluent is dispersed into the drainfield.[56]

Responsible Management Entities

RMEs are entities that have responsibilities for local OSTDS operation and maintenance, typically in environmentally sensitive areas or areas with dense clusters of OSTDSs. The EPA has described two types of RME models. In Model 4, referred to as the Operation and Maintenance Model, the RME is responsible for the operation and maintenance of the OSTDSs

[53] *Supra* note 46, at 3.
[54] DOH, Assessment of Water Quality Protection, *Advanced Onsite Sewage Treatment and Disposal Systems: Performance, Management, Monitoring, Draft Final Report*, 14 (August 19, 2013), *available at* http://www.floridahealth.gov/healthy-environments/onsite-sewage/research/advancedostdsfinalreportdraft.pdf (last visited Mar. 27, 2014).
[55] Prepared for DEP by DOH, Bureau of Onsite Sewage Programs, *Revised Quality Assurance Project Plan Assessment of Water Quality Protection by Advanced Onsite Sewage Treatment and Disposal Systems (OSTDS): Performance, Management, Monitoring*, 8 (Aug. 22, 2011) *available at* http://www.floridahealth.gov/healthy-environments/onsite-sewage/research/_documents/final319qapp.pdf (last visited Mar. 27, 2014).
[56] Florida Health, Lee County, *Aerobic Treatment Unit Homeowner Education*, http://www.floridahealth.gov/chdlee/EH/OSTDSatu.html (last visited Mar. 27, 2014).

within its jurisdiction. The RME, instead of the owner, receives the permit for the OSTDS with the intent of providing greater assurance of control over performance compliance. The owner of the OSTDS pays a fee for the RME to regularly inspect and maintain the owner's OSTDS.[57]

In Model 5, referred to as the Ownership Model, the RME owns, operates, and manages the OSTDSs in a manner similar to central sewer. One advantage of this model is that it allows the RME to more easily replace existing systems with higher-performance units or clustered systems when necessary.[58] The RME Ownership Model relieves the property owner of responsibility for the system and it provides the greatest assurance of system performance in sensitive environments.[59] This model is more expensive for the property owner.

Water Pollution Management

Urban Stormwater Management

Unmanaged urban stormwater creates a wide variety of effects on Florida's surface waters and groundwaters. Factors that exacerbate unmanaged runoff include:

- Compaction of soil;
- Addition of impervious surfaces such as roads and parking lots;
- Alteration of natural landscape features such as natural depression areas that hold water, floodplains, and wetlands;
- Construction of highly efficient drainage systems that alter the ability of the land to assimilate precipitation; and
- Pollutant loading of receiving water bodies from stormwater discharge.[60]

Urbanization within a watershed decreases the amount of rainwater that seeps into the soil. Rainwater is critical for recharging aquifers, maintaining water levels in lakes and wetlands, and maintaining spring and stream flows. The increased volume, speed, and pollutant loading in stormwater discharged from developed areas leads to flooding, water quality problems, and loss of habitat.[61]

In 1982, to manage urban stormwater and minimize impacts to natural systems, Florida adopted a technology-based rule requiring the treatment of stormwater to a specified level of pollutant load reduction for new development. The rule included a performance standard for the minimum level of treatment and design criteria for BMPs to achieve the performance standard. It also included a rebuttable presumption that discharges from a stormwater management system designed in accordance with the BMP design criteria would meet WQSs.[62] The performance

[57] EPA, *Voluntary National Guidelines for Management of Onsite and Clustered (Decentralized) Wastewater Treatment Systems*, Report No. 832-B-03-001, 20 (Mar. 2003), *available at* http://water.epa.gov/scitech/wastetech/upload/septic_guidelines.pdf (last visited Mar. 27, 2014).
[58] *Id*.
[59] *Id*. at 5.
[60] DEP, *State Stormwater Treatment Rule Development Background*, http://www.dep.state.fl.us/water/wetlands/erp/rules/stormwater/background.htm (last visited Mar. 27, 2014).
[61] *Id*.
[62] *Id*.

standard was to reduce post-development stormwater pollutant loading of total suspended solids[63] by 80 percent, or by 95 percent for Outstanding Florida Waters.[64]

In 1990, the DEP developed and implemented the State Water Resource Implementation Rule (originally known as the State Water Policy rule).[65] This rule sets forth the broad guidelines for the implementation of Florida's stormwater program and describes the roles of the DEP, the WMDs, and local governments. One of the primary goals of the program is to maintain the predevelopment stormwater characteristics of a site. The rule sets a minimum performance standard for stormwater treatment systems to remove 80 percent of the post-development stormwater pollutants "that cause or contribute to violations of WQSs."[66]

The DEP and the WMDs jointly administer the Environmental Resource Permitting (ERP) program for activities that alter surface water flows.[67] Alteration or construction of new stormwater management systems in urban redevelopment areas is regulated by the ERP program pursuant to s. 373.413, F.S., and must comply with all other relevant sections of ch. 373, Part IV, F.S.

Wastewater Treatment Plants

Wastewater treatment is one of the most common forms of pollution control in the United States. Sewerage system components include collection sewers, pumping stations, and treatment plants. Sewage is collected and sent to a treatment plant to remove solids and biological contaminants. Once sewage has been treated, it is typically discharged into streams and other receiving waters, or reused.[68]

The basic function of wastewater treatment is to speed up natural processes by which water is purified. Typically, sewage is treated by primary and secondary processes. In the primary stage, solids are allowed to settle and are removed from the wastewater. The secondary stage uses biological processes to further purify wastewater.[69]

Limits in Florida for effluent to surface water from wastewater treatment plants are required to contain no more than 20 mg/L carbonaceous biochemical oxygen demand (CBOD5)[70] and 20 mg/L total suspended solids (TSS),[71] or 90 percent removal of each from the wastewater influent,

[63] Total Suspended Solids is listed as a conventional pollutant under s. 304(a)(4) of the CWA. A conventional pollutant is a water pollutant that is amenable to treatment by a municipal sewage treatment plant.
[64] Rule 62-302.700, F.A.C., provides that an Outstanding Florida Water is a designated water body worthy of special protection because of its natural attributes. This special designation is applied to certain water bodies, and is intended to protect and preserve their existing states.
[65] *Supra* note 60. See also Rule. 62-40, F.A.C.
[66] *Supra* note 60.
[67] Chapter 373, Part IV, F.S. See also DEP, *Environmental Resource Permitting (ERP) Program*, http://www.dep.state.fl.us/water/wetlands/erp/index.htm (last visited Mar. 27, 2014).
[68] U.S. Environmental Protection Agency, Office of Water, *How Wastewater Treatment Works: The Basics*, Report no. 833-F-98-002, 1 (May 1998), *available at* http://www.epa.gov/npdes/pubs/bastre.pdf (last visited Mar. 27, 2014).
[69] *Id*.
[70] For more information on CBOD5, see Rule 62-601.200(6), F.A.C.
[71] For more information on TSS, see Rule 62-601.200(54), F.A.C.

whichever is more stringent.[72] There are other limits depending on where the effluent is being discharged.

Advanced Wastewater Treatment

Advanced wastewater treatment (AWT) systems perform additional treatment beyond secondary treatment. AWT can remove more than 99 percent of all impurities from sewage, producing an effluent that may be drinking-water quality. The related technology can be expensive, requiring a high level of technical expertise and well trained treatment plant operators, a steady energy supply, chemicals, and specific equipment that may not be readily available. An example of an AWT process is the modification of a conventional secondary treatment plant to remove additional phosphorus and nitrogen. The effluent standards for AWT on an annual average basis are:

- CBOD5 – 5 mg/L;
- Suspended solids – 5 mg/L;
- Total Nitrogen – 3 mg/L;
- Total Phosphorus – 1 mg/L; and
- High levels of disinfection.[73]

Residuals

Biosolids are the solid, semisolid, or liquid residue generated during the biological wastewater treatment process. Florida generates approximately 320,000 dry tons of biosolids annually. Biosolids are normally high in organic content and contain moderate amounts of nutrients such as nitrogen and phosphorus, making them valuable as a fertilizer or soil amendment.[74] They may be used beneficially or disposed of in landfills.[75]

Biosolids are classified as AA, A, or B. AA biosolids are considered the highest quality biosolids. They must be treated to a level that essentially eliminates pathogens and meets strict concentration limits for heavy metals. They may be used as fertilizer through commercial distribution and marketing.[76] Class A biosolids are biosolids that meet the same pathogen reduction requirements as Class AA biosolids, meet the same vector attraction (meaning the attraction of disease spreading animals) requirements as Class B biosolids, and meet a series of concentration limits for nine different elements.[77] Class B biosolids must be treated to significantly reduce pathogens and must meet certain concentration limits for heavy metals. Application rates are limited to crop nutrient needs. They are subject to site application restrictions and restrictions on harvesting, grazing, and public access. Also, cumulative heavy metals must be tracked for Class A and B biosolids; however, in Florida, land applied biosolids are almost exclusively Class B. In 2012, approximately 108,272 dry tons of Class B biosolids were land applied.[78]

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[72] Rule 62-600.420, F.A.C.
[73] Section 403.086(4), F.S.
[74] DEP, *Biosolids in Florida: 2012 Summary*, 1 (Dec. 2013), *available at* http://www.dep.state.fl.us/water/wastewater/dom/docs/BiosolidsFlorida-2012-Summary.pdf (last accessed Mar. 27, 2014.
[75] *Id*.
[76] *Id*.
[77] Rule 62-640.200(9), F.A.C.
[78] *Supra* note 74.

Total Maximum Daily Load Restoration Grants Program

The TMDL Water Quality Restoration Grants program was developed to provide grants to fund the implementation of BMPs to reduce pollutant loads to impaired waters from urban stormwater discharges.[79] The DEP funds research into BMPs to reduce pollutant loads from urban nonpoint sources of pollution.

The eligibility criteria for TMDL Water Quality Restoration Grants are:
- Projects that reduce stormwater pollutant loadings from urban areas that discharge to water bodies on the state's verified list of impaired waters;
- The project is at least at the 60 percent design phase;
- The project is permitted or the permit has been scheduled for approval at the next meeting of the WMD governing board or the DEP;
- The project includes storm event monitoring to determine the actual load reduction;
- The construction will be completed within three years of appropriation of the funds by the Legislature in order to ensure funds remain available;
- The applicant provides a minimum of 50 percent of the total project cost in matching funds, of which at least 25 percent are provided by the local government; and
- The grant funds are used for construction of BMPs, monitoring to determine pollutant load reductions, or public education activities specifically associated with the project and may only occur after the date of contract. Funds spent in advance of contract may be used for match, such as design, land acquisition, and other costs incurred by the applicant.[80]

The submitted projects are then evaluated and ranked. The criteria include:
- Impairment status of the receiving waterbody;
- Estimated load reduction of the pollutants of concern;
- Percentage of local matching funds;
- Cost effectiveness based on the cost per pound of Total Nitrogen and/or Total Phosphorus removed per acre treated;
- Inclusion of a robust educational component; and
- Whether the local government sponsor has implemented a dedicated funding source for stormwater management, such as a stormwater utility fee.[81]

Grant applications may be submitted throughout the year. The DEP reviews and ranks projects in March, July, and November.[82] Projects selected for grant funding are based on ranking and availability of funds. Projects that are not selected for funding remain in the pool of projects for one year from the date of submittal.[83]

[79] Rule 305.100(1), F.A.C.
[80] DEP, *TMDL Water Quality Restoration Grants*, http://www.dep.state.fl.us/water/watersheds/tmdl_grant.htm (last visited Mar. 27, 2014).
[81] *Id*. See also rule 305.400, F.A.C. (Project Selection Criteria).
[82] Rule 62-305.300(2), F.A.C.
[83] *Supra* note 80.

Minimum Flows and Levels

MFLs are established for water bodies in order to prevent significant harm as a result of withdrawals. MFLs are typically determined based on evaluations of topography, soils, and vegetation data collected within plant communities and other pertinent information associated with the water resource. MFLs take into account the ability of wetlands and aquatic communities to adjust to changes in hydrologic conditions and allow for an acceptable level of hydrologic change to occur. When uses of water resources shifts the hydrologic conditions below levels defined by MFLs, significant ecological harm can occur.[84] The goal of establishing an MFL is to ensure there is enough water to satisfy the consumptive use of the water resource without causing significant harm to the resource.[85] Consumptive uses of water draw down water levels and reduce pressure in the aquifer.[86] By establishing MFLs for non-consumptive uses, the WMDs are able to determine how much water is available for consumptive use. This is useful when evaluating a new consumptive use permit (CUP) application.[87]

Section 373.042, F.S., requires the DEP or WMDs to establish MFLs for priority water bodies to prevent significant harm from water withdrawals. While the DEP has the authority to adopt MFLs under ch. 373, F.S., the WMDs have the primary responsibility for MFL adoption. The WMDs submit annual MFL priority lists and schedules to the DEP for review and approval. MFLs are considered rules by the WMDs and are subject to ch. 120, F.S., challenges. MFLs are established using the best available data and are subject to independent scientific peer review at the election of the WMD, or, if requested, by a third party.[88]

MFLs apply to decisions affecting permit applications, declarations of water shortages and assessments of water supply sources. Computer water budget models for surface waters and groundwater are used to evaluate the effects of existing and/or proposed consumptive uses and the likelihood they might cause significant harm. The WMD Governing Boards are required to develop recovery or prevention strategies in those cases where a water body or watercourse currently does not or is anticipated to not meet an established MFL. Water uses cannot be permitted that cause any MFL to be violated.[89]

Consumptive Use Permits

A CUP establishes the duration and type of water use as well as the maximum amount of water that may be withdrawn daily. Pursuant to s. 373.219, F.S., each CUP must be consistent with the objectives of the issuing WMD or the DEP and may not be harmful to the water resources of the area. To obtain a CUP, an applicant must establish that the proposed use of water satisfies the statutory test, commonly referred to as "the three-prong test." Specifically, the proposed water use must:

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[84] St. Johns River Water Management District, *Water Supply: An Overview of Minimum Flows and Levels*, http://www.sjrwmd.com/minimumflowsandlevels/ (last visited Mar. 27, 2014).
[85] DEP, *Minimum Flows and Levels*, http://www.dep.state.fl.us/water/waterpolicy/mfl.htm (last visited Mar. 27, 2014).
[86] *Supra* note 1, at 3-5.
[87] Florida Senate Committee on Environmental Preservation and Conservation, *SB 244 Analysis*, 2 (Feb. 22, 2013), *available at* http://flsenate.gov/Session/Bill/2013/0244/Analyses/2013s0244.ep.PDF (last visited Mar. 27, 2014).
[88] *Id*.
[89] *Supra* note 84.

- Be a "reasonable-beneficial use" as defined in s. 373.019(16), F.S.;
- Not interfere with any presently existing legal use of water; and
- Be consistent with the public interest.

Documentary Stamp Tax

Florida's documentary stamp tax was first enacted in 1931, at the rate of $0.10 per $100 of consideration.[90] The tax is now levied at the rate of $0.70 per $100 (or portion thereof) on documents that transfer interest in Florida real property, such as warranty deeds and quit claim deeds. However, the Miami-Dade County rate is $0.60 on all documents plus $0.45 surtax on documents transferring anything other than a single-family residence. This tax is usually paid to the Clerk of Court when the document is recorded. The Clerks of Court send the funds to the Department of Revenue, which distributes the funds according to law.[91]

The documentary stamp tax is also levied at the rate of $0.35 per $100 on documents that are executed or delivered in Florida including notes and other written obligations to pay mortgages and liens.[92]

The latest Florida Tax Handbook estimates that revenue from the documentary stamp tax for the 2013-14 fiscal year is estimated to be approximately $1,627,700,000.[93] Before the funds may be distributed, eight percent of total collections are deducted as a service charge, the costs of collection and enforcement of the tax are deducted, and debt service for Preservation 2000, Florida Forever, and Everglades Restoration must be paid. The remainder is distributed pursuant to s. 201.15, F.S.

Ecosystem Management and Restoration Trust Fund

The Ecosystem Management and Restoration Trust Fund was created to fund:

- Detailed planning for implementation of programs for the management and restoration of ecosystems;
- The development and implementation of surface water improvement and management plans and programs;
- Activities to restore polluted areas of the state, as defined by the DEP, to their condition before pollution occurred or to otherwise enhance pollution control activities;
- Activities to restore or rehabilitate injured or destroyed coral reefs;
- Activities by the DEP to recover funds as a result of actions against any person for a violation of ch. 373, F.S.;
- Activities authorized for the implementation of the Leah Schad Memorial Ocean Outfall Program; and

[90] Office of Economic and Demographic Research, The Florida Legislature et al., *Florida Tax Handbook, Including Fiscal Impact of Potential Changes*, 73 (2013), *available at* http://edr.state.fl.us/Content/revenues/reports/tax-handbook/taxhandbook2013.pdf (last visited Mar. 27, 2014).
[91] Florida Department of Revenue, *Documentary Stamp Tax*, http://dor.myflorida.com/dor/taxes/doc_stamp.html (last visited Mar. 27, 2014).
[92] *Id*.
[93] *Supra* note 90, at 71.

- Activities to preserve and repair the state's beaches.[94]

Yearly, the trust fund receives the lesser of 2.12 percent or $30 million of remaining documentary stamp revenues.

III. Effect of Proposed Changes:

Section 1 amends s. 201.15, F.S., providing that the provisions of the bill will be paid for by a portion of documentary stamp revenues distributed to the Ecosystem Management and Restoration Fund.

The bill directs 36.9 percent of the remainder of the collected documentary stamp funds be distributed to the Ecosystem Management and Restoration Trust Fund, after the service charge and costs of collection have been paid from total revenues and after the debt service has been paid out of the 63.31 percent of the remainder of documentary stamp revenues. The revenues distributed to the Ecosystem Management and Restoration Trust Fund will be used for restoration and protection of OFSs, and for the acquisition of lands that protect essential parcels necessary for projects designed to improve water quality or conserve water in spring protection and management zones of OFSs. Projects are chosen from the most current Board of Trustees Florida Forever Priority List or projects requested by WMDs. The 36.9 percent distributed for Florida springs protection is approximately 20 percent of net documentary stamp revenues per fiscal year. In FY 2014-2015, this will be approximately $378.8 million. While existing distributions in s. 201.15, F.S., will not be affected, the remainder that would have gone to the general revenue fund will be nearly eliminated.

Sections 2 and 3 amend ss. 373.042 and 373.0421, F.S., respectively, requiring the standard of "harm" to be applied when determining the MFL of an OFS.They also make conforming changes.

Section 4 creates Part VIII of ch. 373, F.S., consisting of ss. 373.801, 373.802, 373.803, 373.805, 373.807, 373.808, 373.809, 373.811, and 373.813, F.S., and provides the title, "Florida Springs and Aquifer Protection Act." The requirements of this act are discussed in Sections 6-13 of this section of the analysis.

Section 5 creates s. 373.801, F.S., providing legislative intent:

- Detailing the importance of Florida's springs, and various benefits they provide to the state including providing critical habitat for plants and animals. They provide immeasurable natural, recreational, economic, and inherent value. They are indicators of the health of the Floridan aquifer. They also provide recreational opportunities for Floridians and visitors to the state;
- Stating that water quantity and water quality in springs are directly related. It also specifies the primary responsibilities of the DEP, WMDs, DACS, and local governments;
- Recognizing that springs are only as healthy as their springsheds and identifies several of the problems affecting springs, including pollution runoff from urban and agricultural lands,

[94] Section 403.1651, F.S.

stormwater runoff, and reduced water levels of the Floridan Aquifer, which have led to the degradation of many of Florida's springs;
- Recognizing that without significant action, the quality of Florida's springs will continue to degrade;
- Stating that springshed boundaries need to be delineated using the best available data;
- Recognizing that springsheds often cross local government jurisdictional boundaries, which requires a coordinated response;
- Recognizing that aquifers and springs are complex systems affected by many variables and influences; and
- Recognizing that while research is still being done, there is enough information to proceed with protective actions that can be adjusted as new information is gathered. It directs state agencies, WMDs, and local governments to work together to delineate springsheds, and spring protection and management zones, and to develop comprehensive plans and development regulations that protect Florida's springs.

Section 6 creates s. 373.802, F.S., providing definitions for "department," "local government," "onsite sewage and treatment disposal system," "spring run," "springshed," and "spring vent."

The bill also defines:
- "Outstanding Florida Spring," meaning all historic first magnitude springs, as determined by the department using the most recent version of the Florida Geological Survey's springs bulletin. The following springs are also considered OFSs: Deleon Spring, Peacock Spring, Rock Spring, Wekiwa Spring, and Gemini Spring;
- "Responsible Management Entity," meaning a legal entity established for the purpose of providing localized management services with the requisite managerial, financial, and technical capacity to ensure long-term management of OSTDSs within its jurisdiction; and
- "Spring protection and management zone," meaning the areas of a springshed where the Floridan Aquifer is vulnerable to surface sources of contamination or reduced levels, as determined by the DEP in consultation with the appropriate WMD.

Section 7 creates s. 373.803, F.S., directing the DEP, in consultation with the WMDs, to delineate spring protection and management zones for each OFS, using the best available data. The bill requires the delineation of the zones to be completed by July 1, 2015. It directs the DEP to consider groundwater travel time, hydrogeology, and nutrient load when delineating spring protection zones. Additionally, the bill directs each WMD to adopt, by rule, maps that delineate spring protection and management zones for each OFS within its jurisdiction.

Section 8 creates s. 373.805, F.S., directing each WMD to establish an MFL for each OFS located within its jurisdiction by July 1, 2015. The bill provides for yearly extensions until July 1, 2020, if the WMD provides sufficient evidence to the DEP that an extension is in the best interest of the public. It provides that an MFL adopted for an OFS prior to July 1, 2014, does not have to be changed until it is revised or otherwise amended.

If there is not enough water to meet an adopted MFL, the WMD shall implement a recovery or prevention strategy for the OFS by July 1, 2017. The strategy, at a minimum, must include:

- A listing of all specific projects identified for implementation to achieve the recovery or prevention strategy;
- A priority listing of each project;
- The estimated cost for each listed project; and
- The source and amount of financial assistance from the WMD for each project, which may not be less than 25 percent of the total cost of the project, unless another funding source will provide more than 75 percent of the total project cost. The bill exempts the Northwest Florida and Suwannee River WMDs from the requirement to provide 25 percent of the total project cost.

Section 9 creates s. 373.807, F.S., providing a deadline of July 1, 2015, for the DEP to assess any OFS for which a determination of impairment has not been made and assess them under the numeric nutrient standards for spring vents. In addition, the bill addresses BMAPS, spring action plans, and requirements. It provides a deadline of July 1, 2017, for the DEP to develop BMAPs for OFSs impaired by nutrients.

Spring Action Plans

The bill creates the concept of spring action plans to be prepared for each OFS that:
- Has a basin management action plan adopted pursuant to s. 403.067(7), F.S., which concerns BMAPs, TMDLs, and BMPs;
- Has a recovery or prevention strategy implemented pursuant to s. 373.042, F.S., concerning MFLs, and s. 373.0421, F.S., concerning the establishment of MFLs; or
- Is projected to be impaired by nutrients within 20 years.

Spring action plans must include:
- All projects in a BMAP, a regional water supply plan, or a recovery and prevention strategy that are located in a spring protection and management zone.
- All projects proposed by the DEP which will prevent or stop potential nutrient impairment;
- An estimate of a listed project's reduction of nutrient loading;
- A map and legal description depicting the spring protection and management zones;
- Identification of each point source or category of nonpoint sources and a detailed allocation for those sources.

Requirements

The bill requires that within six months of the delineation of a spring protection and management zone or zone, any local government within the zone must develop, enact, and implement an ordinance that meets or exceeds the requirements of the DEP's Model Ordinance for Florida-Friendly Fertilizer Use on Urban Landscapes. The bill also requires that the ordinance limit the nitrogen content of any fertilizer applied to turf or landscape plants to the lowest, basic maintenance rate of the most recent recommendations by the University of Florida Institute of Food and Agricultural Sciences (IFAS). The bill directs the DEP to develop rules to implement these requirements.

The bill requires certain remedial actions, unless there is not adequate funding. Nevertheless, the bill clarifies that remedial actions included in an adopted BMAP are still required regardless of funding under Part VIII of ch. 373, F.S. Those actions specified by the bill are:

- By July 1, 2021, each wastewater treatment facility in a spring protection and management zone must meet an effluent standard of no more than 3 mg/L, unless granted a variance;
- By July 1, 2016, the owner or operator of each wastewater treatment facility in a spring protection and management zone must file a plan to achieve the above requirement with the DEP. If it is shown that a delay is in the best interest of the public, implementation of the plan may be extended by two years. The owner or operator of a wastewater treatment facility must submit a proposal for funding at least once every two years until the plan is fully implemented;
- By July 1, 2019, each agricultural producer in a spring protection and management zone must implement BMPs or other pollution reduction measures. The bill gives the DACS authority to adopt rules to implement this requirement; and
- By July 1, 2016, OSTDSs serving single-family properties of less than one acre, as well as multi-family residential, commercial, and industrial properties served by an OSTDS within a spring protection and management zone must be identified. Within one year of identifying those systems, the local government must develop an OSTDS remediation plan. For each system, the plan must note whether the system requires upgrading, connection to a central sewerage system, or no action. It must also include a prioritized ranking of those systems that require remediation. After approval of the plan by the DEP, the local government must begin implementation. Costs to hook up to central sewerage system or upgrading the OSTDS may not be imposed on the property owner. Lastly, the local government must submit a funding proposal at least every two years until the plan is fully implemented.

Section 10 creates s. 373.808 F.S., providing for funding for the restoration of OFSs. In order to satisfy the requirements of the bill, project proposals may be submitted to the DEP by:

- State agencies;
- WMDs;
- Local governments;
- Special districts;
- Utilities;
- RMEs; and
- Any of the above entities in cooperation with agricultural producers and property owners.

Approved projects may be funded up to 75 percent of the total project cost, except in the case of a project for upgrading OSTDSs or connecting an OSTDS to a central sewerage system. Projects submitted by fiscally constrained counties or municipalities in fiscally constrained counties are eligible for funding of up to 100 percent of the total project cost.

The bill authorizes the DEP to distribute funds deposited into the Ecosystem Management and Restoration Trust Fund for projects approved by the DEP. The funds may be distributed for administrative costs associated with the act to state agencies and WMDs. It authorizes the Legislature to use other sources of revenue to fund projects. The DEP may distribute funds from the Ecosystem Management and Restoration Trust Fund for any project that has been approved.

The DEP may adopt rules to develop grant application procedures to cover reasonable administrative costs for fiscally constrained counties or municipalities within those counties.

The bill specifies if there are any funds available after all obligations under this section have been met, they are to be deposited to the credit of the Ecosystem Management and Restoration Trust Fund. Funds may be invested and interest received shall be credited back to the fund for springs protection and restoration.

It directs the DEP to adopt rules to fund at least two pilot projects each project selection cycle that test the effectiveness of technologies or practices designed to minimize nutrient pollution or conserve water in Florida springs by December 31, 2014. It also directs the DEP to develop rules to evaluate, select, and rank projects eligible for funding. The rules must give preference to projects that will result in the greatest improvement to water quality and water quantity for the funds expended. The bill specifies that the DEP must consider, at a minimum:

- Whether the project is within a spring protection and management zone of an OFS impaired by nutrients;
- The level of nutrient impairment of the OFS in which the project is located;
- The quantity of pollutants the project is estimated to remove from a spring protection and managemetn zone;
- Whether the project is within a spring protection and management zone of an OFS that is not meeting its adopted MFL;
- The flow necessary for the OFS to meet its adopted MFL;
- The anticipated impact the project will have on restoring or increasing water flow or water level;
- Whether the project facilitates or enhances an existing BMAP adopted by the DEP to address pollutant loading;
- Whether the project is identified and prioritized in an adopted regional water supply plan;
- The percentage by which the amount of matching funds provided by the applicant exceed the statutory minimum required;
- For multi-year projects, whether the project has funding sources that are identified and assured through the expected completion date of the project;
- The cost of the project and the length of time it will take to complete relative to its expected benefits; and
- Whether the applicant has used its own funds for projects to improve water quality or conserve water use within a springshed or spring protection and management zone of an OFS since July 1, 2009.

The bill also specifies that a project may not be funded under Part VIII of ch. 373, F.S., if it is not listed on a spring action plan.

Section 11 creates s. 373.809, F.S., detailing prohibited activities within a spring protection and management zone of an OFS. Prohibited activities are:

- Construction of wastewater disposal system unless the system meets a treatment standard of 3 mg/L Total Nitrogen on an annual permitted basis, unless the DEP determines a higher standard is necessary;

- Construction of OSTDSs on lots less than one acre, except for active or passive nitrogen removing systems approved by the DOH;
- Construction of facilities for disposal of hazardous waste;
- Land spreading, dumping, or disposal of all domestic wastewater residuals or septage; and
- Concentrated animal feeding operations or intense cattle finishing and slaughter operations unless the operation was permitted by July 1, 2014, or it is an expansion of operations that were in the occupation of bona fide agriculture as of July 1, 2014.

Section 12 creates s. 373.811, F.S., directing the DEP to adopt rules to create a program to improve water quantity and water quality based on the TMDL Water Quality Restoration Grants rule. It allows the DOH, the DACS, the WMDs, and RMEs to adopt rules to administer Part VIII of ch. 373, F.S.

The bill specifies the DACS is the lead agency for coordinating the reduction of agricultural nonpoint sources of pollution for the protection of OFSs. The DACS and the DEP will study and, if necessary, initiate rulemaking to implement new or revised BMPs, in cooperation with applicable county and municipal governments, and stakeholders. The purpose of the rules is to implement new or revised BMPs for improving and protecting OFSs and to require the implementation of such practices within a reasonable time, as specified by rule.

The bill directs the DEP, DACS, and IFAS to conduct research into improved or additional nutrient management tools, with a sensitivity to the necessary balance between water quality improvements and agricultural productivity. If necessary, the tools must be incorporated into revised BMPs adopted by rule by the DACS.

Section 13 creates s. 373.813, F.S., providing for variances and exceptions. The bill specifies variances or exceptions may be granted by agencies or a WMD if the person applying for the variance can provide reasonable assurance that the person's proposed activity, either individually or as part of cumulative impacts, will not cause or contribute to violations of WQSs or MFLs.

Section 14 amends s. 381.0065, F.S., defining "responsible management entity" for use in ss. 381.0065 to 381.0067, F.S., and requiring a study to be performed by the DOH and DEP.

The bill requires the DOH and DEP to perform a study of RMEs within spring protection and management zones of OFSs impaired by nutrients. The report is required to focus on the feasibility of different management models to prevent, reduce, and control nutrient pollution from OSTDSs. In addition, the report must examine the results of different management models and how they well they address mandatory OSTDS evaluation and assessment programs, or any other options that may accomplish similar nutrient pollution reductions, both in the short and long term. The report and recommendations must be provided to the Governor, the President of the Senate, and the Speaker of the House of Representatives by March 1, 2015.

It provides that local governments may not establish RMEs without prior approval of the DOH and the DEP. When a local government seeks to establish an RME, it must demonstrate that it has the management skills, personnel, financial capacity, and technical expertise to operate and maintain an RME. The bill directs the DOH to ensure that RMEs adopt rules and policies that are at least as restrictive as state law.

Section 15 repeals s. 381.00651, F.S. The section of law being repealed mandated the creation of an OSTDS evaluation and assessment program in counties or municipalities that contain first magnitude springs. The repealed section contains preemption language that will likely conflict with other requirements in the bill.

Section 16 creates an unnumbered section of Florida law that requires a comprehensive study on nutrient reduction improvement the beneficial use of reclaimed water, stormwater, and excess surface water. The report must be submitted to the Governor, the President of the Senate, and the Speaker of the House of Representatives by December 1, 2015. The study must:

- Describe factors that currently prohibit or otherwise complicate the expansion of the beneficial use of reclaimed water and provide recommendations for mitigating those factors;
- Identify factors that affect potable and reclaimed water, including environmental, public health, public perception, engineering, and fiscal issues, as well as user fees.
- Identify areas where reclaimed water needs to be used to accommodate constraints on the use of traditional water supplies;
- Evaluate the costs to users of reclaimed water compared to traditional water sources, including an examination of the nutrient concentrations in reclaimed water and the necessity for additional fertilizer supplementation;
- Evaluate permitting incentives that encourage switching from traditional water supplies to reclaimed water, and to allow users to switch to traditional water supplies if reclaimed water becomes unavailable or cost prohibitive;
- Describe the basic feasibility, benefit, and cost to construct regional water features on public or private lands for reclaimed water, stormwater, or excess surface water. The study must also address delivery mechanisms for beneficial uses rather than discharge to tide;
- Describe any other alternative processes, systems, or technology that may be comparable or preferable to a regional storage system or that may complement or substitute for a regional storage system; and
- Evaluate the impact of implementation of a comprehensive reclaimed water plan on traditional water sources and aquifer levels.

The bill requires DACS and DEP to hold a joint public meeting to get input on the design of the comprehensive study and to provide a chance for public comment before publishing the final report. The bill specifies this section expires on December 1, 2015.

Section 17 provides an effective date of July 1, 2014.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

Existing regulatory programs require local governments to expend funds to comply with MFLs, WQSs, and BMAPs. This bill requires additional expenditures but also provides significant funding for projects required under existing law; therefore, it is not clear whether this bill will constitute a mandate. A comprehensive fiscal analysis is required to determine the total impact.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

The bill would require the distribution of 36.9 percent of the remainder of documentary stamp tax revenues on a yearly basis for springs protection.

B. Private Sector Impact:

The exact impact of the bill on the private sector and individuals cannot be calculated because many of the costs are dependent on activities, such as delineation of spring protection and management zones that have not occurred. Below are some examples of potential private sector impacts.

The bill contains provisions that will require some property owners in spring protection zones to upgrade their OSTDSs or connect to a central sewerage system. This could result in higher rates for sewage disposal compared to the costs of using an OSTDS. ATUs are also more costly to operate than conventional OSTDSs.

Agricultural producers will pay as little as 25 percent of costs for project proposals, but those costs may be offset by savings or increased productivity.

Rate payers may pay for ongoing operation and maintenance for AWT plants and 25 percent of upgrade costs, through rate increases, in addition to costs associated with disposal of Class B biosolids in landfills.

Property owners may have to pay for more expensive OSTDSs to install in new developments with lots of less than one acre. They may also face more expensive pump out costs as a result of more expensive disposal options.

Urban fertilizer use may decrease because of ordinances causing a reduction in revenue for fertilizer companies.

Septic tank contractors may benefit due to increased scrutiny and required upgrades to OSTDSs.

C. Government Sector Impact:

The Department of Agriculture and Consumer Services has indicated that while the bill does not significantly change the role of the department in water resources protection

through BMP development and implementation, it does direct the department to participate in new studies and rule development efforts. The cost for staff time and travel to implement these duties is unknown.

The exact impact on other government agencies cannot be calculated because many of the costs are dependent on activities, such as delineation of spring protection and management zones, research, reduced timelines to complete existing requirements, preparation of reports, and adoption of rules. It is likely the governmental entities required to act under this bill will have significant compliance costs; however, none of those entities has submitted a preliminary or estimated fiscal impact.

Preventing the land spreading, dumping, or disposal of all domestic wastewater residuals in spring protection and management zones could make disposing of those materials difficult and expensive if it has to be sent to a landfill outside of these zones. In addition, domestic wastewater treatment plants may have to build capacity or other infrastructure to begin accepting septage.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None. The bill defines OFSs as all first magnitude springs in Florida, as defined in the most recent version of the Florida Geological Survey's springs bulletin. A future bulletin could remove one of the first magnitude springs from its list, creating problems for ongoing projects by removing the regulatory structure established in this bill.

VIII. Statutes Affected:

This bill substantially amends the following sections of the Florida Statutes: 201.15, 373.042, 373.0421, and 381.0065.

This bill creates the following sections of the Florida Statutes: 373.801, 373.802, 373.803, 373.805, 373.807, 373.808, 373.809, 373.811, and 373.813.

This bill repeals section 381.00651 of the Florida Statutes.

This bill creates an undesignated section of Florida law.

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 March 20, 2014:

- Removes provisions concerning the Acquisition and Restoration Council;
- Renames the act, calling it the "Florida Springs and Aquifer Protection Act;"

- Removing legislative intent provision stating that a precautionary approach should be taken in addressing spring protection, and that the DEP or the WMDs should take common sense actions to protect springs;
- Adds legislative recognition that aquifers and springs are complex systems affected by many variable and influences;
- Removes the definition of "bedroom";
- Directs the DEP to consider groundwater travel time, hydrogeology, and nutrient load when delineating spring protection and management zones;
- Removes a one-year extension for the DEP to delineate spring protection and management zones by July 1, 2015;
- Provides a yearly extension until July 1, 2020, for each WMD to establish MFLs for all OFSs within its jurisdiction;
- Provides that an MFL adopted for an OFS prior to July 1, 2014, does not have to be changed until it is revised or amended, rather than directing it to be revised by July 1, 2014;
- Provides that land spreading, dumping, or disposal of all domestic wastewater residuals or septage is not allowed in spring protection and management zones;
- Removes a provision stating that a WMD may not issue new CUPs unless the entity requesting the CUP provides reasonable assurance that the withdrawal will not cause harm to the OFS. It was a restatement of existing law;
- Provides that WMDs may provide less than 25 percent of total project cost if there is another funding source that provides more than 75 percent of the funding costs, and exempts the Northwest Florida and Suwannee River WMDs from the requirement to provide 25 percent of total project costs;
- Shortens a deadline from July 1, 2017, to July 1, 2015, for the DEP to assess any OFS that does not have an impairment determination;
- Clarifies that detailed allocations have to be listed for categories of nonpoint sources rather than each one;
- Creates and describes the concept of a spring action plan;
- Removes a provision requiring that fertilizer ordinances mandate the use of 50 percent slow release nitrogen;
- Removes a provision regarding revision of stormwater management plans;
- Changes a deadline from July 1, 2019, to July 1, 2021, for wastewater treatment facilities to upgrade to a standard of 3mg/L Total Nitrogen;
- Provides a deadline of July 1, 2016, for wastewater treatment facilities to file a plan for complying with requirement of 3 mg/L Total Nitrogen;
- Provides that required remedial actions do not have to be taken if funding is not available unless those actions are required as part of a BMAP;
- Provides a deadline of July 1, 2019, for agricultural producers within a spring protection and management zones to implement BMPs;
- Provides a deadline of July 1, 2016, for local governments to develop an OSTDS remediation plan;
- Directs the DEP to provide rules for funding water conservation pilot projects and provides considerations;
- Directs the DEP to create a program to evaluate and rank submitted projects based on the TMDL Water Quality Restoration Grants program;

- Provides conditions for establishing RMEs; and
- Removes a provision requiring the study of nutrient loading from row crops.

B. Amendments:

None.