# 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.)

Pre	pared By: The	Profession	al Staff of the C	ommittee on Enviro	nment and Natural Resources	
BILL:	SB 1878					
INTRODUCER:	Senators Bradley and Mayfield					
SUBJECT:	Environmental Protection					
DATE:	January 31,	2020	REVISED:			
ANALYST		STAFF DIRECTOR		REFERENCE	ACTION	
. Anderson		Rogers		EN	Pre-meeting	
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## I. Summary:

SB 1878 creates a new section of law that includes an annual appropriation, beginning in fiscal year 2020-2021, of a minimum of \$625 million for the purposes of Everglades restoration and the protection of water resources in the state. The appropriation would be repealed on June 30, 2023, unless reviewed and saved from repeal through reenactment by the Legislature.

The bill states that the annual appropriation to the Department of Environmental Protection must provide for the following distributions:

- The greater of \$300 million or the appropriation under the Land Acquisition Trust Fund for Everglades restoration and the Everglades Agricultural Area reservoir project.
- \$50 million to the South Florida Water Management District for the design, engineering, and construction of aquifer storage and recovery wells.
- Funding for spring restoration under the Land Acquisition Trust Fund.
- \$40 million for alternative water supplies or water conservation.
- \$15 million for projects within St. Johns, Suwannee, and Apalachicola Rivers watersheds.
- \$15 million for projects within the Indian River Lagoon watershed.
- \$10 million for coral reef protection and restoration.
- \$4 million to the Fish and Wildlife Conservation Commission for red tide research.

After the above distributions, any remaining balance must be allocated to fund:

- Targeted water quality improvements.
- Alternative water supplies or water conservation.
- Water quality enhancements and accountability, innovative technologies, and harmful algal bloom prevention and mitigation.
- Land acquisition or easement acquisition, including, but not limited to, lands or easements purchased pursuant to the Florida Forever or Rural and Family Lands Protection programs.

#### II. Present Situation:

# **Executive Order Number 19-12: Achieving More Now for Florida's Environment**

In January of 2019, Governor DeSantis issued the comprehensive Executive Order Number 19-12 (EO 19-12). EO 19-12 directs strategic action on Florida's environmental issues with a focus on accountability, transparency, and collaboration, and includes a proposed \$2.5 billion investment over the next four years. The order directs the Department of Environmental Protection (DEP) to implement actions on a large range of topics, including water quality, Everglades restoration and protection, harmful algal blooms, reservoir projects, Lake Okeechobee, alternative water supply, and more.

#### Office of Environmental Accountability and Transparency

EO 19-12 directed DEP to create the Office of Environmental Accountability and Transparency, which was created in 2019.<sup>3</sup> The Office is led by the Chief Science Officer and is located in the Office of the Secretary. The Office is charged with ensuring key water quality objectives are clearly communicated to the public, as well as organizing agency resources and science to focus on and solve complex challenges. The roles and responsibilities of the Office of Environmental Accountability and Transparency include:

- Providing leadership for agency priority issues that require integration of science, policy, and management, from multiple programs and organizations internal and external to DEP.
- Organizing and managing external communication on priority issues.
- Promoting and facilitating key agency research initiatives to address priority environmental issues.
- Exploring data and identifying opportunities for innovative approaches to addressing priority environmental issues.<sup>4</sup>

## Blue-Green Algae Task Force

EO 19-12 directed DEP to establish a Blue-Green Algae Task Force, which is charged with expediting progress towards reducing nutrient pollution and the impacts of blue-green algae (cyanobacteria) blooms in the state.<sup>5</sup> The task force's responsibilities include identifying priority projects for funding and making recommendations for regulatory changes. The five-person task force issued a consensus document on October 11, 2019.<sup>6</sup> This document contains guidance and recommendations on several topics, including: basin management action plans (BMAPs), agriculture and best management practices, septic systems, sanitary sewer overflows, and stormwater systems.

<sup>&</sup>lt;sup>1</sup> State of Florida, Office of the Governor, *Executive Order Number 19-12* (2019)[hereinafter *EO 19-12*], *available at* <a href="https://www.flgov.com/wp-content/uploads/orders/2019/EO\_19-12.pdf">https://www.flgov.com/wp-content/uploads/orders/2019/EO\_19-12.pdf</a>.

<sup>&</sup>lt;sup>2</sup> Department of Environmental Protection (DEP), *Protecting Florida Together*, <a href="https://protectingfloridatogether.gov/">https://protectingfloridatogether.gov/</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>3</sup> DEP, Office of Environmental Accountability and Transparency, <a href="https://floridadep.gov/oeat">https://floridadep.gov/oeat</a> (last visited Jan. 30, 2020).

<sup>4</sup> Ld

<sup>&</sup>lt;sup>5</sup> EO 19-12, at 2; DEP, Blue-Green Algae Task Force, <a href="https://protectingfloridatogether.gov/state-action/blue-green-algae-task-force">https://protectingfloridatogether.gov/state-action/blue-green-algae-task-force</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>6</sup> DEP, *Blue-Green Algae Task Force Consensus Document #1* (Oct. 11, 2019), *available at* <a href="https://floridadep.gov/sites/default/files/Final%20Consensus%20%231">https://floridadep.gov/sites/default/files/Final%20Consensus%20%231</a> 0.pdf.

## Harmful Algal Bloom Task Force/Red Tide Task Force

In 1999, the Legislature established a Harmful Algal Bloom Task Force for the purpose of determining research, monitoring, control, and mitigation strategies for red tide and other harmful algal blooms in Florida waters. The Fish and Wildlife Conservation Commission (FWC) appoints members to and coordinates the task force, and prior to 2019 its last official meeting was in 2002. Governor DeSantis reactivated the Harmful Algal Bloom Task Force, which is now also known as the Red Tide Task Force, and which has agreed to focus on issues associated with red tide as their top priority. EO 19-12 directs DEP and the Department of Health (DOH) to participate in the task force to provide technical expertise and help study air quality and human health impacts of red tide. Governor DeSantis reactivated the Harmful Algal Bloom Task Force, which is now also known as the Red Tide Task Force, and which has agreed to focus on issues associated with red tide as their top priority. Health (DOH) to participate in the task force to provide technical expertise and help study air quality and human health impacts of red tide.

## **Everglades Restoration**

Historically, the Everglades covered over seven million acres of South Florida, and water flowed down the Kissimmee River into Lake Okeechobee, then south through the vast Everglades to Florida Bay. The present Everglades system has been subdivided by the construction of canals, levees, roads, and other facilities as part of efforts to drain the system for agriculture, development, and flood control. As a result, the Everglades is less than half the size it was a century ago, and connections between the central Everglades and adjacent transitional wetlands have been lost. This separation and isolation can impair the Everglades' wildlife communities and the sustainability of the ecosystem. Over time, the construction of canals and water control structures along with urban and agricultural expansion contributed to unintended consequences.

After years of litigation concerning the water quality in the Everglades Protection Area, a consent decree was entered in the case of *United States v. South Florida Water Management District* in 1992.<sup>14</sup> The consent decree, as implemented by the Everglades Forever Act in 1994,<sup>15</sup> set forth a two-pronged approach consisting of building stormwater treatment areas (STAs) and implementing best management practices (BMPs) in the Everglades Agricultural Area (EAA) to reduce the total phosphorous levels in the Everglades Protection Area.<sup>16</sup> The plan originally consisted of the construction of four STAs covering 35,000 acres, but by 2006, the need for

<sup>&</sup>lt;sup>7</sup> Section 379.2271, F.S.

<sup>&</sup>lt;sup>8</sup> FWC, *Harmful Algal Bloom/Red Tide Task Force*, <a href="https://myfwc.com/research/redtide/taskforce/">https://myfwc.com/research/redtide/taskforce/</a> (last visited Jan. 31, 2020).

<sup>&</sup>lt;sup>9</sup> *Id.*; *EO 19-12*, at 3; DEP, *State Task Force Efforts: Red Tide Task Force*, <a href="https://protectingfloridatogether.gov/state-action/red-tide-task-force">https://protectingfloridatogether.gov/state-action/red-tide-task-force</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>10</sup> EO 19-12, at 3.

<sup>&</sup>lt;sup>11</sup> SFWMD, Everglades, https://www.sfwmd.gov/our-work/everglades (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>12</sup> *Id*.

<sup>&</sup>lt;sup>13</sup> See SFWMD, Everglades Restoration Progress, 1 (2017), available at <a href="https://www.sfwmd.gov/sites/default/files/documents/spl\_everglades\_progress.pdf">https://www.sfwmd.gov/sites/default/files/documents/spl\_everglades\_progress.pdf</a>.

 <sup>&</sup>lt;sup>14</sup> Case No. 88-1886-CIV-Moreno (S.D. Fla. 1992); see also SFWMD, Restoration Strategies Regional Water Quality Plan, Science Plan for the Everglades Stormwater Treatment Areas, 2 (June 2013) [hereinafter Science Plan], available at <a href="https://www.sfwmd.gov/sites/default/files/documents/rs-scienceplan 060713-final.pdf">https://www.sfwmd.gov/sites/default/files/documents/rs-scienceplan 060713-final.pdf</a> (last visited Jan. 31, 2020).
 <sup>15</sup> Section 373.4592, F.S.

<sup>&</sup>lt;sup>16</sup> See SFWMD, Long-Term Plan for Achieving Water Quality Goals, <a href="https://www.sfwmd.gov/our-work/wq-stas/long-term-plan">https://www.sfwmd.gov/our-work/wq-stas/long-term-plan</a> (last visited Jan. 18, 2020); see SFWMD, Regulatory Source Control Programs, <a href="https://www.sfwmd.gov/our-work/wq-stas/long-term-plan">https://www.sfwmd.gov/our-work/wq-stas/long-term-plan</a> (last visited Jan. 19, 2020); see SFWMD, Water Quality Improvement - Stormwater Treatment Areas (STAs), <a href="https://www.sfwmd.gov/our-work/wq-stas/long-term-plan">https://www.sfwmd.gov/our-work/wq-stas/long-term-plan</a> (last visited Jan. 19, 2020).

additional STA acreage became clear.<sup>17</sup> By 2010, approximately 57,000 acres of STAs were built and operating.<sup>18</sup> Subsequently, conversations began between the United States Environmental Protection Agency (EPA) and the South Florida Water Management District (SFWMD) and, in 2012, they were able to reach a consensus on a new strategy for improving the water quality in the Everglades called the Restoration Strategies Regional Water Quality Plan.<sup>19</sup>

Restoration Strategies is an \$800 million technical plan to complete a suite of projects intended to expand water quality improvement projects necessary to achieve phosphorous water quality standards.<sup>20</sup> Under these strategies, the SFWMD must complete several projects that will create more than 6,500 acres of new STAs and 116,000 acre-feet of additional water storage.<sup>21</sup>

# Comprehensive Everglades Restoration Plan (CERP)

The aforementioned programs work in cooperation with the multi-billion-dollar, multi-decade Comprehensive Everglades Restoration Plan (CERP).<sup>22</sup> CERP was submitted to Congress in 1999 and received congressional authorization in 2000.<sup>23</sup> Under CERP, the federal government and the state equally fund the costs of restoration in a 50-50 partnership. The United States Army Corps of Engineers is the lead federal agency, and the SFWMD is the lead state agency.<sup>24</sup> CERP is composed of a series of projects designed to address four major characteristics of water flow: quantity, quality, timing, and distribution.<sup>25</sup> The primary goal is to capture freshwater that flows unused to the Atlantic Ocean and the Gulf of Mexico, through the C-44 and C-43 Canals respectively, and to deliver it when and where it is needed most. The CERP includes more than 68 project components which focus on improving the water delivery and timing within the Everglades system by increasing the size of natural areas, improving water quality, releasing water in a manner that mimics historical flow patterns, and storing and distributing water for urban, agricultural, and ecological uses.<sup>26</sup> Major features of the CERP include surface water storage reservoirs, water preserve areas, management of Lake Okeechobee as an ecological resource, improvement of water deliveries to the estuaries, underground water storage, treatment wetlands, improvement of water deliveries to the Everglades, removal of barriers to sheet flow,

<sup>&</sup>lt;sup>17</sup> Science Plan at 2.

<sup>18</sup> Id.

<sup>&</sup>lt;sup>19</sup> SFWMD, *quick facts on ...Restoration Strategies for Clean Water for the Everglades* (Feb. 2017), *available at* <a href="https://www.sfwmd.gov/sites/default/files/documents/spl\_restoration\_strategies.pdf">https://www.sfwmd.gov/sites/default/files/documents/spl\_restoration\_strategies.pdf</a>.

<sup>&</sup>lt;sup>20</sup> SFWMD, *Harmful Nutrients in the Everglades Now Reduced by 90%*, 2, *available at* <a href="https://www.sfwmd.gov/sites/default/files/documents/infographic everglades wq.pdf">https://www.sfwmd.gov/sites/default/files/documents/infographic everglades wq.pdf</a>.

<sup>&</sup>lt;sup>21</sup> Science Plan at 3; see SFWMD, Restoration Strategies for Clean Water for the Everglades, <a href="https://www.sfwmd.gov/our-work/restoration-strategies">https://www.sfwmd.gov/our-work/restoration-strategies</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>22</sup> SFWMD, CERP Project Planning, https://www.sfwmd.gov/our-work/cerp-project-planning (last visited Jan. 18, 2020).

<sup>&</sup>lt;sup>23</sup> Water Resources Development Act of 2000, P.L. 106-541, Dec. 11, 2000.

<sup>&</sup>lt;sup>24</sup> U.S. Army Corps of Engineers (USACE), *Corps of Engineers, Partners, Report on Progress Restoring America's Everglades* (Mar. 30, 2016), <a href="https://www.usace.army.mil/Media/News-Archive/Story-Article-View/Article/710178/corps-of-engineers-partners-report-on-progress-restoring-americas-everglades/">https://www.usace.army.mil/Media/News-Archive/Story-Article-View/Article/710178/corps-of-engineers-partners-report-on-progress-restoring-americas-everglades/</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>25</sup> USACE, Corps of Engineers, Partners, Report on Progress Restoring America's Everglades (Mar. 30, 2016), <a href="https://www.usace.army.mil/Media/News-Archive/Story-Article-View/Article/710178/corps-of-engineers-partners-report-on-progress-restoring-americas-everglades/">https://www.usace.army.mil/Media/News-Archive/Story-Article-View/Article/710178/corps-of-engineers-partners-report-on-progress-restoring-americas-everglades/</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>26</sup> See USACE, Comprehensive Everglades Restoration (CERP) Overview (Jul. 2018), <a href="https://usace.contentdm.oclc.org/digital/api/collection/p16021coll11/id/2570/download">https://usace.contentdm.oclc.org/digital/api/collection/p16021coll11/id/2570/download</a>.

storage of water in existing quarries, reuse of wastewater, and the improvement of water flows to Florida Bay.<sup>27</sup>

The Integrated Delivery Schedule (IDS) is the timeline of Everglades restoration projects cost shared by the state and federal governments.<sup>28</sup> The IDS provides the sequencing strategy for planning, designing, and constructing projects based on ecosystem needs, benefits, costs, and available funding.<sup>29</sup> The IDS achieves restoration benefits by maximizing benefits to the regional system as early as possible, ensuring the readiness of additional projects, and maintaining consistency among projects.<sup>30</sup> The IDS was most recently updated in October of 2019.<sup>31</sup>

# CERP: Aquifer Storage and Recovery

As part of CERP, it was estimated that up to 333 wells could store water underground for the Everglades and natural systems.<sup>32</sup> Aquifer Storage and Recovery (ASR) systems involve taking surplus fresh surface water, treating it as required for permit compliance, and storing it in the Floridan Aquifer System for subsequent recovery.<sup>33</sup> The injected fresh water replaces brackish water to form a "freshwater bubble."<sup>34</sup> In 2015, a regional study of ASR was completed and found that large capacity ASR systems could be built and operated in South Florida; however, based on groundwater monitoring evaluations, the study recommended reducing the overall number of ASR wells to 131, to avoid adverse effects to the aquifer, groundwater, and existing users.<sup>35</sup>

Additionally, two pilot projects were completed: one in the Kissimmee Basin and one near the Hillsboro Canal, which determined that ASR systems in the Lake Okeechobee in the upper portions of the Floridan aquifer system could achieve a rate of recoverability of upwards of 100 percent of stored water due to the freshwater quality of the aquifer in that region, but, conversely, ASR systems south of the lake, because of the brackish quality of the aquifer in that region,

<sup>&</sup>lt;sup>27</sup> USACE and SFWMD, Central and Southern Florida Project Comprehensive Review Study, Final Feasibility Report and Programmatic Environmental Impact Statement, vii-ix (Apr. 1999), available at <a href="https://www.sfwmd.gov/sites/default/files/documents/CENTRAL">https://www.sfwmd.gov/sites/default/files/documents/CENTRAL</a> AND SOUTHERN FLORIDA PROJECT COMPREHE NSIVE REVIEW STUDY.pdf.

<sup>&</sup>lt;sup>28</sup> SFWMD, CERP Planning, <a href="https://www.sfwmd.gov/our-work/cerp-project-planning">https://www.sfwmd.gov/our-work/cerp-project-planning</a> (Jan. 30, 2020); USACE, Integrated Delivery Schedule, <a href="https://www.saj.usace.army.mil/Missions/Environmental/Ecosystem-Restoration/Integrated-Delivery-Schedule/">https://www.saj.usace.army.mil/Missions/Environmental/Ecosystem-Restoration/Integrated-Delivery-Schedule/</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>29</sup> SFWMD, CERP Planning, <a href="https://www.sfwmd.gov/our-work/cerp-project-planning">https://www.sfwmd.gov/our-work/cerp-project-planning</a> (Jan. 30, 2020).

<sup>&</sup>lt;sup>31</sup> USACE, Integrated Delivery Schedule - A South Florida Ecosystem Restoration program Snapshot Through 2030, <a href="https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll11/id/4143">https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll11/id/4143</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>32</sup> USACE, *Aquifer Storage and Recovery (ASR), Regional Study* (2018), http://cdm16021.contentdm.oclc.org/utils/getfile/collection/p16021coll11/id/1994 (last visited Jan. 30, 2020). <sup>33</sup> *Id.* 

 <sup>&</sup>lt;sup>34</sup> SFWMD, Aquifer Storage and Recovery, <a href="https://www.sfwmd.gov/our-work/alternative-water-supply/asr">https://www.sfwmd.gov/our-work/alternative-water-supply/asr</a> (Jan. 30, 2020).
 <sup>35</sup> USACE and SFWMD, Final Technical Data Report, Aquifer Storage and Recovery Regional Study, xvii, xx (May 2015), available at

http://www.saj.usace.army.mil/Portals/44/docs/Environmental/ASR%20Regional%20Study/Final\_Report/ASR\_RegionalStudy\_Final\_2015.pdf.pdf (last visited Jan. 31, 2017); USACE, Aquifer Storage and Recovery (ASR), Regional Study (2018), http://cdm16021.contentdm.oclc.org/utils/getfile/collection/p16021coll111/id/1994 (last visited Jan. 30, 2020).

would require successive cycles over a few years to achieve a target of 70 percent recovery.<sup>36</sup> Water injected into ASR wells must meet Florida's drinking water quality standards.<sup>37</sup>

# CERP: Everglades Agricultural Area Reservoir

The EAA Reservoir project was conditionally authorized in the federal Water Resources Development Act of 2000 as a component of CERP.<sup>38</sup> To accelerate progress on the project, Senate Bill 10 was passed by the Florida Legislature and signed into law by Gov. Rick Scott in 2017.<sup>39</sup> In 2018, the U.S. Congress provided the required federal authorization and approved a plan developed by the South Florida Water Management District.<sup>40</sup> In 2019, EO 19-12 directed DEP to instruct SFWMD to immediately start the next phase of the project design and ensure that USACE approve the project according to schedule.<sup>41</sup>

The project includes a combination of canals, STAs, and a storage reservoir—all intended to improve water quality in the Everglades. The reservoir is anticipated to hold 240,000 acre-feet of water and include a new STA. SFWMD expects to begin the full design of the A-2 STA component of the project soon and is working to obtain state and federal permits to clear land for the construction of a canal for the project. Right now, critical site preparation and preliminary design work is underway. 44

# **Outstanding Florida Springs**

Florida's springs are unique and beautiful resources that form when groundwater is forced out through natural openings in the ground. <sup>45</sup> The historically crystal clear waters provide not only a variety of recreational opportunities and habitats, but also great economic value for recreation and tourism. Springs are major sources of stream flow in a number of rivers such as the Rainbow, Chassahowitzka, Homosassa, and Ichetucknee. <sup>46</sup> Additionally, Florida's springs provide a "window" into the Floridan aquifer system, which provides most of the state's drinking water.

Florida has more than 700 recognized springs, categorized by flow in cubic feet per second.<sup>47</sup> First magnitude springs are those that discharge 100 cubic feet of water per second or greater.

<sup>&</sup>lt;sup>36</sup> USACE and SFWMD, Final Technical Data Report, Aquifer Storage and Recovery Regional Study, xxix (May 2015).

<sup>&</sup>lt;sup>37</sup> DEP, *UIC Wells Classification*, <a href="https://floridadep.gov/water/aquifer-protection/content/uic-wells-classification">https://floridadep.gov/water/aquifer-protection/content/uic-wells-classification</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>38</sup> The Water Resources Development Act of 2000 (P.L. 106-541, Dec. 11, 2000).

<sup>&</sup>lt;sup>39</sup> Chapter 2017-10, Laws of Fla.

<sup>&</sup>lt;sup>40</sup> SFWMD, Everglades Agricultural Area Storage Reservoir Project, <a href="https://www.sfwmd.gov/our-work/cerp-project-planning/eaa-reservoir">https://www.sfwmd.gov/our-work/cerp-project-planning/eaa-reservoir</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>41</sup> EO 19-12, at 2, available at https://www.flgov.com/wp-content/uploads/orders/2019/EO\_19-12.pdf.

<sup>&</sup>lt;sup>42</sup> SFWMD, Everglades Agricultural Area Storage Reservoir Project, <a href="https://www.sfwmd.gov/our-work/cerp-project-planning/eaa-reservoir">https://www.sfwmd.gov/our-work/cerp-project-planning/eaa-reservoir</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>43</sup> *Id*.

<sup>&</sup>lt;sup>44</sup> *Id*.

<sup>&</sup>lt;sup>45</sup> Department of Community Affairs, *Protecting Florida's Springs: An Implementation Guidebook*, 3-1 to 3-2 (Feb. 2008), *available at* <a href="http://www.tampabay.wateratlas.usf.edu/upload/documents/Protecting-Floridas-Springs-Implementation-Guidebook.pdf">http://www.tampabay.wateratlas.usf.edu/upload/documents/Protecting-Floridas-Springs-Implementation-Guidebook.pdf</a>.

<sup>&</sup>lt;sup>46</sup> *Id*. at 3-1.

<sup>&</sup>lt;sup>47</sup> Florida Geological Survey, *Springs of Florida Bulletin No.* 66, available at <a href="http://publicfiles.dep.state.fl.us/FGS/WEB/springs/bulletin">http://publicfiles.dep.state.fl.us/FGS/WEB/springs/bulletin</a> 66.pdf.

Florida has 33 first magnitude springs in 18 counties that discharge more than 64 million gallons of water per day. Spring discharges are used to determine groundwater quality and the degree of human impact on a spring's recharge area. Rainfall, surface conditions, soil type, mineralogy, the composition and porous nature of the aquifer system, flow, and length of time in the aquifer all contribute to groundwater chemistry.<sup>48</sup>

In 2016, the Legislature passed the Florida Springs and Aquifer Protection Act, which identified 30 "Outstanding Florida Springs" (OFS) that have additional statutory protections and requirements to ensure their conservation and restoration for future generations. <sup>49</sup> A key aspect of the Springs and Aquifer Protection Act relating to water quality is the designation of a priority focus area for each OFS where the Floridan Aquifer is generally most vulnerable to pollutant inputs as delineated in a BMAP. <sup>50</sup> Additionally, the Springs and Aquifer Protection Act includes the development of onsite sewage treatment and disposal system (OSTDS) remediation plans. <sup>51</sup>

# **Alternative Water Supply**

Between 2010 and 2030, statewide demand for water is expected to increase due to increased public supply, agricultural irrigation, and other water uses. Total water withdrawals for all uses are expected to increase by almost 21 percent to about 1.3 billion gallons per day.<sup>52</sup> As water use continues to increase, one of the ways water demands can be met is through the development of alternative water supplies (AWSs).<sup>53</sup> Alternative water supplies include:<sup>54</sup>

- Salt water or brackish surface water and groundwater, which can be converted to fresh water through desalination;<sup>55</sup>
- Sources made available through increasing storage capacity for surface or groundwater; for example, through surface reservoirs or by injecting potable water into the aquifer;<sup>56</sup>
- Water that has been reclaimed after one or more public supply, municipal, industrial, commercial, or agricultural uses;
- The downstream augmentation of waterbodies with reclaimed water;
- Stormwater; and
- Any other water supply source that is designated as a nontraditional source for a water supply planning region in a regional water supply plan.

<sup>&</sup>lt;sup>48</sup> *Id*.

<sup>&</sup>lt;sup>49</sup> Chapter 2016-1, Laws of Fla.; *see* s. 373.802, F.S., Outstanding Florida Springs include all historic first magnitude springs, including their associated spring runs, as determined by DEP using the most recent Florida Geological Survey springs bulletin, and De Leon Springs, Peacock Springs, Poe Springs, Rock Springs, Wekiwa Springs, and Gemini Springs, and their associated spring runs.

<sup>&</sup>lt;sup>50</sup> Section 373.802(5), F.S.

<sup>&</sup>lt;sup>51</sup> Commonly called a "septic remediation plan."

<sup>&</sup>lt;sup>52</sup> DEP, *Alternative Water Supply*, <a href="https://floridadep.gov/water-policy/water-policy/content/alternative-water-supply">https://floridadep.gov/water-policy/water-policy/content/alternative-water-supply</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>53</sup> Sections 373.707, F.S.

<sup>&</sup>lt;sup>54</sup> Section 373.019(1), F.S.

<sup>&</sup>lt;sup>55</sup> DEP, *Alternative Water Supply*, <a href="https://floridadep.gov/water-policy/content/alternative-water-supply">https://floridadep.gov/water-policy/content/alternative-water-supply</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>56</sup> *Id.*; see also DEP, Water Supply, <a href="https://floridadep.gov/water-policy/water-policy/content/water-supply">https://floridadep.gov/water-policy/water-policy/content/water-supply</a> (last visited Jan. 30, 2020).

Funding for the development of AWSs is a shared responsibility between water suppliers and users, the state, and WMDs.<sup>57</sup> Water suppliers and users have the primary responsibility for providing funding, while the state and WMDs have the responsibility to provide funding assistance.<sup>58</sup>

AWS development projects may receive state funding through specific appropriation or through the Water Protection and Sustainability Program (WPSP) if funded by the Legislature. <sup>59</sup> Applicants for projects that receive funding through the WPSP are required to pay at least 60 percent of the project's construction costs. <sup>60</sup> A WMD may waive this requirement for projects developed by financially disadvantaged small local governments. Additionally, a WMD may, at its discretion, use ad valorem or federal revenues to assist a project applicant in meeting the match requirement. <sup>61</sup>

#### St. Johns River

The St. Johns River is the longest river that is entirely within the state. <sup>62</sup> The St. Johns River is divided into three watersheds: the Lower St. Johns River Basin, the Middle St. Johns River Basin, and the Upper St. Johns River Basin. Because the river flows north, the upper basin refers to the area that forms in Indian River and Brevard counties, south of the middle and lower basins. <sup>63</sup> Major tributaries that flow into the St. Johns River include the Wekiva River, the Econlockhatchee River, and the Ocklawaha River. <sup>64</sup> The river is home to many plant species and marine animals, including manatees, largemouth bass and many other species of fish, crabs, shrimp, river otters, waterfowl, blue herons, bald eagles, and alligators. <sup>65</sup>

Stormwater runoff from urban areas, treated domestic and industrial wastewater, and agricultural runoff from farming areas affects the water quality of the St. Johns River. <sup>66</sup> The largest contributor of pollution in the lower basin is treated wastewater, with additional significant sources of nutrient pollution coming from agricultural areas. <sup>67</sup> The upper basin was drained and diked for agricultural purposes and now the floodwaters from the basin drain to the Indian River Lagoon to the east, which diminishes the water quality in the lagoon and degrades the upper basin's remaining marshes. <sup>68</sup>

<sup>&</sup>lt;sup>57</sup> Section 373.707(2)(c), F.S.

<sup>&</sup>lt;sup>58</sup> Id.

<sup>&</sup>lt;sup>59</sup> Section 373.707(1)(d), and (6), F.S.

<sup>&</sup>lt;sup>60</sup> Section 373.707(8)(e), F.S.

<sup>61</sup> Id.

<sup>&</sup>lt;sup>62</sup> SJRWMD, The St. Johns River, https://www.sjrwmd.com/waterways/st-johns-river/ (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>63</sup> *Id*.

<sup>&</sup>lt;sup>64</sup> *Id*.

<sup>65</sup> Id.

<sup>&</sup>lt;sup>66</sup> SJRWMD, *Lower St. Johns River Basin*, <a href="https://www.sjrwmd.com/waterways/st-johns-river/lower/">https://www.sjrwmd.com/waterways/st-johns-river/lower/</a> (last visited Jan. 30, 2020).

<sup>67</sup> Id.

<sup>&</sup>lt;sup>68</sup> SJRWMD, *Upper St. Johns River Basin*, <a href="https://www.sjrwmd.com/waterways/st-johns-river/upper/">https://www.sjrwmd.com/waterways/st-johns-river/upper/</a> (last visited Jan. 30, 2020).

#### **Suwannee River**

The Suwannee River Watershed covers approximately 9,950 square miles in south Georgia and north Florida.<sup>69</sup> The watershed consists of the Suwannee River and all the creeks and streams which flow into the Suwannee as it makes its way to the Gulf of Mexico. The Suwannee River originates in the Okefenokee Swamp and has three major tributaries: the Alapaha, Little, and Withlacoochee Rivers.<sup>70</sup> The swamp and all three rivers begin in south Georgia.

Seven springs in the Suwannee River Basin are impaired Outstanding Florida Springs: Fanning Springs, Manatee Spring, Falmouth Spring, Troy Spring, Lafayette Blue Spring, Madison Blue Spring, and Peacock Springs.<sup>71</sup> Many species of fish and wildlife depend on the watershed, including deer, raccoon, fox, egrets, herons, manatees, alligator snapping turtles, and black bears.<sup>72</sup> The Suwannee River Watershed also includes the Big Bend Seagrasses Aquatic Preserve, which is the second largest contiguous area of seagrass habitat in the eastern Gulf of Mexico.<sup>73</sup>

## **Apalachicola River**

The Apalachicola River is the largest river in Florida and provides 35 percent of the freshwater entering the northeastern Gulf of Mexico, accounting for the second largest freshwater inflow to the Gulf.<sup>74</sup> The Apalachicola River and the adjoining Chattahoochee and Flint Rivers comprise a drainage system encompassing more than 19,000 square miles of southern Georgia, eastern Alabama, and northern Florida.<sup>75</sup>

The area harbors one of the highest concentrations of threatened and endangered species in the United States.<sup>76</sup> Apalachicola Bay is a productive estuary, supplying approximately 90% of the oysters in Florida and 10% nationally, and is an important nursery ground for numerous commercially and recreationally important fish and invertebrate species.<sup>77</sup> The coastal systems within the Apalachicola River System are nationally recognized for their important

<sup>&</sup>lt;sup>69</sup> United States Fish & Wildlife Service, *Suwannee River Watershed: Conserving the Georgia/Florida Connection*, *available* at <a href="https://www.fws.gov/northflorida/Documents/NFL">https://www.fws.gov/northflorida/Documents/NFL</a> Suwanee factsheet.pdf.

<sup>70</sup> *Id*.

<sup>&</sup>lt;sup>71</sup> DEP, *Suwannee River Basin Management Action Plan*, 12 (June 2018), *available at* https://floridadep.gov/sites/default/files/Suwannee%20Final%202018.pdf.

<sup>&</sup>lt;sup>72</sup> United States Fish & Wildlife Service, *Suwannee River Watershed: Conserving the Georgia/Florida Connection*, *available at* https://www.fws.gov/northflorida/Documents/NFL\_Suwanee\_factsheet.pdf.

<sup>&</sup>lt;sup>73</sup> DEP, *Big Bend Seagrasses Aquatic Preserve- Management and Protection of Seagrasses*, <a href="https://floridadep.gov/rcp/aquatic-preserve/content/big-bend-seagrasses-aquatic-preserve-management-and-protection">https://floridadep.gov/rcp/aquatic-preserve/content/big-bend-seagrasses-aquatic-preserve-management-and-protection</a> (last visited Jan. 29, 2020).

<sup>&</sup>lt;sup>74</sup> Department of Economic Opportunity, *Apalachicola Bay Area*, <a href="http://www.floridajobs.org/community-planning-and-development/programs/community-planning-table-of-contents/areas-of-critical-state-concern/city-of-apalachicola">http://www.floridajobs.org/community-planning-and-development/programs/community-planning-table-of-contents/areas-of-critical-state-concern/city-of-apalachicola</a> (last visited Jan. 30, 2020); *see also*, U.S. Fish and Wildlife Service, *Next Steps for a Healthy Gulf of Mexico Watershed*, <a href="https://www.fws.gov/southeast/gulf-restoration/next-steps/focal-area/greater-apalachicola-basin/">https://www.fws.gov/southeast/gulf-restoration/next-steps/focal-area/greater-apalachicola-basin/</a> (last visited Jan. 30, 2020). <a href="https://www.fws.gov/southeast/gulf-restoration/next-steps/focal-area/greater-apalachicola-basin/">https://www.fws.gov/southeast/gulf-restoration/next-steps/focal-area/greater-apalachicola-basin/</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>76</sup> *Id*.

<sup>&</sup>lt;sup>77</sup> *Id*.

environmental resources through designations such as State Aquatic Preserve, 78 Outstanding Florida Water. 79 and National Estuarine Research Reserve. 80

Diminished flow rates resulting from recent droughts and upstream consumptive water uses have impacted the ecology of the river systems and Apalachicola Bay, which is directly influenced by the amount, timing, and duration of freshwater inflow from the Apalachicola River.<sup>81</sup>

## **Indian River Lagoon**

The Indian River Lagoon system (IRL) is a 156-mile-long estuary spanning approximately 40 percent of Florida's east coast.<sup>82</sup> There are six coastal counties in the IRL watershed: Volusia, Brevard, Indian River, St. Lucie, Martin, and Palm Beach. 83 There are three interconnected lagoons in the IRL basin: Mosquito Lagoon, Banana River Lagoon, and Indian River Lagoon.<sup>84</sup> The IRL is one of the most biologically diverse estuaries in North America. 85 It is home to more than 2,000 species of plants, 600 species of fish, 300 species of birds, and 53 threatened or endangered species.<sup>86</sup> In 2014, the estimated annual economic value received from the IRL was approximately \$7.6 billion, around \$1.57 billion of which is attributable to recreation and visitorrelated activity. 87 Industry groups that are directly influenced by the IRL support nearly 72,000 jobs.88

The IRL ecosystem has been harmed by human activities in the region. Stormwater runoff from urban and agricultural areas, wastewater treatment facility discharges, canal discharges, septic systems, animal waste, and fertilizer applications have led to harmful levels of nutrients and sediments entering the lagoon.<sup>89</sup> These pollutants create cloudy conditions, feed algal blooms, and lead to muck accumulation, all of which negatively impact the seagrass that provides habitat for much of the IRL's marine life. 90 During the 2011 "Superbloom," intense algal blooms of phytoplankton occurred throughout most of the IRL, lasting for seven months and resulting in

<sup>78</sup> DEP, Apalachicola Bay Aquatic Preserve, https://floridadep.gov/rcp/aquatic-preserve/locations/apalachicola-bay-aquaticpreserve (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>79</sup> Fla. Admin. Code R. 62-302.700.

<sup>80</sup> DEP, National Estuarine Research Reserves - Apalachicola, https://floridadep.gov/RCP/NERR-Apalachicola (last visited Jan. 30, 2020).

<sup>81</sup> U.S. Fish and Wildlife Service, Next Steps for a Healthy Gulf of Mexico Watershed, https://www.fws.gov/southeast/gulfrestoration/next-steps/focal-area/greater-apalachicola-basin/ (last visited Jan. 30, 2020).

<sup>82</sup> IRLNEP, About the Indian River Lagoon, http://www.irlcouncil.com/ (last visited Jan. 30, 2019).

<sup>83</sup> DEP, Basin Management Action Plan, Indian River Lagoon Basin Central Indian River Lagoon, xi (2013), available at https://floridadep.gov/sites/default/files/central-irl-bmap.pdf.

<sup>&</sup>lt;sup>84</sup> DEP, TMDL Report, Nutrient and Dissolved Oxygen TMDLs for the Indian River Lagoon and Banana River Lagoon, 1 (Mar. 2009), available at https://floridadep.gov/sites/default/files/indian-banana-nutrient-do-tmdl.pdf.

<sup>85</sup> IRLNEP, About the Indian River Lagoon, http://www.irlcouncil.com/ (last visited Jan. 30, 2020).

<sup>87</sup> East Central Florida Regional Planning Council and Treasure Coast Regional Planning Council, Indian River Lagoon Economic Valuation Update, vi, ix (Aug. 26, 2016), available at http://tcrpc.org/special\_projects/IRL Econ Valu/FinalReportIRL08 26 2016.pdf.

<sup>&</sup>lt;sup>88</sup> *Id.* at ix.

<sup>89</sup> Save Our Lagoon at xii; Marine Resources Council, Indian River Lagoon Health Update, 4-7 (2018), available at https://savetheirl.org/wp-content/uploads/mrc-report-card-2018-min.pdf.

<sup>90</sup> Save Our Lagoon at xii.

massive losses of seagrass that has yet to fully recover. <sup>91</sup> There have also been recurring brown tides; unusual mortalities of dolphins, manatees, and shorebirds; and large fish kills due to low dissolved oxygen from decomposing algae. <sup>92</sup> Brown tide is a type of algal bloom dominated by a brown, microscopic marine algae, which can be harmful to ecosystems in high concentrations, and was first documented in state waters in 2012. <sup>93</sup> The St. Lucie Estuary is a major tributary to the southern IRL, so freshwater discharges from Lake Okeechobee, which can include toxic cyanobacteria, also impact the IRL. <sup>94</sup>

#### **Coral Reef Protection**

Coral reefs are valuable natural resources. They protect coastlines by reducing wave energy from storms and hurricanes. They serve as a source of food and shelter and provide critical habitat for over 6,000 species, including commercially important fisheries. Many medicines, as well as other health and beauty products, are derived from marine plants, algae, and animals found on coral reefs. <sup>95</sup> Coral reefs in southeast Florida support a rich and diverse assemblage of stony corals, octocorals, macroalgae, sponges, and fishes. These ecological communities extend over 330 nautical miles from the Dry Tortugas to the St. Lucie Inlet in Martin County. <sup>96</sup>

People use coral reefs as a resource for recreation, education, scientific research, and public inspiration. Millions of tourists and local residents enjoy scuba diving, snorkeling, and fishing on Florida's coral reefs. A study of reefs along southeast Florida and the Florida Keys showed that fishing, diving, and boating-related expenditures generate \$6.3 billion in sales and income and sustain more than 71,000 jobs annually.<sup>97</sup>

Unfortunately, coral reefs are vulnerable to harmful environmental changes, particularly those resulting from human activities. Corals are highly sensitive to even small temperature changes and can react through bleaching, reduced growth rates, reduced reproduction, increased vulnerability to diseases, and die-offs. In recent years, corals have experienced declines due to a combination of factors including coral disease, coral bleaching, high ocean temperatures, and human impacts. 98

 $<sup>^{91}</sup>$  IRL 2011 Consortium, Indian River Lagoon 2011 Superbloom - Plan of Investigation, 2-3 (2012), available at <a href="http://www.irlcouncil.com/uploads/7/9/2/7/79276172/23">http://www.irlcouncil.com/uploads/7/9/2/7/79276172/23</a>. 2011 superbloom investigation plan june 2012.pdf; IRLNEP, Annual Report - 2018, 9 (2018), available at

http://www.irlcouncil.com/uploads/7/9/2/7/79276172/2018annualrept\_medred.pdf.

<sup>92</sup> Save Our Lagoon at xii.

<sup>&</sup>lt;sup>93</sup> SJRWMD, Renewing the Lagoon - Frequently Asked Questions, <a href="https://www.sjrwmd.com/waterways/renew-lagoon/#faq-01">https://www.sjrwmd.com/waterways/renew-lagoon/#faq-01</a> (last visited Nov. 25, 2019); FWC, Effects of Brown Tide in the Indian River Lagoon (2012), <a href="https://myfwc.com/research/redtide/monitoring/historical-events/brown-tide/">https://myfwc.com/research/redtide/monitoring/historical-events/brown-tide/</a> (last visited Nov. 25, 2019).

<sup>&</sup>lt;sup>94</sup> DEP, Basin Management Action Plan, *St. Lucie River and Estuary Basin*, xi (2013), *available at* <a href="https://floridadep.gov/sites/default/files/stlucie-estuary-nutr-bmap.pdf">https://floridadep.gov/sites/default/files/stlucie-estuary-nutr-bmap.pdf</a>; IRLNEP, *Annual Report - 2018*, 9 (2018); Marine Resources Council, *Indian River Lagoon Health Update*, 11 (2018).

<sup>&</sup>lt;sup>95</sup> DEP, Coral Reef Conservation Program, <a href="https://floridadep.gov/rcp/coral">https://floridadep.gov/rcp/coral</a> (last visited Jan. 30, 2020); DEP, Coral Reef Conservation Program 2011-2016 Strategic Plan, 3 (July 2011), available at <a href="https://floridadep.gov/sites/default/files/CRCP\_Strategic\_Plan\_2011-2016.pdf">https://floridadep.gov/sites/default/files/CRCP\_Strategic\_Plan\_2011-2016.pdf</a>.

<sup>&</sup>lt;sup>96</sup> *Id*.
<sup>97</sup> *Id*.

<sup>98</sup> DEP, Florida's Coral Reefs, https://floridadep.gov/rcp/content/floridas-coral-reefs (last visited Jan. 30, 2020).

The Florida Coral Reef Protection Act requires responsible parties to notify DEP when they run their vessel aground, strike, or otherwise damage coral reefs. The responsible party must remove the vessel and work with DEP to assess the damage and restore the reef. DEP may require the responsible party to pay the cost of assessment and restoration, as well as pay a fine. The responsible party to pay the cost of assessment and restoration, as well as pay a fine.

## Florida Coral Reef Programs

The Coral Reef Conservation Program (CRCP) within DEP oversees several programs and initiatives to coordinate research and monitoring, develop management strategies, and promote partnerships to protect coral reefs, hard bottom communities, and associated reef resources of southeast Florida. <sup>101</sup> The CRCP is a member of the U.S. Coral Reef Task Force and leads the Southeast Florida Coral Reef Initiative (SEFCRI), which is a national action plan to develop and implement strategies to reduce key threats to coral reef resources in southeast Florida through collaborative action among government and non-governmental partners. <sup>102</sup>

FWC also plays a role in protecting Florida's coral reefs. Through the Coral Reef Evaluation and Monitoring Project (CREMP), FWC has monitored the condition of coral reef and hard bottom habitats annually throughout the Florida Keys since 1996, southeast Florida since 2003, and the Dry Tortugas since 2004. The CREMP was able to document the temporal changes that have occurred in recent years. <sup>103</sup>

#### **Red Tide**

In the waters around Florida, particularly in the Gulf of Mexico, such high concentrations of algae occur that the water turns red or brown. These harmful algal blooms are known as "red tide," and have been observed for centuries. The Gulf of Mexico and around Florida, the species that causes most red tide is *Karenia brevis* (*K. brevis*). The *K. brevis* is a single-celled algae that occurs in marine and estuarine waters in Florida. The *K. brevis* produces neurotoxins called brevetoxins that can sicken or kill fish, seabirds, turtles, and marine mammals. Wave action can break open *K. brevis* cells and release the brevetoxins into the air, and with winds blowing onshore. This can lead to respiratory irritation in humans, and potentially serious illness for people with severe or chronic respiratory conditions. The red tide toxins can also accumulate in animals such as oysters and clams, which can lead to Neurotoxic Shellfish

<sup>&</sup>lt;sup>99</sup> Section 403.93345(5), F.S.

<sup>&</sup>lt;sup>100</sup> Section 403.93345(6), (7), and (8), F.S.

<sup>101</sup> Id.

<sup>&</sup>lt;sup>102</sup> DEP, Southeast Florida Coral Reef Initiative, <a href="https://floridadep.gov/CoralReefs">https://floridadep.gov/CoralReefs</a> (last visited Jan. 30, 2020); SEFCRI, What is SEFCRI?, <a href="https://southeastfloridareefs.net/about-us/what-is-sefcri/">https://southeastfloridareefs.net/about-us/what-is-sefcri/</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>103</sup> FWC, Coral Reef Evaluation and Monitoring Project (CREMP), <a href="http://myfwc.com/research/habitat/coral/cremp/">http://myfwc.com/research/habitat/coral/cremp/</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>104</sup> FWC, Red Tide FAQ, https://myfwc.com/research/redtide/faq/ (last visited Jan. 31, 2020).

<sup>&</sup>lt;sup>105</sup> *Id*.

<sup>&</sup>lt;sup>106</sup> Id.

<sup>&</sup>lt;sup>107</sup> FWC, *Karenia Brevis: Fact Sheet*, *available at* <a href="https://myfwc.com/media/12422/karenia-brevis-factsheet.pdf">https://myfwc.com/media/12422/karenia-brevis-factsheet.pdf</a>; Mote Marine Laboratory, *Phytoplankton Ecology*, <a href="https://mote.org/research/program/phytoplankton-ecology">https://mote.org/research/program/phytoplankton-ecology</a> (last visited Jan. 31, 2020). *K. brevis* is a "phytoplankton" because it does photosynthesis like a plant.

<sup>108</sup> FWC, Karenia Brevis: Fact Sheet.

<sup>&</sup>lt;sup>109</sup> Mote Marine Laboratory, Florida Red Tide FAQ's, https://mote.org/news/florida-red-tide (last visited Jan. 31, 2020).

Poisoning in people who consume contaminated shellfish.<sup>110</sup> Though this is less common, blooms of *K. brevis* can also contribute to fish kills by depleting the water of dissolved oxygen.<sup>111</sup> The algae causing red tide is different from the cyanobacteria (often called "bluegreen algae") found in freshwater systems such as Lake Okeechobee.<sup>112</sup>

In 2018, the Governor issued executive orders declaring a state of emergency in 14 counties for red tide algae blooms. These harmful algal blooms can result in significant costs associated with public health, recreation and tourism, and management and monitoring. Head tides can last as little as a few weeks or longer than a year. The duration of a *K. brevis* bloom depends on the conditions that influence its growth and persistence, including sunlight, nutrients, and salinity, as well as the speed and direction of wind and water currents. Florida's red tides develop 10-40 miles offshore, away from human-contributed nutrient sources. Once red tides are transported to shore, they are capable of using human-caused nutrient pollution for their growth. Currently, there is no practical and acceptable way to control or kill red tide blooms.

In 2019, the Legislature established the Florida Red Tide Mitigation and Technology Development Initiative. This initiative is a partnership between FWC and Mote Marine Laboratory, and its objective is to develop and implement technologies and approaches that will decrease the impacts of Florida red tide on the environment, economy, and quality of life in Florida. The 2019 legislation provides FWC an annual appropriation of \$3 million for six years to implement the initiative. The initiative will work together with FWC's Harmful Algal Bloom Task Force, which also focuses on red tide issues. 123

<sup>&</sup>lt;sup>110</sup> FWC, *Karenia Brevis: Fact Sheet*, *available at* <a href="https://myfwc.com/media/12422/karenia-brevis-factsheet.pdf">https://myfwc.com/media/12422/karenia-brevis-factsheet.pdf</a>.

111 *Id.* 

<sup>&</sup>lt;sup>112</sup> FWC, *Red Tide FAQ*, <a href="https://myfwc.com/research/redtide/faq/">https://myfwc.com/research/redtide/faq/</a> (last visited Jan. 31, 2020); DEP, *Freshwater Algal Blooms*, *Frequently Asked Questions* (2019), *available at* <a href="https://floridadep.gov/sites/default/files/freshwater-algal-bloom-fags">https://floridadep.gov/sites/default/files/freshwater-algal-bloom-fags</a> 2019.pdf.

<sup>113</sup> Office of Economic & Demographic Research, *Annual Assessment of Florida's Water Resources and Conservation Lands*, 2019 Edition, 154-155 (2019) available at <a href="http://edr.state.fl.us/Content/natural-resources/LandandWaterAnnualAssessment">http://edr.state.fl.us/Content/natural-resources/LandandWaterAnnualAssessment</a> 2019Edition.pdf.

<sup>&</sup>lt;sup>114</sup> *Id.* at 156.

<sup>&</sup>lt;sup>115</sup> FWC, Red Tide FAQ, <a href="https://myfwc.com/research/redtide/faq/">https://myfwc.com/research/redtide/faq/</a> (last visited Jan. 30, 2020).

<sup>116</sup> *Id* 

<sup>&</sup>lt;sup>117</sup> Mote Marine Laboratory, Florida Red Tide FAQ's, https://mote.org/news/florida-red-tide (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>118</sup> *Id.*; see Mote Marine Laboratory, News & Press: Nutrients that Feed Red Tide "Under the Microscope" in Major Study, <a href="https://mote.org/news/article/nutrients-that-feed-red-tide-under-the-microscope-in-major-study">https://mote.org/news/article/nutrients-that-feed-red-tide-under-the-microscope-in-major-study</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>119</sup> FWC, Red Tide FAQ, https://myfwc.com/research/redtide/faq/ (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>120</sup> Chapter 2019-114, Laws of Fla.; s. 379.2273, F.S.

<sup>&</sup>lt;sup>121</sup> Section 379.2273, F.S.; Mote Marine Laboratory, *Florida Red Tide Mitigation and Technology Development Initiative*, <a href="https://mote.org/research/program/Florida-Red-Tide-Mitigation-and-Technology-Development-Initiative">https://mote.org/research/program/Florida-Red-Tide-Mitigation-and-Technology-Development-Initiative</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>122</sup> Chapter 2019-114, s. 2, Laws of Fla.

<sup>&</sup>lt;sup>123</sup> DEP, State Task Force Efforts: Red Tide Task Force, <a href="https://protectingfloridatogether.gov/state-action/red-tide-task-force">https://protectingfloridatogether.gov/state-action/red-tide-task-force</a> (last visited Jan. 30, 2020); see also Office of Economic & Demographic Research, Annual Assessment of Florida's Water Resources and Conservation Lands, 2020 Edition, 76 (2020), available at <a href="http://edr.state.fl.us/Content/natural-resources/LandandWaterAnnualAssessment">http://edr.state.fl.us/Content/natural-resources/LandandWaterAnnualAssessment</a> 2020 Edition.pdf.

## Florida Forever Program

As a successor to Preservation 2000, the Legislature created the Florida Forever program in 1999 as the blueprint for conserving Florida's natural resources. <sup>124</sup> The Florida Forever Act reinforced the state's commitment to conserve its natural and cultural heritage, provide urban open space, and better manage the land acquired by the state. <sup>125</sup> Florida Forever encompasses a wide range of goals including: land acquisition; environmental restoration; water resource development and supply; increased public access; public lands management and maintenance; and increased protection of land through the purchase of conservation easements. <sup>126</sup> The state has acquired more than 2.4 million acres since 1991 under the Preservation 2000 and Florida Forever programs. <sup>127</sup>

Under Florida Forever, the issuance of up to \$5.3 billion in Florida Forever bonds is authorized to finance or refinance the cost of acquisition and improvement of land, water areas, and related property interests and resources, in urban and rural settings, for the purposes of restoration, conservation, recreation, water resource development, or historical preservation, and for capital improvements<sup>128</sup> to lands and water areas which accomplish environmental restoration, enhance public access and recreational enjoyment, promote long-term management goals, and facilitate water resource development.<sup>129</sup>

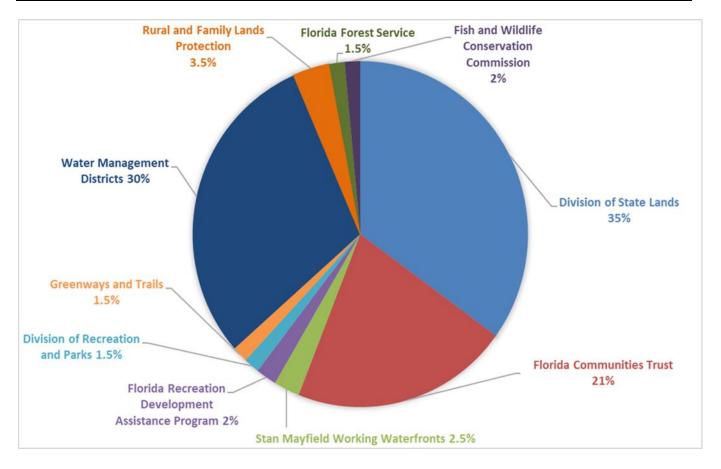
The Florida Forever Trust Fund was created to serve as the repository for Florida Forever bond proceeds to fund the Florida Forever Program. The Florida Forever Trust Fund is administered by DEP. DEP is required to distribute revenues from the Florida Forever Trust Fund in accordance with s. 259.105(3), F.S., which sets forth the allocation of the proceeds of cash payments or bonds deposited into the Florida Forever Trust Fund and is depicted in the graph below.

<sup>124</sup> Chapter 99-247, Laws of Fla.

DEP, Florida Forever Five Year Plan (2019), 49, available at
 <a href="http://publicfiles.dep.state.fl.us/DSL/FFWeb/Current%20Florida%20Forever%20Five-Year%20Plan.pdf">http://publicfiles.dep.state.fl.us/DSL/FFWeb/Current%20Florida%20Forever%20Five-Year%20Plan.pdf</a>.
 Section 259.105, F.S.

<sup>&</sup>lt;sup>127</sup> DEP, Frequently Asked Questions about Florida Forever, <a href="https://floridadep.gov/lands/environmental-services/content/faq-florida-forever">https://floridadep.gov/lands/environmental-services/content/faq-florida-forever</a> (last visited Jan. 30, 2020); see Florida Natural Areas Inventory, Summary of Florida Conservation Lands (Feb. 2019), available at <a href="https://www.fnai.org/PDF/Maacres\_201902\_FCL\_plus\_LTF.pdf">https://www.fnai.org/PDF/Maacres\_201902\_FCL\_plus\_LTF.pdf</a> for a complete summary of the total amount of conservation lands in Florida.

<sup>&</sup>lt;sup>128</sup> As defined in s. 259.03, F.S., the terms "capital improvement" or "capital project expenditure" when used in ch. 259, F.S., mean "those activities relating to the acquisition, restoration, public access, and recreational uses of such lands, water areas, and related resources deemed necessary to accomplish the purposes of this chapter. Eligible activities include, but are not limited to: the initial removal of invasive plants; the construction, improvement, enlargement or extension of facilities' signs, firelanes, access roads, and trails; or any other activities that serve to restore, conserve, protect, or provide public access, recreational opportunities, or necessary services for land or water areas. Such activities shall be identified prior to the acquisition of a parcel or the approval of a project. The continued expenditures necessary for a capital improvement approved under this subsection shall not be eligible for funding provided in this chapter."



## Rural and Family Lands Protection Program - 3.5 Percent

The Rural and Family Lands Protection Program within the Department of Agriculture and Consumer Services (DACS) is an agricultural land preservation program designed to protect important agricultural lands through the acquisition of permanent agricultural land conservation easements. The purpose of the program is to promote and improve wildlife habitat; protect and enhance water bodies, aquifer recharge areas, wetlands, and watersheds; perpetuate open space on lands with significant natural areas; or protect agricultural lands threatened by conversion to other uses. Under the program, lands must be acquired pursuant to a priority ranking process developed by DACS, DEP, the water management districts, the Department of Economic Opportunity, and FWC. Preference must be given to ranch and timber lands that are managed using sustainable practices. Preference must be given to ranch and timber lands that are managed using sustainable practices.

<sup>&</sup>lt;sup>130</sup> Department of Agriculture and Consumer Services (DACS), *Rural and Family Lands Protection Program*, <a href="https://www.fdacs.gov/Divisions-Offices/Florida-Forest-Service/Our-Forests/Land-Planning-and-Administration-Section/Rural-and-Family-Lands-Protection-Program">https://www.fdacs.gov/Divisions-Offices/Florida-Forest-Service/Our-Forests/Land-Planning-and-Administration-Section/Rural-and-Family-Lands-Protection-Program</a> (last visited Jan. 30, 2020); *see* DEP, *Florida Forever*, <a href="https://floridadep.gov/lands/environmental-services/content/florida-forever">https://floridadep.gov/lands/environmental-services/content/florida-forever</a> (last visited Jan. 30, 2020).

<sup>&</sup>lt;sup>131</sup> Section 570.71, F.S.

<sup>132</sup> Id.; see Fla. Admin. Code Ch. 5I-7.

<sup>&</sup>lt;sup>133</sup> Section 570.71, F.S.

#### **Land Acquisition Trust Fund**

Documentary stamp tax revenues are collected under ch. 201, F.S., which requires an excise tax to be levied on two classes of documents: deeds and other documents related to real property, which are taxed at the rate of 70 cents per \$100; and certificates of indebtedness, promissory notes, wage assignments, and retail charge account agreements, which are taxed at 35 cents per \$100.<sup>134</sup>

In 2014, Florida voters approved Amendment One, a constitutional amendment to provide a dedicated funding source for land and water conservation and restoration. The amendment required that starting on July 1, 2015, and for 20 years thereafter, 33 percent of net revenues derived from documentary stamp taxes be deposited into the Land Acquisition Trust Fund (LATF). Article X, s. 28 of the State Constitution requires that funds in the LATF be expended only for the following purposes:

As provided by law, to finance or refinance: the acquisition and improvement of land, water areas, and related property interests, including conservation easements, and resources for conservation lands including wetlands, forests, and fish and wildlife habitat; wildlife management areas; lands that protect water resources and drinking water sources, including lands protecting the water quality and quantity of rivers, lakes, streams, springsheds, and lands providing recharge for groundwater and aquifer systems; lands in the Everglades Agricultural Area and the Everglades Protection Area, as defined in Article II, Section 7(b); beaches and shores; outdoor recreation lands, including recreational trails, parks, and urban open space; rural landscapes; working farms and ranches; historic or geologic sites; together with management, restoration of natural systems, and the enhancement of public access or recreational enjoyment of conservation lands. <sup>135</sup>

To implement Art. X, s. 28 of the State Constitution, the Legislature passed ch. 2015-229, Laws of Florida. This act, in part, amended the following sections of law:

- Section 201.15, F.S., to conform to the constitutional requirement that the LATF receive at least 33 percent of net revenues derived from documentary stamp taxes; and
- Section 375.041, F.S., to designate the LATF within DEP as the trust fund to serve as the constitutionally mandated depository for the percentage of documentary stamp tax revenues. 136

Under s. 375.041, F.S., funds deposited into the LATF must be distributed in the following order and amounts:

- First, obligations relating to debt service, specifically:
  - Payments relating to debt service on Florida Forever Bonds and Everglades restoration bonds.

<sup>&</sup>lt;sup>134</sup> See ss. 201.02 and 201.08, F.S.

<sup>&</sup>lt;sup>135</sup> FLA. CONST. art. X, s. 28(b)(1).

<sup>&</sup>lt;sup>136</sup> Ch. 2015-229, ss. 9 and 50, Laws of Fla.

- Then, before funds are authorized to be appropriated for other uses:
  - O A minimum of the lesser of 25 percent of the funds remaining after the payment of debt service or \$200 million annually for Everglades projects that implement the Comprehensive Everglades Restoration Plan (CERP), the Long-Term Plan, or the Northern Everglades and Estuaries Protection Program (NEEPP), with priority given to Everglades restoration projects that reduce harmful discharges of water from Lake Okeechobee to the St. Lucie or Caloosahatchee estuaries in a timely manner. From these funds, the following specified distributions are required:
    - \$32 million annually through the 2023-2024 Fiscal Year for the Long-Term Plan;
    - After deducting the \$32 million, the minimum of the lesser of 76.5 percent of the remainder or \$100 million annually through the 2025-2026 Fiscal Year for the CERP;
    - Any remaining funds for Everglades projects under the CERP, the Long-Term Plan, or the NEEPP.
  - A minimum of the lesser of 7.6 percent of the funds remaining after the payment of debt service or \$50 million annually for spring restoration, protection, and management projects;
  - \$5 million annually through the 2025-2026 Fiscal Year to the St. Johns River Water Management District for projects dedicated to the restoration of Lake Apopka; and
  - \$64 million to the Everglades Trust Fund in the 2018-2019 Fiscal Year and each fiscal year thereafter, for the Everglades Agricultural Area reservoir project, and any funds remaining in any fiscal year shall be made available only for Phase II of the C-51 Reservoir Project or projects that implement CERP, the Long Term Plan, or NEEPP.
- Then, any remaining moneys are authorized to be appropriated for the purposes set forth in Art. X, s. 28 of the State Constitution. 137

The General Revenue Estimating Conference in January 2020 estimated that for the 2020-2021 Fiscal Year a total of \$2.925 billion would be collected in documentary stamp taxes. Thirty-three percent of the net revenues collected, or approximately \$962.28 million, must be deposited into the LATF in accordance with Art. X, s. 28 of the State Constitution. Of that number, \$157.60 million is committed to debt service, leaving \$804.68 million to be distributed for the uses specified by s. 375.041, F.S., and other purposes in accordance with the General Appropriations Act. 139

# III. Effect of Proposed Changes:

The bill creates a new section of law that includes an annual appropriation, beginning in fiscal year 2020-2021, of a minimum of \$625 million for the purposes of Everglades restoration and the protection of water resources in the state. The appropriation would be for three years and would be repealed on June 30, 2023, unless reviewed and saved from repeal through reenactment by the Legislature.

<sup>&</sup>lt;sup>137</sup> Section 375.041(3)-(4), F.S.

<sup>&</sup>lt;sup>138</sup> Office of Economic & Demographic Research (EDR), Revenue Estimating Conference, *Documentary Stamp Tax Collections and Distributions* (Jan. 2020), <a href="http://edr.state.fl.us/Content/conferences/docstamp/">http://edr.state.fl.us/Content/conferences/docstamp/</a> (last visited Jan. 30, 2020); see EDR, Extended Doc Stamp Forecast, available at

http://edr.state.fl.us/Content/conferences/docstamp/docstampextendedforecast.pdf.

<sup>&</sup>lt;sup>139</sup> *Id*.

The bill specifies that the funding must be used for a science-based process to identify projects that are needed to achieve restoration and protection.

The bill states that the annual appropriation to the Department of Environmental Protection must provide for the following distributions:

- The greater of \$300 million or the appropriation provided under the Land Acquisition Trust Fund (LATF) for Everglades restoration, which is a minimum of the lesser of 25 percent of the remaining LATF after debt service or \$200 million, and the appropriation provided under LATF for the Everglades Agricultural Area reservoir project, which is \$64 million.
- \$50 million to the South Florida Water Management District for the design, engineering, and construction of aquifer storage and recovery wells.
- Funding for spring restoration under LATF, which is a minimum of the lesser of 7.6 percent of the remaining LATF after debt service or \$50 million.
- \$40 million for alternative water supplies or water conservation.
- \$15 million for projects within the watersheds of the St. Johns River, the Suwannee River, and the Apalachicola River.
- \$15 million for projects within the watersheds of the Indian River Lagoon.
- \$10 million for coral reef protection and restoration.
- \$4 million to the Fish and Wildlife Conservation Commission for red tide research.

After the above distributions, any remaining balance must be allocated to fund any of the following:

- Targeted water quality improvements.
- Alternative water supplies or water conservation.
- Water quality enhancements and accountability, innovative technologies, and harmful algal bloom prevention and mitigation.
- Land acquisition or easement acquisition, including, but not limited to, lands or easements purchased pursuant to the Florida Forever program or the Rural and Family Lands Protection Program.

The bill takes effect on July 1, 2020.

#### IV. Constitutional Issues:

. Municipality/County Mandates Restriction	ons:
. Municipality/County Mandates Restriction	on

None.

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:

None.

C. Government Sector Impact:

The bill provides an appropriation of \$625 million for fiscal year 2020-2021 through 2022-2023.

#### VI. Technical Deficiencies:

On lines 46-56, it is unclear where funds from the remaining balance would be directed. It should be clarified whether this funding would also go to the Department of Environmental Protection or whether it would be available to other agencies or the private sector.

#### VII. Related Issues:

On line 26-29, it is unclear how the distributed funds relate to the existing distributions under the Land Acquisition Trust Fund. It should be clarified whether this distribution is in lieu of or separate from the distribution for Everglades restoration and the Everglades Agricultural Area reservoir project under the Land Acquisition Trust Fund.

## VIII. Statutes Affected:

This bill creates section 373.477 of the Florida Statutes.

## IX. Additional Information:

A. Committee Substitute – Statement of Changes:

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

None.

B. Amendments:

None.

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