

**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 Community Affairs

---

BILL: CS/SB 64

INTRODUCER: Environment and Natural Resources Committee and Senator Albritton

SUBJECT: Reclaimed Water

DATE: February 22, 2021

REVISED: \_\_\_\_\_

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	<u>Anderson</u>	<u>Rogers</u>	<u>EN</u>	<u>Fav/CS</u>
2.	<u>Paglialonga</u>	<u>Ryon</u>	<u>CA</u>	<u>Pre-meeting</u>
3.	_____	_____	<u>AP</u>	_____

---

**Please see Section IX. for Additional Information:**

COMMITTEE SUBSTITUTE - Substantial Changes

---

**I. Summary:**

CS/SB 64 creates a timeline and plan to eliminate nonbeneficial surface water discharge within 5 years. It contains a series of conditions authorizing discharges that are being beneficially used or otherwise regulated, and for specified hardships. The bill requires domestic wastewater utilities that dispose of effluent, reclaimed water or reuse water by surface water discharge to submit a 5-year plan to eliminate nonbeneficial surface water discharge to the Department of Environmental Protection (DEP). The plan must be:

- Submitted by November 1, 2021; and
- Implemented by January 1, 2028 (January 1, 2030, for potable reuse projects).

The bill also:

- Specifies that potable reuse is an alternative water supply, for purposes of making reuse projects eligible for alternative water supply funding;
- Incentivizes the development of potable reuse projects;
- Incentivizes residential developments that use graywater technologies; and
- Specifies the total dissolved solids allowable in aquifer storage and recovery in certain circumstances.

## II. Present Situation:

Floridians currently use an estimated 6.4 billion gallons of water per day.<sup>1</sup> Between 2020 and 2040, Florida's population is expected to increase by 4.8 million to 26.4 million people, while water demands are expected to grow from 1 billion gallons per day (bgd) to 7.4 bgd.<sup>2</sup> For some regions of the state, there is enough water to meet future needs through existing sources, but others require additional water to be developed.<sup>3</sup> Alternative water supply projects currently provide an estimated 1.019 bgd with an additional estimated capacity of 1.651 bgd that will be available when all projects are fully completed and implemented.<sup>4</sup>

### Water Reuse

Water reuse is an essential component of both wastewater management and water resource management in Florida. Reuse is defined as the deliberate application of reclaimed water for a beneficial purpose.<sup>5</sup> Whereas reclaimed water is defined as water from a domestic wastewater<sup>6</sup> treatment facility that has received at least secondary treatment<sup>7</sup> and basic disinfection<sup>8</sup> for reuse.<sup>9</sup>

Florida has approximately 2,000 permitted domestic wastewater treatment facilities.<sup>10</sup> These facilities may require state and federal permits for discharges to surface waters,<sup>11</sup> although federal requirements for most facilities or activities are incorporated into a state-issued permit.<sup>12</sup> The Department of Environmental Protection (DEP) also regulates the construction and operation of domestic wastewater treatment facilities and establishes disinfection requirements for the reuse of reclaimed water.<sup>13</sup>

Reusing water helps conserve drinking water supplies by replacing drinking quality water for non-drinking water purposes, such as irrigation, industrial cooling, groundwater recharge, and prevention of saltwater intrusion in coastal groundwater aquifers.<sup>14</sup> Water reuse also provides

---

<sup>1</sup> Department of Environmental Protection (DEP), *Annual Regional Water Supply Planning Report (2019)*, available at <https://fdp.maps.arcgis.com/apps/MapSeries/index.html?appid=04f84e6ae64c45e292e5b3db82f045e3>.

<sup>2</sup> *Id.*

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*

<sup>5</sup> Fla. Admin. Code R. 62-610.200(52).

<sup>6</sup> 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.

<sup>7</sup> Fla. Admin. Code R. 62-610.200(54) defines the term “secondary treatment” to mean “wastewater treatment to a level that will achieve the effluent limitations specified in paragraph 62-600.420(1)(a), F.A.C.”

<sup>8</sup> Fla. Admin. Code R. 62-600.440(5) provides the requirements for basic disinfection.

<sup>9</sup> Section 373.019(17), F.S.; Fla. Admin. Code R. 62-610.200(48).

<sup>10</sup> 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 Jan. 21, 2021).

<sup>11</sup> For required state permits, see Section 403.087, F.S.; see also DEP, *Wastewater Permitting*, available at <https://floridadep.gov/water/domestic-wastewater/content/wastewater-permitting> (last visited Jan. 26, 2021). For federal permits, see 33 U.S.C. s. 1342.

<sup>12</sup> Sections 403.061 and 403.087, F.S.

<sup>13</sup> Fla. Admin. Code R. 62-600.

<sup>14</sup> Martinez, Christopher J. and Clark, Mark W., *Reclaimed Water and Florida's Water Reuse Program*, UF/IFAS Agricultural and Biological Engineering Department (rev. 07/2012), available at <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.590.5063&rep=rep1&type=pdf>.

environmental benefits, including reduced groundwater withdrawals, reduced needs for new drinking water supplies and infrastructure, and improved water quality of the natural environment by reducing the number of nutrients that are discharged directly to surface water and groundwater by wastewater treatment facilities.<sup>15</sup> The use of reclaimed water also provides for the recovery of water that would otherwise be lost to tide and evaporation.

In its rules, DEP requires the promotion of reuse of reclaimed water, recycling of stormwater for irrigation and other beneficial uses, recycling of industrial wastewater, and encourages local governments to create programs for reuse.<sup>16</sup> Water conservation and the promotion of water reuse have also been established as formal state objectives by the Legislature.<sup>17</sup> State law further provides that the use of reclaimed water provided by wastewater treatment plants permitted and operated under a reuse program by DEP are considered environmentally acceptable and are not a threat to public health and safety.<sup>18</sup>

Florida tracks its reuse inventory in an annual report compiled by DEP.<sup>19</sup> In 2019, a total of 476 domestic wastewater treatment facilities reported making reclaimed water available for reuse.<sup>20</sup> Approximately 820 million gallons per day (mgd) of reclaimed water were used for beneficial purposes in 2019,<sup>21</sup> representing approximately 48 percent of the state's total domestic wastewater flow.<sup>22</sup> The total reuse capacity associated with reuse systems was 1,757 mgd,<sup>23</sup> representing approximately 67 percent of the state's total domestic wastewater treatment capacity.<sup>24</sup>

### ***Reclaimed Water as Alternative Water Supply***

When traditional water supplies are constrained, alternative water supplies must be developed in addition to water conservation efforts. Alternative water supply can include reclaimed water, brackish groundwater, surface water, and excess surface water captured and stored in reservoirs or aquifer storage and recovery wells.<sup>25</sup>

---

<sup>15</sup> *Id.*

<sup>16</sup> Fla. Admin. Code R. 62-40.416.

<sup>17</sup> Sections 403.064(1) and 373.250(1), F.S.

<sup>18</sup> *Id.*

<sup>19</sup> See DEP, *2019 Reuse Inventory Report* (2020), available at [https://floridadep.gov/sites/default/files/2019\\_Reuse\\_Inventory\\_Report.pdf](https://floridadep.gov/sites/default/files/2019_Reuse_Inventory_Report.pdf); compiled from reports collected pursuant to chapter 62-610 of the Florida Administrative Code.

<sup>20</sup> The number of treatment facilities providing reuse broken down by water management districts is as follows: Northwest Florida – 62, South Florida – 109, St. Johns River – 143, Suwannee River – 28, and Southwest Florida – 134; DEP, *2019 Reuse Inventory Report*, 2 (2020), available at [https://floridadep.gov/sites/default/files/2019\\_Reuse\\_Inventory\\_Report.pdf](https://floridadep.gov/sites/default/files/2019_Reuse_Inventory_Report.pdf).

<sup>21</sup> This represents an average per capita reuse of 38.66 gallons per day per person. DEP, *Florida's Reuse Activities*, <https://floridadep.gov/water/domestic-wastewater/content/floridas-reuse-activities> (last visited Jan. 21, 2021).

<sup>22</sup> *Id.* at 2, 3.

<sup>23</sup> *Id.* at 2.

<sup>24</sup> *Id.*

<sup>25</sup> DEP, *Annual Regional Water Supply Planning Report* (2019), available at <https://fdep.maps.arcgis.com/apps/MapSeries/index.html?appid=04f84e6ae64c45e292e5b3db82f045e3>.

Reclaimed water is a type of alternative water supply as defined in s. 373.019(1), F.S., and is eligible to receive alternative water supply funding.<sup>26</sup> Reclaimed water can be used for many purposes to meet water demand, including:

- Irrigation of golf courses, parks, residential properties, and landscaped areas;
- Urban uses, such as toilet flushing, car washing, and aesthetic purposes;
- Agricultural uses, such as irrigation of food crops, pasture lands, and at nurseries;
- Wetlands creation, restoration, and enhancement;
- Recharging groundwater through rapid infiltration basins, absorption fields, and direct injection;
- Augmentation of surface waters used for drinking water supplies; and
- Industrial uses such as processing and cooling water.<sup>27</sup>

### ***Reclaimed Water Use in Florida***

Communities in Florida have been using reclaimed water for landscape irrigation and industrial uses since the early 1970s.<sup>28</sup> Today, Florida is the national leader in water reuse, utilizing 48 percent of the total domestic wastewater in the state for nonpotable uses.<sup>29</sup> Reclaimed water is estimated to have avoided the use of over 158 billion gallons of potable quality water while serving to add more than 94 billion gallons back to available groundwater supplies.<sup>30</sup> Reclaimed water projects make up 35% of all water supply projects.<sup>31</sup>

According to DEP's reuse inventory report, over the past 30 years, Florida has made great strides in the expansion of reclaimed water systems, and reuse is now an integral part of wastewater management, water resource management, and ecosystem management in the state.<sup>32</sup> The chart below shows the percentage of reclaimed water utilization by flow for each reuse type.<sup>33</sup>

---

<sup>26</sup> Section 373.250(2), F.S.

<sup>27</sup> DEP, *Uses of Reclaimed Water*, <https://floridadep.gov/water/domestic-wastewater/content/uses-reclaimed-water> (last visited Jan. 21, 2021).

<sup>28</sup> Florida Potable Reuse Commission, *Framework for the Implementation of Potable Reuse in Florida*, xxiii, (Jan. 2020), available at <https://watereuse.org/wp-content/uploads/2020/01/Framework-for-Potable-Reuse-in-Florida.pdf>.

<sup>29</sup> *Id.*; Florida Water Environment Association Utility Council, *Evaluation of the Impacts of Eliminating Surface Water Discharges from Domestic Wastewater Facilities in Florida*, 16 (Jan. 2020), available at <http://fweauc.org/wp-content/uploads/2013/02/Evaluation-of-the-Impacts-of-Eliminating-Surface-Water-Discharges-from-Domestic-Wastewater-Facilities-in-Florida-January-2020.pdf>.

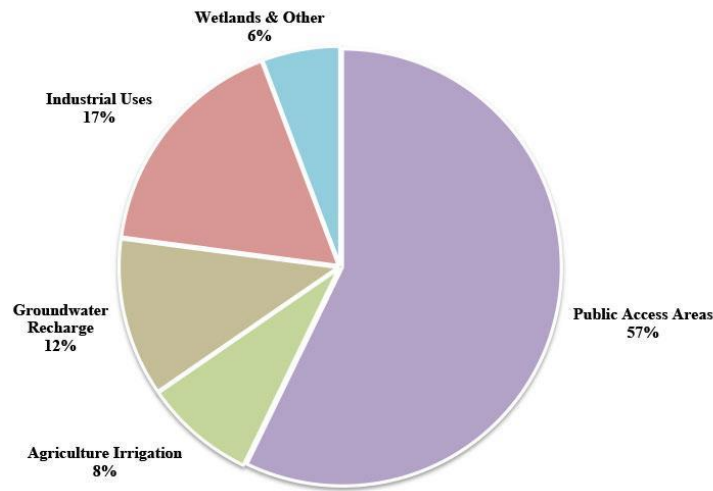
<sup>30</sup> DEP, *Florida's Reuse Activities*, <https://floridadep.gov/water/domestic-wastewater/content/floridas-reuse-activities> (last visited Jan. 21, 2021).

<sup>31</sup> DEP, *Annual Regional Water Supply Planning Report*, (2019), available at <https://fdep.maps.arcgis.com/apps/MapSeries/index.html?appid=04f84e6ae64c45e292e5b3db82f045e3>.

<sup>32</sup> DEP, *2019 Reuse Inventory Report*, 2 (2020), available at [https://floridadep.gov/sites/default/files/2019\\_Reuse\\_Inventory\\_Report.pdf](https://floridadep.gov/sites/default/files/2019_Reuse_Inventory_Report.pdf); see also DEP, *Florida's Reuse Activities*, <https://floridadep.gov/water/domestic-wastewater/content/floridas-reuse-activities> (last visited Jan. 21, 2021).

<sup>33</sup> *Id.*

Figure 1: Reclaimed Water Utilization by Flow



Note: Agriculture irrigation includes edible crops (e.g., citrus) as well as feed and fodder crops (e.g., spray fields).

**Regulation of Reclaimed Water**

Both DEP and the water management districts play a regulatory role in the use of reclaimed water. DEP regulations focus on water quality and ensure that reclaimed water is appropriately treated for its intended use to protect public health and the environment. Water management districts work with local utilities and water users to maximize the beneficial use of reclaimed water as an alternative water supply. The districts include alternative water supply projects in their regional water supply plans<sup>34</sup> and implement cost-share programs to help communities develop reclaimed water systems.<sup>35</sup>

In its rules, DEP provides detailed reclaimed water treatment requirements depending upon how the reclaimed water will be used, including groundwater recharge, surface water discharge, or to protect water quality.<sup>36</sup> These rules also require owners of domestic wastewater facilities having permitted capacities of 0.1 million gallons per day and above that provide reclaimed water for reuse to submit annual reuse reports to DEP. To be reused as reclaimed water, domestic wastewater must meet, at minimum, a treatment standard of secondary treatment, basic disinfection, and pH control.<sup>37</sup> The regulations also include requirements for groundwater monitoring at reuse and land application sites.<sup>38</sup>

<sup>34</sup> Section 373.036(2), F.S.

<sup>35</sup> DEP, *Annual Regional Water Supply Planning Report* (2019), available at <https://fddep.maps.arcgis.com/apps/MapSeries/index.html?appid=04f84e6ae64c45e292e5b3db82f045e3>; see also DEP, *Water Management District Reuse Programs*, <https://floridadep.gov/water/domestic-wastewater/content/water-management-district-reuse-programs> (last visited Jan. 26, 2021).

<sup>36</sup> Fla. Admin. Code R. 62-610.

<sup>37</sup> Fla. Admin. Code R. 62-600.530, 62-600.440.

<sup>38</sup> Fla. Admin. Code R. 62-601.

Water management districts are responsible for administering water resources at a regional level, including programs to protect the water supply, water quality, and natural systems.<sup>39</sup> Water management districts issue consumptive use permits (CUPs) to manage the use of water. A CUP allows the holder to withdraw a specified amount of water from surface water and groundwater sources for reasonable and beneficial use.<sup>40</sup> CUPs require water conservation to prevent wasteful uses, require the reuse of reclaimed water instead of higher-quality groundwater where appropriate, and set limits on the amount of water that can be withdrawn.<sup>41</sup> Water management districts may not require CUPs for reclaimed water.<sup>42</sup>

Districts also implement minimum flows and minimum water levels (MFLs) to balance public water supply needs with protecting the state's natural systems.<sup>43</sup> For water bodies below or that are projected to fall below their MFL, the districts must implement a recovery or prevention strategy to ensure the MFL is maintained.<sup>44</sup> Alternative water supply can be used as a recovery strategy when existing water sources are not adequate to supply water for all existing and future reasonable beneficial uses or as a prevention strategy to sustain the water resources and related natural systems.<sup>45</sup>

### Potable Reuse

Potable reuse is the process of using treated wastewater for drinking water.<sup>46</sup> It involves the use of reclaimed water to directly or indirectly augment drinking water supplies.<sup>47</sup> Indirect potable reuse is the planned discharge of reclaimed water to ground or surface waters to develop supplement potable water supply. Direct potable reuse introduces 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.<sup>48</sup>

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.<sup>49</sup>

---

<sup>39</sup> DEP, *Water Management Districts*, <https://floridadep.gov/water-policy/water-policy/content/water-management-districts> (last visited Jan. 23, 2021).

<sup>40</sup> South Florida Water Management District, *Consumptive Water Use Permits*, <https://www.sfwmd.gov/doing-business-with-us/permits/water-use-permits> (last visited Jan. 23, 2021).

<sup>41</sup> DEP, *2021 Florida Water Plan*, available at <https://fddep.maps.arcgis.com/apps/Cascade/index.html?appid=473b768b4af049bf91b2879b83ea961c>.

<sup>42</sup> Section 373.250, F.S.

<sup>43</sup> 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. 23, 2021); *see also* section 373.042(1), F.S. Minimum flows and minimum water levels are the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area.

<sup>44</sup> *Id.*

<sup>45</sup> DEP, *Annual Regional Water Supply Planning Report*, (2019), available at <https://fddep.maps.arcgis.com/apps/MapSeries/index.html?appid=04f84e6ae64c45e292e5b3db82f045e3>.

<sup>46</sup> U.S. Environmental Protection Agency, *Potable Water Reuse and Drinking Water*, <https://www.epa.gov/ground-water-and-drinking-water/potable-water-reuse-and-drinking-water> (last visited Jan. 21, 2021).

<sup>47</sup> Florida Potable Reuse Commission (PRC), *Framework for the Implementation of Potable Reuse in Florida*, xxiv, (Jan. 2020), available at <https://watereuse.org/wp-content/uploads/2020/01/Framework-for-Potable-Reuse-in-Florida.pdf>.

<sup>48</sup> *Id.*

<sup>49</sup> *Id.*

The Potable Reuse Commission (PRC) was organized to develop a framework for advancing the implementation of potable reuse in Florida as a water supply alternative to meet future supply needs while also protecting public health and the environment through an engagement process involving stakeholders with technical and scientific expertise.<sup>50</sup> In its report, the PRC identified a number of proposed regulatory changes that would require the Florida Legislature to enact legislation to provide authority and would require DEP to revise existing rules or adopt new rules to advance potable reuse within the state while ensuring the protection of public health and the environment.

Chapter 2020-150, Laws of Florida, required DEP to revise its rules based on the recommendations of the PRC's 2020 report. Specifically, the Legislature required DEP to address contaminants of emerging concern and meet or exceed federal and state drinking water quality standards and other applicable water quality standards in its rule.<sup>51</sup> The law also explicitly deemed reclaimed water as a water source for public supply systems.<sup>52</sup> DEP is currently in the rulemaking process to revise existing rules to create a framework for potable reuse.<sup>53</sup>

In addition to the recommendations related to drinking water regulations, the PRC recommended:

- Designating reclaimed water as a water supply source;
- Requiring DEP and the water management districts to enter into a memorandum of agreement to coordinate permitting for indirect potable water projects;
- Continuing the exemption of direct potable reuse from consumptive use permit or water use permit requirements;
- Implementing regulatory recommendations collectively and through Technical Advisory Committees;
- Incentivizing and protecting public investments in potable reuse; and
- Continuing public education and outreach.<sup>54</sup>

## Ocean Outfalls

An ocean outfall occurs when a wastewater treatment facility or other facility discharges treated effluent into coastal or ocean waters. There are six domestic wastewater facilities in Palm Beach, Broward, and Miami-Dade Counties that discharge or previously discharged approximately 300 mgd of treated domestic wastewater directly into the Atlantic Ocean through ocean outfalls.<sup>55</sup>

---

<sup>50</sup> *Id.*

<sup>51</sup> Section 12, Ch. 2020-150.

<sup>52</sup> *Id.*

<sup>53</sup> Florida Administrative Register, Notice of Proposed Rule 62-610, Volume 46, Number 242 at 5468 (Dec. 15, 2020), available at <https://www.flrules.org/Faw/FAWDocuments/FAWVOLUMEFOLDERS2020/46242/46242doc.pdf>; DEP, *Water Reuse News & Rulemaking Information*, <https://floridadep.gov/water/domestic-wastewater/content/water-reuse-news-rulemaking-information> (last visited Jan. 15, 2021).

<sup>54</sup> PRC, *Framework for the Implementation of Potable Reuse in Florida*, xxvii-xxxii, (Jan. 2020), available at <https://watereuse.org/wp-content/uploads/2020/01/Framework-for-Potable-Reuse-in-Florida.pdf>.

<sup>55</sup> DEP, *Ocean Outfall Study Final Report ES-1* (Apr. 18, 2006), available at [https://floridadep.gov/sites/default/files/OceanOutfallStudy\\_0.pdf](https://floridadep.gov/sites/default/files/OceanOutfallStudy_0.pdf).

However, state law prohibits the construction of new ocean outfalls and requires all six ocean outfalls in Florida to cease discharging wastewater by December 31, 2025.<sup>56</sup> Also, wastewater facilities that discharged wastewater through an ocean outfall on July 1, 2008, are required to install a reuse system no later than December 31, 2025.<sup>57</sup> Existing discharges through ocean outfalls must meet advanced waste treatment requirements<sup>58</sup> by December 31, 2018.<sup>59</sup>

### **Backup Discharges**

A backup discharge is a surface water discharge that occurs as part of a functioning reuse system permitted by DEP and provides reclaimed water for irrigation of public access areas, residential properties, or edible food crops, or industrial cooling, or other acceptable reuse purposes.<sup>60</sup> Backup discharges of reclaimed water that meet advanced waste treatment requirements are presumed to be allowable and are permitted in all waters in the state at a reasonably accessible point where such discharge results in a minimal negative impact unless the discharge is to waters that are subject to additional protections.<sup>61</sup>

### **Fiscally Constrained Counties and Rural Areas of Opportunity**

A fiscally constrained county is a county that is entirely within a rural area of opportunity (RAO) or a county for which the value of a mill will raise no more than \$5 million in revenue.<sup>62</sup>

An 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 has been adversely affected by an extraordinary economic event, severe or chronic distress, or a natural disaster.<sup>63</sup> 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 includes Baker, Bradford, Columbia, Dixie, Gilchrist, Hamilton, Jefferson, Lafayette, Levy, Madison, Putnam, Suwannee, Taylor, and Union Counties.<sup>64</sup>

### **Graywater/Residential Systems/Development Incentives**

Graywater is the part of domestic sewage that is not carried off by toilets, urinals, and kitchen drains. It includes waste from the bath, lavatory, laundry, and sink, except for kitchen sink

---

<sup>56</sup> Section 403.086(10), F.S.; chapter 2008-232, Laws of Fla.

<sup>57</sup> Section 403.086(10)(c), F.S.

<sup>58</sup> Section 403.086(4), F.S.

<sup>59</sup> Section 403.086(10)(b), F.S.

<sup>60</sup> Section 403.086(8)(a), F.S.

<sup>61</sup> Section 403.086(8)(b), F.S.

<sup>62</sup> Section 218.67(1), F.S.

<sup>63</sup> Section 288.0656(2)(d), F.S.

<sup>64</sup> 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. 8, 2021).



waste.<sup>65</sup> Graywater installations occur in residential and non-residential installations, and the capture, treatment, and reuse of graywater yield usable water that would otherwise be directed to the sewer.<sup>66</sup> Reusing graywater also reduces the use of potable water for non-potable needs and conserves fresh water.<sup>67</sup>

The Florida Building Code specifies that graywater may only be used for flushing toilets and urinals. Any discharge from the building must be connected to a public sewer or an onsite sewage treatment and disposal system in accordance with Department of Health regulations in chapter 64E-6 of the Florida Administrative Code.<sup>68</sup> Graywater systems in Florida have several requirements: the graywater must be filtered, disinfected, dyed, and storage reservoirs must have drains and overflow pipes, which must be indirectly connected to the sanitary drainage system.<sup>69</sup>

There are barriers to the widespread adoption of residential graywater reuse, including system cost, knowledge and experience of contractors and local officials, homeowner acceptance, and limited permitted uses.<sup>70</sup>

### **Aquifer Storage and Recovery (ASR)**

ASR is the underground injection and storage of water into a subsurface formation to withdraw the water for beneficial purposes later.<sup>71</sup> It refers to the process of recharge, storage, and recovery of water in an aquifer. ASR provides for the storage of large quantities of water for seasonal and long-term storage and ultimate recovery that would otherwise be unavailable due to land limitations, loss to the tide, or evaporation.<sup>72</sup>

ASR facilities have been used in Florida and throughout the United States for about 40 years.<sup>73</sup> ASR systems are currently used to store potable drinking water, partially treated surface water, groundwater, and reclaimed water.<sup>74</sup> Water can be stored and subsequently recovered and distributed for purposes such as water supply or ecosystem restoration.<sup>75</sup> For ASR, the aquifer acts as an underground reservoir for the recharged water.

---

<sup>65</sup> Section 381.0065(2)(e), F.S.

<sup>66</sup> Alliance for Water Efficiency, *Graywater Systems*, <https://www.allianceforwaterefficiency.org/resources/topic/graywater-systems> (last visited Jan. 8, 2021).

<sup>67</sup> Martinez, Christopher J., *Gray Water Reuse in Florida*, University of Florida IFAS Extension, <https://edis.ifas.ufl.edu/ae453#:~:text=Gray%20water%20must%20be%20filtered,to%20the%20sanitary%20drainage%20system> (last visited Jan. 12, 2021).

<sup>68</sup> 2020 Florida Building Code – Plumbing, Seventh Edition (Dec. 2020), *available at* <https://codes.iccsafe.org/content/FLPC2020P1>.

<sup>69</sup> *Id.*

<sup>70</sup> Martinez, Christopher J., *Gray Water Reuse in Florida*, University of Florida IFAS Extension, <https://edis.ifas.ufl.edu/ae453#:~:text=Gray%20water%20must%20be%20filtered,to%20the%20sanitary%20drainage%20system> (last visited Jan. 12, 2021).

<sup>71</sup> DEP, Office of Water Policy, *Report on Expansion of Beneficial Use of Reclaimed Water, Stormwater and Excess Surface Water*, 83 (December 1, 2015) *available at* <https://floridadep.gov/sites/default/files/SB536%20Final%20Report.pdf>.

<sup>72</sup> *Id.*

<sup>73</sup> South Florida Water Management District, *Aquifer Storage and Recovery*, <https://www.sfwmd.gov/our-work/alternative-water-supply/asr> (last visited Jan. 12, 2021).

<sup>74</sup> *Id.*

<sup>75</sup> *Id.*

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.<sup>76</sup> The program is aimed at preventing the degradation of the quality of aquifers adjacent to the injection zone.<sup>77</sup> ASR wells are regulated as Class V injection wells, including all wells that inject non-hazardous fluids into or above formations containing underground sources of drinking water.<sup>78</sup>

DEP rules regulating ASR require that reclaimed water injected into receiving groundwater with 3,000 mg/L or less of total dissolved solids must meet the treatment and disinfection criteria requirements<sup>79</sup> for groundwater recharge projects.<sup>80</sup> If receiving groundwater contains between 1,000 and 3,000 mg/L of total dissolved solids and the applicant for an underground injection control permit provides an affirmative demonstration that the receiving groundwater is not currently used as a source of public water supply and is not reasonably expected to be used for public water supply in the future, certain modifications to the treatment and disinfection requirements are available.<sup>81</sup> Reclaimed water recovered from groundwaters containing 3,000 mg/L or less of total dissolved solids must meet full treatment and disinfection requirements and drinking water standards.<sup>82</sup>

### III. Effect of Proposed Changes:

#### Plan to Eliminate Nonbeneficial Surface Water Discharge

**Section 1** amends s. 403.064, F.S., to create a timeline and plan to eliminate nonbeneficial surface water discharge within 5 years and contains a series of conditions for authorizing discharges that are being beneficially used or are otherwise regulated, or for various hardships (*see discussions on discharge conditions and hardship conditions below*).

The bill requires domestic wastewater utilities that dispose of effluent, reclaimed water, or reuse water by surface water discharge to submit a 5-year plan to eliminate nonbeneficial surface water discharge to the Department of Environmental Protection (DEP). The plan must be:

- Submitted by November 1, 2021, and
- Implemented by January 1, 2028 (January 1, 2030, for potable reuse projects).

Domestic wastewater utilities applying for a permit for new or expanded surface water discharge must also submit a discharge elimination plan.

The plan must include:

---

<sup>76</sup> Fla. Admin. Code R. 62-528.200(66), defines the term “underground source of drinking water” to mean aquifer. DEP, *Aquifer Protection Program – UIC*, <https://floridadep.gov/water/aquifer-protection> (last visited Jan. 12, 2021).

<sup>77</sup> DEP, *Aquifer Protection Program -UIC*, <https://floridadep.gov/water/aquifer-protection> (last visited Jan. 12, 2021); *see* ch. 62-528, F.A.C., for underground injection control permitting requirements.

<sup>78</sup> Fla. Admin. Code R. 62-528.300(1)(e).

<sup>79</sup> Fla. Admin. Code R. 62-610.563. Full treatment and disinfection criteria require meeting all primary and secondary drinking water standards and limits total organic carbon and halogen.

<sup>80</sup> Fla. Admin. Code R. 62-610.466(9)(a).

<sup>81</sup> Fla. Admin. Code R. 62-610.466(9)(b).

<sup>82</sup> Fla. Admin. Code R. 62-610.563(3).

- The average gallons per day of effluent, reclaimed water, or reuse water which will no longer be discharged into surface waters and the date of such elimination;
- The average gallons per day of surface water discharge which will continue in accordance with the requirements for the elimination of ocean outfalls, one of the discharge conditions specified in the bill (*see discussion below*), or one of the hardship conditions (*see discussion below*); and
- The level of treatment which the effluent, reclaimed water, or reuse water will receive before being discharged into surface water by each alternative.

To be approved, the plan must:

- Result in eliminating surface water discharge;
- Result in meeting statutory requirements regarding the discharge of domestic wastewater through ocean outfall; or
- Meet one of the discharge conditions (*see discussion below*) if the plan does not provide complete elimination of surface water discharge.

DISCHARGE CONDITIONS: DEP will approve a plan even if it does not provide for complete elimination of surface water discharge if:

- The discharge is associated with an indirect potable reuse project;
- The discharge is a permitted wet weather discharge;
- The discharge is into a stormwater management system and is subsequently withdrawn for irrigation purposes;
- The utility operates domestic wastewater treatment facilities with reuse systems that reuse a minimum of 90% of a facility's annual average flow, as determined by DEP using monitoring data for the prior 5 consecutive years, for reuse purposes authorized by DEP; or
- The discharge provides direct ecological or public water supply benefits, such as rehydrating wetlands or implementing the requirements of minimum flows and minimum water levels or recovery or prevention strategies for a waterbody.

A plan may include conceptual plans for indirect potable reuse projects or projects that provide direct ecological or public water supply. However, the inclusion of conceptual plans for such projects may not extend the timeline for implementing the plan.

HARDSHIP CONDITIONS: DEP must also approve the plan if a utility demonstrates that:

- It is technically, economically, or environmentally infeasible for the utility to meet the conditions above within 5 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 reasonable return on investment, and the unaffordability of implementing any combination of the alternatives; and
- The plan provides a means to eliminate the discharge to the extent feasible.

If a utility demonstrates hardship conditions, the utility must update its plan annually to demonstrate that it continues to meet the hardship conditions until it can eliminate the discharge. DEP must review updated plans to verify that a utility continues to meet the hardship conditions. If DEP determines that the utility no longer meets hardship conditions, the utility must submit a

plan within 9 months of receiving notice from DEP and must fully implement the plan within 5 years of receiving approval of the plan by DEP.

The bill provisions also do not apply to domestic wastewater treatment facilities that are located in a:

- Fiscally constrained county;
- Municipality that is entirely within a rural area of opportunity; and
- Municipality with less than \$10 million in total revenue, as determined by the municipality's most recent annual financial report submitted to the Department of Financial Services.

The bill requires DEP to approve a plan within 9 months after receiving the plan, including all of the information required under the bill. If a plan is approved, DEP must incorporate the plan into a utility's operating permit. A utility may modify its plan by an amendment to the permit, but the permit may not be amended such that the permit no longer meets the bill's requirements. DEP may not extend the time within which a plan must be implemented.

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 discharge after January 1, 2028. A violation subjects a utility to administrative and civil penalties.

The bill requires DEP to submit a report by December 31 annually to the President of the Senate and the Speaker of the House of Representatives, which provides:

- The average gallons per day of effluent, reclaimed water, or reuse water which will no longer be discharged into surface waters by the utility and the dates of such elimination;
- The average gallons per day of surface water discharge which will continue in accordance with the requirements for the elimination of ocean outfalls, one of the discharge conditions, or one of the hardship conditions; and
- Any modified or new plans submitted by a utility since the last report.

The bill provides that the requirement for a plan to eliminate nonbeneficial surface water discharges does not prohibit the inclusion of a plan for backup discharges and may not exempt a utility from requirements that prohibit the causing of or contributing to violations of water quality standards in surface waters, including groundwater discharges that affect water quality in surface waters.

The bill provides a legislative statement that sufficient water supply is imperative to this state's future and that potable reuse is a source of water that may assist in meeting future demand for water supply.

The bill authorizes DEP to convene and lead one or more technical advisory groups to coordinate rulemaking and review rules for potable reuse. The technical advisory group must consist of knowledgeable representatives of stakeholders, including, but not limited to, representatives from the:

- Water management districts;
- Wastewater utility industry;

- Water utility industry;
- Environmental community;
- Business community;
- Public health community;
- Agricultural community; and
- Consumers.

The bill specifies that potable reuse is an alternative water supply to make reuse projects eligible for alternative water supply funding. The bill also specifies that potable reuse water may not be excluded from regional water supply planning.

The bill requires DEP and the water management districts to develop and execute, by December 31, 2023, a memorandum of agreement (MOU) to conduct a coordinated review of all permits associated with the construction and operation of an indirect potable reuse project. The MOU must provide that the review will occur only if requested by a permittee. The bill states that the purpose of the coordinated review is to share information, avoid redundancies, and ensure consistency in the permit to protect public health and the environment.

The bill incentivizes the development of potable reuse projects by private entities through eligibility for expedited permitting, beginning January 1, 2026, and eligibility for priority funding from the Drinking Water State Revolving Fund, under the Water Protection and Sustainability Program, and for water management district cooperative funding.

The bill does not supersede existing requirements relating to the use of reclaimed water.

### **Graywater Incentives**

**Section 2** creates s. 403.892, F.S., to provide incentives for the use of graywater technologies.

The bill defines the term “developer” to mean any person, including a governmental agency, undertaking any development.<sup>83</sup> The bill defines “graywater” to mean the part of domestic sewage that is not blackwater, including waste from the bath, lavatory, laundry, and sink, except kitchen sink waste.<sup>84</sup>

The bill requires a county, municipality, and special district to promote the beneficial reuse of water in this state by:

- Authorizing graywater technologies in their respective jurisdictions that meet the requirement for residential use of graywater systems and technologies, the Florida Building Code, and applicable requirements of the Florida Department of Health and have received all applicable regulatory permits or authorizations; and
- Providing density and intensity bonuses to developers and homebuilders to fully offset the capital costs of the technology and installation costs.

---

<sup>83</sup> Section 380.031, F.S.

<sup>84</sup> Section 381.0065, F.S.

To qualify for the incentives, the bill requires the developer or homebuilder to certify to the applicable governmental entity as part of its application for development approval or amendment of a development order that all of the following conditions are met:

- The proposed or existing development has at least 25 single-family residential homes that are either detached or multifamily dwellings, but the development must not be over 5 stories in height;
- Each single-family residential home or residence has its own residential graywater system that is dedicated for its use;
- The developer 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. A submission from a building code official, government entity, or research institute that has monitored or measured the residential graywater system that is proposed to be installed for such development is acceptable as reasonable assurance; and
- The required maintenance of the graywater system is the responsibility of the residential homeowner or manufacturer; and
- An operation and maintenance manual for the system must be supplied to the initial residential property owner, along with a method of contacting the installer or manufacturer and directions to the homeowner that the manual must remain with the residence throughout the life cycle of the system.

The bill provides that if the requirements to qualify for incentives are met, the county or municipality must include the incentives when it approves the development or amendment of a development order. The approval must also provide for the process that the developer or homebuilder will follow to verify that graywater systems have been purchased. Proof of purchase must be provided within 180 days from the issuance of a certificate of occupancy for single-family residential homes that are either detached or multifamily projects under five stories.

Under the bill, the installation of graywater systems in a county or municipality qualifies as a water conservation measure in a public water utility's water conservation plan. The measures' efficiency is commensurate with the amount of potable water savings estimated for each system provided by the developer or homebuilder.

### **Aquifer Storage and Recovery**

**Section 3** provides, to further promote the reuse of reclaimed water for irrigation purposes, that 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 reclaimed water aquifer storage and recovery wells injecting into a receiving groundwater that has less than 1,000 mg/L total dissolved solids if the applicant demonstrates that:

- It is injecting into a confined aquifer;
- There are no potable water supply wells within 3,500 feet of the aquifer storage and recovery wells;
- It has implemented institutional controls to prevent the future construction of public supply wells within 3,500 feet of the aquifer storage and recovery wells; and
- The recovered water is being used for irrigation purposes.

The bill specifies that the injection of reclaimed water that meets these requirements is not potable reuse.

The bill specifies that this section may not be construed to exempt the reclaimed water aquifer storage and recovery wells from requirements that prohibit the causing of or contribution to violations of water quality standards in surface water, including groundwater discharges that flow by interflow and affect water quality in surface water.

### **Declaration of Important State Interest**

**Section 4** provides a declaratory statement by the Legislature that the act fulfills an important state interest.

### **Effective Date**

**Section 5** provides that the bill will take effect upon becoming law.

## **IV. Constitutional Issues:**

### **A. Municipality/County Mandates Restrictions:**

Article VII, s. 18 of the Florida Constitution governs laws that require counties and municipalities to spend funds, limit the ability of counties and municipalities to raise revenue, or reduce the percentage of a state tax shared with counties and municipalities.

Subsection (a) of s. 18, Art. VII of the Florida Constitution provides that no county or municipality shall be bound by any general law requiring the county or municipality to spend funds or take action requiring the expenditure of funds unless the legislature determines that the law fulfills an important state interest and meets one of the exceptions specified in that subsection: provision of funding or a funding mechanism, enactment by a vote of two-thirds of the membership in each house, the expenditure is required to comply with a law that applies to all persons similarly situated, or the law is either required to comply with a federal requirement or required for eligibility for a federal entitlement.

The bill's provisions appear to apply to all similarly situated domestic wastewater treatment facilities, and all are required to comply unless the utility is eligible for an exemption. Section 4 of the bill contains a statement that the act fulfills an important state interest.

### **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 total statewide cost of compliance with the requirement to eliminate surface water discharge is indeterminate.

C. Government Sector Impact:

Some of the costs of implementation of the bill will likely be borne by municipal utilities.

**VI. Technical Deficiencies:**

None.

**VII. Related Issues:**

None.

**VIII. Statutes Affected:**

This bill substantially amends section 403.064 of the Florida Statutes.

This bill creates section 403.892 of the Florida Statutes.

**IX. Additional Information:**

A. Committee Substitute – Statement of Substantial Changes:

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

**CS by Environment and Natural Resources on February 1, 2021:**

- Authorizes utilities to include conceptual plans for potable reuse projects or projects that provide direct ecological or public water supply.
- Provides that the inclusion of conceptual plans for such projects may not extend the timeline for implementing the plan.



- Revises the provisions describing when the rules for the total dissolved solids allowable in aquifer storage and recovery apply to include that the recovered water is used for irrigation purposes.

Provides a statement that injection of reclaimed water meeting certain requirements is not potable reuse.

**B. Amendments:**

None.

---

This Senate Bill Analysis does not reflect the intent or official position of the bill's introducer or the Florida Senate.

---