HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: CS/CS/HB 715 Reclaimed Water
SPONSOR(S): State Affairs Committee, Agriculture & Natural Resources Subcommittee, Maggard
TIED BILLS: **IDEN./SIM. BILLS:** CS/CS/SB 1656

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Agriculture & Natural Resources Subcommittee	9 Y, 0 N, As CS	Melkun	Moore
2) Agriculture & Natural Resources Appropriations Subcommittee	7 Y, 0 N	White	Pigott
3) State Affairs Committee	22 Y, 0 N, As CS	Melkun	Williamson

SUMMARY ANALYSIS

Reclaimed water is water from a domestic wastewater treatment facility that has received at least secondary treatment and basic disinfection for reuse. Reuse is the deliberate application of reclaimed water for a beneficial purpose. The use of reclaimed water for the purpose of directly or indirectly augmenting drinking water supplies is known as potable reuse. Indirect potable reuse is the planned discharge of reclaimed water to ground or surface waters for the development or supplementation of potable water supply. Direct potable reuse is the introduction of advanced treated reclaimed water into a raw water supply immediately upstream of a drinking water treatment facility or directly into a potable water distribution system.

Although regulations currently exist in Florida for using reclaimed water for indirect potable reuse for augmenting surface water, there are no regulations that address using reclaimed water for indirect potable reuse involving groundwater replenishment or direct potable reuse.

The bill requires the Department of Environmental Protection (DEP) to adopt rules to create and implement a potable reuse program. The bill requires the rules to include certain procedures for the treatment of reclaimed water. The bill requires DEP to initiate rulemaking by December 31, 2020, and specifies that the rules may not take effect until ratified by the Legislature.

The bill specifies that potable reuse projects developed as qualifying public-private partnerships are eligible for expedited permitting beginning January 1, 2025, and are eligible for priority funding from the Drinking Water State Revolving Fund and water management district cooperative funding.

The bill requires each domestic wastewater utility that disposes of effluent, reclaimed water, or reuse water by surface water discharge to submit to DEP a plan for eliminating nonbeneficial surface water discharges within five years. The bill requires each plan to be reviewed by DEP and, if approved, requires the plan to be incorporated into the utility's operating permit.

The bill requires a county, municipality, or special district to authorize the use of residential graywater technologies that comply with the Florida Building Code and applicable requirements of the Department of Health in their respective jurisdictions if such technologies have received all applicable regulatory permits or authorizations. The bill further requires such entities to provide incentives to developers and homebuilders to use such technologies.

The bill may have an indeterminate negative fiscal impact on state and local government.

This bill may be a county or municipality mandate requiring a two-thirds vote of the membership of the House. *See* Section III.A.1 of the analysis.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Background

Drinking Water

The federal Safe Drinking Water Act (SDWA) was passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply.[1] The SDWA applies to all public water systems in the United States that are regulated by the federal Environmental Protection Agency (EPA).[2] However, the most direct oversight of water systems is conducted by state drinking water programs. States can apply to the EPA for "primacy," or the authority to implement the SDWA within their jurisdictions, if they can show that they will adopt standards at least as stringent as the EPA's and ensure their water systems meet these standards. All states and territories, except Wyoming and the District of Columbia, have received primacy.[3]

Florida Safe Water Requirements

The Florida Safe Drinking Water Act[4] (act) establishes the Department of Environmental Protection (DEP) as the agency with primary responsibility for regulating drinking water, with support by the Department of Health and its units, including county health departments. The act is intended to:

- Implement the SDWA;
- Encourage cooperation between federal, state, and local agencies, not only in their enforcement role, but also in their service and assistance roles to city and county elected bodies; and
- Provide for safe drinking water at all times throughout the state, with due regard for economic factors and efficiency in government.[5]

Drinking Water State Revolving Fund

The Drinking Water State Revolving Fund (DWSRF) program is a federal-state partnership created within the SDWA to help ensure safe drinking water. The DWSRF program provides financial support to water systems and to state safe water programs.[6] In Florida, the DWSRF program within DEP provides low-interest loans to local governments and private utilities to plan, design, and build or upgrade drinking water systems.[7]

Wastewater Treatment Facilities

Because domestic wastewater treatment facilities are stationary installations that are reasonably expected to be sources of water pollution, they must be operated, maintained, constructed, expanded, or modified with a permit issued by DEP.[8] Approximately 2,000 domestic wastewater treatment facilities in the state serve roughly two-thirds of the state's population.[9] Each day, over 1.5 billion gallons of treated wastewater effluent[10] and reclaimed water[11] are disposed of from these facilities.[12] Methods of

[1] United States Environmental Protection Agency, *Understanding the Safe Drinking Water Act* (June 2004), available at https://www.epa.gov/sites/production/files/2015-04/documents/epa816f04030.pdf (last visited Jan. 27, 2020).
[2] Pub. L. No. 93-523, 88 Stat. 1660 (1974). Under the Safe Drinking Water Act, the EPA is authorized to regulate contaminants in public drinking water systems.
[3] EPA, *Understanding the Safe Drinking Water Act* (June 2004), available at https://www.epa.gov/sites/production/files/2015-04/documents/epa816f04030.pdf (last visited Jan. 27, 2020).
[4] Section 403.850, F.S. The act includes ss. 403.850-403.891, F.S.
[5] Section 403.851, F.S.
[6] EPA, *Drinking Water State Revolving Fund (DWSRF)*, available at https://www.epa.gov/dwsrf (last visited Jan. 28, 2020).
[7] DEP, *State Revolving Fund*, available at https://floridadep.gov/wra/srf (last visited Jan. 28, 2020).
[8] Section 403.087(1), F.S.
[9] DEP, *General Facts and Statistics about Wastewater in Florida*, available at https://floridadep.gov/water/domestic-wastewater/content/general-facts-and-statistics-about-wastewater-florida (last visited Jan. 23, 2020); the remainder of the state is served by onsite sewage and disposal systems permitted and regulated by the Department of Health.
[10] Rule 62-600.200(22), F.A.C., defines "effluent" to mean, unless specifically stated otherwise, water that is not reused after flowing out of any plant or other works used for the purpose of treating, stabilizing, or holding wastes.

disposal include reuse and land application systems, groundwater disposal by underground injection, groundwater recharge using injection wells, surface water discharges, disposal to coastal and open ocean waters, and wetland discharges.[13]

Most domestic wastewater treatment facilities must meet either basic disinfection or high-level disinfection requirements, dependent upon the type of discharge.[14] Basic disinfection requires the effluent to contain less than 200 fecal coliforms per 100 micrograms per milliliter,[15] while high-level disinfection requires fecal coliforms to be reduced below detection.[16] Domestic wastewater treatment facilities that discharge to surface waters[17] must also obtain a National Pollutant Discharge Elimination System (NPDES) permit, which is established by the Clean Water Act to control point source discharges.[18] NPDES permit requirements for most domestic wastewater facilities are incorporated into the DEP-issued permit.[19]

Consumptive Use Permits

Before using waters of the state,[20] a person must apply for and obtain a consumptive use permit (CUP) from the applicable water management district (WMD)[21] or DEP. The WMD or DEP may impose reasonable conditions necessary to assure that the proposed use is consistent with the overall objectives of the WMD or DEP and is not harmful to the water resources of the area.[22] To obtain a CUP, an applicant must establish that the proposed use of water is a reasonable-beneficial use,[23] will not interfere with any presently existing legal use of water, and is consistent with the public interest.[24]

It is possible for consumptive use to lower the flows and levels of water bodies to a point that the resource values are significantly harmed. To prevent this harm, the WMDs are responsible for identifying and establishing the limit at which further water withdrawals would be significantly harmful to the water resources or ecology of the area, known as the minimum flow[25] and minimum level (MFL).[26]

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[11] Rule 62-600.200(54), F.A.C., defines "reclaimed water" to mean water that has received at least secondary treatment and basic disinfection and is reused after flowing out of a domestic wastewater treatment facility.
[12] DEP, *General Facts and Statistics about Wastewater in Florida*, available at https://floridadep.gov/water/domestic-wastewater/content/general-facts-and-statistics-about-wastewater-florida (last visited Jan. 23, 2020).
[13] Rule 62-600.440(4), F.A.C.
[14] DEP, *Ultraviolet Disinfection for Domestic Wastewater*, available at https://floridadep.gov/water/domestic-wastewater/content/ultraviolet-uv-disinfection-domestic-wastewater (last visited Jan. 23, 2020).
[15] Rules 62-600.510(1) and 62-600.440(5), F.A.C.
[16] Rule 62-600.440(6), F.A.C.
[17] Section 373.019(21), F.S., defines "surface water" to mean water upon the surface of the earth, whether contained in bounds created naturally or artificially or diffused. Water from natural springs is classified as surface water when it exits from the spring onto the earth's surface; s. 403.031(13), F.S., defines "waters" to mean rivers, lakes, streams, springs, impoundments, wetlands, and all other waters or bodies of water, including fresh, brackish, saline, tidal, surface, or underground waters; r. 62-620.200(56), F.A.C.
[18] 33 U.S.C. s. 1342.
[19] Section 403.0885, F.S.; ch. 62-620, F.A.C.; DEP, *Wastewater Permitting*, available at https://floridadep.gov/water/domestic-wastewater/content/wastewater-permitting (last visited Jan. 23, 2020); Florida's Water Permitting Portal, *Types of Permits*, available at http://flwaterpermits.com/typesofpermits.html (last visited Jan. 23, 2020).
[20] Section 373.019(22), F.S., defines the term "water" or "waters in the state" to mean any and all water on or beneath the surface of the ground or in the atmosphere, including natural or artificial watercourses, lakes, ponds, or diffused surface water and water percolating, standing, or flowing beneath the surface of the ground, as well as all coastal waters within the jurisdiction of the state.
[21] Section 373.216, F.S.; *see* chs. 40A-2, 40B-2, 40C-2, 40D-2, and 40E-2, F.A.C., for CUP permitting requirements.
[22] Section 373.219(1), F.S.; an individual solely using water for domestic consumption is exempt from CUP requirements.
[23] Section 373.019(16), F.S., defines the term "reasonable-beneficial use" to mean the use of water in such quantity as is necessary for economic and efficient utilization for a purpose and in a manner that is both reasonable and consistent with the public interest.
[24] Section 373.223(1), F.S.
[25] Section 373.042(1)(a), F.S., provides that the minimum flow for a given watercourse is the limit at which further water withdrawals would be significantly harmful to the water resources or ecology of the area.
[26] Section 373.042(1)(b), F.S., provides that the minimum level is the level of groundwater in an aquifer or the level of a surface waterbody at which further withdrawals will significantly harm the water resources of the area. DEP, *Minimum Flows and Minimum Water Levels and Reservations*, available at https://floridadep.gov/water-policy/water-policy/content/minimum-flows-and-minimum-water-levels-and-reservations (last visited Jan. 27, 2020).

For water bodies that are below their MFL, or are projected to fall below it within 20 years, the WMDs must implement a recovery or prevention strategy to ensure the MFL is maintained.[27] A recovery or prevention strategy must include the development of additional water supplies and other actions to achieve recovery to the established MFL as soon as practicable or prevent the existing flow or water level from falling below the established MFL.[28] A recovery or prevention strategy must also include a phased-in approach or a timetable that will allow for the provision of sufficient water supplies for all existing and projected reasonable-beneficial uses, including implementation of conservation and other efficiency measures to offset reductions in permitted withdrawals.[29]

Reclaimed Water

Reclaimed water is water from a domestic wastewater[30] treatment facility that has received at least secondary treatment[31] and basic disinfection[32] for reuse.[33] Reuse is the deliberate application of reclaimed water for a beneficial purpose.[34] Current law specifies that encouraging and promoting the reuse of reclaimed water are state objectives and are considered to be in the public interest. In response to these objectives, DEP and the WMDs have implemented a comprehensive reuse program.[35]

Florida law allows reclaimed water to be used in slow-rate land application systems for public access areas (e.g., golf courses, parks, and highway medians), residential irrigation, and edible crops;[36] rapid-rate land application systems;[37] groundwater recharge and indirect potable reuse systems;[38] and overland flow systems.[39] Industrial uses for reclaimed water such as cooling water, wash water, and process water are also authorized.[40] Florida has been utilizing reclaimed water for landscape irrigation and industrial uses since the early 1970s. Currently, Florida is the national leader in water reuse, utilizing 48 percent of the total domestic wastewater in the state for nonpotable uses.[41]

Aquifer Storage and Recovery and Aquifer Recharge

DEP has general regulatory authority over underground water, lakes, rivers, streams, canals, ditches, and coastal waters under the jurisdiction of the state to the extent that the pollution of these waters may impact public health or impair the interests of the public or persons lawfully using the waters.[42] Accordingly, through its Aquifer Protection Program, DEP regulates the disposal of appropriately treated fluids, such as reclaimed water, through underground injection wells while also protecting underground sources of drinking water.[43] The program is aimed at preventing degradation of the quality of aquifers adjacent to the injection zone.[44]

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[27] DEP, *Minimum Flows and Minimum Water Levels and Reservations*, available at https://floridadep.gov/water-policy/water-policy/content/minimum-flows-and-minimum-water-levels-and-reservations (last visited Jan. 27, 2020).
[28] Section 373.0421(2), F.S.
[29] *Id*.
[30] Section 367.021(5), F.S., defines the term "domestic wastewater" to mean wastewater principally from dwellings, business buildings, institutions, and sanitary wastewater or sewage treatment plants.
[31] Rule 62-610.200(54), F.A.C., defines the term "secondary treatment."
[32] Rule 62-600.440(5), F.A.C., provides the requirements for basic disinfection.
[33] Section 373.019(17), F.S.; r. 62-610.200(48), F.A.C.
[34] Rule 62-610.200(52), F.A.C.
[35] DEP, *Risk Impact Statement* (Dec. 21, 1998), available at https://floridadep.gov/sites/default/files/risreuse_508C.pdf (last visited Jan. 24, 2020).
[36] Chapter 62-610, Part III, F.A.C.
[37] Chapter 62-610, Part IV, F.A.C., includes rapid infiltration basins and absorption fields.
[38] Chapter 62-610, Part V, F.A.C.
[39] Chapter 62-610, Part VI, F.A.C., includes the treatment of domestic wastewater to meet effluent limitations for discharge to surface waters.
[40] Chapter 62-610, Part VII, F.A.C.
[41] PRC, *Framework for the Implementation of Potable Reuse in Florida* (Jan. 2020), xxiii, available at http://prc.watereuseflorida.com/wp-content/uploads/Framework-for-Potable-Reuse-in-Florida-FINAL-January-2020-web10495.pdf (last visited Jan. 27, 2020).
[42] Section 403.062, F.S.
[43] Rule 62-528.200(66), F.A.C., defines the term "underground source of drinking water" to mean aquifer. DEP, *Aquifer Protection Program – UIC*, available at https://floridadep.gov/water/aquifer-protection (last visited Jan. 27, 2020).
[44] DEP, *Aquifer Protection Program – UIC*, available at https://floridadep.gov/water/aquifer-protection (last visited Jan. 27, 2020); *see* ch. 62-528, F.A.C., for underground injection control permitting requirements.

Aquifer storage and recovery (ASR) is the underground injection and storage of water into a subsurface formation for the purpose of withdrawing the water for beneficial purposes at a later date.[45] ASR provides for storage of large quantities of water for both seasonal and long-term storage and ultimate recovery that would otherwise be unavailable due to land limitations, loss to tides, or evaporation.[46] Similar to ASR, aquifer recharge (AR) is the underground injection and storage of water into an aquifer, but the water used to recharge the aquifer is not being stored for the purpose of withdrawing the water from the same facility at a later date.[47] AR is primarily considered a water resource development and conservation strategy used to preserve and enhance water resources and natural systems (e.g., sustain water levels, meet MFLs) and to attenuate flooding.[48]

For both ASR and AR, the aquifer acts as an underground reservoir for the recharged water. Whereas ASR is most commonly utilized near major population centers requiring storage to ensure water system reliability (e.g., public supply and commercial/industrial/mining uses), AR is most effective as a water management strategy in sparsely populated rural areas whose water resources rely on stable regional aquifer levels.[49]

ASR and AR wells are regulated as Class V injection wells, which include all wells that inject non-hazardous fluids into or above formations that contain underground sources of drinking water. While ASR wells are all wells associated with an ASR facility, AR wells include:

- Recharger wells, which replenish, augment, or store water in an aquifer;
- Saltwater intrusion barrier wells, which inject water into a fresh water aquifer to prevent the intrusion of salt water into the fresh water;
- Subsidence control wells, which inject fluids into a zone that does not produce oil or gas to reduce or eliminate subsidence associated with the overdraft of fresh water; and
- Connector wells, which connect two aquifers to allow the interchange of water between them.[50]

Potable Reuse

The use of reclaimed water for the purpose of directly or indirectly augmenting drinking water supplies is known as potable reuse. Indirect potable reuse is the planned discharge of reclaimed water to ground or surface waters for the development or supplementation of a potable water supply. Direct potable reuse is the introduction of advanced treated reclaimed water into a raw water supply immediately upstream of a drinking water treatment facility or directly into a potable water distribution system.[51]

Although regulations currently exist in Florida for using reclaimed water for indirect potable reuse for augmenting surface water, there are no regulations that address using reclaimed water for indirect potable reuse involving groundwater replenishment or direct potable reuse.[52]

Potable Reuse Commission

The Potable Reuse Commission (PRC) was organized by stakeholders to develop a consensus-based framework to advance the safe implementation of potable reuse in Florida. The framework was developed to safeguard the protection of public health and the environment, provide regulatory and financial certainty to communities considering potable reuse, and ensure consistency in permitting and implementation of potable reuse projects throughout the state.[53]

The PRC final report was published in January 2020, and provided the following recommendations:

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[45] DEP, *Report on Expansion of Beneficial Use of Reclaimed Water, Stormwater and Excess Surface Water* (Dec. 1, 2015), 83, available at https://floridadep.gov/sites/default/files/SB536%20Final%20Report.pdf (last visited Jan. 27, 2020).
[46] *Id*.
[47] *Id*.
[48] *Id*.
[49] *Id*.
[50] Rule 62-528.300(1)(e), F.A.C.
[51] *Id*. at xxiv.
[52] *Id*.
[53] *Id*. at iii.

- Move Florida's existing reclaimed water regulations that apply to potable reuse into the appropriate drinking water regulation rule chapters;
- Revise the existing drinking water regulations to specify that reclaimed water is a water supply source;
- Require potable reuse to meet drinking water standards by providing pathogen treatment; and
- Address emerging constituents,[54] such as pharmaceuticals and personal care products, in potable reuse.[55]

Graywater Technologies

Current law defines "graywater" as the part of domestic sewage that is not blackwater,[56] including waste from the bath, lavatory, laundry, and sink, except kitchen sink waste.[57] Graywater is generally considered to be of lesser quality than tap water but of higher quality than blackwater.

Reusing graywater reduces the use of drinking-quality (potable) water for non-drinking quality (non-potable) needs. Potable water is often used unnecessarily around the household for purposes for which gray water would be acceptable.[58] For example, the average indoor water use in the United States is 69.3 gallons per person per day. Approximately 50 to 60 percent of such water use is used in showers, bathtubs, sinks, and as laundry water, while toilet flushing uses approximately 25 percent.[59] Replacing some or all of the potable water used for non-potable needs can significantly reduce the demand for fresh water, thereby reducing the need for new municipal sources of fresh water, the depletion of groundwater and associated environmental impacts, and the volume of household wastewater sent to onsite sewage treatment disposal systems or domestic wastewater treatment plants.[60]

Economic-Based Designations

A rural area of opportunity (RAO) is a rural community, or a region composed of rural communities, designated by the Governor that presents a unique economic development opportunity of regional impact or that has been adversely affected by an extraordinary economic event, severe or chronic distress, or a natural disaster.[61] The three designated RAOs are the:

- Northwest RAO, which includes Calhoun, Franklin, Gadsden, Gulf, Holmes, Jackson, Liberty, Wakulla, and Washington Counties, and the City of Freeport;
- South Central RAO, which includes DeSoto, Glades, Hardee, Hendry, Highlands, and Okeechobee Counties, and the Cities of Pahokee, Belle Glade, South Bay, and Immokalee; and
- North Central RAO, which includes Baker, Bradford, Columbia, Dixie, Gilchrist, Hamilton, Jefferson, Lafayette, Levy, Madison, Putnam, Suwannee, Taylor, and Union Counties.[62]

A fiscally constrained county is a county that is entirely within a RAO or a county for which the value of a mill will raise no more than $5 million in revenue.[63]

Effect of the Bill

[54] Emerging constituents, also known as "emerging substances of concern" and "contaminants of emerging concern," is a catch-all term used to describe a fluid list of contaminants of interest to regulatory agencies on both the state and federal level. DEP, *Emerging Substances of Concern* (Dec. 2008), 2, available at https://floridadep.gov/sites/default/files/esoc_fdep_report_12_8_08.pdf (last visited Jan. 27, 2020).

[55] PRC, *Framework for the Implementation of Potable Reuse in Florida* (Jan. 2020), xxvii-xxviii, available at http://prc.watereuseflorida.com/wp-content/uploads/Framework-for-Potable-Reuse-in-Florida-FINAL-January-2020-web10495.pdf (last visited Jan. 27, 2020).

[56] Wastewater from toilets, urinals, and kitchen drains is classified as blackwater and must be directly connected to a public sewer or to an onsite sewage treatment and disposal system. Section 381.0065(2)(c), F.S.

[57] Section 381.0065(2)(e), F.S.

[58] Christopher Martinez, *Gray Water Reuse in Florida*, available at https://edis.ifas.ufl.edu/ae453 (last visited Mar. 2, 2020).

[59] *Id*.

[60] *Id*.

[61] Section 288.0656(2)(d), F.S.

[62] Florida Department of Economic Opportunity, *RAO*, available at http://www.floridajobs.org/business-growth-and-partnerships/rural-and-economic-development-initiative/rural-areas-of-opportunity (last visited Jan. 16, 2019).

[63] Section 218.67(1), F.S.

Reclaimed Water

The bill defines the following terms:

- "Advanced treated reclaimed water" means the water produced from an advanced water treatment process for potable reuse applications;
- "Advanced treatment technology" means the treatment technology selected by a utility to address emerging constituents and pathogens in reclaimed water as part of a potable reuse project;
- "Direct potable reuse" means the introduction of advanced treated reclaimed water into a raw water supply immediately upstream from a drinking water treatment facility or directly into a potable water supply distribution system;
- "Emerging constituents" means pharmaceuticals, personal care products, and other chemicals not regulated as part of drinking water quality standards;
- "Indirect potable reuse" means the planned delivery or discharge of reclaimed water to groundwater or surface water for the development of, or to supplement, the potable water supply;
- "Off-spec reclaimed water" means reclaimed water that does not meet the standards for potable reuse;
- "Potable reuse" means the augmentation of a drinking water supply with advanced treated reclaimed water from a domestic wastewater treatment facility; and
- "Reclaimed water" means water that has received at least secondary treatment and basic disinfection and is reused after flowing out of a domestic wastewater treatment facility.

The bill requires DEP to initiate rulemaking by December 31, 2020, to adopt rules to create and implement a potable reuse program. The bill specifies that such rules may not take effect until ratified by the Legislature. The bill requires such rules to:

- Implement the recommendations in the PRC final report;
- Require potable reuse projects to meet federal and state drinking water and water quality standards;
- Require potable reuse projects to be designed and operated to ensure compliance with groundwater quality standards;
- Require the point of compliance with drinking water standards for potable reuse projects to be the final discharge point for finished water from the water treatment facility;
- Create a public water supply permit application that authorizes potable reuse;
- Require appropriate monitoring to evaluate advanced treatment technology performance;
- Provide off-spec reclaimed water requirements for potable reuse projects which include the immediate disposal, temporary storage, alternative nonpotable reuse, or retreatment or disposal of off-spec reclaimed water based on operating protocols established by the public water supplier and approved by DEP; and
- Provide industrial pretreatment requirements for potable reuse projects.

The bill requires the public water supply permit application to:

- Include the implementation of a log reduction credit system using advanced treatment technology to meet pathogen treatment requirements;
- Require a public water supplier to submit an engineering report as part of its public water supply permit application for authorization of potable reuse that provides an approach to meet the required pathogen treatment requirements; and
- Require a public water supplier to provide a level of treatment or proposed approach to achieving log reduction targets based on source water characterization that is sufficient for a pathogen risk infection, which meets the national drinking water criteria of less than $1x10^{-4}$ annually.

The bill further requires the rules to provide a process for the use of appropriate treatment technology to address emerging constituents in potable reuse projects, as determined by DEP. The bill specifies that if a project requires the use of advanced treatment technology, the treatment must be technically and economically feasible; provide flexibility in the specific treatment processes employed to recognize

different project scenarios, emerging constituent concentrations, desired finished water quality, and the treatment capability of the facility; and be authorized for pathogen removal or reduction.

For direct potable reuse projects, the bill requires reclaimed water to be included in the source water characterization for a drinking water treatment facility. In addition, if the source water characterization indicates the presence of emerging constituents at certain levels, the bill requires appropriate treatment technology to be used to address those emerging constituents.

For indirect potable reuse projects, the bill requires the utility responsible for the project to select one or more representative emerging constituents for monitoring and develop a monitoring protocol that identifies action levels associated with such emerging constituents. The bill specifies that:

- If elevated levels of the representative emerging constituent are detected, the utility must report the detection to DEP and investigate the source and cause of the elevated emerging constituent;
- The utility must submit a monitoring protocol to DEP for review and approval and must implement the approved protocol;
- If the monitoring protocol detects an elevated emerging constituent, and if the utility's investigation indicates that the use of reclaimed water is the cause, the utility must develop a plan to address or remedy that cause;
- The utility must submit its monitoring results, a description of the source and cause of the elevated levels, and any plan developed to address or remedy the cause to DEP; and
- DEP must develop a process for the review and approval of such plans.

The bill requires DEP to convene and lead one or more technical advisory groups to coordinate the rulemaking and review of the rules required by the bill. The bill specifies that the technical advisory groups must be composed of knowledgeable representatives of a broad group of interested stakeholders, including, but not limited to, representatives from the water management districts, the wastewater utility industry, the water utility industry, the environmental community, the business community, the public health community, the agricultural community, and consumers.

The bill requires DEP, in coordination with the technical advisory groups, to:

- Revise the appropriate chapters in the Florida Administrative Code, including chapter 62-610, Florida Administrative Code, to ensure that all rules implementing potable reuse are included in the drinking water regulations of the Florida Administrative Code;
- Revise the definition of the term "indirect potable reuse" provided in chapter 62-610, Florida Administrative Code, to match the definition created in the bill;
- Revise existing drinking water rules to include reclaimed water as a source water for the public water supply and require such treatment of the water as is necessary to meet existing drinking water rules, including rules for pathogens;
- Review AR rules and, if revisions are necessary to ensure continued compliance when reclaimed water is used for AR, adopt such rules.

The bill requires DEP, by December 31, 2022, to develop and execute a memorandum of agreement with the WMDs that provides the process for a coordinated review of all permits associated with the construction and operation of an indirect potable reuse project to ensure a permit's consistency, if a permittee requests such review.

The bill specifies that potable reuse projects developed as qualifying public-private partnerships are eligible for expedited permitting beginning January 1, 2025, and are eligible for priority funding from the Drinking Water State Revolving Fund and WMD cooperative funding.

The bill specifies that if an applicant for a reclaimed water ASR well injecting into a receiving groundwater with less than 1,000 mg/L total dissolved solids demonstrates that there are no public supply wells within 3,500 feet of the ASR well, and the applicant has implemented institutional controls to prevent the future construction of public supply wells within 3,500 feet of the ASR well, the rules that apply when reclaimed water is injected into a receiving groundwater that has 1,000 to 3,000 mg/L total dissolved solids are applicable to the ASR well.

Within one year after the effective date of the DEP rules addressing potable reuse or by July 1, 2023, whichever is earlier, the bill requires each domestic wastewater utility that disposes of effluent, reclaimed water, or reuse water by surface water discharge to submit to DEP a plan for eliminating nonbeneficial surface water discharges within five years. The bill requires each plan to be reviewed by DEP and, if approved, requires the plan to be incorporated into the utility's operating permit.

The bill requires the plan to include:

- The volume of effluent, reclaimed water, or reuse water that will no longer be discharged into surface waters and the date such discharges will cease;
- The volume of effluent, reclaimed water, or reuse water that will continue to be discharged into surface waters in accordance with the alternatives provided in the bill, and the level of treatment that the effluent, reclaimed water, or reuse water will receive before being discharged into a surface water by each alternative; and
- As applicable, the volume of effluent, reclaimed water, or reuse water that will continue to be discharged by those facilities deemed exempt and the level of treatment that the effluent, reclaimed water, or reuse water will receive before being discharged into a surface water.

The bill requires DEP to approve a plan if one or more of the following conditions are met:

- The plan eliminates surface water discharges from the utility;
- The plan will result in the utility's compliance with the requirements of secondary waste treatment or ocean outfalls; or
- The plan does not completely eliminate surface water discharges, but provides an affirmative demonstration that:
    - The remaining discharge is associated with an indirect potable reuse project;
    - The remaining discharge is a wet weather discharge that occurs in accordance with an applicable DEP permit;
    - The remaining discharge flows into a stormwater management system and is subsequently withdrawn by a user for irrigation purposes;
    - The utility operates domestic wastewater treatment facilities with reuse systems that provide a minimum of 90 percent of a facility's annual average flow, as determined by DEP, for reuse purposes authorized by DEP; or
    - The remaining discharge provides direct ecological or public water supply benefits, such as rehydrating wetlands or implementing the requirements of MFL recovery or of a prevention strategy plan.

The bill further requires DEP to approve a plan that demonstrates that it is technically, economically, or environmentally infeasible for the utility to meet any of the conditions above within five years after submitting the plan to DEP; implementing such alternatives would create a severe undue economic hardship on the community served by the utility, as demonstrated by the impact to utility ratepayers, a lack of a reasonable return on investment, and the unaffordability of implementing any combination of the alternatives; and the plan provides a means to eliminate surface water discharges to the extent feasible.

The bill requires DEP to approve or deny the plan within nine months after receipt. The bill specifies that the utility may modify the plan by amendment to the permit, but DEP may not extend the time within which a plan must be implemented.

If DEP approves a utility's plan, the bill requires the utility to fully implement the approved plan by January 1, 2027. The bill specifies that if a plan is not timely submitted by a utility or approved by DEP, the utility's domestic wastewater treatment facilities may not dispose of effluent, reclaimed water, or reuse water by surface water discharge after January 1, 2027. If a utility has included a potable reuse project in the plan and has implemented all other components of the plan, the utility has until January 1, 2029, to implement the potable reuse project.

The bill specifies that a utility that has demonstrated infeasibility and has had such plan approved by DEP must prepare and submit an updated plan within one year after approval, and annually thereafter

until the utility is able to meet one or more of the conditions described above. The updated annual plan must affirmatively demonstrate that the utility is unable to meet any of the conditions. The bill requires DEP to review the updated plans to verify that the utility is unable to meet any of the conditions and that the utility continues to demonstrate infeasibility. If DEP determines that the utility is able to meet any of the conditions described above and the utility can no longer demonstrate infeasibility, the utility must submit a plan that identifies how the utility meets one of the conditions within nine months after receiving notice of such determination from DEP. The utility must fully implement such plan within five years after receiving an approval by DEP.

The bill specifies that a domestic wastewater utility applying for a permit for a new or expanded surface water discharge must prepare a plan as part of the permit application. The bill prohibits DEP from approving a permit for a new or expanded surface water discharge unless the plan meets one or more of the conditions described above.

Beginning December 31, 2023, the bill requires DEP to submit an annual report to the Legislature that provides the information required by the plan for each utility that submitted a plan during the preceding calendar year.

The bill specifies that domestic wastewater treatment facilities located in a fiscally constrained county, a RAO, or a municipality that generates less than $10 million in total revenue, as determined by the municipality's most recent annual financial report, are exempt from the plan requirements.

Graywater Incentives

The bill requires a county, municipality, or special district to authorize the use of residential graywater technologies that comply with the Florida Building Code, and applicable requirements of the Department of Health, in their respective jurisdictions if such technologies have received all applicable regulatory permits or authorizations. The bill further requires such entities to provide density or intensity bonuses to the developer or homebuilder to fully offset the capital costs of the technology and installation costs. The bill specifies that more air-conditioned, living floor space of residential homes must be provided to fully offset the capital costs of the technology and installation costs if density or intensity bonuses have already been provided to the developer or homebuilder.

To qualify for incentives, the bill requires the developer or homebuilder to certify to the applicable government entity as part of its application for development approval or amendment of a development order that:

- The proposed development has at least 25 single-family residential homes that are either detached or multifamily dwellings;
- Each single-family residential home or residence will have its own residential graywater system;
- The developer or homebuilder has submitted a manufacturer's warranty or data providing reasonable assurance that the residential graywater system will function as designed and includes an estimate of anticipated potable water savings for each system;
- The required maintenance of the graywater system will be the responsibility of the single-family residential homeowner or manufacturer; and
- An operation and maintenance manual for the graywater system will be supplied to the initial homeowner of each single-family home.

The bill specifies that if the developer or homebuilder qualifies, the county or municipality must include the incentives when it approves the development or amendment of a development order. The bill requires the approval to provide the process the developer or homebuilder must follow to verify that the graywater systems have been purchased. The bill specifies that proof of purchase must be provided within 180 days from the issuance of a certificate of occupancy for the single-family residential home that is either detached or less than five stories in height.

The bill specifies that the Legislature determines the bill fulfills an important state interest.

B. SECTION DIRECTORY:

Section 1. Amends s. 403.064, F.S., relating to the reuse of reclaimed water.

Section 2. Creates s. 403.8531, F.S., relating to potable reuse.

Section 3. Creates s. 403.892, F.S., relating to incentives for the use of graywater technologies.

Section 4. Creates an unnumbered section of law relating to potable reuse and reclaimed water.

Section 5. Creates an unnumbered section of law relating to the reuse of reclaimed water for irrigation purposes.

Section 6. Provides a directive to the Division of Law Revision.

Section 7. Provides an important state interest.

Section 8. Provides an effective date of upon becoming a law.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

   None.

2. Expenditures:

   The bill may have an indeterminate negative fiscal impact on DEP that can likely be absorbed through existing resources due to the costs associated with the rulemaking and technical advisory group requirements.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

   None.

2. Expenditures:

   The bill may have a significant indeterminate negative fiscal impact on local government-owned wastewater treatment facilities that will be required to develop and implement a plan to eliminate nonbeneficial surface water discharges within five years and to comply with potable reuse rules adopted by DEP. The bill may also have an indeterminate negative fiscal impact on local governments because they will be required to provide incentives for the use of graywater technologies.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

The bill may have a significant indeterminate negative fiscal impact on privately-owned wastewater treatment facilities that will be required to develop and implement a plan to eliminate nonbeneficial surface water discharges within five years and to comply with potable reuse rules adopted by DEP.

The bill may have an indeterminate positive fiscal impact on developers who utilize incentives for the use of graywater technologies.

D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

   The county/municipality mandates provision of Art. VII, s. 18 of the Florida Constitution may apply because this bill requires local governments that own wastewater treatment facilities that discharge into surface waters to develop and implement a plan to eliminate nonbeneficial surface water discharges within five years. An exception may apply if the requirement applies to similarly situated persons because the bill provides a legislative finding that the requirements of the bill fulfill an important state interest. If the exception does not apply, final passage must be approved by two-thirds of the membership of each house of the Legislature.

2. Other:

   None.

B. RULE-MAKING AUTHORITY:

   The bill requires DEP to adopt rules relating to potable reuse and reclaimed water. DEP appears to have sufficient rulemaking to comply with these requirements.

C. DRAFTING ISSUES OR OTHER COMMENTS:

   None.

IV. AMENDMENTS/ COMMITTEE SUBSTITUTE CHANGES

On February 4, 2020, the Agriculture & Natural Resources Subcommittee adopted a proposed committee substitute (PCS) and reported the bill favorably as a committee substitute. The PCS provided additional exceptions to the prohibition on surface water discharges, removed the requirement that potable reuse rules be ratified by the Legislature, and required local governments, municipalities, and special districts to provide incentives for the use of graywater technologies.

On March 2, 2020, the State Affairs Committee adopted a strike-all amendment and reported the bill favorably as a committee substitute. The amendment removed the prohibition on surface water discharges by domestic wastewater facilities and instead required each utility to develop and implement a plan to eliminate nonbeneficial surface water discharges; removed the corporate income tax credit; and specified the qualifications that developers and homebuilders must meet in order to receive graywater technology incentives.

This analysis is drafted to the committee substitute as approved by the State Affairs Committee.