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 Appropriations

BILL:	CS/CS/SB 712
INTRODUCER:	Appropriations Committee; Community Affairs Committee; and Senators Mayfield, Harrell, and Albritton
SUBJECT:	Environmental Resource Management
DATE:	February 24, 2020 REVISED:

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Paglialonga/Rogers	Ryon	CA	**Fav/CS**
2.	Reagan	Betta	AEG	**Recommend: Fav/CS**
3.	Reagan	Kynoch	AP	**Fav/CS**

Please see Section IX. for Additional Information:

COMMITTEE SUBSTITUTE - Substantial Changes

I. Summary:

CS/CS/SB 712 includes recommendations from the Blue-Green Algae Task Force. The major topics in this bill include onsite sewage treatment and disposal systems (OSTDSs, commonly referred to as septic systems), wastewater, stormwater, agriculture, and biosolids. The bill directs the Department of Environmental Protection (DEP) to make rules relating to most of these topics. Note that rules that cost at least $1 million over the first five years of implementation require legislative ratification.[1] Therefore, several of these provisions may not be fully effectuated without additional legislation. The bill also includes topics relating to the appointment of the Secretary of the DEP, bottled water, and the rights of nature; however, these topics do not require rulemaking.

The DEP will incur indeterminate additional costs in developing multiple new regulatory programs, updating basin management action plans (BMAPs), promulgating rules, and developing, submitting, and reviewing new reports. The DEP can absorb these costs within existing resources. The implementation of the real-time water quality monitoring and wastewater grant programs will have a negative fiscal impact on the DEP, but these provisions are subject to appropriations. See Section V.

Regarding OSTDSs, the bill:

- Transfers the regulation of OSTDSs from the Department of Health (DOH) to the DEP.

[1] Section 120.541(3), F.S.

- Directs the DEP to adopt rules to locate OSTDSs by July 1, 2022:
  - These rules will take into consideration conventional and advanced OSTDS designs, impaired water bodies, wastewater and drinking water infrastructure, potable water sources, nonpotable wells, stormwater infrastructure, OSTDS remediation plans, nutrient pollution, and the recommendations of an OSTDS technical advisory committee;
  - Once those rules are adopted, they will supersede the existing statutory requirements for setbacks.
- To meet the requirements of a TMDL, the bill requires DEP to implement a fast-track approval process for the use in this state of American National Standards Institute 245 systems approved by NSF International before July 1, 2020.
- Deletes the DOH OSTDS technical advisory committee and creates a DEP OSTDS technical advisory committee that will expire on August 15, 2022, after making recommendations to the Governor and the Legislature regarding the regulation of OSTDSs.
- Requires local governments to develop OSTDS remediation plans within BMAPs if the DEP determines that OSTDSs contribute at least 20 percent of the nutrient pollution or if the DEP determines remediation is necessary to achieve the total maximum daily load. Such plans must be adopted as part of the BMAPs no later than July 1, 2025.

Regarding wastewater, the bill:

- Creates a wastewater grant program, subject to appropriation, within the DEP that requires a 50 percent local match of funds. Eligible projects include:
  - Projects to upgrade OSTDSs.
  - Projects to construct, upgrade, or expand facilities to provide advanced waste treatment.
  - Projects to connect OSTDSs to central sewer facilities.
- Requires the DEP to submit an annual report to the Governor and the Legislature on the projects funded by the wastewater grant program.
- Provides incentives for wastewater projects that promote efficiency by coordinating wastewater infrastructure expansions with other infrastructure improvements.
- Gives priority in the state revolving loan fund for eligible wastewater projects that meet the additional requirements of the bill to prevent leakage, overflows, infiltration, and inflow.
- Requires the DEP to adopt rules to reasonably limit, reduce, and eliminate leaks, seepages, or inputs into the underground pipes of wastewater collection systems.
- Authorizes the DEP to require public utilities seeking a wastewater discharge permit to file reports and other data regarding utility costs:
  - Such reports may include data related to expenditures on pollution mitigation and prevention, including the prevention of sanitary sewer overflows, collection and transmission system pipe leakages, and inflow and infiltration.
  - The DEP is required to adopt rules related to these requirements.
- Requires local governments to develop wastewater treatment plans within BMAPs if the DEP determines that domestic wastewater facilities contribute at least 20 percent of the nutrient pollution or if the DEP determines remediation is necessary to achieve the total maximum daily load. Such plans must be adopted as part of the BMAPs no later than July 1, 2025.
- Prohibits the DEP from requiring a higher cost option for a wastewater project within a BMAP if it achieves the same nutrient load reduction as a lower-cost option and allows a regulated entity to choose a different cost option if it complies with the pollutant reduction

requirements of an adopted total maximum daily load (TMDL) and provides additional benefits.

- Adds to the DEP's penalty schedule a penalty of $4,000 for failure to survey an adequate portion of a wastewater collection system and take steps to reduce sanitary sewer overflows, pipe leaks, and inflow and infiltration. Substantial compliance with certain bill requirements is evidence in mitigation for penalty assessment.
- Increases the cap on the DEP's administrative penalties from $10,000 to $50,000.
- Doubles the wastewater administrative penalties.
- Prohibits facilities for sanitary sewage disposal from disposing of waste into the Indian River Lagoon and its tributaries without providing advanced waste treatment.
- Requires facilities for sanitary sewage disposal to provide for a power outage contingency plan for collection systems and pump stations.
- Requires facilities for sanitary sewage to prevent sanitary sewer overflows or underground pipe leaks and ensure that collected wastewater reaches the facility for appropriate treatment.
  - The bill requires studies, plans, and reports related to this requirement (the action plan).
  - The DEP must adopt rules regarding the implementation of inflow and infiltration studies and leakage surveys.
- Authorizes certain facilities for sanitary sewage to receive 10-year permits if they are meeting the goals in their action plan for inflow, infiltration, and leakage prevention.
- Makes the following changes relating to water pollution operation permits:
  - The permit must require the investigation or surveying of the wastewater collection system to determine pipe integrity.
  - The permit must require an annual report to the DEP, which details facility revenues and expenditures in a manner prescribed by the DEP rule, including any deviation from annual expenditures related to their action plan.

Regarding stormwater, the bill:

- Requires the DEP and the Water Management Districts (WMDs), by January 1, 2021, to initiate rulemaking, including updates to the Environmental Resource Permit Applicant's Handbooks, to update their stormwater rules and includes criteria that the DEP must consider as part of rule development.
- Requires the DEP, by January 1, 2021, to evaluate inspection data relating to entities that self-certify their stormwater permits and provide the Legislature with recommendations for improvements to the self-certification process.
- Directs the DEP and the Department of Economic Opportunity to include in their model stormwater management program ordinances that target nutrient reduction practices and use green infrastructure.

Regarding agriculture, the bill:

- Requires a cooperative agricultural regional water quality improvement element as part of a BMAP in addition to existing strategies such as best management practices (BMPs). The element will be implemented through cost-sharing projects and authorizes legislative budget requests to fund the projects.
- Requires the Department of Agriculture and Consumer Services (DACS) to collect and provide to the DEP fertilization and nutrient records from each agriculture producer enrolled in best management practices.

- Requires the DACS to perform onsite inspections of each agricultural producer that enrolls in a best management practice every two years and requires the DACS to initially prioritize the inspection of agricultural producers located in the BMAPs for Lake Okeechobee, the Indian River Lagoon, the Caloosahatchee River and Estuary, and Silver Springs.
- Authorizes the DACS and institutions of higher education with agricultural research programs to develop research plans and legislative budget requests relating to the evaluation and improvement of agricultural best management practices and agricultural nutrient runoff reduction projects.

Regarding biosolids, the bill:

- Requires the DEP to adopt rules for biosolids management.
- Clarifies that local governments with biosolids ordinances may retain those ordinances until repealed.
- Requires that all biosolids application sites meet the DEP rules in effect at the time of the renewal of the biosolids application site permit or facility permit, effective July 1, 2020.
- Provides requirements for biosolids application site permittees to include a prohibition on the application of biosolids within 15 centimeters of the seasonal high-water table, adoption of agricultural BMPs, and increased monitoring requirements. Many of these requirements are repealed once the DEP rules go into effect.

The bill also requires the DEP to work with the University of Florida Institute of Food and Agricultural Sciences and regulated entities to consider the adoption by rule of BMPs for nutrient impacts from golf courses.

The bill requires the DEP to submit several annual reports to the Governor and the Legislature and to the Office of Economic and Demographic Research.

The bill revises the number of Cabinet members that are required to concur with the Governor to approve the secretary of the DEP from three members to one member.

The bill requires a unanimous vote by a WMD governing board to approve a consumptive use permit to use water derived from a spring for bottled water. This provision expires on June 30, 2022. The bill also requires the DEP, in coordination with the WMDs, to conduct a study on the bottled water industry in the state.

The bill also creates a real-time water quality monitoring program, subject to appropriation, within the DEP.

Finally, the bill prohibits local governments from providing legal rights to any plant, animal, body of water, or other part of the natural environment unless otherwise specifically authorized by state law or the State Constitution.

The effective date of the bill is July 1, 2020, except as otherwise expressly provided in this act.

II. Present Situation:

Water Quality and Nutrients

Phosphorus and nitrogen are naturally present in water and are essential nutrients for the healthy growth of plant and animal life. The correct balance of both nutrients is necessary for a healthy ecosystem; however, excessive nitrogen and phosphorus can cause significant water quality problems.

Phosphorus and nitrogen are derived from natural and human-made sources. Natural inputs include the atmosphere, soils, and the decay of plants and animals. Human-made sources include sewage disposal systems (wastewater treatment facilities and septic systems), overflows of storm and sanitary sewers (untreated sewage), agricultural production and irrigation practices, and stormwater runoff.[2]

Excessive nutrient loads may result in harmful algal blooms, nuisance aquatic weeds, and the 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 impairment of the aesthetics and taste of waters. Growth of nuisance aquatic weeds tends to increase in nutrient-enriched waters, which can impact recreational activities.[3]

Blue-Green Algae Task Force

In January of 2019, Governor DeSantis issued the comprehensive Executive Order Number 19-12.[4] The order directed the Department of Environmental Protection (DEP) to establish a Blue-Green Algae Task Force charged with expediting progress towards reducing nutrient pollution and the impacts of blue-green algae (cyanobacteria) blooms in the state.[5] The task force's responsibilities include identifying priority projects for funding and making recommendations for regulatory changes. The five-person task force issued a consensus document on October 11, 2019.[6] To the extent that the task force has issued recommendations on topics addressed in this Present Situation, those recommendations are included in the relevant section.

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.[7] Waterbodies or sections of waterbodies that do not meet the established water quality standards are deemed impaired. Pursuant to the federal Clean Water

[2] U.S. Environmental Protection Agency (EPA), *Sources and Solutions*, https://www.epa.gov/nutrientpollution/sources-and-solutions (last visited Dec. 2, 2019).
[3] EPA, *The Problem*, https://www.epa.gov/nutrientpollution/problem (last visited Dec. 2, 2019).
[4] State of Florida, Office of the Governor, *Executive Order Number 19-12* (2019), *available at* https://www.flgov.com/wp-content/uploads/orders/2019/EO_19-12.pdf.
[5] *Id.* at 2; DEP, *Blue-Green Algae Task Force*, https://protectingfloridatogether.gov/state-action/blue-green-algae-task-force (last visited Dec. 2, 2019).
[6] DEP, *Blue-Green Algae Task Force Consensus Document #1* (Dec. 2, 2019), *available at* https://floridadep.gov/sites/default/files/Final%20Consensus%20%231_0.pdf.
[7] DEP, *Total Maximum Daily Loads Program*, https://floridadep.gov/dear/water-quality-evaluation-tmdl/content/total-maximum-daily-loads-tmdl-program (last visited Dec. 2, 2019).

Act, the DEP is required to establish a TMDL for impaired waterbodies.[8] 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.[9] 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.[10]

Basin Management Action Plans and Best Management Practices

The DEP is the lead agency in coordinating the development and implementation of TMDLs.[11] Basin management action plans (BMAPs) are one of the primary mechanisms the DEP uses to achieve TMDLs. BMAPs are plans that address the entire pollution load, including point and nonpoint discharges, for a watershed. BMAPs generally include:

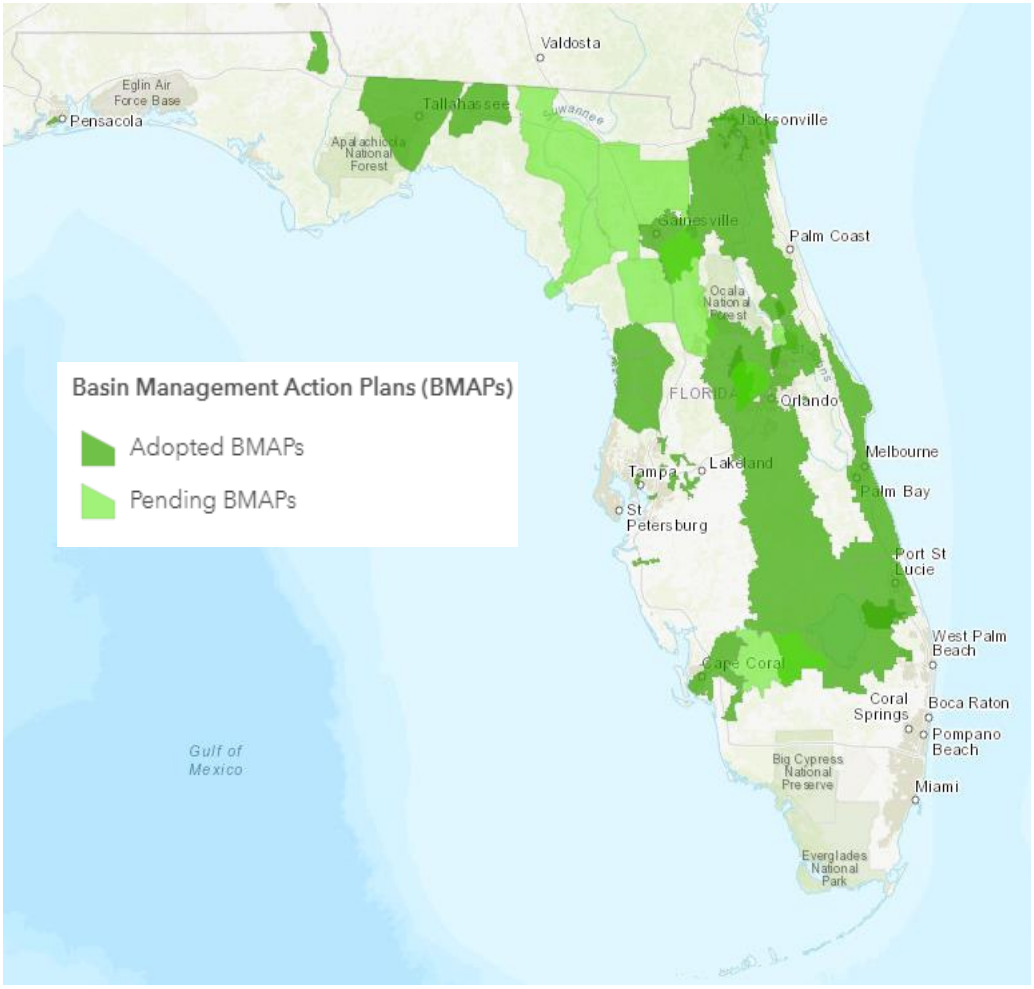
- Permitting and other existing regulatory programs, including water quality based effluent limitations;
- Best management practices (BMPs) and non-regulatory and incentive-based programs, including cost-sharing, waste minimization, pollution prevention, agreements, and public education;
- Public works projects, including capital facilities; and
- Land acquisition.[12]

The 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.[13] Then, the BMAP establishes the schedule for implementing projects and activities to meet the pollution 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 cleanup responsibilities collectively.[14] BMAPs are adopted by secretarial order.[15]

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

[8] Section 403.067(1), F.S.
[9] Section 403.031(21), F.S.
[10] Fla. Admin. Code R. 62-620.200(37). "Point source" is defined as "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 sources of pollution that are not point sources. Nonpoint sources can include runoff from agricultural lands or residential areas; oil, grease and toxic materials from urban runoff; and sediment from improperly managed construction sites.
[11] Section 403.061, F.S. DEP has 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.
[12] Section 403.067(7), F.S.
[13] *Id*.
[14] DEP, *Basin Management Action Plans (BMAPs)*, https://floridadep.gov/dear/water-quality-restoration/content/basin-management-action-plans-bmaps (last visited Dec. 4, 2019).
[15] Section 403.067(7)(a)5., F.S.

progress toward these milestones must be conducted every five years, and revisions to the BMAP must be made as appropriate.[16]



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.[17] A nonpoint source discharger may be subject to enforcement action by the DEP or a water management district (WMD) based on a failure to implement these requirements.[18] BMPs are designed to reduce the amount of nutrients, sediments, and pesticides that enter the water system and to help reduce water use. BMPs are developed for agricultural operations as well as for other activities, such as nutrient management on golf courses, forestry operations, and stormwater management.[19]

[16] Section 403.067(7)(a)6., F.S.
[17] Section 403.067(7)(b)2.g., F.S. For example, BMPs for agriculture include activities such as managing irrigation water to minimize losses, limiting the use of fertilizers, and waste management.
[18] Section 403.067(7)(b)2.h., F.S.
[19] DEP, *NPDES Stormwater Program*, https://floridadep.gov/Water/Stormwater (last visited Dec. 2, 2019).

Currently, BMAPs are adopted or pending for a significant portion of the state and will continue to be developed as necessary to address water quality impairments. The graphic above shows the state's adopted and pending BMAPs.[20]

The Blue-Green Algae Task Force made the following recommendations for BMAPs:

- Include regional storage and treatment infrastructure in South Florida watersheds.
- Consider land use changes, legacy nutrients, and the impact of the BMAP on downstream waterbodies.
- Develop a more targeted approach to project selection.
- Evaluate project effectiveness through monitoring.[21]

Agricultural BMPs

Agricultural best management practices (BMPs) are practical measures that agricultural producers undertake to reduce the impacts of fertilizer and water use and otherwise manage the landscape to further protect water resources. BMPs are developed using the best available science with economic and technical consideration and, in certain circumstances, can maintain or enhance agricultural productivity.[22] BMPs are implemented by the Department of Agriculture and Consumer Services (DACS). Since the BMP program was implemented in 1999,[23] the DACS has adopted nine BMP manuals and is currently developing two more that cover nearly all major agricultural commodities in Florida. According to the annual report on BMPs prepared by the DACS, approximately 54 percent of agricultural acreage is enrolled in the DACS BMP program statewide.[24] Producers implementing BMPs receive a presumption of compliance with state water quality standards for the pollutants addressed by the BMPs[25] and those who enroll in the BMP program become eligible for technical assistance and cost-share funding for BMP implementation. To enroll in the BMP program, producers must meet with the Office of Agricultural Water Policy (OAWP) to determine the BMPs that are applicable to their operation and submit a Notice of Intent to Implement the BMPs, along with the BMP checklist from the applicable BMP manual.[26] Within a BMAP, management strategies, including BMPs and water quality monitoring, are enforceable.[27]The University of Florida's Institute of Food and

[20] DEP, *Impaired Waters, TMDLs, and Basin Management Action Plans Interactive Map*, https://floridadep.gov/dear/water-quality-restoration/content/impaired-waters-tmdls-and-basin-management-action-plans (last visited Dec. 5, 2019).
[21] DEP, *Blue-Green Algae Task Force Consensus Document #1*, 2-4 (Oct. 11, 2019), *available at* https://floridadep.gov/sites/default/files/Final%20Consensus%20%231_0.pdf.
[22] Florida Department of Agriculture and Consumer Services Office of Agricultural Water Policy, *Status of Implementation of Agricultural Nonpoint Source Best Management Practices*, 3, (Jul. 1, 2019), *available at* https://www.fdacs.gov/ezs3download/download/84080/2481615/Media/Files/Agricultural-Water-Policy-Files/Status-of-Implementation-of-BMPs-Report-2019.pdf (last visited Dec. 5, 2019).
[23] The program was voluntary from 1999-2005. In 2005 the Florida Legislature modified the law requiring agricultural producers to adopt BMPs or conduct water quality monitoring.
[24] Florida Department of Agriculture and Consumer Services Office of Agricultural Water Policy, *Status of Implementation of Agricultural Nonpoint Source Best Management Practices*, 2, (Jul. 1, 2019), *available at* https://www.fdacs.gov/ezs3download/download/84080/2481615/Media/Files/Agricultural-Water-Policy-Files/Status-of-Implementation-of-BMPs-Report-2019.pdf (last visited Dec. 5, 2019).
[25] Section 403.067(7), F.S.
[26] Florida Department of Agriculture and Consumer Services Office of Agricultural Water Policy, *Status of Implementation of Agricultural Nonpoint Source Best Management Practices*, 3, (Jul. 1, 2019), *available at* https://www.fdacs.gov/ezs3download/download/84080/2481615/Media/Files/Agricultural-Water-Policy-Files/Status-of-Implementation-of-BMPs-Report-2019.pdf (last visited Dec. 5, 2019).
[27] Section 403.067(7)(d), F.S.

Agricultural Sciences (IFAS) is heavily involved in the adoption and implementation of BMPs. The IFAS provides expertise to both the DACS and agriculture producers, and has extension offices throughout Florida. The IFAS puts on summits and workshops on BMPs,[28] conducts research to issue recommendations for improving BMPs,[29] and issues training certificates for BMPs that require licenses such as Green Industry BMPs.[30]

For agriculture and BMPs, the Blue-Green Algae Task Force recommended:
- Increasing BMP enrollment.
- Improving records and additional data collection.
- Accelerating updates to BMP manuals.[31]

BMAPs for Outstanding Florida Springs

In 2016, the Legislature passed the Florida Springs and Aquifer Protection Act, which identified 30 "Outstanding Florida Springs" (OFS) that have additional statutory protections and requirements.[32] Key aspects of the Springs and Aquifer Protection Act relating to water quality include:
- The designation of a priority focus area for each OFS. A priority focus area of an OFS means the area or areas of a basin where the Florida Aquifer is generally most vulnerable to pollutant inputs where there is a known connectivity between groundwater pathways and an Outstanding Florida Spring, as determined by the DEP in consultation with the appropriate WMDs, and delineated in a BMAP;[33]
- The development of an onsite sewage treatment and disposal system (OSTDS) remediation plan[34] if it has been determined that OSTDSs within a priority focus area contribute at least 20 percent of nonpoint source nitrogen pollution or that remediation is necessary to achieve the TMDL;
- A 20-year timeline for implementation of the TMDL, including 5-, 10-, and 15-year targets;[35] and
- The prohibition against new OSTDSs on parcels of less than 1 acre, unless the system complies with the OSTDS remediation plan.[36]

The DEP is the lead agency in coordinating the preparation and adoption of the OSTDS remediation plan. The OSTDS remediation plan must include options for repair, upgrade, replacement, drainfield modification, the addition of effective nitrogen reducing features,

[28] UF/IFAS, *BMP Resource*, *available at* https://bmp.ifas.ufl.edu/ (last visited Dec. 5, 2019).
[29] UF/IFAS Everglades Research & Education Center, *Best Management Practices & Water Resources*, *available at* https://erec.ifas.ufl.edu/featured-3-menus/research-/best-management-practices--water-resources/ (last visited Dec. 5, 2019).
[30] UF/IFAS Florida-Friendly Landscaping, *GI-BMP Training Program Overview*, *available at* https://ffl.ifas.ufl.edu/professionals/BMP_overview.htm (last visited Dec. 5, 2019).
[31] *Id*.
[32] Chapter 2016-1, Laws of Fla.; *see* s. 373.802, F.S., Outstanding Florida Springs include all historic first magnitude springs, including their associated spring runs, as determined by DEP using the most recent Florida Geological Survey springs bulletin, and De Leon Springs, Peacock Springs, Poe Springs, Rock Springs, Wekiwa Springs, and Gemini Springs, and their associated spring runs.
[33] Section 373.802(5), F.S.
[34] Commonly called a “septic remediation plan.”
[35] Section 373.807, F.S.
[36] Section 373.811, F.S.

connection to a central sewerage system, or other action for a sewage system or group of systems.[37] The options must be cost-effective and financially feasible projects necessary to reduce the nutrient impacts from OSTDSs within the area.[38]

In June 2018, the DEP adopted 13 BMAPs, addressing all 24 nitrogen-impaired OFS.[39] Eight of these plans are currently effective, while five others are pending the outcome of legal challenges on various alleged deficiencies in the BMAPs.[40] These alleged deficiencies include lack of specificity in the required list of projects and programs identified to implement a TMDL, lack of detail in cost estimates, incomplete or unclear strategies for nutrient reduction, and failure to account for population growth and agricultural activity.

Wastewater Treatment Facilities

The proper treatment and disposal or reuse of domestic wastewater is an important part of protecting Florida's water resources. The majority of Florida's domestic wastewater is controlled and treated by centralized treatment facilities regulated by the DEP. Florida has approximately 2,000 permitted domestic wastewater treatment facilities.[41]

Chapter 403, F.S., requires that any facility or activity which discharges waste into waters of the state or which will reasonably be expected to be a source of water pollution must obtain a permit from the DEP.[42] Generally, persons who intend to collect, transmit, treat, dispose, or reuse wastewater are required to obtain a wastewater permit. A wastewater permit issued by the 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.[43]

Under section 402 of the Clean Water Act, 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 a National Pollution Discharge Elimination System (NPDES) permit.[44] 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.[45] The DEP issues operation permits for a period of five years for facilities regulated under the NPDES program and up to 10 years for other domestic wastewater treatment facilities meeting certain statutory requirements.[46]

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[37] Section 373.807(3), F.S.
[38] *Id*.
[39] DEP, *Springs*, https://floridadep.gov/springs (last visited Nov. 26, 2019).
[40] *Our Santa Fe River, Inc., et. al. v. DEP*, No. 18-1601, DEP No. 18-2013; *Sierra Club v. DEP*, No. 17-1175, DEP No. 18-0204; *Friends of Wekiva River, Inc. v. DEP*, No. 18-1065, DEP No. 18-0217; *Thomas Greenhalgh v. DEP*, No. 17-1165, DEP No. 18-0204; *Paul Still v. DEP*, No. 18-1061; *Save the Manatee Club, Inc. v. DEP*, No. 17-1167, DEP No. 18-0206; *Silver Springs Alliance, Inc. and Rainbow River Conservation, Inc. v. DEP*, No. 18-1060, DEP No. 18-0211.
[41] DEP, *General Facts and Statistics about Wastewater in Florida*, https://floridadep.gov/water/domestic-wastewater/content/general-facts-and-statistics-about-wastewater-florida (last visited Dec. 2, 2019).
[42] Section 403.087, F.S.
[43] DEP, *Wastewater Permitting*, https://floridadep.gov/water/domestic-wastewater/content/wastewater-permitting (last visited Dec. 2, 2019).
[44] 33 U.S.C. s. 1342.
[45] Sections 403.061 and 403.087, F.S.
[46] Section 403.087(3), F.S.

In its 2016 Report Card for Florida's Infrastructure, the American Society of Civil Engineers reported that the state's wastewater system is increasing in age and the condition of installed treatment and conveyance systems is declining.[47] As existing infrastructure ages, Florida utilities are placing greater emphasis on asset management systems to maintain service to customers. Population growth, aging infrastructure, and sensitive ecological environments are increasing the need to invest in Florida's wastewater infrastructure.[48]

Advanced Waste Treatment

Under Florida law, facilities for sanitary sewage disposal are required to provide for advanced waste treatment, as deemed necessary by the DEP.[49] The standard for advanced waste treatment is defined in statute using the maximum concentrations of nutrients or contaminants that a reclaimed water product may contain.[50] The standard also requires high-level disinfection.[51]

Nutrient or Contaminant	Maximum Concentration Annually
Biochemical Oxygen Demand	5 mg/L
Suspended Solids	5 mg/L
Total Nitrogen	3 mg/L
Total Phosphorus	1 mg/L

Facilities for sanitary sewage disposal are prohibited from disposing of waste into certain waters in the state without providing advanced waste treatment approved by the DEP.[52] Specifically, Tampa Bay is viewed as a success story for this type of prohibition.

> [Tampa Bay is] one of the few estuaries in the U.S. that has shown evidence of improving environmental conditions. These water-quality improvements have been due, in large part, to upgrades in wastewater-treatment practices at municipal wastewater-treatment plants in the region. Since 1980, all wastewater-treatment plants that discharge to the bay or its tributaries have been required by state legislation to meet advanced wastewater-treatment standards, a step that has reduced the annual nutrient loads from these sources by about 90 percent.[53]

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[47] American Society of Civil Engineers, *Report Card for Florida's Infrastructure* (2016), *available at* https://www.infrastructurereportcard.org/wp-content/uploads/2017/01/2016_RC_Final_screen.pdf.
[48] *Id*.
[49] Section 403.086(2), F.S.
[50] Section 403.086(4), F.S.
[51] Section 403.086(4)(b), F.S.; Fla. Admin. Code R. 62-600.440(6).
[52] Section 403.086(1)(c), F.S. Facilities for sanitary sewage disposal may not dispose of any wastes into Old Tampa Bay, Tampa Bay, Hillsborough Bay, Boca Ciega Bay, St. Joseph Sound, Clearwater Bay, Sarasota Bay, Little Sarasota Bay, Roberts Bay, Lemon Bay, or Charlotte Harbor Bay, or into any river, stream, channel, canal, bay, bayou, sound, or other water tributary thereto, without providing advanced waste treatment approved by DEP. This prohibition does not apply to facilities permitted by February 1, 1987, and which discharge secondary treated effluent, followed by water hyacinth treatment, to tributaries of the named waters; or to facilities permitted to discharge to the non-tidally influenced portions of the Peace River.
[53] U.S. Department of the Interior and U.S. Geological Survey, *Integrating Science and Resource Management in Tampa Bay, Florida*, 110 (2011), *available at* https://pubs.usgs.gov/circ/1348/pdf/Chapter%205_105-156.pdf (internal citations omitted).

Sanitary Sewer Overflows, Leakages, and Inflow and Infiltration

Although domestic wastewater treatment facilities are permitted and designed to safely and properly collect and manage a specified wastewater capacity, obstructions or extreme conditions can cause a sanitary sewer overflow (SSO). Any overflow, spill, release, discharge, or diversion of untreated or partially treated wastewater from a sanitary sewer system is a SSO.[54] A SSO may subject the owner or operator of a facility to civil penalties of not more than $10,000 for each offense, a criminal conviction or fines, and additional administrative penalties.[55] Each day during the period in which a violation occurs constitutes a separate offense.[56] However, administrative penalties are capped at $10,000.[57]

A key concern with SSOs entering rivers, lakes, or streams is their negative effect on water quality. In addition, because SSOs contain partially treated or potentially untreated domestic wastewater, ingestion or similar contact may cause illness. People can be exposed through direct contact in areas of high public access, food that has been contaminated, inhalation, and skin absorption. The Department of Health (DOH) issues health advisories when bacteria levels present a risk to human health and may post warning signs when bacteria affect public beaches or other areas where there is a risk of human exposure.[58]

Reduction of SSOs can be achieved through:
- Cleaning and maintaining the sewer system;
- Reducing inflow and infiltration through rehabilitation and repairing broken or leaking lines;
- Enlarging or upgrading sewer, pump station, or sewage treatment plant capacity and/or reliability; and
- Constructing wet weather storage and treatment facilities to treat excess flows.[59]

Inflow and Infiltration (I&I) occurs when groundwater and/or rainwater enters the sanitary sewer system and ends up at the wastewater treatment facility, necessitating its treatment as if it were wastewater.[60] I&I can be caused by groundwater infiltrating the sewer system through faulty pipes or infrastructure, or any inflows of rainwater or non-wastewater into the sewer system.

I&I is a major cause of SSOs in Florida.[61] When domestic wastewater facilities are evaluated for permit renewal, collection systems are not evaluated for issues such as excessive

[54] DEP, *Sanitary Sewer Overflows (SSOs), available at* https://floridadep.gov/sites/default/files/sanitary-sewer-overflows.pdf (last visited Dec. 4, 2019).
[55] Sections 403.121 and 403.141, F.S.
[56] *Id*.
[57] Section 403.121(2)(b), (8), and (9), F.S.
[58] DEP, *SSOs, available at* https://floridadep.gov/sites/default/files/sanitary-sewer-overflows.pdf.
[59] *Id*.
[60] City of St. Augustine, *Inflow & Infiltration Elimination Program*, https://www.citystaug.com/549/Inflow-Infiltration-Elimination-Program (last visited Dec. 6, 2019).
[61] *See generally* RS&H, Inc., *Evaluation of Sanitary Sewer Overflows and Unpermitted Discharges Associated with Hurricanes Hermine and Matthew* (Jan. 2017), *available at* https://floridadep.gov/sites/default/files/Final%20Report_Evaluation%20of%20SSO%20and%20Unpermitted%20Discharges%2001_06_17.pdf.

infiltration/inflow unless problems result at the treatment plant.[62] Another major cause of SSOs is the loss of electricity to the infrastructure for the collection and transmission of wastewater, such as pump stations, especially during storms.[63] Pump stations receiving flow from another station through a force main, or those discharging through pipes 12 inches or larger, must have emergency generators.[64] All other pump stations must have emergency pumping capability through one of three specified arrangements.[65] These requirements for emergency pumping capacity only apply to domestic wastewater collection/transmission facilities existing after November 6, 2003, unless facilities existing prior to that date are modified.[66]

The Blue-Green Algae Task Force made the following recommendations relating to SSOs:

- Emergency back-up capabilities should be required for all lift stations constructed prior to 2003.
- The DEP and wastewater facilities should take a more proactive approach to infiltration and inflow issues.[67]

Wastewater Asset Management

Asset management is the practice of managing infrastructure capital assets to minimize the total cost of owning and operating these assets while delivering the desired service levels.[68] Many utilities use asset management to pursue and achieve sustainable infrastructure. A high-performing asset management program includes detailed asset inventories, operation and maintenance tasks, and long-range financial planning.[69]

Each utility is responsible for making sure that its system stays in good working order, regardless of the age of its components or the availability of additional funds.[70] Asset management programs with good data can be the most efficient method of meeting this challenge. Some key steps for asset management are making an inventory of critical assets, evaluating the condition and performance of such assets, and developing plans to maintain, repair, and replace assets and

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[62] Fla. Admin. Code R. 62-600.735; *see* Fla. Admin. Code R. 62-600.200. "Collection/transmission systems" are defined as "sewers, pipelines, conduits, pumping stations, force mains, and all other facilities used for collection and transmission of wastewater from individual service connections to facilities intended for the purpose of providing treatment prior to release to the environment."

[63] *See generally* RS&H, Inc., *Evaluation of Sanitary Sewer Overflows and Unpermitted Discharges Associated with Hurricanes Hermine and Matthew* (Jan. 2017), *available at* https://floridadep.gov/sites/default/files/Final%20Report_Evaluation%20of%20SSO%20and%20Unpermitted%20Discharges%2001_06_17.pdf.

[64] Fla. Admin. Code R. 62-604.400.

[65] *Id.*

[66] Fla. Admin. Code R. 62-604.100.

[67] DEP, *Blue-Green Algae Task Force Consensus Document #1*, 7 (Oct. 11, 2019), *available at* https://floridadep.gov/sites/default/files/Final%20Consensus%20%231_0.pdf.

[68] EPA, *Sustainable Water Infrastructure - Asset Management for Water and Wastewater Utilities*, https://www.epa.gov/sustainable-water-infrastructure/asset-management-water-and-wastewater-utilities (last visited Dec 9, 2019).

[69] *Id*.

[70] *Id*.

to fund these activities.[71] The United States Environmental Protection Agency (EPA) provides guidance and reference manuals for utilities to aid in developing asset management plans.[72]

Many states, including Florida, provide financial incentives for the development and implementation of an asset management plan when requesting funding under a State Revolving Fund or other state funding mechanism.[73] Florida's incentives include priority scoring,[74] reduction of interest rates,[75] principal forgiveness for financially disadvantaged small communities,[76] and eligibility for small community wastewater facilities grants.[77]

In 2016, the Legislature authorized the Public Service Commission (PSC) to allow a utility to create a utility reserve fund for repair and replacement of existing distribution and collection infrastructure that is nearing the end of its useful life or is detrimental to water quality or reliability of service. The utility reserve fund would be funded by a portion of the rates charged by the utility, by a secured escrow account, or through a letter of credit.

The PSC adopted rules governing the implementation, management, and use of the fund, including expenses for which the fund may be used, segregation of reserve account funds, requirements for a capital improvement plan, and requirements for the PSC authorization before fund disbursements.[78] The PSC requires an applicant to provide a capital improvement plan or an asset management plan in seeking authorization to create a utility reserve fund.[79]

The Clean Water State Revolving Fund Program

Florida's Clean Water State Revolving Fund (CWSRF) is a federal-state partnership that provides communities a permanent, independent source of low-cost financing for a wide-range of water quality infrastructure projects.[80] The CWSRF is funded through money received from federal grants as well as state contributions, which 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 for which the community qualifies.

The CWSRF provides low-interest loans to local governments to plan, design, and build or upgrade wastewater, stormwater, and nonpoint source pollution prevention projects. Certain

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[71] *Id*.
[72] EPA, *Asset Management: A Best Practices Guide* (2008), *available at* https://nepis.epa.gov/Exe/ZyPDF.cgi/P1000LP0.PDF?Dockey=P1000LP0.PDF; EPA, *Reference Guide for Asset Management Tools/Asset Management Plan Components and Implementation Tools for Small and Medium Sized Drinking Water and Wastewater Systems* (May 2014), *available at* https://www.epa.gov/sites/production/files/2016-04/documents/am_tools_guide_may_2014.pdf.
[73] EPA, *State Asset Management Initiatives* (Aug. 2012), *available at* https://www.epa.gov/sites/production/files/2016-04/documents/state_asset_management_initiatives_11-01-12.pdf.
[74] Fla. Admin. Code R. 62-503.300(e).
[75] Fla. Admin. Code R. 62-503.300(5)(b)1. and 62-503.700(7).
[76] Fla. Admin. Code R. 62-503.500(4).
[77] Fla. Admin. Code R. 62-505.300(d) and 62-505.350(5)(c).
[78] Fla. Admin. Code R. 25-30.444.
[79] Fla. Admin. Code R. 25-30.444(2)(e) and (m).
[80] 33 USC s. 1383; EPA, *CWSRF*, https://www.epa.gov/cwsrf (last visited Jan. 23, 2020); EPA, *Learn about the CWSRF*, https://www.epa.gov/cwsrf/learn-about-clean-water-state-revolving-fund-cwsrf (last visited Jan. 23, 2020).

agricultural best management practices may also qualify for funding. Very low interest rate loans, grants, and other discounted assistance for small communities are available. Interest rates on loans are below market rates and vary based on the economic means of the community. Generally, local governments and special districts are eligible loan sponsors.[81] The EPA classifies eleven types of projects that are eligible to receive CWSRF assistance. They include projects for:

- A publicly owned treatment works;
- A public, private, or nonprofit entity to implement a state nonpoint source pollution management program;
- A public, private, or nonprofit entity to develop and implement a conservation and management plan;
- A public, private, or nonprofit entity to construct, repair, or replace decentralized wastewater treatment systems that treat municipal wastewater or domestic sewage;
- A public, private, or nonprofit entity to manage, reduce, treat, or recapture stormwater or subsurface drainage water;
- A public entity to reduce the demand for publicly owned treatment works capacity through water conservation, efficiency, or reuse;
- A public, private, or nonprofit entity to develop and implement watershed projects;
- A public entity to reduce the energy consumption needs for publicly owned treatment works;
- A public, private, or nonprofit entity for projects for reusing or recycling wastewater, stormwater, or subsurface drainage water;
- A public, private, or nonprofit entity to increase the security of publicly owned treatment works; and
- Any qualified nonprofit entity, to provide technical assistance to owners and operators of small and medium sized publicly owned treatment works to plan, develop, and obtain financing for the CWSRF eligible projects and to assist each treatment works in achieving compliance with the Clean Water Act.[82]

Of these eligible projects, the DEP is required to give priority to projects that:

- Eliminate public health hazards;
- Enable compliance with laws requiring the elimination of discharges to specific water bodies, including the requirements of s. 403.086(9), F.S., regarding domestic wastewater ocean outfalls;
- Assist in the implementation of total maximum daily loads adopted under s. 403.067, F.S.;
- 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

[81] DEP, *State Revolving Fund*, https://floridadep.gov/wra/srf (last visited Feb. 11, 2019).
[82] EPA, *Learn about the CWSRF*, https://www.epa.gov/cwsrf/learn-about-clean-water-state-revolving-fund-cwsrf (last visited Jan. 23, 2020).

- Reduce pollutants to and otherwise promote the restoration of Florida's surface and ground waters.[83]

Small Community Sewer Construction

The Small Community Sewer Construction Assistance Act is a grant program established as part of the CWSRF program that requires the DEP to award grants to assist financially disadvantaged small communities with their needs for adequate domestic wastewater facilities.[84] Under the program, a financially disadvantaged small community is defined as a county, municipality, or special district[85] with a total population of 10,000 or less, and a per capita income less than the state average per capita income.[86] In 2016, the Legislature included counties and special districts as eligible entities for grants under the program if they otherwise met the definition of a financially disadvantaged small community.[87]

In accordance with rules adopted by the Environmental Regulation Commission, the 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.[88] The rules of the commission must also:

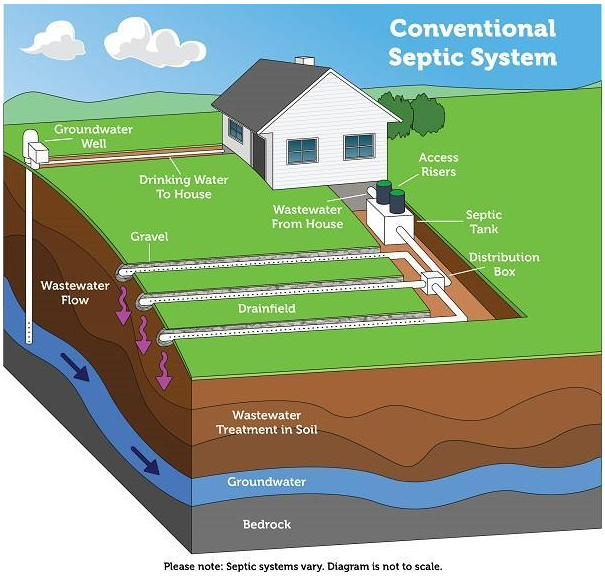
- Require that projects to plan, design, construct, upgrade, or replace wastewater collection, transmission, treatment, disposal, and reuse facilities be cost-effective, environmentally sound, permittable, and implementable;
- Require appropriate user charges, connection fees, and other charges to ensure the long-term operation, maintenance, and replacement of the facilities constructed under each grant;
- Require grant applications to be submitted on appropriate forms with appropriate supporting documentation and require records to be maintained;
- Establish a system to determine eligibility of grant applications;
- Establish a system to determine the relative priority of grant applications, which must consider public health protection and water pollution abatement;
- Establish requirements for competitive procurement of engineering and construction services, materials, and equipment; and
- Provide for termination of grants when program requirements are not met.[89]

Onsite Sewage Treatment and Disposal Systems

Onsite sewage treatment and disposal systems (OSTDSs), commonly referred to as "septic systems," generally consist of two basic parts: the septic tank and the drainfield.[90] Waste from toilets, sinks, washing machines, and showers flows through a pipe into the septic tank, where

[83] Section 403.1835(7), F.S.
[84] Sections 403.1835(3)(d) and 403.1838, F.S.
[85] Section 189.012(6), F.S., defines special district; s. 189.012(2) and (3), F.S., define dependent special district and independent special district, respectively.
[86] Section 403.1838(2), F.S.
[87] Chapter 2016-55, Laws of Fla.
[88] Section 403.1838(3)(a), F.S.
[89] Section 403.1838(3)(b), F.S.; Fla. Admin. Code R. Ch. 62-505.
[90] DOH, *Septic System Information and Care*, http://columbia.floridahealth.gov/programs-and-services/environmental-health/onsite-sewage-disposal/septic-information-and-care.html (last visited Dec. 2, 2019); EPA, *Types of Septic Systems*, https://www.epa.gov/septic/types-septic-systems (last visited Dec. 2, 2019) (showing the graphic provided in the analysis).

anaerobic bacteria break the solids into a liquid form. The liquid portion of the wastewater flows into the drainfield, which is generally a series of perforated pipes or panels surrounded by lightweight materials such as gravel or Styrofoam. The drainfield provides a secondary treatment where aerobic bacteria continue deactivating the germs. The drainfield also provides filtration of the wastewater, as gravity draws the water down through the soil layers.[91]



The DOH administers OSTDS programs, 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.[92] The DOH regulations focus on construction standards and setback distances. The regulations are primarily designed to protect the public from waterborne illnesses.[93] The DOH also conducts research to evaluate performance, environmental health, and public health effects of OSTDSs. Innovative OSTDS products and technologies must be approved by the DOH.[94]

The DOH and the DEP have an interagency agreement that standardizes procedures and clarifies responsibilities between them regarding the regulation of OSTDSs.[95] The DEP has jurisdiction over OSTDSs when: domestic sewage flow exceeds 10,000 gallons per day; commercial sewage flow exceeds 5,000 gallons per day; there is a likelihood of hazardous or industrial wastes; a sewer system is available; or if any system or flow from the establishment is currently regulated by the DEP (unless the DOH grants a variance).[96] In all other circumstances, the DOH regulates OSTDSs.

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[91] *Id.*
[92] Section 381.0065(3), F.S.
[93] DOH, *Overview of Onsite Sewage Treatment and Disposal Systems*, 5 (Aug. 1, 2019), http://floridadep.gov/file/19018/download?token=6r94Bi2B.
[94] Section 381.0065(3), F.S.
[95] *Interagency Agreement between the Department of Environmental Protection and the Department of Health for Onsite Sewage Treatment and Disposal Systems* (Sept. 30, 2015), *available at* https://floridadep.gov/sites/default/files/HOHOSTDS_9_30_15.pdf.
[96] *Id.* at 6-13; s. 381.0065(3)(b), F.S.; DEP, *Septic Systems*, https://floridadep.gov/water/domestic-wastewater/content/septic-systems (last visited Dec. 2, 2019).

There are an estimated 2.6 million OSTDSs in Florida, providing wastewater disposal for 30 percent of the state's population.[97] In Florida, development in some areas is dependent on OSTDSs due to the cost and time it takes to install central sewer systems.[98] For example, in rural areas and low-density developments, central sewer systems are not cost-effective. Less than one percent of OSTDSs in Florida are actively managed under operating permits and maintenance agreements.[99] The remainder of systems are generally serviced only when they fail, often leading to costly repairs that could have been avoided with routine maintenance.[100]

In a conventional OSTDS, a septic tank does not reduce nitrogen from the raw sewage. In Florida, approximately 30-40 percent of the nitrogen levels are reduced in the drainfield of a system that is installed 24 inches or more from groundwater.[101] This still leaves a significant amount of nitrogen to percolate into the groundwater, which makes nitrogen from OSTDSs a potential contaminant in groundwater.[102]

Different types of advanced OSTDSs exist that can remove greater amounts of nitrogen than a typical septic system (often referred to as "advanced" or "nutrient-reducing" septic systems).[103] The DOH publishes on its website approved products and resources on advanced systems.[104] Determining which advanced system is the best option can depend on site-specific conditions.

The owner of a properly functioning OSTDS must connect to a sewer system within one year of receiving notification that a sewer system is available for connection.[105] Owners of an OSTDS in need of repair or modification must connect within 90 days of notification from the DOH.[106]

The Blue-Green Algae Task Force made the following recommendations relating to OSTDSs:

- The DEP should develop a more comprehensive regulatory program to ensure that OSTDSs are sized, designed, constructed, installed, operated, and maintained to prevent nutrient pollution, reduce environmental impact, and preserve human health.
- More post-permitting septic tank inspections should take place.
- Protections for vulnerable areas in the state should be expanded.

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[97] DOH, *Onsite Sewage*, http://www.floridahealth.gov/environmental-health/onsite-sewage/index.html (last visited Dec. 2, 2019).
[98] DOH, *Report on Range of Costs to Implement a Mandatory Statewide 5-Year Septic Tank Inspection Program*, Executive Summary (Oct. 1, 2008), *available at* http://www.floridahealth.gov/environmental-health/onsite-sewage/research/_documents/rrac/2008-11-06.pdf. The report begins on page 56 of the PDF.
[99] *Id*.
[100] *Id*.
[101] DOH, *Florida Onsite Sewage Nitrogen Reduction Strategies Study*, *Final Report 2008-2015*, 21 (Dec. 2015), *available at* http://www.floridahealth.gov/environmental-health/onsite-sewage/research/draftlegreportsm.pdf; *see* Fla. Admin. Code R. 64E-6.006(2).
[102] 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/pdffiles/SS/SS55000.pdf.
[103] DOH, *Nitrogen-Reducing Systems for Areas Affected by the Florida Springs and Aquifer Protection Act* (2019), *available at* http://www.floridahealth.gov/environmental-health/onsite-sewage/products/_documents/bmap-n-reducing-tech-18-10-29.pdf.
[104] DOH, *Onsite Sewage Programs, Product Listings and Approval Requirements*, http://www.floridahealth.gov/environmental-health/onsite-sewage/products/index.html (last visited Dec. 2, 2019).
[105] Section 381.00655, F.S.
[106] *Id*.

- Additional funding to accelerate septic to sewer conversions.[107]

The DOH Technical Review and Advisory Panel

The DOH has a technical review and advisory panel to review agency rules and provide assistance to the DOH with rule adoption.[108] It is comprised of, at a minimum:

- A soil scientist;
- A professional engineer registered in this state who is recommended by the Florida Engineering Society and who has work experience in OSTDSs;
- Two representatives from the home-building industry recommended by the Florida Home Builders Association, including one who is a developer in this state who develops lots using onsite sewage treatment and disposal systems;
- A representative from the county health departments who has experience permitting and inspecting the installation of onsite sewage treatment and disposal systems in this state;
- A representative from the real estate industry who is recommended by the Florida Association of Realtors;
- A consumer representative with a science background;
- Two representatives of the septic tank industry recommended by the Florida Onsite Wastewater Association, including one who is a manufacturer of onsite sewage treatment and disposal systems;
- A representative from local government who is knowledgeable about domestic wastewater treatment and who is recommended by the Florida Association of Counties and the Florida League of Cities; and
- A representative from the environmental health profession who is recommended by the Florida Environmental Health Association and who is not employed by a county health department.[109]

Members are to be appointed for a term of two years. The panel may also, as needed, be expanded to include ad hoc, nonvoting representatives who have topic-specific expertise.[110]

Stormwater Management

Stormwater is the flow of water resulting from, and immediately following, a rainfall event.[111] When stormwater falls on pavement, buildings, and other impermeable surfaces, the runoff flows

[107] DEP, *Blue-Green Algae Task Force Consensus Document #1*, 6-7 (Oct. 11, 2019), *available at* https://floridadep.gov/sites/default/files/Final%20Consensus%20%231_0.pdf.
[108] Section 381.0068, F.S.
[109] *Id*.
[110] *Id*.
[111] DEP and Water Management Districts, *Environmental Resource Permit Applicant's Handbook Volume I (General and Environmental)*, 2-10 (June 1, 2018), *available at* https://www.swfwmd.state.fl.us/sites/default/files/medias/documents/Appliicant_Hanbook_I_-_Combined.pd_0.pdf.

quickly and can pick up sediment, nutrients (such as nitrogen and phosphorous), chemicals, and other pollutants.[112] Stormwater pollution is a major source of water pollution in Florida.[113]

There are two main regulatory programs to address water quality from stormwater: the federal program that regulates discharges of pollutants into waters of the United States[114] and the state Environmental Resource Permitting (ERP) Program that regulates activities involving the alteration of surface water flows.[115] The federal NPDES Stormwater Program regulates the following types of stormwater pollution:[116]

- Certain municipal storm sewer systems;
- Runoff from certain construction activities; and
- Runoff from industrial activities.[117]

Florida's ERP Program includes regulation of activities that create stormwater runoff, as well as dredging and filling in wetlands and other surface waters.[118] ERPs are designed to prevent flooding, protect wetlands and other surface waters, and protect Florida's water quality from stormwater pollution.[119] The statewide ERP Program is implemented by the DEP, the WMDs, and certain local governments. The ERP Applicant Handbook, incorporated by reference into the DEP rules, provides guidance on the DEP's ERP Program, including stormwater topics such as the design of stormwater management systems.[120]

The DEP and the WMDs are authorized to require permits and impose reasonable conditions:

- To ensure that construction or alteration of stormwater management systems and related structures are consistent with applicable law and not harmful to water resources;[121] and
- For the maintenance or operation of such structures.[122]

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[112] DEP, *Stormwater Management*, 1 (2016), *available at* https://floridadep.gov/sites/default/files/stormwater-management_0.pdf. When rain falls on fields, forests, and other areas with naturally permeable surfaces the water not absorbed by plants filters through the soil and replenishes Florida's groundwater supply.

[113] DEP, *Stormwater Support*, https://floridadep.gov/water/engineering-hydrology-geology/content/stormwater-support (last visited Dec. 2, 2019); DEP, *Nonpoint Source Program Update*, 10 (2015), *available at* https://floridadep.gov/sites/default/files/NPS-ManagementPlan2015.pdf.

[114] National Pollutant Discharge Elimination System (NPDES), 33 U.S.C. s. 1342 (2019); 40 C.F.R. pt. 122.

[115] Chapter 373, pt. IV, F.S.; Fla. Admin. Code Ch. 62-330.

[116] A point source is discernible, confined and discrete conveyance, such as a pipe, ditch, channel, tunnel, conduit, discrete fissure, or container. *See* The Clean Water Act, 33 U.S.C. s. 1362(14) and 40 C.F.R. 122.2; Stormwater can be either a point source or a nonpoint source of pollution. EPA, *Monitoring and Evaluating Nonpoint Source Watershed Projects*, 1-1, *available at* https://www.epa.gov/sites/production/files/2016-02/documents/chapter_1_draft_aug_2014.pdf; DEP, *Nonpoint Source Program Update*, 9 (2015), *available at* https://floridadep.gov/sites/default/files/NPS-ManagementPlan2015.pdf.

[117] *See generally* EPA, *NPDES Stormwater Program*, https://www.epa.gov/npdes/npdes-stormwater-program (last visited Dec. 2, 2019).

[118] DEP, *DEP 101: Environmental Resource Permitting*, https://floridadep.gov/comm/press-office/content/dep-101-environmental-resource-permitting (last visited Dec 2, 2019).

[119] South Florida Water Management District, *Environmental Resource Permits*, https://www.sfwmd.gov/doing-business-with-us/permits/environmental-resource-permits (last visited Dec. 2, 2019).

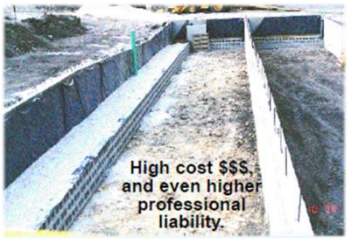
[120] Fla. Admin. Code R. 62-330.010(4); DEP and WMDs, *Environmental Resource Permit Applicant's Handbook Volume I (General and Environmental)*, 2-10 (June 1, 2018), *available at* https://www.swfwmd.state.fl.us/sites/default/files/medias/documents/Appliicant_Hanbook_I_-_Combined.pd_0.pdf; , *Environmental Resource Permit Applicant's Handbook Volume II*, *available at* https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/erp-stormwater (last visited Dec. 2, 2019).

[121] Section 373.413, F.S.; *see* s. 403.814(12), F.S.

[122] Section 373.416, F.S.

The DEP's stormwater rules are technology-based effluent limitations rather than water quality-based effluent limitations.[123] This means that stormwater rules rely on design criteria for BMPs to achieve a performance standard for pollution reduction, rather than specifying the amount of a specific pollutant that may be discharged to a waterbody and still ensure that the waterbody attains water quality standards.[124] The rules contain minimum stormwater treatment performance standards, which require design and performance criteria for new stormwater management systems to achieve at least 80 percent reduction of the average annual load of pollutants that would cause or contribute to violations of state water quality standards.[125] The standard is 95 percent reduction when applied to Outstanding Florida Waters. In 2007, an evaluation performed for the DEP generally concluded that Florida's stormwater design criteria failed to consistently meet either the 80 percent or 95 percent target goals in the DEP's rules.[126] The images shown here depict six major types of surface water management systems:[127]

"Filtered" Ponds



Underground Vaults

"Dry" Retention Ponds

"Wet" Detention Ponds

Underground Exfiltration Trenches

Pervious Pavement

[123] DEP, *ERP Stormwater*, https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/erp-stormwater (last visited Nov. 8, 2019).
[124] See generally, EPA, National Pollutant Discharge Elimination System (NPDES), www.epa.gov/npdes/npdes-permit-limits (last visited Dec. 2, 2019).
[125] Fla. Admin. Code R. 62-40.432(2).
[126] Environmental Research & Design, Inc., *Evaluation of Current Stormwater Design Criteria within the State of Florida*, 6-1 (2007), *available at* https://www.sfwmd.gov/sites/default/files/documents/sw%20treatment%20report-final71907.pdf. The report makes an exception for the St. John's River Water Management District's standards for on-line dry retention.
[127] Presentation to the Blue-Green Algae Task Force by Benjamin Melnik, Deputy Director of the Division of Water Resource Management, *Stormwater*, 12 (September 24, 2019) (on file with Committee on Environment and Natural Resources).

The DEP and the WMDs must require applicants to provide reasonable assurance that state water quality standards will not be violated.[128] If a stormwater management system is designed in accordance with the stormwater treatment requirements and criteria adopted by the DEP or the WMDs, then the system design is presumed not to cause or contribute to violations of applicable state water quality standards.[129] If a stormwater management system is constructed, operated, and maintained for stormwater treatment in accordance with a valid permit or exemption, then the stormwater discharged from the system is presumed not to cause or contribute to violations of applicable state water quality standards.[130] If an applicant is unable to meet water quality standards because existing ambient water quality does not meet standards, the DEP or a WMD must consider mitigation measures that cause a net improvement of the water quality in the water body that does not meet the standards.[131]

2010 Stormwater Rulemaking

From 2008 to 2010, the DEP and the WMDs worked together on developing a statewide unified stormwater rule to protect Florida's surface waters from the effects of excessive nutrients in stormwater runoff.[132] A technical advisory committee was established. In 2010, the DEP announced a series of workshops to present for public comment the statewide stormwater quality draft rule Chapter 62-347 of the Florida Administrative Code and an Applicant's Handbook.[133] The notice stated the goal of the rule was to "increase the level of nutrient treatment in stormwater discharges and provide statewide consistency by establishing revised stormwater quality treatment performance standards and best management practices design criteria."[134]

These rulemaking efforts produced a draft document called the "Environmental Resource Permit Stormwater Quality Applicant's Handbook: Design Requirements for Stormwater Treatment in Florida."[135] The 2010 draft handbook's stormwater quality permitting requirements:

- Provided for different stormwater treatment performance standards based on various classifications of water quality.[136]

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[128] Section 373.414(1), F.S.; *see* s. 373.403(11), F.S.; *see* Fla. Admin. Code Ch. 62-4, 62-302, 62-520, and 62-550.
[129] Section 373.4131(3)(b), F.S. Fla. Admin. Code R. 62-40.432(2); *see also* DEP, *ERP Stormwater*, https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/erp-stormwater (last visited Dec. 2, 2019) (stating that a key component of the stormwater rule is a "rebuttable presumption that discharges from a stormwater management system designed in accordance with the BMP design criteria will not cause harm to water resources").
[130] Section 373.4131(3)(c), F.S.
[131] Section 373.414(1)(b)3., F.S.
[132] South Florida Water Management District, *Quick Facts on the Statewide Unified Stormwater Rule*, *available at* https://www.sfwmd.gov/sites/default/files/documents/spl_stormwater_rule.pdf.
[133] Florida Administrative Register, Notices of Meetings, Workshops, and Public Hearings, *Notice of Rescheduling*, pg. 1885 (Apr. 23, 2010), *available at* https://www.flrules.org/Faw/FAWDocuments/FAWVOLUMEFOLDERS2010/3616/3616doc.pdf.
[134] *Id.*
[135] DEP and Water Management Districts, *March 2010 Draft, Environmental Resource Permit Stormwater Quality Applicant's Handbook, Design Requirements for Stormwater Treatment Systems in Florida* (2010), *available at* https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/content2/roadway/drainage/files/stormwaterqualityapphb-draft.pdf?sfvrsn=579bf184_0.
[136] *Id.* at 6-7.

- Included instructions for calculating a project's required nutrient load reduction based on comparing the predevelopment and post-development loadings.[137]
- Provided the required criteria for stormwater BMPs.
- Listed fifteen different types of stormwater treatment systems, including low impact design, pervious pavements, and stormwater harvesting.[138]

The new rule and revised handbook were expected to be adopted in 2011.[139] However, no such rules or revised handbook were ever adopted. While the draft Stormwater Quality Applicant's Handbook never went into effect, it can provide context for understanding what new rules on these topics may look like.

The Blue-Green Algae Task Force recommended that the DEP revise and update stormwater design criteria and implement an effective inspection and monitoring program.[140]

Water Quality Monitoring

One of the DEP's goals is to determine the quality of the state's surface and ground water resources. This goal is primarily accomplished through several water quality monitoring strategies that are administered through the Water Quality Assessment Program. Responsibilities of the program include: monitoring and assessing how water quality is changing over time; the overall water quality and impairment status of the state's water resources; and the effectiveness of water resource management, protection, and restoration programs.[141]

Within the Water Quality Assessment Program, the DEP administers the Watershed Monitoring Program. This program is responsible for collecting reliable data through water samples from rivers, streams, lakes, canals, and wells around the state.[142] This information is used by the DEP to determine which waters are impaired and what restoration efforts are needed.

The Blue-Green Algae Task Force recommended that science-based decision making and monitoring programs be enhanced, including the development of an expanded and more comprehensive statewide water quality monitoring strategy. Monitoring programs should focus on informing restoration project selection, implementation, and evaluation.[143]

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[137] *Id.* at 8-11.
[138] *Id.* at 3.
[139] Nicole C. Kibert, *Status of Low Impact Development in Florida and Legal Considerations for Operation and Maintenance of LID Systems*, FLORIDA BAR JOURNAL Vol. 85, No. 1 (2011), https://www.floridabar.org/the-florida-bar-journal/status-of-low-impact-development-in-florida-and-legal-considerations-for-operation-and-maintenance-of-lid-systems/ (last visited Nov. 14, 2019).
[140] DEP, *Blue-Green Algae Task Force Consensus Document #1* (Dec. 2, 2019), *available at* https://floridadep.gov/sites/default/files/Final%20Consensus%20%231_0.pdf.
[141] DEP, *Water Quality Assessment Program*, https://floridadep.gov/dear/water-quality-assessment (last visited Dec. 2, 2019).
[142] DEP, *Watershed Monitoring*, https://floridadep.gov/dear/watershed-monitoring-section (last visited Dec. 2, 2019).
[143] DEP, *Blue-Green Algae Task Force Consensus Document #1* (Oct. 11, 2019), *available at* https://floridadep.gov/sites/default/files/Final%20Consensus%20%231_0.pdf.

Indian River Lagoon

The Indian River Lagoon (IRL) system is an estuary[144] that runs along 156 miles of Florida's east coast and borders Volusia, Brevard, Indian River, St. Lucie, and Martin counties.[145] The IRL system is composed of three main waterbodies: Mosquito Lagoon, Banana River, and the Indian River Lagoon.[146] Four BMAPs have been adopted for the IRL region.[147]

The IRL is one of the most biologically diverse estuaries in North America and is home to more than 2,000 species of plants, 600 species of fish, 300 species of birds, and 53 endangered or threatened species.[148] The estimated economic value received from the IRL in 2014 was approximately $7.6 billion.[149] Industry groups that are directly influenced by the IRL support nearly 72,000 jobs.[150]

The IRL ecosystem has been harmed by human activities in the region. Stormwater runoff from urban and agricultural areas, wastewater treatment facility discharges, canal discharges, septic systems, animal waste, and fertilizer applications have led to harmful levels of nutrients and sediments entering the lagoon.[151] These pollutants create cloudy conditions, feed algal blooms, and lead to muck accumulation, all of which negatively impact the seagrass that provides habitat for much of the IRL's marine life.[152]

Type Two Transfer

Section 20.06(2), F.S., defines a type two transfer as the merging of an existing department, program, or activity into another department. Any program or activity transferred by a type two transfer retains all the statutory powers, duties, and functions it held previous to the transfer. The program or activity also retains its records, personnel, property, and unexpended balances of appropriations, allocations, or other funds, unless otherwise provided by law. The transfer of

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[144] An estuary is a partially enclosed, coastal waterbody where freshwater from rivers and streams mixes with saltwater from the ocean. Estuaries are among the most productive ecosystems on earth, home to unique plant and animal communities that have adapted to brackish water: freshwater mixed with saltwater. U.S. EPA, *What Is an Estuary?*, https://www.epa.gov/nep/basic-information-about-estuaries (last visited Dec. 2, 2019); NOAA, *What Is An Estuary?*, https://oceanservice.noaa.gov/facts/estuary.html (last visited Dec. 2, 2019).

[145] IRL National Estuary Program, *About the Indian River Lagoon*, http://www.irlcouncil.com/ (last visited Dec. 2, 2019).

[146] *Id*.

[147] East Central Florida Regional Planning Council and the Treasure Coast Regional Planning Council, *Indian River Lagoon Economic Valuation Update*, x (Aug. 26, 2016), *available at* http://tcrpc.org/special_projects/IRL_Econ_Valu/FinalReportIRL08_26_2016.pdf; DEP, *Basin Management Action Plans (BMAPs)*, https://floridadep.gov/dear/water-quality-restoration/content/basin-management-action-plans-bmaps (last visited Dec. 2, 2019).

[148] IRL National Estuary Program, *About the Indian River Lagoon*, http://www.irlcouncil.com/ (last visited Dec. 2, 2019).

[149] East Central Florida Regional Planning Council and the Treasure Coast Regional Planning Council, *Indian River Lagoon Economic Valuation Update*, vi (Aug. 26, 2016), *available at* http://tcrpc.org/special_projects/IRL_Econ_Valu/FinalReportIRL08_26_2016.pdf.

[150] *Id.* at ix. The main IRL-related industry groups are categorized as: Living Resources; Marine Industries; Recreation and Visitor-related; Resource Management; and Defense & Aerospace.

[151] Tetra Tech, Inc. & Closewaters, LLC, *Draft Save Our Indian River Lagoon Project Plan 2019 Update for Brevard County, Florida, xii (Mar. 2019), available at https://www.dropbox.com/s/j9pxd59mt1baf7q/Revised%202019%20Save%20Our%20Indian%20River%20Lagoon%20Project%20Plan%20Update%20032519.pdf?dl=0*.

[152] *Id*.

segregated funds must be made in such a manner that the relation between the program and the revenue source is retained.[153]

Rural Areas of Opportunity

A rural area of opportunity (RAO) is a rural community or region of rural communities that has been adversely affected by an extraordinary economic event, severe or chronic distress, or a natural disaster or that presents a unique economic development opportunity of regional impact.[154] By executive order, the Governor may designate up to three RAOs, establishing each region as a priority assignment for Rural Economic Development Initiative (REDI) agencies. The Governor can waive the criteria, requirements, or any similar provisions of any state economic development incentive for projects in a RAO.[155]

The currently designated RAOs are: [156]

- Northwestern RAO: Calhoun, Franklin, Gadsden, Gulf, Holmes, Jackson, Liberty, Wakulla, and Washington counties, and part of Walton County.
- South Central RAO: DeSoto, Glades, Hardee, Hendry, Highlands, and Okeechobee counties, and the cities of Pahokee, Belle Glade, South Bay (Palm Beach County), and Immokalee (Collier County).
- North Central RAO: Baker, Bradford, Columbia, Dixie, Gilchrist, Hamilton, Jefferson, Lafayette, Levy, Madison, Putnam, Suwannee, Taylor, and Union counties.

Statement of Estimated Regulatory Cost

If a proposed agency rule will have an adverse impact on small business or is likely to increase directly or indirectly regulatory costs in excess of $200,000 aggregated within one year after implementation, an agency must prepare a statement of estimated regulatory costs (SERC).[157] The SERC must include an economic analysis projecting a proposed rule's adverse effect on specified aspects of the state's economy or an increase in regulatory costs. If the SERC shows that the adverse impact or regulatory costs of the proposed rule exceeds $1 million in the aggregate within five years after implementation, then the proposed rule must be submitted to the Legislature for ratification and may not take effect until it is ratified by the Legislature.[158]

Biosolids

Approximately two-thirds of Florida's population is served by around 2,000 domestic wastewater facilities permitted by the DEP.[159] When domestic wastewater is treated, solid,

[153] Section 20.06(2), F.S.
[154] Section 288.0656(2)(d), F.S.
[155] Section 288.0656(7), F.S.
[156] Department of Economic Opportunity, *Rural Areas of Opportunity*, http://www.floridajobs.org/community-planning-and-development/rural-community-programs/rural-areas-of-opportunity (last visited Dec. 2, 2019).
[157] Section 120.541, F.S.
[158] *Id*.
[159] DEP, *General Facts and Statistics about Wastewater in Florida*, https://floridadep.gov/water/domestic-wastewater/content/general-facts-and-statistics-about-wastewater-florida (last visited Dec. 9, 2019).

semisolid, or liquid residue known as biosolids[160] accumulates in the wastewater treatment plant and must be removed periodically to keep the plant operating properly.[161] Biosolids also include products and treated material from biosolids treatment facilities and septage management facilities regulated by the DEP.[162] The collected residue is high in organic content and contains moderate amounts of nutrients.[163]

The DEP has stated that wastewater treatment facilities produce about 340,000 dry tons of biosolids each year.[164] Biosolids can be disposed of in several ways: transfer to another facility, placement in a landfill, distribution and marketing as fertilizer, incineration, bioenergy, and land application to pasture or agricultural lands.[165] About one-third of the total amount of biosolids produced is used for land application[166] and is subject to regulatory requirements established by the DEP to protect public health and the environment.[167]

Land application is the use of biosolids at a permitted site to provide nutrients or organic matter to the soil, such as agricultural land, golf courses, forests, parks, or reclamation sites. Biosolids are applied in accordance with restrictions based on crop nutrient needs, phosphorus limits in the area, and soil fertility.[168] Biosolids contain macronutrients (such as nitrogen and phosphorus) and micronutrients (such as copper, iron, and manganese) that are utilized by crops. The application of these nutrient-rich biosolids increases the organic content of the soil, fostering more productive plant growth.[169] To prevent odor or the contamination of soil, crops, livestock, and humans, land application sites must meet site management requirements such as site slopes, setbacks, and proximity to groundwater restrictions.[170] There are approximately 140 permitted land application sites in Florida, with waste haulers being the most common site permittees.[171]

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[160] Section 373.4595, F.S. Biosolids are the solid, semisolid, or liquid residue generated during the treatment of domestic wastewater in a domestic wastewater treatment facility and include products and treated material from biosolids treatment facilities and septage management facilities. The term does not include the treated effluent or reclaimed water from a domestic wastewater treatment facility, solids removed from pump stations and lift stations, screenings and grit removed from the preliminary treatment components of domestic wastewater treatment facilities, or ash generated during the incineration of biosolids.

[161] DEP, *Domestic Wastewater Biosolids*, https://floridadep.gov/water/domestic-wastewater/content/domestic-wastewater-biosolids (last visited Dec. 9, 2019).

[162] Fla. Admin. Code R. 62-640.200(6).

[163] *Id*.

[164] DEP, *Presentation to Senate Committee on Environment and Natural Resources*, 40-62 (Nov. 13, 2019) *available at* http://www.flsenate.gov/Committees/Show/EN/MeetingPacket/4733/8393_MeetingPacket_4733.13.19.pdf; DEP Technical Advisory Committee, *Biosolids Use and Regulations in Florida Presentation*, 5 (Sept. 2018), *available at* https://floridadep.gov/sites/default/files/Biosolids101-TAC-090518.pdf (last visited Dec. 9, 2019).

[165] *Id*. at 4.

[166] *Id*. at 5.

[167] Fla. Admin. Code R. 62-640.

[168] DEP Technical Advisory Committee, *Biosolids Use and Regulations in Florida*, 8 (Sept. 2018), *available at* https://floridadep.gov/sites/default/files/Biosolids101-TAC-090518.pdf (last visited Dec. 9, 2019); *see also*, United States EPA, A Plain English Guide to the EPA Part 503 Biosolids Rule, 26 (Sept. 1994), *available at* https://www.epa.gov/sites/production/files/2018-12/documents/plain-english-guide-part503-biosolids-rule.pdf (last visited Dec.. 9, 2019).

[169] *Id.* at 20.

[170] *Id*. at 9.

[171] DEP, *Presentation to Senate Committee on Environment and Natural Resources*, 40-62 (Nov. 13, 2019) *available at* http://www.flsenate.gov/Committees/Show/EN/MeetingPacket/4733/8393_MeetingPacket_4733.13.19.pdf; DEP Technical Advisory Committee, *Biosolids Use and Regulations in Florida Presentation*, 20 (Sept. 2018), *available at*

Regulation of Biosolids by the DEP

The DEP regulates three classes of biosolids for beneficial use.

- Class B - minimum level of treatment;
- Class A - intermediate level of treatment; and
- Class AA - highest level of treatment.[172]

The DEP categorizes the classes based on treatment and quality. Treatment of biosolids must:

- Reduce or completely eliminate pathogens;
- Reduce the attractiveness of the biosolids for pests (such as insects and rodents); and
- Reduce the amount of toxic metals in the biosolids.[173]

https://floridadep.gov/sites/default/files/Biosolids101-TAC-090518.pdf (last visited Dec. 9, 2019). Wastewater treatment facilities commonly contract with waste haulers instead of applying the biosolids themselves.

[172] *Id*. at 6.

[173] *Id*. at 7.

Class AA biosolids can be distributed and marketed as fertilizer. Because they are the highest quality, they are not subject to the same regulations as Class A and Class B biosolids and are exempt from nutrient restrictions.[174] Typically, Class B biosolids are used in land application.[175]

Biosolids are regulated under Rule 62-640 of the Florida Administrative Code. The rules provide minimum requirements, including monitoring and reporting requirements, for the treatment, management, use, and disposal of biosolids. The rules are applicable to wastewater treatment facilities, appliers, and distributors[176] and include permit requirements for both treatment facilities and biosolids application sites.[177]

Each permit application for a biosolids application site must include a site-specific nutrient management plan (NMP) that establishes the specific rates of application and procedures to apply biosolids to land.[178] Biosolids may only be applied to land application sites that are permitted by the DEP and have a valid NMP.[179] Biosolids must be applied at rates established in accordance with the nutrient management plan and may be applied to a land application site only if all concentrations of minerals do not exceed ceiling and cumulative concentrations determined by rule.[180] According to the St. Johns Water Management District, application rates of biosolids are determined by crop nitrogen demand, which can often result in the overapplication of phosphorus to the soil and can increase the risk of nutrient runoff into nearby surface waters.[181]

Once a facility or site is permitted, it is subject to monitoring, record-keeping, reporting, and notification requirements.[182] The requirements are site-specific and can be increased or reduced by the DEP based on the quality or quantity of wastewater or biosolids treated; historical variations in biosolids characteristics; industrial wastewater or sludge contributions to the facility; the use, land application, or disposal of the biosolids; the water quality of surface and ground water and the hydrogeology of the area; wastewater or biosolids treatment processes; and the compliance history of the facility or application site.[183]

State Bans on the Land Application of Biosolids

Section 373.4595, F.S., sets out the statutory guidelines for the Northern Everglades and Estuaries Protection Program. This statute is designed to protect and promote the hydrology of Lake Okeechobee, and the Caloosahatchee and St. Lucie Rivers and their estuaries. As part of those protections, the Legislature banned the disposal of domestic wastewater biosolids within the Lake Okeechobee, Caloosahatchee River, and St. Lucie River watersheds unless the applicant can affirmatively demonstrate that the nutrients in the biosolids will not add to nutrient

[174] *Id*. at 8.
[175] *Id.* at 6.
[176] Fla. Admin. Code R. 62-640.100.
[177] Fla. Admin. Code R. 62-640.300.
[178] Fla. Admin. Code R. 62-640.500.
[179] *Id*.
[180] Fla. Admin. Code R. 62-640.700.
[181] Victoria R. Hoge, Environmental Scientist IV, St. Johns River Water Management District, *Developing a Biosolids Database for Watershed Modeling Efforts*, *abstract available at* http://archives.waterinstitute.ufl.edu/symposium2018/abstract_detail.asp?AssignmentID=1719 (last visited Mar. 8, 2019).
[182] Fla. Admin. Code R. 62-640.650.
[183] *Id*.

loadings in the watershed.[184] The prohibition against land application in these watersheds does not apply to Class AA biosolids that are distributed as fertilizer products in accordance with Rule 62-640.850 of the Florida Administrative Code.[185]

The land application of Class A and Class B biosolids is also prohibited within priority focus areas in effect for Outstanding Florida Springs if the land application is not in accordance with a NMP that has been approved by the DEP.[186] The NMP must establish the rate at which all biosolids, soil amendments, and nutrient sources at the land application site can be applied to the land for crop production while minimizing the amount of pollutants and nutrients discharged into groundwater and waters of the states.[187]

Local Regulation of Biosolids

The Indian River County Code addresses land application of biosolids by providing criteria for designated setbacks, reporting requirements, and required approval. In July 2018, the Indian River County Commission voted for a six-month moratorium on the land application of Class B biosolids on all properties within the unincorporated areas of the county.[188] The ordinance also directs the County Administrator to coordinate with the DEP on a study to report the findings and recommendations concerning Class B biosolids land application activities and potential adverse effects.[189] The County Commission voted in January 2019 to extend the moratorium for an additional six months.[190]

The City Council of Fellsmere adopted a similar moratorium, Ordinance 2018-06, in August 2018, authorizing a temporary moratorium for 180 days or until a comprehensive review of the impact on the city's ecosystem is completed.[191] In January 2019, the ordinance was extended for an additional 180 days.[192]

The Treasure Coast Regional Planning Council held a Regional Biosolids Symposium in June 2018, where regional representatives and stakeholders discussed biosolids and alternative techniques for disposal.[193] At its meeting in July, the Treasure Coast Regional Planning Council adopted a resolution encouraging state and local governments to prioritize the reduction and eventual elimination of the land application of human wastewater biosolids.[194] It also encouraged

[184] Chapter 2016-1, Laws of Florida; *see* s. 373.4595, F.S.
[185] *Id*.
[186] Section 373.811(4), F.S.
[187] *Id*.
[188] Indian River County Commission Ordinance 18-2020 (Jul. 17, 2018), *available at* http://ircgov.granicus.com/player/clip/183?view_id=1&meta_id=64650 (last visited Dec. 9, 2019).
[189] *Id*.
[190] Indian River County Commission Ordinance 18-2642 (Jan. 14, 2019), *available at* http://ircgov.granicus.com/player/clip/204?view_id=1&meta_id=77302 (last visited Dec. 9, 2019).
[191] Fellsmere City Council Meeting, *Agenda* (Aug. 16, 2018), *available at* https://www.cityoffellsmere.org/sites/default/files/fileattachments/city_council/meeting/8301/co20180816agenda.pdf.
[192] Fellsmere City Council Meeting, *Agenda* (Feb. 7, 2019), *available at* https://www.cityoffellsmere.org/sites/default/files/fileattachments/city_council/meeting/14391/co20190221agenda.pdf.
[193] Treasure Coast Regional Planning Council Regional Biosolids Symposium, *Charting the Future of Biosolids Management Executive Summary* (Jun. 18, 2018), *available at* http://www.tcrpc.org/announcements/Biosolids/summit%20summary.pdf.
[194] Treasure Coast Regional Planning Council Resolution 18-03 (Jul. 20, 2018), *available at* http://www.flregionalcouncils.org/wp-content/uploads/2019/01/Treasure-Coast-Resolution-No.-18-03.pdf.

the state to establish a Pilot Projects Program to incentivize local utilities to implement new wastewater treatment technologies that would allow more efficient use of biosolids.[195]

Rule Development

In 2018, the DEP created a Biosolids Technical Advisory Committee (TAC) to establish an understanding of potential nutrient impacts of the land application of biosolids, evaluate current management practices, and explore opportunities to better protect Florida's water resources. The TAC members represent various stakeholders, including environmental and agricultural industry experts, large and small utilities, waste haulers, consultants, and academics.[196]

The TAC convened on four occasions from September 2018 to January 2019 and discussed the current options for biosolids management in the state, ways to manage biosolids to improve the protection of water resources, and research needs to build upon and improve biosolids management.[197]

Based on recommendations of the TAC and public input, the DEP published a draft rule on October 29, 2019.[198] Key proposals in the draft rule include:

- A prohibition on the land application of biosolids where the seasonal high water table is within 15 cm of the soil surface or 15 cm of the intended depth of biosolids placement. The existing rule requires a soil depth of two feet between the depth of biosolids placement and the water table level at the time the Class A or Class B biosolids are applied to the soil.
- A requirement that land application must be done in accordance with applicable BMAPs.
- Definitions for "capacity index," "percent water extractable phosphorus," and "seasonal high water table."
- More stringent requirements must be provided in the Nutrient Management Plan.
- All biosolids sites must enroll in a DACS BMP Program.
- All biosolids applications are considered projects of heightened public concern/interest,[199] meaning that a permit applicant must publish notice of their application one time only within fourteen days after a complete application is filed.[200]
- Increased monitoring for surface and groundwater.
- The requirement measures to be taken to prevent leaching of nutrients for the storage of biosolids.
- Existing facilities must be in compliance with the new rule within three years of the adoption date.

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[195] *Id*.
[196] The seven members of TAC included two academic representatives from the University of Florida, two representatives of small and large utilities, and one representative each for environmental interests, agricultural interests, and waste haulers.
[197] DEP, *DEP Biosolids Technical Advisory Committee*, https://floridadep.gov/water/domestic-wastewater/content/dep-biosolids-technical-advisory-committee (last visited Mar. 6, 2019).
[198] Florida Department of State, Notice of Proposed Rule: Rule No.: 62-640.100, 62-640.200, 62-640.210, 62-640.300, 62-640.500, 62-640.600, 62-640.650, 62-640.700, 62-640.800, 62-640.850, 62-640.880 (Oct. 29, 2019), https://www.flrules.org/gateway/View_Notice.asp?id=22546212 (last visited Dec. 5, 2019).
[199] Note: the draft rule uses the phrase "public interest" but the rule cross-referenced in the draft rule uses the phrase "public concern."
[200] Fla. Admin. Code R. 62-110.106(6).

This biosolids rule required a SERC that exceeds the threshold to trigger the requirement for legislative ratification.[201] The SERC makes the following statements:

> The revised rule may significantly reduce biosolids land application rates (the amount applied per acre on an annual basis) by an estimated 75 percent. In 2018, just under 90,000 dry tons of Class B biosolids were applied to biosolids land application sites with about 84,000 acres of the currently permitted 100,000 acres in Florida. Reduced land application rates would necessitate the permitting about four to ten times more land to accommodate the current quantity of land applied Class B biosolids.
>
> As haulers have already permitted land application sites closer to the domestic wastewater facilities that generate biosolids, any additional sites are expected to be at greater distances from these facilities. This could result in longer hauling distances. Additionally, some existing sites may cease land application completely, either because the site may not be suitable for land application or because the landowner may not want to subject their property to ground water or surface water quality monitoring. The additional site monitoring requirements for ground water and surface water will also increase operational costs, so some biosolids site permittees, especially for smaller sites, may choose to cease operations. Under the proposed rule, some portion of currently land-applied Class B biosolids are expected to then be disposed of in landfills or be converted to Class AA biosolids. The reduction in land application rates, loss of land application sites, and shift away from land application could result in:
> - Loss of biosolids hauling contracts.
> - Loss of jobs with biosolids hauling companies.
> - Loss of grass production and income for landowners.
> - Increased operational expenses for biosolids haulers, and;
> - Loss of cost savings and production for cattle ranchers and hay farmers.
>
> Under the revised rule, biosolids land application rates will drop by an average of 75 percent. Some farmers indicate an economic value of about $60 per acre in fertilizer savings through biosolids land application. In 2018, approximately 84,000 acres were utilized for the land application of biosolids, which would represent a current fertilizer cost savings of approximately $5,040,000. This would be a loss of $3,780,000 in cost savings annually if 75 percent less biosolids can be applied per acre.[202]

The SERC includes the following statewide estimates:
- Capital costs for new permitting and land application sites of $10 million;
- Recurring costs for additional sites and transportation of wet biosolids of at least $31 million; and

[201] DEP, *Statement of Estimated Regulatory Costs (SERC), available at* https://content.govdelivery.com/attachments/FLDEP/2019/10/29/file_attachments/1313532/62-640%20SERC.pdf.
[202] *Id*.

- Additional monitoring costs of $1 million.[203]

The DEP expects more biosolids to be converted to class AA biosolids/fertilizer. They estimate the capital cost for additional class AA biosolids projects will be between $300-$400 million.[204] The DEP is currently reviewing lower cost regulatory alternatives that have been submitted.[205] The next step will be a hearing before the Environmental Regulation Commission and adoption of the rule. Following rule adoption, legislative ratification is required.[206]

Damages and Monetary Penalties

The DEP may institute a civil action (in court) or an administrative proceeding (in the Division of Administrative Hearings) to recover damages for any injury to the air, waters, or property, including animal, plant, and aquatic life, of the state caused by any violation.[207] Civil actions and administrative proceedings have different procedures.[208] Administrative proceedings are often viewed as less formal, less lengthy, and less costly.

With respect to damages, the violator is liable for:
- Damage caused to the air, waters, or property, including animal, plant, or aquatic life, of the state; and
- Reasonable costs and expenses of the state in tracing the source of the discharge, in controlling and abating the source and the pollutants, and in restoring the air, waters, and property, including animal, plant, and aquatic life, of the state to their former condition.[209]

In addition to damages, a violator can be liable for penalties. For civil penalties, the DEP can levy up to $10,000 per offense. Each day of the violation is a separate offense. The DEP is directed to proceed administratively in all cases in which the DEP seeks penalties that do not exceed $10,000 per assessment. The DEP is prohibited from imposing penalties in excess of $10,000 in a notice of violation. The DEP cannot have more than one notice of violation pending against a party unless it occurred at a different site or the violations were discovered by the department subsequent to the filing of a previous notice of violation.[210]

Section 403.121(3), F.S., sets out a penalty schedule for various violations. In particular, it includes the following penalties related to wastewater:
- $1,000 for failure to obtain a required wastewater permit.
- $2,000 for a domestic or industrial wastewater violation not involving a surface water or groundwater quality violation resulting in an unpermitted or unauthorized discharge or effluent-limitation exceedance.

[203] *Id*.
[204] *Id*.
[205] Email from Justin Wolfe, General Counsel, DEP, RE: Biosolids Rule (Dec. 2. 2019)(on file with the Environment and Natural Resources Committee).
[206] Section 120.541(3), F.S.
[207] Section 403.121, F.S.
[208] Sections 403.121 and 403.141, F.S.
[209] Section 403.121, F.S.
[210] *Id*.

- $5,000 for an unpermitted or unauthorized discharge or effluent-limitation exceedance that resulted in a surface water or groundwater quality violation. [211]

A court or an administrative law judge may receive evidence in mitigation.[212] The DEP may also seek injunctive relief either judicially or administratively.[213] Additionally, criminal penalties are available for various types of violations of chapter 403, F.S.[214]

The Rights of Nature Movement

The Rights of Nature Movement is the concept of recognizing that nature has legal rights and legal standing in a court of law.[215] "It is the recognition that our ecosystems – including trees, oceans, animals, and mountains – have rights just as human beings have rights."[216]

Standing is a party's right to make a legal claim or seek judicial enforcement of a duty or right.[217] To have standing in federal court, a plaintiff must show that the challenged conduct has caused the plaintiff actual injury and that the interest sought to be protected is within the zone of interests meant to be regulated by the statutory or constitutional guarantee.[218] Under the Rights of Nature concept, an ecosystem could be named as an injured party in a court of law, with its own legal standing rights. Proponents of the Rights of Nature see legal personhood as a promising tool for protecting nature and analogous to corporate personhood and the protection of corporate rights.[219]

Ecuador includes a Rights of Nature provision in its constitution.[220] Under the Ecuadorian constitution, nature has rights "to exist, persist, maintain and regenerate its vital cycles, structure, functions and its processes in evolution."[221] Bolivia, New Zealand, India,[222] and Colombia[223] have also taken steps toward recognizing rights of nature.

The Pennsylvania Constitution contains a provision stating "the people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people,

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[211] Section 403.121(3)(b), F.S.
[212] Section 403.121(3)(b), F.S.
[213] Section 403.121,(3)(b), F.S
[214] Section 403.161, F.S.
[215] Global Alliance for the Rights of Nature, *What is Rights of Nature?*, https://therightsofnature.org/what-is-rights-of-nature/ (last visited Jan. 18, 2020); Community Environmental Defense Fund, *Champion the Rights of Nature*, https://celdf.org/advancing-community-rights/rights-of-nature/ (last visited Jan. 18, 2020).
[216] *Id*.
[217] BLACK'S LAW DICTIONARY, 1536 (9th ed. 2009).
[218] *Id*.
[219] Gwendolyn J. Gordon, *Environmental Personhood*, 50, 43 COLUM. J. ENVTL. L. 49 (Jan. 11, 2019) (citing *Burwell v. Hobby Lobby Stores, Inc*., 134 S.Ct. 2751 (2014); *Citzens United v. Fed. Election Comm'n*, 558 U.S. 310 (2010)).
[220] Constitutión Politica de la República del Ecuador, art. 10, 71-74 (Ecuador), English translation *available at* http://pdba.georgetown.edu/Constitutions/Ecuador/english08.html.
[221] *Id*.
[222] *See generally*, Gwendolyn J. Gordon, *Environmental Personhood*, 50, 43 COLUM. J. ENVTL. L. 49 (Jan. 11, 2019).
[223] *See*, Patrick Parenteau, *Green Justice Revisited: Dick Brooks on the Laws of Nature and the Nature of Law*, 20 VT. J. ENVTL. L. 183, 186 (2019); Global Alliance for the Rights of Nature, *Columbia Constitutional Court Finds Atrato River Possesses Rights*, https://therightsofnature.org/colombia-constitutional-court-finds-atrato-river-possesses-rights/ (last visited Jan. 19, 2020).

including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people."[224] Based on this constitutional provision, a court overturned a Pennsylvania law protecting extractive interests from local ordinances to limit environmentally harmful activities.[225] Local governments in Pennsylvania,[226] Maine,[227] New Hampshire,[228] and California,[229] among others, have enacted rights of nature provisions in their local ordinances. The idea is being discussed in various Florida communities, but no local ordinances have been adopted at this time.[230]

The Florida Environmental Protection Act

The Environmental Protection Act of 1971 authorizes the bringing of an action for injunctive relief to compel a governmental authority to enforce laws, rules, and regulations for the protection of the air, water, and other natural resources of the State of Florida or to enjoin a person or governmental agency or authority from violating any laws, rules, or regulations for the protection of the air, water, and other natural resources of the state.[231] In any administrative, licensing, or other proceedings authorized by law for the protection of the air, water, or other natural resources of the state from pollution, impairment, or destruction, the government or a citizen of the state has standing to intervene as a party on the filing of a pleading asserting that the activity to be licensed or permitted has or will have the effect of impairing, polluting, or otherwise injuring the air, water, or other natural resources of the state.[232] A citizen's substantial interests are considered to be affected if the party demonstrates it may suffer an injury in fact which is of sufficient immediacy and is of the type and nature intended to be protected by law. No demonstration of special injury different in kind from the general public at large is required. A sufficient demonstration of a substantial interest may be made by a petitioner who establishes that the proposed activity, conduct, or product to be licensed or permitted affects the petitioner's use or enjoyment of air, water, or natural resources protected by law.[233]

In *Florida Wildlife Federation v. State Dept. of Environmental Regulation*, the Florida Supreme Court held that the Environmental Protection Act (Act) sets out substantive rights not previously possessed.[234] Private citizens of Florida may institute a suit under the Act without showing of special injury required by traditional rules of standing.[235] The Act does not constitute an impermissible intrusion by the Legislature into the Supreme Court's power over practice and procedure in state courts, but rather creates a new cause of action setting out substantive rights

[224] PA. CONST. art. 1, § 27
[225] *Robinson v. Commonwealth*, 83 A.3d 901 (2013).
[226] *See* City of Pittsburgh Code of Ordinances, § 618.03.
[227] Town of Shapleigh Code, §99-16.
[228] Barrington, NH, Community Bill of Rights §2(e), *available at* https://www.barrington.nh.gov/sites/barringtonnh/files/uploads/bill_of_rights.pdf.
[229] Santa Monica Municipal Code, Ch. 12.02.030.
[230] SAFEBOR, *Welcome to the Santa Fe River Bill of Rights Campaign*, https://safebor.org/ (last visited Jan. 23, 2020); Global Alliance for the Rights of Nature, *The Rights of Nature Movement has Arrived to Florida*, https://therightsofnature.org/the-rights-of-nature-movement-has-arrived-to-florida/ (last visited Jan. 23, 2020).
[231] Section 403.412(2)(a), F.S.
[232] Section 403.412(5), F.S.
[233] *Id*.
[234] 390 So.2d 64 (Fla. 1980).
[235] *Id*.

not previously possessed and enabling the citizens of Florida to institute suit for the protection of their environment without a showing of "special injury" as previously required.[236]

Regulation of Bottled Water

The U.S. Food and Drug Administration regulates the bottled water industry for safety and water quality.[237] Bottled water is water intended for human consumption that is sealed in bottles or other containers with no added ingredients except that it may optionally contain safe and suitable antimicrobial agents.[238] A "bottled water plant" is an establishment in which bottled water is prepared for sale.[239] In Florida, the regulation of bottled water plants is preempted to the state.[240] The DACS Division of Food Safety regulates bottling, labeling, and handling at bottled water plants.[241] The DACS requires bottled water plants to obtain a food permit, which must be renewed annually.[242]

Florida law requires that bottled water come from an "approved source," which is defined as any source of water that complies with the federal Safe Drinking Water Act.[243] Bottled water must be processed in conformance with the applicable federal regulations.[244] It must conform to specific federal standards for water quality, label statements, and adulteration.[245] If the label bears a name or trademark containing terms such as "springs," "well," or "natural" then the label must also state the source of the water, if the correct source is not indicated in the name or trademark.[246] The person operating the bottled water plant is responsible for all water sampling and analysis.[247]

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[236] *Id*.
[237] 21 C.F.R. pt. 129; 21 C.F.R. s. 165.110; FDA, *FDA Regulates the Safety of Bottled Water Beverages Including Flavored Water and Nutrient-Added Water Beverages*, https://www.fda.gov/food/buy-store-serve-safe-food/fda-regulates-safety-bottled-water-beverages-including-flavored-water-and-nutrient-added-water (last visited Jan. 6, 2020).
[238] Section 500.03(1)(d), F.S. Florida law defines "bottled water" using the description provided in federal regulation; 21 C.F.R. s. 165.110(a)(1). The full description of "bottled water" in the federal regulation is: "water that is intended for human consumption and that is sealed in bottles or other containers with no added ingredients except that it may optionally contain safe and suitable antimicrobial agents. Fluoride may be optionally added within the limitations established in § 165.110(b)(4)(ii). Bottled water may be used as an ingredient in beverages (e.g., diluted juices, flavored bottled waters). It does not include those food ingredients that are declared in ingredient labeling as "water," "carbonated water," "disinfected water," "filtered water," "seltzer water," "soda water," "sparkling water," and "tonic water." The processing and bottling of bottled water shall comply with applicable regulations in part 129 of this chapter."
[239] Section 500.03(1)(e), (n), and (p), F.S.
[240] Section 500.511, F.S.; *see* s. 367.022(1), F.S. The sale, distribution, or furnishing of bottled water is not regulated by the Florida Public Service Commission as a utility.
[241] Section 500.12, F.S.; *see* DACS, *Food Establishments*, https://www.fdacs.gov/Business-Services/Food-Establishments (last visited Jan. 6, 2020); *see* DEP, *Source & Drinking Water Program*, https://floridadep.gov/water/source-drinking-water (last visited Jan. 6, 2020).
[242] Section 500.12(1)(b) and (c), F.S.; Fla. Admin. Code R. 5K-4.020(4)(b). The annual permitting fee for a bottled water plant is $500.
[243] Sections 500.03(1)(c) and 500.147(3), F.S.; *see* s. 500.03(1)(w), F.S. "Natural water" is defined as "bottled spring water, artesian well water, or well water that has not been altered with water from another source or that has not been modified by mineral addition or deletion, except for alteration that is necessary to treat the water through ozonation or an equivalent disinfection and filtration process."
[244] Section 500.147(3), F.S.; 21 C.F.R. pt. 129.
[245] Section 500.147(3), F.S.; 21 C.F.R. s. 165.110; *see* DACS, Division of Food Safety, *Bottled Water Testing Requirements*, https://www.fdacs.gov/content/download/72733/file/Bottled-Water-Testing-Requirements.pdf (last visited Jan. 6, 2020).
[246] Section 500.11(1)(o), F.S.
[247] Section 500.147(3), F.S.

Consumptive Use Permits

Consumptive use is any use of water which reduces the supply from which it is withdrawn or diverted.[248] A consumptive use permit (CUP), also known as a water use permit (WUP), establishes the duration and type of water use as well as the maximum quantity of water that may be withdrawn.[249] The DEP and the WMDs are authorized to issue CUPs and impose reasonable conditions as necessary to assure such use is consistent with the DEP or the WMDs goals and is not harmful to the water resources of the area.[250] This authority is primarily delegated to the WMDs, which implement extensive CUP programs within their respective jurisdictions.[251] To obtain a CUP, an applicant must establish that the proposed use of water:

- Is a reasonable-beneficial use;[252]
- Will not interfere with any presently existing legal use of water; and
- Is consistent with the public interest.[253]

Each of the five WMDs publishes an applicant's handbook, incorporated by reference into their respective rules, identifying the procedures and information used by district staff for review of CUP applications.[254] Generally, there are two types of CUP permits: general permits that may be granted by rule based on regulatory thresholds for factors such as withdrawal volume or pipe diameter, and individual permits requiring applications when regulatory thresholds are exceeded.[255] The WMDs have different schedules for application processing fees, which can vary based on total requested withdrawal amounts or type of application.[256] The DEP and the WMDs are authorized to grant permits for a period of up to 20 years, if there is sufficient data to provide reasonable assurance that the conditions for permit issuance will be met for the duration of the permit.[257]

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[248] Fla. Admin. Code R. 62-40.210(4).
[249] Chapter 373, part II, F.S.
[250] Section 373.219, F.S. No permit is required for domestic consumption of water by individual users.
[251] Section 373.216, F.S.; Fla Admin. Code Chapters 40A-2, 40B-2, 40C-2, 40D-2, and 40E-2.
[252] Section 373.019(16), F.S. "Reasonable-beneficial use" is defined as "the use of water in such quantity as is necessary for economic and efficient utilization for a purpose and in a manner which is both reasonable and consistent with the public interest"; Fla. Admin. Code R. 62-40.410. DEP rules contain a list of factors that must be considered when determining whether a water use is a reasonable-beneficial use.
[253] Section 373.223, F.S.; *see* s. 373.229, F.S. Permit applications must contain certain specified information.
[254] South Florida WMD, *Applicant's Handbook for Water Use Permit Applications* (2015)[hereinafter *SFWMD WUP Handbook*], *available at* https://www.sfwmd.gov/sites/default/files/documents/wu_applicants_handbook.pdf; Southwest Florida WMD, *Water Use Permit - Applicant's Handbook Part B* (2015)[hereinafter *SWFWMD WUP Handbook*], *available at* https://www.swfwmd.state.fl.us/sites/default/files/medias/documents/WUP_Applicants_Handbook_Part_B.pd_.pdf; St. John's River WMD, *Applicant's Handbook: Consumptive Uses of Water* (2018)[hereinafter *SJRWMD CUP Handbook*], *available at* https://www.sjrwmd.com/static/permitting/CUP-Handbook-20180829.pdf; Northwest Florida WMD, *Water Use Permit Applicant's Handbook* (2015)[hereinafter *NWFWMD WUP Handbook*], *available at* https://www.nwfwater.com/content/download/8605/71075/Applicant_Handbook_201504.pdf; Suwannee River WMD, *Water Use Permit Applicant's Handbook* (2019)[hereinafter *SRWMD WUP Handbook*], *available at* https://www.flrules.org/gateway/readRefFile.asp?refId=11315&filename=REFERENCE%20MATERIAL_WUP%20Applicant%27s%20Handbook%20FINAL%2010-31-2019.pdf.
[255] *See* Michael T. Olexa et al., University of Florida, Institute of Food and Agricultural Sciences, *Handbook of Florida Water Regulation: Consumptive Use*, 2 (2017), *available at* https://edis.ifas.ufl.edu/pdffiles/FE/FE60400.pdf; The water management districts' respective rules contain various exemptions from CUP permitting, such as for firefighting purposes.
[256] *See* s. 373.109, F.S.
[257] Section 373.236, F.S.

The WMDs are required to include appropriate monitoring efforts as part of their CUP programs.[258] CUPs must be monitored when they authorize groundwater withdrawals of 100,000 gallons or more per day from a well with an inside diameter of eight inches or more.[259] Such monitoring must be at intervals and must use methods determined by the applicable WMD.[260] The results of such monitoring must be reported to the applicable WMD at least annually.[261] The WMD's respective CUP applicant handbooks contain various monitoring standards, which may include thresholds for required monitoring, reporting requirements, and specific standards for metering.[262] Generally, pursuant to the handbooks, the permittee is responsible for required monitoring of withdrawal quantities.

Minimum Flows and Minimum Water Levels

Minimum Flows and Minimum Water Levels (MFLs) are adopted standards that identify the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area.[263] The DEP and the WMDs are required to establish MFLs based on priority lists for surface water courses, aquifers, and surface waters.[264] By establishing the limit at which further withdrawals would be significantly harmful, the MFLs provide a benchmark to help establish excess quantities of water that are available from priority water bodies. A key 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.[265]

Consolidated Water Management District Annual Report

The Consolidated Water Management District Annual Report addresses both water supply and water quality. Each WMD must annually prepare and submit the report to the DEP, the Governor, and the Legislature.[266]

The report contains several reports required under the Florida Water Resources Act, including:

- A district water management plan annual report or the annual work plan report.
- The DEP-approved minimum flows and minimum water levels annual priority list and schedule.[267]
- The annual five year capital improvements plan.[268]
- The alternative water supplies annual report.[269]

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[258] Section 373.216, F.S.
[259] Section 373.223(6), F.S. The water management districts are authorized to adopt or enforce certain rules in lieu of these requirements, in accordance with the statute.
[260] *Id.*
[261] *Id.*
[262] *SFWMD WUP Handbook*, at 93-98; *SWFWMD WUP Handbook*, at 70-71, 76-92; *SJRWMD CUP Handbook*, at 4-1–4-3; *NWFWMD WUP Handbook*, at 63-64; *SRWMD WUP Handbook*, at 43-44, 50.
[263] Section 373.042, F.S.
[264] Sections 373.042 and 373.0421, F.S.; Fla. Admin. Code R. 62-40.473.
[265] *see* DEP, *Minimum Flows and Minimum Water Levels and Reservations*, https://floridadep.gov/water-policy/water-policy/content/minimum-flows-and-minimum-water-levels-and-reservations (last visited Jan. 9, 2020).
[266] Section 373.036(7)(a), F.S.
[267] Section 373.042(3), F.S.
[268] Section 373.536(6)(a)3., F.S.
[269] Section 373.707(8)(n), F.S.

- The final annual five year water resource development work program.[270]
- The Florida Forever Water Management District Work Plan annual report.[271]
- The mitigation donation annual report.[272]

The report must also contain information on all projects related to water quality or water quantity as part of a five year work program, including:

- A list of all specific projects identified to implement a basin management action plan or a recovery or prevention strategy;
- A priority ranking for each listed project for which state funding through the water resources development work program is requested, which must be made available to the public for comment at least 30 days before submission of the consolidated annual report;
- The estimated cost for each listed project;
- The estimated completion date for each listed project;
- The source and amount of financial assistance to be made available by the DEP, a WMD, or other entity for each listed project; and
- A quantitative estimate of each listed project's benefit to the watershed, water body, or water segment in which it is located.[273]

Appointment of the DEP Secretary

The head of the DEP is a secretary, who is appointed by the Governor, with the concurrence of three members of the Cabinet.[274] The secretary must be confirmed by the Florida Senate and serves at the pleasure of the Governor.[275]

III. Effect of Proposed Changes:

The bill provides a series of whereas clauses related to water quality issues the state is seeking to resolve.

Section 1 titles the bill the "Clean Waterways Act."

Section 2 takes the following steps toward shifting regulation of onsite sewage treatment and disposal systems (OSTDSs) from the Department of Health (DOH) to the Department of Environmental Protection (DEP):

- By July 1, 2020, the DOH must provide a report to the Governor and the Legislature detailing the following information regarding OSTDSs:
  - The average number of permits issued each year;
  - The number of department employees conducting work on or related to the program each year; and

[270] Section 373.536(6)(a)4., F.S.
[271] Section 373.199, F.S.
[272] Section 373.414(1)(b)2., F.S.
[273] Section 373.036(7)(b)8.a.-f., F.S.
[274] Section 20.255, F.S.
[275] *Id*.

  - The program's costs and expenditures, including, but not limited to, salaries and benefits, equipment costs, and contracting costs.
- By December 31, 2020, the DOH and the DEP must submit recommendations to the Governor and the Legislature regarding the transfer of the Onsite Sewage Program from the DOH to the DEP. The recommendations must address all aspects of the transfer, including the continued role of the county health departments in the permitting, inspection, data management, and tracking of onsite sewage treatment and disposal systems under the direction of the DEP.
- By June 30, 2021, the DOH and the DEP must enter into an interagency agreement that must address all agency cooperation for a period not less than five years after the transfer, including:
  - The continued role of the county health departments in the permitting, inspection, data management, and tracking of OSTDSs under the direction of the DEP.
  - The appropriate proportionate number of administrative positions, and their related funding levels and sources and assigned property, to be transferred from the DOH to the DEP.
  - The development of a recommended plan to address the transfer or shared use of facilities used or owned by the DOH.
  - Any operating budget adjustments that are necessary to implement the requirements of the bill. The bill details how operating budget adjustments will be made. The appropriate substantive committees of the Senate and the House of Representatives will be notified of the proposed revisions to ensure their consistency with legislative policy and intent.
- Effective July 1, 2021, the regulation of OSTDSs relating to the Onsite Sewage Program in the DOH is transferred by a type two transfer to the DEP. Transferred employees will retain their leave.

Section 3 amends s. 20.255, F.S., relating to the DEP. The bill revises the number of Cabinet members that are required to concur with the Governor to approve the secretary of the DEP from three members to one member of the Cabinet.

Section 4 amends s. 373.036, F.S., relating to the Florida water plan and district water management plans. The bill adds the Office of Economic and Demographic Research (EDR) to the list of entities each water management district (WMD) must submit its consolidated WMD annual report. As part of a five year work program included in the report, the bill clarifies that projects to connect OSTDSs to central sewerage systems and convert OSTDSs to enhanced nutrient reducing systems will be included in the specific projects identified to implement a BMAP.

Section 5 amends s. 373.223, F.S., relating to conditions for a consumptive use permit. The bill requires a unanimous vote by a WMD governing board to approve a consumptive use permit. The board must find that that the applicant's use:
- Is a reasonable-beneficial use;
- Will not interfere with any presently existing legal use of water; and
- Is consistent with the public interest.

This provision expires on June 30, 2022.

The bill also requires the DEP, in coordination with the WMD, to conduct a study on the bottled water industry in the state. The study must:

- Identify all springs statewide that have an associated consumptive use permit for a bottled water facility producing its product with water derived from a spring as well as:
  - The magnitude of the spring;
  - Whether the spring has been identified as an Outstanding Florida Spring;
  - Any DEP or WMD adopted minimum flow or minimum water levels, the status of any adopted minimum flow or minimum water levels, and any associated recovery or prevention strategy;
  - The permitted and actual use associated with the consumptive use permits;
  - The reduction in flow associated with the permitted and actual use associated with the consumptive use permits;
  - The impact bottled water facilities have on springs as compared to other users; and
  - The types of water conservation measures employed at bottled water facilities permitted to derive water from a spring.
- Identify the labeling and marketing regulations associated with the identification of bottled water as spring water, including whether these regulations incentivize the withdrawal of water from springs.
- Evaluate the direct and indirect economic benefits to the local communities resulting from bottled water facilities that derive water from springs, including but not limited to tax revenue, job creation, and wages.
- Evaluate the direct and indirect costs to the local communities located in proximity to springs impacted by withdrawals from bottled water production, including but not limited to, the decreased recreational value of the spring and the cost to other users for the development of alternative water supply or reductions in permit durations and allocations.
- Include a cost-benefit analysis of withdrawing, producing, marketing, selling, and consuming spring water as compared to other sources of bottled water.
- Evaluate how much bottled water derived from Florida springs is sold in this state.

The bill requires the DEP to submit a report containing the findings of the study to the Governor, the Legislature, and the EDR by June 30, 2021.

The bill defines the term "bottled water" to mean a beverage that is processed in compliance with federal law and the term "water derived from a spring" to mean water derived from an underground formation from which water flows naturally to the surface of the earth as spring water.

Section 6 amends s. 373.4131, F.S., relating to statewide environmental resource permitting (ERPs). The bill requires the DEP to train its staff on field inspections of stormwater structural controls, such as stormwater retention or detention ponds.

By January 1, 2021:

- The DEP and the water management districts (WMDs) must initiate rulemaking, including updates to the Environmental Resource Permit Applicant's Handbooks, to update the stormwater design and operation regulations using the most recent scientific information available. As part of rule development, DEP must consider and address low-impact design

BMPs and design criteria that increase the removal of nutrients from stormwater discharges, and measures for consistent application of the net improvement performance standard to ensure significant reductions of any pollutant loadings to a waterbody; and

- The DEP must evaluate inspection data relating to compliance by those entities that submit self-certification stormwater ERPs and must provide the Legislature with recommendations for improvements to the self-certification.

Note: More stringent stormwater rules would likely exceed the regulatory cost threshold of $1 million in the aggregate within five years after implementation; therefore, the proposed rule may have to be submitted to the Legislature for ratification and may not take effect until it is ratified by the Legislature.[276]

Section 7 amends s. 381.0065, F.S., relating to OSDTS regulation, effective July 1, 2021, to coincide with the DEP's role as the regulating entity for OSTDSs.

The bill requires the DEP to adopt rules to locate OSTDSs, including establishing setback distances, to prevent groundwater contamination and surface water contamination and to preserve the public health. The rulemaking process must be completed by July 1, 2022. The rules must consider conventional and advanced OSTDS designs, impaired or degraded water bodies, wastewater and drinking water infrastructure, potable water sources, nonpotable wells, stormwater infrastructure, the OSTDS remediation plans developed as part of the basin management action plans (BMAPs), nutrient pollution, and the recommendations of the OSTDS technical advisory committee created by the bill.

Upon the effective date of these rules, the rules will supersede existing statutory revisions relating to setbacks. The DEP must report the effective date of the rules to the Division of Law Revision for incorporation into the statutes.

The bill deletes language that is inconsistent with these provisions. The bill also deletes the OSTDS research review and advisory committee and related provisions.

Note: New OSTDS rules would likely exceed the regulatory cost threshold of $1 million in the aggregate within five years after implementation; therefore, the proposed rule may have to be submitted to the Legislature for ratification and may not take effect until it is ratified by the Legislature.[277]

Section 8 amends s. 381.0065, F.S., relating to OSDTS regulation, to require the DEP to implement a fast-track approval process for the use in this state of American National Standards Institute 245 systems approved by NSF International before July 1, 2020, to meet the requirements of a TMDL. This provision takes effect on July 1, 2020.

Section 9 creates s. 381.00652, F.S., to create an OSTDS technical advisory committee (TAC) within the DEP.

[276] Section 120.541, F.S.
[277] *Id.*

The responsibilities of the TAC are to:

- Provide recommendations to increase the availability in the marketplace of nutrient-removing OSTDSs, including systems that are cost-effective, low-maintenance, and reliable.
- Consider and recommend regulatory options, such as fast-track approval, prequalification, or expedited permitting, to facilitate the introduction and use of nutrient-removing OSTDSs that have been reviewed and approved by a national agency or organization, such as the American National Standards Institute 245 systems approved by the NSF International.
- Provide recommendations for appropriate setback distances for OSTDSs from surface water, groundwater, and wells.

The DEP must use existing and available resources to administer and support the activities of the TAC.

By August 1, 2021, the DEP, in consultation with the DOH, will appoint 10 members to the TAC:

- A professional engineer.
- A septic tank contractor.
- Two representatives from the home building industry.
- A representative from the real estate industry.
- A representative from the OSTDS industry.
- A representative from local government.
- Two representatives from the environmental community.
- A representative of the scientific and technical community who has substantial expertise in the areas of the fate and transport of water pollutants, toxicology, epidemiology, geology, biology, or environmental sciences.

Members will serve without compensation and are not entitled to reimbursement for per diem or travel expenses.

By January 1, 2022, the TAC will submit its recommendations to the Governor and the Legislature.

The TAC is repealed on August 15, 2022.

Section 10 repeals the DOH's technical review and advisory panel, effective July 1, 2021.

Section 11 amends s. 403.061, F.S., which sets out the DEP's powers and duties. The bill requires the DEP rules to reasonably limit, reduce, and eliminate domestic wastewater collection and transmission system pipe leakages and inflow and infiltration.

The bill authorizes the DEP to require public utilities or their affiliated companies holding, applying for, or renewing a domestic wastewater discharge permit to file annual reports and other data regarding transactions or allocations of common costs among the utility's permitted systems. The DEP may require such reports or other data necessary to ensure a permitted entity is reporting expenditures on pollution mitigation and prevention, including, but not limited to,

the prevention of sanitary sewer overflows, collection and transmission system pipe leakages, and inflow and infiltration. The DEP is required to adopt rules to implement this subsection.

Note: Such rules would likely exceed the regulatory cost threshold of $1 million in the aggregate within five years after implementation; therefore, the proposed rule may have to be submitted to the Legislature for ratification and may not take effect until it is ratified by the Legislature.[278]

Section 12 creates s. 403.0616, F.S., to establish a real-time water quality monitoring program within the DEP, subject to appropriation. The program's purpose is to assist in the restoration, preservation, and enhancement of impaired waterbodies and coastal resources. The DEP is encouraged to form public-private partnerships with established scientific entities with existing, proven real-time water quality monitoring equipment and experience in deploying such equipment.

Section 13 amends s. 403.067(7), F.S., relating to basin management action plans (BMAPs), to set out parameters for an OSTDS remediation plan and a wastewater treatment plan. It prohibits the DEP from requiring a higher cost option for a wastewater project within a BMAP if it achieves the same nutrient load reduction as a lower-cost option. It allows a regulated entity to choose a different cost option if it complies with the pollutant reduction requirements of an adopted TMDL and provides additional benefits. It also requires an agricultural element as part of a BMAP and makes revisions relating to agricultural best management practices (BMPs).

If the DEP identifies domestic wastewater facilities or OSTDSs as contributors of at least 20 percent of point source or nonpoint source nutrient pollution or if the DEP determines that remediation is necessary to achieve the total maximum daily load (TMDL), the BMAP for a nutrient TMDL must create a wastewater treatment plan and/or an OSTDS remediation plan.

A wastewater treatment plan must address domestic wastewater and be developed by each local government in cooperation with the DEP, the WMD, and the public and private domestic wastewater facilities within the jurisdiction of the local government. The wastewater treatment plan must:

- Provide for construction, expansion, or upgrades necessary to achieve the TMDL requirements applicable to the domestic wastewater facility.
- Include: the permitted capacity in average annual gallons per day for the domestic wastewater facility; the average nutrient concentration and the estimated average nutrient load of the domestic wastewater; a timeline of the dates by which the construction of any facility improvements will begin and be completed and the date by which operations of the improved facility will begin; the estimated cost of the improvements; and the identity of responsible parties.

The wastewater treatment plan must be adopted as part of the BMAP no later than July 1, 2025. A local government that does not have a domestic wastewater treatment facility in its jurisdiction is not required to develop a wastewater treatment plan unless there is a demonstrated need to establish a domestic wastewater treatment facility within its jurisdiction to improve water quality necessary to achieve a TMDL. The bill clarifies that a local government is not responsible for a

[278] *Id.*

private domestic wastewater facility's compliance with a BMAP unless such facility is operated through a public-private partnership to which the local government is a party.

An OSTDS remediation plan must be developed by each local government in cooperation with the DEP, the DOH, the WMDs, and public and private domestic wastewater facilities. The OSTDS remediation plan must identify cost-effective and financially feasible projects necessary to achieve the nutrient load reductions required for OSTDSs. To identify cost-effective and financially feasible projects for remediation of OSTDSs, the local government shall:

- Include an inventory of OSTDSs based on the best information available;
- Identify OSTDSs that would be eliminated through connection to existing or future central wastewater infrastructure, that would be replaced with or upgraded to enhanced nutrient-reducing systems, or that would remain on conventional OSTDSs;
- Estimate the costs of potential OSTDS connections, upgrades, or replacements; and
- Identify deadlines and interim milestones for the planning, design, and construction of projects.

The DEP must adopt the OSTDS remediation plan as part of the BMAP no later than July 1, 2025, or as required by existing law for Outstanding Florida Springs.

At least every two years, the Department of Agriculture and Consumer Services (DACS) must perform on-site inspections of each agricultural producer that enrolls in a BMP to ensure that such practice is being properly implemented. Verification must include a collection and review of the BMP documentation from the previous two years required by the rule adopted by the DACS, including, but not limited to, nitrogen and phosphorus fertilizer application records. This information shall be provided to the DEP. The DACS must initially prioritize the inspection of agricultural producers located in the BMAPs for Lake Okeechobee, the Indian River Lagoon, the Caloosahatchee River and Estuary, and Silver Springs.

The bill creates a cooperative agricultural regional water quality improvement element as part of a BMAP. The DEP, the DACS, and owners of agricultural operations in the basin must develop a cooperative agricultural regional water quality improvement element as part of a BMAP only if:

- Agricultural measures have been adopted and implemented by the DACS and the waterbody remains impaired;
- Agricultural nonpoint sources contribute to at least 20 percent of nonpoint source nutrient discharges; and
- The DEP determines that additional measures, in combination with state-sponsored regional projects and other management strategies included in the BMAP, are necessary to achieve the total maximum daily load.

The element must be implemented through the use of cost-sharing projects and must include cost-effective and technically and financially practical cooperative regional agricultural nutrient reduction projects that can be implemented on private properties on a site-specific, cooperative basis. These projects may include land acquisition in fee or conservation easements on the lands of willing sellers and site-specific water quality improvement or dispersed water management projects on the lands of project participants.

To qualify for participation in the element, the participant must have already implemented the interim measures, BMPs, or other measures adopted by the DACS. The element may be included in the BMAP as a part of the next five-year assessment. The DEP may submit a legislative budget request to fund projects under the element.

The bill requires the DACS, in cooperation with the University of Florida Institute of Food and Agricultural Sciences, and other state universities and Florida College System institutions with agricultural research programs to annually develop research plans and legislative budget requests to:

- Evaluate and suggest enhancements to the existing adopted BMPs to reduce nutrient runoff;
- Develop new BMPs that, if proven effective, the DACS may adopt by rule; and
- Develop agricultural nutrient reduction projects that willing participants could implement on a site-specific, cooperative basis, in addition to BMPs. The DEP may consider these projects for inclusion in a BMAP. These nutrient runoff reduction projects must reduce the nutrient impacts from agricultural operations on water quality when evaluated with the projects and management strategies currently included in the BMAP.

To be considered for funding, the University of Florida Institute of Food and Agricultural Sciences and other state universities and Florida College System institutions that have agricultural research programs must submit such plans to the DEP and the DACS, by August 1, 2020, for the 2020-2021 fiscal year, and by May 1 for each subsequent fiscal year.

Section 14 creates s. 403.0671, F.S., relating to BMAP wastewater reports. The bill requires the DEP, by July 1, 2021, in coordination with county health departments, wastewater treatment facilities, and other governmental entities, to submit a report to the Governor and the Legislature evaluating the costs of wastewater projects identified in BMAPs, OSTDS remediation plans, and other restoration plans developed to meet TMDLs. The report must include:

- Projects to replace OSTDSs with enhanced nutrient removing OSTDSs; install or retrofit OSTDSs with enhanced nutrient removing technologies; construct, upgrade, or expand domestic wastewater treatment facilities to meet the wastewater treatment plan; and connect OSTDSs to domestic wastewater treatment facilities;
- The estimated costs, nutrient load reduction estimates, and other benefits of each project;
- The estimated implementation timeline for each project;
- A proposed five-year funding plan for each project and the source and amount of financial assistance the DEP, the WMD, or other project partner will make available to fund the project; and
- The projected costs of installing enhanced nutrient removing OSTDSs on buildable lots in priority focus areas to comply with statutory restrictions on the activities allowed in such areas.

The bill requires the DEP to submit a report to the Governor and the Legislature by July 1, 2021, that provides an assessment of the water quality monitoring being conducted for each BMAP implementing a nutrient TMDL. The bill specifies that the DEP may coordinate with the WMDs and any applicable university in developing the report. The bill requires the report to:

- Evaluate the water quality monitoring prescribed for each BMAP to determine if it is sufficient to detect changes in water quality caused by the implementation of a project;

- Identify gaps in water quality monitoring; and
- Recommend ways to address water quality needs.

The bill requires the DEP, beginning January 1, 2022, to submit annual cost estimates for projects listed in the wastewater treatment plans or OSTDS remediation plans to the EDR, and requires the EDR to include the estimates in its annual assessment of water resources and conservation lands.

Section 15 creates s. 403.0673, F.S., a wastewater grant program within the DEP. Subject to appropriation, the DEP may provide grants for projects that will reduce excess nutrient pollution for:

- Projects to retrofit OSTDSs to upgrade them to nutrient-reducing OSTDSs.
- Projects to construct, upgrade, or expand facilities to provide advanced waste treatment.
- Projects to connect OSTDSs to central sewer facilities.

In allocating such funds, first priority must be given to projects that subsidize the connection of OSTDSs to a wastewater treatment plant. Second priority must be given to any expansion of a collection or transmission system that promotes efficiency by planning the installation of wastewater transmission facilities to be constructed concurrently with other construction projects along a transportation right-of-way. Third priority must be given to all other connections of onsite sewage treatment and disposal systems to wastewater treatment plants.
In determining priorities, the DEP must consider:

- The estimated reduction in nutrient load per project;
- Project readiness;
- Cost-effectiveness of the project;
- The overall environmental benefit of a project;
- The location of a project within the plan area;
- The availability of local matching funds; and
- Projected water savings or quantity improvements associated with a project.

Each grant must require a minimum of a 50 percent local match of funds. However, the DEP may waive, in whole or in part, this consideration of the local contribution for proposed projects within an area designated as a rural area of opportunity. The DEP and the WMDs will coordinate to identify grant recipients in each district.

Beginning January 1, 2021, and each January 1 thereafter, the DEP must submit a report regarding the projects funded by the grant program to the Governor and the Legislature.

Section 16 creates s. 403.0855, F.S., on biosolids management. The bill provides legislative findings and requires the DEP to adopt rules for biosolids management. The bill requires all biosolids application sites to meet the DEP rules in effect at the time of the renewal of the biosolids application site permit or facility permit, effective July 1, 2020.

The bill specifies that a municipality or county may enforce or extend an ordinance, regulation, resolution, rule, moratorium, or policy that was adopted prior to November 1, 2019, relating to the land application of Class B biosolids until repealed by the municipality or county.

The bill requires a biosolids land application site permittee to:

- Conduct the land application of biosolids in accordance with adopted BMAPs.
- Establish a groundwater monitoring program approved by the DEP for land application sites when:
  - The application rate in the nutrient management plan exceeds more than 160 pounds per acre per year of total plant available nitrogen or 40 pounds per acre per year of total P2O5; or
  - The soil capacity index is less than 0 mg/kg.
- When soil fertility testing indicates the soil capacity index has become less than 0 mg/kg, establish a groundwater monitoring program in accordance with the DEP rules within one year of the date of the sampling results.
- When groundwater monitoring is not required, allow the DEP to install groundwater monitoring wells at any time during the effective period of the DEP-issued facility or land application site permit and conduct monitoring.
- Ensure a minimum unsaturated soil depth of two feet between the depth of biosolids placement and the water table level at the time the Class A or Class B biosolids are applied to the soil. Biosolids may not be applied on soils that have a seasonal high-water table less than 15 centimeters from the soil surface or within 15 centimeters of the intended depth of biosolids placement. As used in this section, the term "seasonal high water" means the elevation to which the ground and surface water may be expected to rise due to a normal wet season.
- Be enrolled in the DACS BMP Program or be within an agricultural operation enrolled in the program for the applicable commodity type.

The bill repeals the provision providing requirements for biosolids land application site permittees upon the effective date of biosolids rules adopted the by DEP after July 1, 2020.

Section 17 amends s. 403.086, F.S., relating to sewage disposal facilities.

The bill prohibits facilities for sanitary sewage disposal from disposing of waste into Indian River Lagoon or its tributaries without providing for advanced waste treatment, beginning July 1, 2025.

The bill requires the DEP, by December 31, 2020, to submit a progress report to the Governor and the Legislature that provides the status of upgrades made by each wastewater treatment facility discharging into specified waterbodies to meet the advanced waste treatment requirements. The report must include a list of sewage disposal facilities that will be required to upgrade to advanced waste treatment, the preliminary cost estimates for the upgrades, and a projected timeline for the upgrades.

The bill requires facilities for sanitary sewage disposal to have a power outage contingency plan that mitigates the impacts of power outages on the utility's collection system and pump stations.

All facilities for sanitary sewage that control a collection or transmission system of pipes and pumps to collect and transmit wastewater from domestic or industrial sources to the facility must take steps to prevent sanitary sewer overflows or underground pipe leaks and ensure that

collected waste water reaches the facility for appropriate treatment. Facilities must use inflow and infiltration studies and leakage surveys to develop pipe assessment, repair, and replacement action plans with at least a five-year planning horizon which comply with the DEP rule to limit, reduce, and eliminate leaks, seepages, or inputs into wastewater treatment systems' underground pipes. These facility action plans must be reported to the DEP. The facility report must include information regarding the annual expenditures dedicated to the inflow and infiltration studies and replacement action plans required herein; expenditures dedicated to pipe assessment, repair, and replacement; and expenditures designed to limit the presence of fats, roots, oils, and grease in the utility's collection system.

The DEP must adopt rules regarding the implementation of inflow and infiltration studies and leakage surveys. These rules may not fix or revise utility rates or budgets. The bill clarifies that a utility, that must submit annual reports under other similar provisions created by the bill, may submit one report to comply with both provisions.
Substantial compliance with the action plan described above is evidence in mitigation for the purposes of assessing certain penalties.

Note: Such rules would likely exceed the regulatory cost threshold of $1 million in the aggregate within five years after implementation; therefore, the proposed rule may have to be submitted to the Legislature for ratification and may not take effect until it is ratified by the Legislature.[279]

Section 18 amends s. 403.087, F.S., to require the DEP to issue operating permits for up to 10 years (rather than up to five) for facilities regulated under the National Pollutant Discharge Elimination System Program if the facility is meeting the stated goals in the action plan relating to the prevention of sanitary sewer overflows or underground pipe leaks.

Section 19 amends s. 403.088, F.S., relating to water pollution operation permits. The bill requires the permit to include a deliberate, proactive approach to investigating or surveying a significant percentage of the domestic wastewater collection system throughout the duration of the permit to determine pipe integrity, which must be accomplished in an economically feasible manner.

The permittee must submit an annual report to the DEP, which details facility revenues and expenditures in a manner prescribed by the DEP rule. The report must detail any deviation from annual expenditures related to inflow and infiltration studies; model plans for pipe assessment, repair, and replacement; and pipe assessment, repair, and replacement.

Substantial compliance with the requirements above is evidence in mitigation for the purposes of assessing penalties.

No later than March 1 of each year, the DEP must submit a report to the Governor and the Legislature that identifies all wastewater utilities that experienced a sanitary sewer overflow in the preceding calendar year. The report must identify the utility name or responsible operating entity name; permitted capacity in annual average gallons per day; number of overflows; type of water discharged; total volume of sewage released; and, to the extent known and available, the

[279] *Id.*

volume of sewage recovered, the volume of sewage discharged to surface waters, and the cause of the sanitary sewer overflow, including whether it was caused by a third party.

Note: Rules required to implement this section would likely exceed the regulatory cost threshold of $1 million in the aggregate within five years after implementation; therefore, the proposed rule may have to be submitted to the Legislature for ratification and may not take effect until it is ratified by the Legislature.[280]

Section 20 amends s. 403.0891, F.S., to require the DEP and the Department of Economic Opportunity to develop model ordinances that target nutrient reduction practices and use green infrastructure.

Section 21 amends s. 403.121, F.S., to increase the cap on the DEP's administrative penalties from $10,000 to $50,000. It also doubles all wastewater administrative penalties.

The bill provides that "failure to comply with wastewater permitting requirements or rules adopted thereunder will result in a $4,000 penalty.

Section 22 amends s. 403.1835, F.S., relating to water pollution control financial assistance. This is the section of law that sets out how the DEP administers the Clean Water State Revolving Loan Fund. The bill adds categories to the list of projects that should receive priority for funding. This includes:

- Projects that implement the requirements of the bill relating to wastewater infrastructure maintenance planning or reporting requirements created by the bill.
- Projects that promote efficiency by planning for the installation of wastewater transmission facilities to be constructed concurrently with other construction projects occurring within or along a transportation facility right-of-way.

Section 23 amends s. 403.1838, F.S., to require that rules related to prioritization of funds for the Small Community Sewer Construction Assistance Grant Program include the:

- Prioritization of projects that prevent pollution, and
- Projects that plan for the installation of wastewater transmission facilities to be constructed concurrently with other construction projects occurring within or along a transportation facility right-of-way.

Section 24 amends s. 403.412, F.S., relating to the Environmental Protection Act. The bill amends the Florida Environmental Protection Act to prohibit, unless otherwise authorized by law or specifically granted in the State Constitution, a local government regulation, ordinance, code, rule, comprehensive plan, charter, or any other provision of law:

- From recognizing or granting any legal right to a plant, animal, body of water, or any other part of the natural environment that is not a person or political subdivision; or
- From granting a person or political subdivision any specific rights relating to the natural environment.

The bill provides that the prohibition on granting rights to nonpersons does not limit:

[280] *Id.*

- The power of an adversely affected party to challenge the consistency of a development order with a comprehensive plan or to file an action for injunctive relief to enforce the terms of a development agreement or to challenge compliance of the agreement with the Florida Local Government Development Agreement Act; or
- The standing of the Department of Legal Affairs, a political subdivision or municipality of the state, or a citizen of the state to maintain an action for injunctive relief as otherwise provided by the EPA.

Section 25 provides a statement that this act fulfills an important state interest.

Sections 26 through 51 make conforming changes.

Section 52 directs the Division of Law Revision to replace certain language in the bill with the date the DEP adopts certain rules on OSTDSs as required by the bill.

Section 53 states that except as otherwise expressly provided in the bill, the act will take effect July 1, 2020.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

The county/municipality mandates provision of Art. VII, s. 18 of the Florida Constitution may apply to this bill because it requires local governments to develop OSTDS remediation plans and wastewater treatment plans. If the bill does qualify as a mandate, the law must fulfill an important state interest and final passage must be approved by two-thirds of the membership of each house of the Legislature.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

E. Other Constitutional Issues:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

The following discussion identifies aspects of the bill that may cause a negative fiscal impact because they implement more stringent environmental requirements. However, it is worth noting that there are costs associated with failing to address pollution issues. Cleanup costs, human health impacts, ecosystem deterioration, loss of tourism, and decreased real estate values are some key examples of possible costs associated with pollution.

Updating stormwater rules and adopting new onsite sewage treatment disposal systems (OSTDS) and wastewater rules would likely cause a negative fiscal impact to the private sector. However, if that impact exceeds $1 million over five years, the rules will require legislative ratification, which means they will not go into effect without additional legislation.

The additional requirements of OSTDS remediation plans and wastewater treatment plans may cause a negative fiscal impact to the private sector entities within basin management action plans (BMAPs) that must address OSTDS or wastewater pollution to meet the total maximum daily load.

Private wastewater utilities that discharge into Indian River Lagoon may have costs associated to conversion to advanced waste treatment.

Utilities that fail to survey an adequate portion of the wastewater collection system and take steps to reduce sanitary sewer overflows, pipe leaks, and inflow and infiltration will be subject to a $4,000 fine for each violation. All wastewater administrative penalties are doubled under this bill. The cap on the Department of Environmental Protection's administrative penalties is increased to $50,000 from $10,000.

C. Government Sector Impact:

The DEP will incur additional costs in developing multiple new regulatory programs, updating BMAPs, and developing, submitting, and reviewing new reports.

The additional requirements of OSTDS remediation plans and wastewater treatment plans may cause a negative fiscal impact to local governments that must address OSTDS or wastewater pollution to meet their TMDL. However, there is flexibility in how these plans are developed, which makes these costs speculative and subject to the development of each specific OSTDS remediation plan or wastewater treatment plan.

There may be a negative fiscal impact to the public to implement the cooperative agricultural regional water quality improvement element. However, this may be offset by lowered pollution costs.

The implementation of a real-time water quality monitoring program will have a negative fiscal impact on the DEP, but this provision is subject to appropriation.

The wastewater grant program would have a positive fiscal impact on local governments, but this provision is subject to appropriation. The DEP will likely incur some costs associated with the development of this grant program and the report to the Governor and the Legislature. The DEP can absorb these costs within existing resources.

Public wastewater utilities that discharge into Indian River Lagoon may have costs associated with conversion to advanced waste treatment. However, the local governments in the region are spending substantial amounts on pollution cleanup. Lessening the pollutants in this waterbody may have a positive fiscal impact in the long term.

There is likely a negative fiscal impact to both the public and private sectors to meet the requirements of the new provisions relating to biosolids. There may be a long-term positive fiscal impact as a result of reduced cleanup costs and reduced damage to the natural systems associated with more rigorous land application requirements.

The increase in administrative penalties will likely have an indeterminate yet positive fiscal impact on the DEP.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill substantially amends the following sections of the Florida Statutes: 20.255, 153.54, 153.73, 163.3180, 180.03, 311.105, 327.46, 373.036, 373.223, 373.250, 373.414, 373.4131, 373.705, 373.707, 373.709, 373.807, 376.307, 380.0552, 381.006, 381.0061, 381.0064, 381.0065, 381.00651, 381.0101, 403.061, 403.067, 403.086, 403.08601, 403.087, 403.0871, 403.0872, 403.088, 403.0891, 403.121, 403.1835, 403.1838, 403.412, 403.707, 403.861, 489.551, and 590.02.

This bill creates the following sections of the Florida Statutes: 381.00652, 403.0616, 403.0671, 403.0673, and 403.0855.

This bill repeals section 381.0068 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/CS by Appropriations on February 20, 2020:
The committee substitute revises the title of the bill to "An act relating to environmental resource management" and:

- Revises appointment by the Governor of the Secretary of the DEP to require concurrence by one Cabinet member.
- Requires a unanimous vote by the governing board of a water management district to approve a consumptive use permit to use water from a spring for bottled water (provision expires on June 30, 2022).
- Requires the DEP to conduct a study on the bottled water industry in Florida.
- Revises the requirements of the consolidated water management district annual report.
- Adds updates to the Environmental Resource Permit Applicant's Handbooks to the requirement that the DEP and water management districts update stormwater design and operation regulations, and includes factors that the DEP must consider in rulemaking.
- Requires the DEP to implement a fast track-approval process for the use in Florida of NSF/ANSI 245 septic systems approved before July 1, 2020 to meet TMDL requirements.
- Deletes the septic research review and advisory committee.
- Adds an additional representative of the home building industry to the septic technical advisory committee, for a total of 10 members.
- Requires a BMAP to include an estimated allocation of the pollutant load reduction for each point source or category of point sources.
- Provides that a local government is not responsible for a private domestic wastewater facility's compliance with a BMAP unless the facility is operated through a public-private partnership to which the local government is a party.
- For wastewater projects in a BMAP, allows a regulated entity to choose a different cost option if it complies with the pollutant reduction requirements of an adopted TMDL and provides additional benefits.
- Requires the DACS to prioritize the inspection of agricultural producers located in the BMAPs for Lake Okeechobee, the Indian River Lagoon, the Caloosahatchee River and Estuary, and Silver Springs.
- Authorizes BMAPs to include cooperative agricultural regional water quality improvements (agricultural element), in addition to existing strategies such as BMPs and interim measures, if agricultural measures have been implemented and the water body remains impaired, agricultural nonpoint sources contributed to at least 20 percent of nonpoint source nutrient discharges, and the DEP determines that additional measures are necessary to achieve the TMDL.
- Authorizes legislative budget requests to fund cooperative regional agricultural nutrient reduction projects.
- Requires the DEP to work with UF/IFAS and regulated entities to consider the adoption by rule of BMPs for nutrient impacts from golf courses.
- Requires the DEP to submit various reports to the Governor and the Legislature regarding:
    - The costs of wastewater projects identified in BMAPs, septic remediation plans, and other restoration plans developed to meet TMDLs.
    - An assessment of the water quality monitoring being conducted for each BMAP implementing a nutrient TMDL.

  - The status of upgrades made by each wastewater treatment facility discharging into specified waterbodies to meet advanced waste treatment requirements.
- Provides requirements for biosolids application site permittees including a prohibition on application of biosolids within 15 centimeters of the seasonal high-water table, adopting agricultural BMPs, and increasing monitoring requirements. Many of these requirements are repealed once the DEP rules go into effect.
- Revises the requirement that facilities for sanitary sewage disposal develop pipe assessment, repair, and replacement action plans in the underlying bill to require the action plans to have a five-year planning horizon.
- Prohibits local governments from providing legal rights to any plant, animal, body of water, or other part of the natural environment unless otherwise specifically authorized by state law or the State Constitution.
- Corrects the name of the "National Sanitation Foundation" because it changed its name to "NSF International";
- Clarifies that a local government is not responsible for a private wastewater facility's compliance with a Basin Management Action Plan (BMAP);
- Clarifies that the records collected by the Department of Agriculture and Consumer Services (DACS) during their inspections include nitrogen and phosphorus fertilizer application records;
- Clarifies that wastewater infrastructure projects that comply with the sanitary sewer overflow, leakage, and infiltration and inflow requirements of the bill will receive priority funding from the state revolving loan fund by moving the prioritization to the section of law governing the state revolving loan fund;
- Clarifies that the Department of Environmental Protection (DEP) may not fix or revise utility rates of budgets;
- Clarifies that utilities that need to report on infiltration and inflow and leakage only need to submit one report to the DEP annually;
- Increases the cap on the DEP's administrative penalties to $50,000 from $10,000;
- Doubles the wastewater administrative penalties;
- Provides incentives for projects that promote efficiency by coordinating wastewater infrastructure expansions with other infrastructure improvements occurring within of along a transportation facility right-of-way;
- Includes these incentives in the small community sewer construction assistance program, the state revolving loan program, and the new wastewater grant program created by the bill;
- Clarifies that local governments with biosolids ordinances may retain those ordinance until repealed;
- Requires the DACS to provide information collected from on-site inspections of each agricultural producer enrolled in a best management practice (BMP) to the DEP. These on-site inspections are required at least every two years.

CS by Community Affairs on December 9, 2019:
The committee substitute:
- Effectuates a type two transfer of septic system oversight from the DOH to DEP rather than just requiring a report;
- Requires DEP to develop rules relating to the location of septic systems;

- Revises language related to DEP updating its stormwater rules;
- Requires DEP to make recommendations to the Legislature on self-certification of stormwater permits rather than prohibiting the use of self-certification in BMAP areas;
- Leaves the BMAP process for Outstanding Florida Springs while revising the requirement for OSTDS remediation plans and adding a requirement for wastewater treatment plans in the general BMAP statute;
- Requires that these new plans be incorporated into the BMAP by 2025;
- Removes provisions relating to Florida-Friendly Fertilizer Ordinances;
- Adds rural areas of opportunities to the possible grant recipients for the wastewater grant created by the bill;
- Removes provisions that would make agricultural BMPs enforceable earlier and in more impaired waterbodies;
- Adds a requirement that DACS conduct onsite inspections of BMPs at least every two years;
- Adds a requirement that DACS collect and remit certain records relating to agricultural BMPs to DEP;
- Adds language authorizing DACS and certain institutions of higher education to submit budget requests for certain activities relating to the improvement of agricultural BMPs;
- Removes the provision requiring additional notification and penalties related to sanitary sewer overflows and replaces it with numerous requirements relating to the prevention of sanitary sewer overflows, inflow and infiltration, and leakage;
- Removes provisions increasing penalties but adds "failure to survey an adequate portion of the wastewater collection system and take steps to reduce sanitary sewer overflows, pipe leaks, and inflow and infiltration" to the penalty schedule;
- Deletes the DOH OSTDS technical advisory committee and creates a DEP OSTDS technical advisory committee that will expire on August 15, 2022, after making recommendations to the Governor and Legislature regarding the regulation of OSTDSs;
- Requires DEP to adopt rules relating to biosolids management and exempts such rules from legislative ratification if they are adopted before the 2021 legislative session.
- Directs the Division of Law Revision to incorporate the date of rule adoption into the statutes.

B. Amendments:

None.