

**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.)

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Prepared By: The Professional Staff of the Committee on Appropriations

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BILL: CS/SB 10

INTRODUCER: Appropriations Committee (Recommended by Appropriations Subcommittee on the Environment and Natural Resources); and Senators Bradley and Flores

SUBJECT: Water Resources

DATE: April 7, 2017

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

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	<u>Istler</u>	<u>Rogers</u>	<u>EP</u>	<u>Favorable</u>
2.	<u>Reagan</u>	<u>Betta</u>	<u>AEN</u>	<u>Recommend: Fav/CS</u>
3.	<u>Reagan</u>	<u>Hansen</u>	<u>AP</u>	<u>Fav/CS</u>

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**I. Summary:**

CS/SB 10:

- Establishes options for providing additional water storage south of Lake Okeechobee, including the:
  - Everglades Agricultural Area (EAA) reservoir project with the goal of providing a minimum of 240,000 acre-feet of water storage; and
  - C-51 reservoir project with the goal of providing approximately 60,000 acre-feet of water storage.
- Authorizes the Board of Trustees of the Internal Improvement Trust Fund (TIITF) and the South Florida Water Management District (SFWMD) to negotiate the amendment or termination of leases on lands within the EAA for exchange or use for the EAA reservoir project.
- Requires lease agreements relating to land in the EAA leased to the Prison Rehabilitative Industries and Diversified Enterprises, Inc., (PRIDE Enterprises) for an agricultural work program to be terminated in accordance with the lease terms.
- Requires the SFWMD, upon the effective date of the act, to identify the lessees of the approximately 3,200 acres of land owned by the state or the district west of the A-2 parcel and east of the Miami Canal and the private property owners of the approximately 500 acres of land surrounded by such lands;
- Requires the SFWMD, by July 31, 2017, to contact the lessors and landowners of such lands to express the SFWMD's interest in acquiring the land through the purchase or exchange of lands or by the amendment or termination of lease agreements.
- Requires the SFWMD to jointly develop a post-authorization change report with the United States Army Corps of Engineers (USACE) for the Central Everglades Planning Project (CEPP) to revise the project component located on the A-2 parcel for implementation of the EAA reservoir project.

- Requires that if, for any reason, the post-authorization change report does not receive Congressional approval by October 1, 2018, unless the district has been granted an extension by the Legislature, the SFWMD begin the planning study for the EAA reservoir project by October 31, 2018, and proceed with the A-2 parcel project component of CEPP in accordance with the project implementation report.
- Requires the SFWMD to give preference to the hiring of former agricultural workers primarily employed during 36 of the past 60 months in the EAA, consistent with their qualifications and abilities, for the construction and operation of the EAA reservoir project.
- Establishes the Everglades Restoration Agricultural Community Employment Training Program within the Department of Economic Opportunity to provide grants for employment programs that seek to match persons who complete such training programs to nonagricultural employment opportunities in areas of high agricultural employment, and to provide other training, educational, and information services necessary to stimulate the creation of jobs in the areas of agricultural unemployment. The program is required to include opportunities to obtain the qualifications and skills necessary for jobs related to federal and state restoration projects, the Airglades Airport in Hendry County, or an inland port in Palm Beach County.
- Establishes a revolving loan fund to provide funding assistance to local governments and water supply entities for the development and construction of water storage facilities.
- Revises the uses of the Water Protection and Sustainability Program Trust Fund to include the water storage facility revolving loan program.
- Prohibits, beginning July 1, 2017, the use of inmates for correctional work programs in the agricultural industry in the EAA or in any area experiencing high unemployment rates in the agricultural sector.
- Beginning in Fiscal Year 2018-2019, appropriates the sum of \$100 million from the Land Acquisition Trust Fund (LATF) to the Everglades Trust Fund for the purpose of implementing the water storage reservoir projects, with the remainder of such funds in any fiscal year to be made available for Everglades projects.

The bill provides the following appropriations for the 2017-2018 fiscal year:

- The sum of \$30 million in nonrecurring funds from the LATF is appropriated to the Everglades Trust Fund for the purposes of acquiring land or negotiating leases pursuant to s. 373.4598(4), F.S., or for any cost related to the planning or construction of the EAA reservoir project.
- The sum of \$3 million in nonrecurring funds from the LATF to the Everglades Trust Fund for the purposes of developing the post-authorization change report pursuant to s. 373.4598, and the sum of \$1 million in nonrecurring funds from the LATF to the Everglades Trust Fund for the purposes of negotiating Phase II of the C-51 reservoir project pursuant to s. 373.4598, F.S.
- The sum of \$30 million in nonrecurring funds from the LATF to the Water Resource Protection and Sustainability Program Trust Fund for the purposes of implementing Phase I of the C-51 reservoir project as a water storage facility in accordance with ss. 373.4598 and 373.475, F.S.

## II. Present Situation:

### Florida Forever Bonds

Pursuant to Art. VII, s. 11(e) of the State Constitution, the issuance of Florida Forever bonds is authorized in s. 215.618, F.S.<sup>1</sup> Florida Forever bonds pledge part of a dedicated state tax revenue: documentary stamp taxes. Documentary stamp taxes are levied on deeds and other documents related to real property and are collected under ch. 201, F.S. Florida Forever bonds are authorized to be issued up to \$5.3 billion.<sup>2</sup> Two billion dollars in Florida Forever bonds have been issued, which leaves \$3.3 billion in remaining statutory authority.<sup>3</sup>

The total amount of debt service payments are limited to \$300 million per Fiscal Year.<sup>4</sup> The debt service for such bonds is required to be specifically appropriated in the General Appropriations Act in the fiscal year in which the bonds are issued.<sup>5</sup> There is currently \$1.05 billion outstanding for Florida Forever bonds.<sup>6</sup> The proceeds from the sale of Florida Forever bonds are required to be deposited into the Florida Forever Trust Fund to be distributed by the Department of Environmental Protection as provided in the Florida Forever Act.<sup>7</sup>

### Lake Okeechobee and the Central Everglades Overview

In the mid-1800s the state began planning for the development of Central and South Florida, with the primary obstacle being water.<sup>8</sup> Extensive drainage projects were implemented to enable land development for urban and agricultural uses. In the early 1900s the St. Lucie and Caloosahatchee Rivers were widened and deepened for navigation and to serve as outlets from Lake Okeechobee to the east and west, respectively. After major hurricanes devastated the region in the 1920s and 1940s, the state partnered with the federal government, through the United States Army Corps of Engineers (USACE), to implement additional flood control projects that were necessary for the land development to progress. Congress authorized the Central and Southern Florida Project (C&SF) in 1948.<sup>9</sup>

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<sup>1</sup> Section 11(e), Art. X of the State Constitution authorizes the issuance of bonds by the state in a manner provided by general law, which pledges all or part of a dedicated state tax revenue to finance or refinance the acquisition and improvement of land, water areas, and related property interests and resources for the purposes of conservation, outdoor recreation, water resource development, restoration of natural systems, and historic preservation.

<sup>2</sup> Section 215.618, F.S.

<sup>3</sup> SBA, *Environmental Bonding Programs: Authorization Authority and Amounts* (2016) (on file with the Senate Committee on Environmental Preservation and Conservation).

<sup>4</sup> Section 201.15(1), F.S.

<sup>5</sup> Section 201.15(3), F.S.

<sup>6</sup> SBA, *Environmental Bonding Programs: Authorization Authority and Amounts* (2016) (on file with the Senate Committee on Environmental Preservation and Conservation).

<sup>7</sup> Section 215.618(5), F.S.

<sup>8</sup> United States Army Corps of Engineers (USACE) and South Florida Water Management District (SFWMD), *Central and Southern Florida Project Comprehensive Review Study, Final Feasibility Report and Programmatic Environmental Impact Statement*, 1-1 (April 1999) [hereinafter *Restudy*], available at [http://141.232.10.32/pm/projects/project\\_docs/pdp\\_asr\\_combined/052808\\_asr\\_report/052808\\_asr\\_ch1\\_restudy\\_feas\\_rpt\\_prog\\_eis.pdf](http://141.232.10.32/pm/projects/project_docs/pdp_asr_combined/052808_asr_report/052808_asr_ch1_restudy_feas_rpt_prog_eis.pdf) (last visited Jan. 31, 2017).

<sup>9</sup> The Flood Control Act of 1948 (P.L. 858, 80<sup>th</sup> Congress, 2<sup>nd</sup> Session).

The C&SF included channelizing the Kissimmee River; draining the area south of the lake, known as the Everglades Agricultural Area for agricultural production; and diking Lake Okeechobee for flood protection.<sup>10</sup> Additionally, central portions of the Everglades were diked to create water conservation areas (WCAs) to store water for water supply in the lower east coast and for deliveries to Everglades National Park.<sup>11</sup> While some fish and wildlife value was expected to remain in the WCAs, the only area intended for preservation in its natural state was Everglades National Park.<sup>12</sup>



### ***Kissimmee River Basin***

The Kissimmee River Basin extends from Orlando southward to Lake Okeechobee and encompasses approximately 3,000 square miles.<sup>13</sup> The C&SF project turned the once meandering 103 mile Kissimmee River into a 56-mile long, 30-foot deep canal called the C-38.<sup>14</sup> The resulting floodplain, the remnant river channels, and the C-38 canal are collectively referred to as the channelized system.<sup>15</sup> Prior to channelization the flow of the river inundated much of the floodplain for a majority of the year.<sup>16</sup> While the project proved successful for flood control, it had a significant impact on the wetland ecosystem.<sup>17</sup> The first public hearing to discuss the restoration of the Kissimmee River was held just one year after the channelization was completed.<sup>18</sup>

<sup>10</sup> *Restudy* at 1-1.

<sup>11</sup> *Id.*

<sup>12</sup> *Id.*

<sup>13</sup> *Id.* at 1-10.

<sup>14</sup> SFWMD, *Kissimmee River Restoration Studies*, 1 (Sept. 2006), available at [https://www.sfwmd.gov/sites/default/files/documents/krr\\_exec\\_summary.pdf](https://www.sfwmd.gov/sites/default/files/documents/krr_exec_summary.pdf) (last visited Jan. 31, 2017).

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

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

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

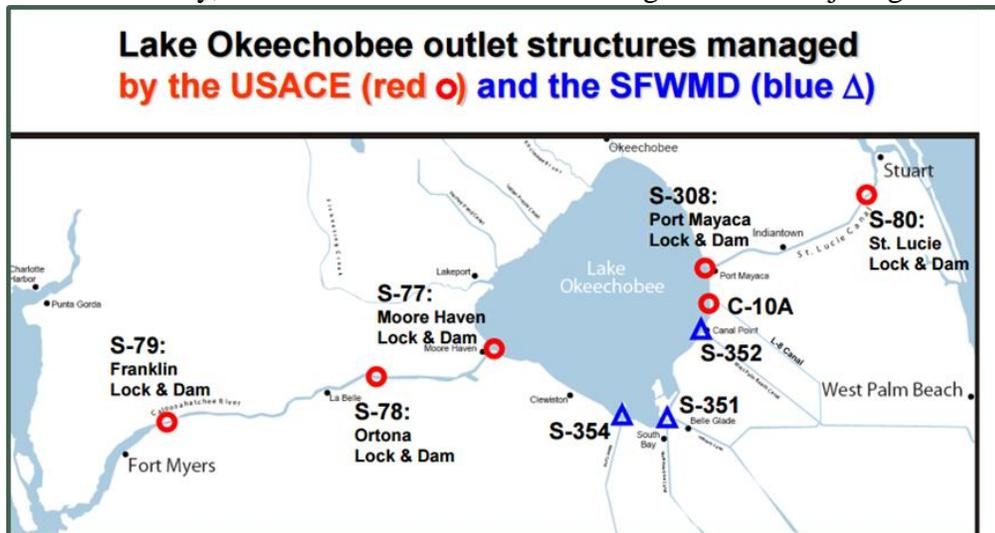
**Lake Okeechobee**

Lake Okeechobee is the second largest freshwater lake located entirely within the contiguous United States, covering approximately 730 square miles.<sup>19</sup> The waters of the lake were impounded by a system of encircling levees, collectively referred to as the Herbert Hoover Dike.<sup>20</sup> The lake is managed as a multi-purpose reservoir for navigation, water supply, flood control, and recreation.<sup>21</sup>

Thirty-nine percent of the water that comes into the lake is from direct rainfall, 31 percent comes from the Kissimmee River, and then a smaller percentage of the water flows from other areas such as Fisheating Creek and Taylor Creek/Nubbin Slough.<sup>22</sup> Prior to the construction of the Herbert Hoover Dike, water would flow from the Kissimmee River Basin into the lake and, once the lake would fill, water would overflow the lake’s southern rim and deliver sheet flow runoff to the Everglades.<sup>23</sup>

Because of the acceleration of the flows into the lake as a result of C&SF and land use modifications, the water quality in the lake has degraded over time due to high phosphorous loadings.<sup>24</sup> The Total Maximum Daily Load for Lake Okeechobee proposes an annual load of 140 metric tons (mt) of phosphorous to achieve an in-lake target phosphorous concentration of 40 parts per billion (ppb) in the pelagic zone of the lake.<sup>25</sup>

The lake’s outlets with the largest capacity include eastward (S-308) through the St. Lucie Canal to the Atlantic Ocean and westward (S-77) through the Caloosahatchee River Canal to the Gulf of Mexico.<sup>26</sup> Additionally, water flows out of the lake through the four major agricultural



<sup>19</sup> Florida Department of Environmental Protection (FDEP), *Lake Okeechobee*, <http://www.dep.state.fl.us/everglades/lakeo.htm> (last visited Jan. 31, 2017).

<sup>20</sup> *Restudy* at 1-13.

<sup>21</sup> *Id.*

<sup>22</sup> FDEP, *Total Maximum Daily Load for Total Phosphorous, Lake Okeechobee, Florida*, 6 (Aug. 2001), available at [http://www.dep.state.fl.us/water/tmdl/docs/tmdls/final/gp1/Lake\\_O\\_TMDL\\_Final.pdf](http://www.dep.state.fl.us/water/tmdl/docs/tmdls/final/gp1/Lake_O_TMDL_Final.pdf) (last visited Jan. 31, 2017).

<sup>23</sup> *Id.* at 6, 7.

<sup>24</sup> FDEP, *Lake Okeechobee*, <http://www.dep.state.fl.us/everglades/lakeo.htm> (last visited Jan. 31, 2017).

<sup>25</sup> FDEP, *supra* note 17, at 1.

<sup>26</sup> *Restudy* at 1-13.

canals-the West Palm Beach Canal (S-352), the Hillsboro and North New River Canals (S-351), and the Miami Canal (S-354).<sup>27</sup>

The USACE, in conjunction with the South Florida Water Management District (SFWMD) regulates the outlet structures to manage lake levels.<sup>28</sup> After back-to-back hurricanes in South Florida in 2004 and 2005 and the devastation in Louisiana caused by Hurricane Katrina, the USACE launched a major effort to rehabilitate the Herbert Hoover Dike in light of concerns regarding its structural integrity. Concerns regarding the dam's ability to perform satisfactorily for Lake Okeechobee levels above an elevation of 15.5 ft. resulted in the labeling of the project as high-risk.<sup>29</sup> The Lake Okeechobee Regulation Schedule Study was initiated to design an alternative schedule to lower the normal operating limits of the lake.<sup>30</sup>

The Lake Okeechobee Regulation Schedule (LORS) was implemented in April of 2008. The revised schedule lowered the maximum stage of the lake from 18.5 ft. to 17.25 ft. with the primary goal of maintaining the lake between 12.5 ft. and 15.5 ft. The areas most affected by a change to the lake's regulation schedule were the lake itself, particularly the littoral and marsh areas of the lake, and the St. Lucie and Caloosahatchee estuaries.<sup>31</sup> Additionally, because the LORS high management band is 1.00 to 1.75 ft. lower than the previous schedule, the revision to the schedule resulted in a loss of storage ranging from 460,000 to 800,000 acre-feet depending on the time of year.<sup>32</sup>

The USACE expects to operate under the LORS until the earlier of the implementation of a new Lake Okeechobee schedule as a component of the system-wide operating plan to accommodate Everglades restoration projects or the completion of Herbert Hoover Dike seepage berm construction or equivalent dike repairs.<sup>33</sup> According to the latest Integrated Delivery Schedule, rehabilitation of the Herbert Hoover Dike should be completed by 2025 and initiation of a new lake regulation schedule study would begin in 2022.<sup>34</sup>

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<sup>27</sup> *Id.*

<sup>28</sup> FDEP, *supra* note 17, at 7.

<sup>29</sup> USACE, *Herbert Hoover Dike Dam Safety Modification Study Final Environmental Impact Statement*, 1 (June 2016), available at

[http://www.saj.usace.army.mil/Portals/44/docs/Planning/EnvironmentalBranch/EnvironmentalDocs/Multiple%20Counties/Herbert\\_Hoover\\_Dike\\_Dam\\_Safety\\_Modification%20Study\\_FEIS\\_Main\\_Report.pdf?ver=2016-05-31-131919-377](http://www.saj.usace.army.mil/Portals/44/docs/Planning/EnvironmentalBranch/EnvironmentalDocs/Multiple%20Counties/Herbert_Hoover_Dike_Dam_Safety_Modification%20Study_FEIS_Main_Report.pdf?ver=2016-05-31-131919-377) (last visited Jan. 31, 2017).

<sup>30</sup> USACE, *Lake Okeechobee Regulation Schedule, Final Supplemental Environmental Impact Statement*, ii (Nov. 2007) [hereinafter *LORS FSEIS*], available at

[http://www.saj.usace.army.mil/Portals/44/docs/h2omgmt/LORSdocs/ACOE\\_STATEMENT\\_APPENDICES\\_A-G.pdf](http://www.saj.usace.army.mil/Portals/44/docs/h2omgmt/LORSdocs/ACOE_STATEMENT_APPENDICES_A-G.pdf) (last visited Jan. 31, 2017).

<sup>31</sup> *Id.* at 1.

<sup>32</sup> The National Academies of Sciences, Engineering, and Medicine, *Progress Toward Restoring the Everglades: The Sixth Biennial Review*, 133 (2016) [hereinafter *The Sixth Biennial Review*], available at

<https://www.nap.edu/catalog/23672/progress-toward-restoring-the-everglades-the-sixth-biennial-review-2016> (last visited Jan. 31, 2017).

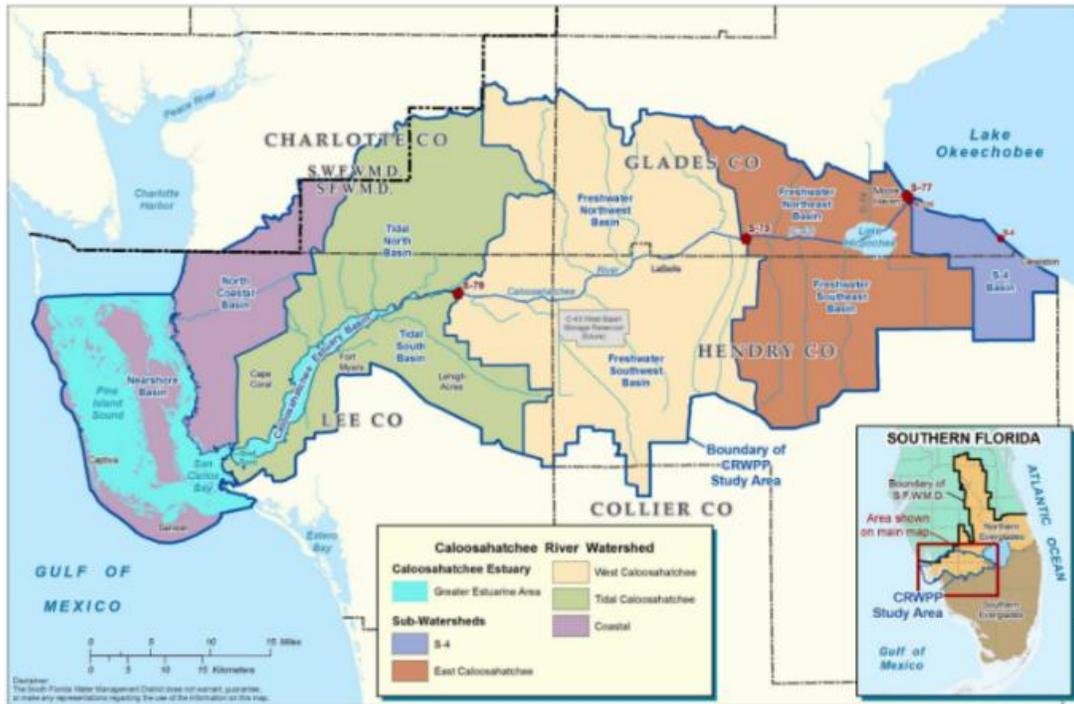
<sup>33</sup> *LORS FSEIS* at 2.

<sup>34</sup> USACE and SFWMD, *Integrated Delivery Schedule 2016 Update* (Dec. 2016), available at

[http://www.saj.usace.army.mil/Portals/44/docs/Environmental/IDS/IDS\\_PLACEMAT\\_05JAN2017\\_web.pdf?ver=2017-01-07-164638-380](http://www.saj.usace.army.mil/Portals/44/docs/Environmental/IDS/IDS_PLACEMAT_05JAN2017_web.pdf?ver=2017-01-07-164638-380) (last visited Jan. 31, 2017).

***Caloosahatchee River Watershed***

The Caloosahatchee River was originally a shallow, meandering river with headwaters near Lake Okeechobee.<sup>35</sup> In the early 1900s, the river was modified and now functions as the C-43 canal.<sup>36</sup> The canal is divided into freshwater and marine segments by a series of locks.<sup>36</sup> The river conveys freshwater to the Caloosahatchee Estuary through the S-79 structure from both runoff from the Caloosahatchee River Watershed and releases from Lake Okeechobee.<sup>37</sup>



Approximately half of the volume of water that reaches the Caloosahatchee Estuary is water that passed through the S-77 structure from Lake Okeechobee.<sup>38</sup> The hydrological changes have affected the timing distribution, quality and volume of freshwater entering the estuary, which has resulted in negative ecological impacts.<sup>39</sup> Excess water that is released results in an unnatural surge of freshwater to the Caloosahatchee River and reduces the estuarine salinity levels.<sup>40</sup> Alternately, during the dry season, little to no water is released to the river, which causes the

<sup>35</sup> LORS FSEIS at 108.

<sup>36</sup> Caloosahatchee Estuary Basin Technical Stakeholders and FDEP, *Final Caloosahatchee Estuary Basin, Basin Management Action Plan for the Implementation of Total Maximum Daily Loads for Nutrients Adopted by the FDEP*, 1 (Dec. 2012), available at <http://www.dep.state.fl.us/water/watersheds/bmap.htm> (last visited Jan. 31, 2017).

<sup>37</sup> LORS FSEIS at 108.

<sup>38</sup> Caloosahatchee Estuary Basin Technical Stakeholders and FDEP, *Final Caloosahatchee Estuary Basin, Basin Management Action Plan for the Implementation of Total Maximum Daily Loads for Nutrients Adopted by the FDEP*, 3 (Dec. 2012).

<sup>39</sup> LORS FSEIS at 108.

<sup>40</sup> USACE, *Fact Sheet: Caloosahatchee River (C-43) West Basin Storage Reservoir* (Jan. 2016), available at [http://www.saj.usace.army.mil/Portals/44/docs/FactSheets/C-43\\_FS\\_January2016\\_web.pdf](http://www.saj.usace.army.mil/Portals/44/docs/FactSheets/C-43_FS_January2016_web.pdf) (last visited Jan. 31, 2017).

salinity levels to increase.<sup>41</sup> Both high and low salinity levels trigger die-offs of seagrasses and oysters, species that are indicators of the estuary's overall health.<sup>42</sup>

### ***St. Lucie River Watershed***

In the 1800s local residents dug an inlet to provide direct access to the Atlantic Ocean, effectively changing the river into an estuary.<sup>43</sup> Then in the early 1890s the St. Lucie River was altered to provide an outlet from Lake Okeechobee to the Atlantic Ocean. The inland portion of the St. Lucie Estuary is composed of a North Fork and a South Fork, which converge at the Roosevelt Bridge to form a single waterbody that extends eastward and joins the Indian River Lagoon.<sup>44</sup> The St. Lucie River, referred to as the C-44 Canal, is used for navigation and releases from Lake Okeechobee.<sup>45</sup> The C-44 Canal is the largest overflow canal for Lake Okeechobee.<sup>46</sup>



Home to more than 4,300 species of plants and animals and supporting an annual economic contribution of more than \$730 million, the St. Lucie Estuary and the Indian River Lagoon are two of the country's most productive and threatened estuaries.<sup>47</sup> The estuary is affected by freshwater runoff from agricultural and urban sources in the watershed and freshwater releases from Lake Okeechobee.<sup>48</sup> Approximately 42 percent of the freshwater inflows from canals that

<sup>41</sup> *Id.*

<sup>42</sup> *Id.*

<sup>43</sup> LORS FSEIS at 110.

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

<sup>45</sup> *Id.*

<sup>46</sup> Restudy at 1-14.

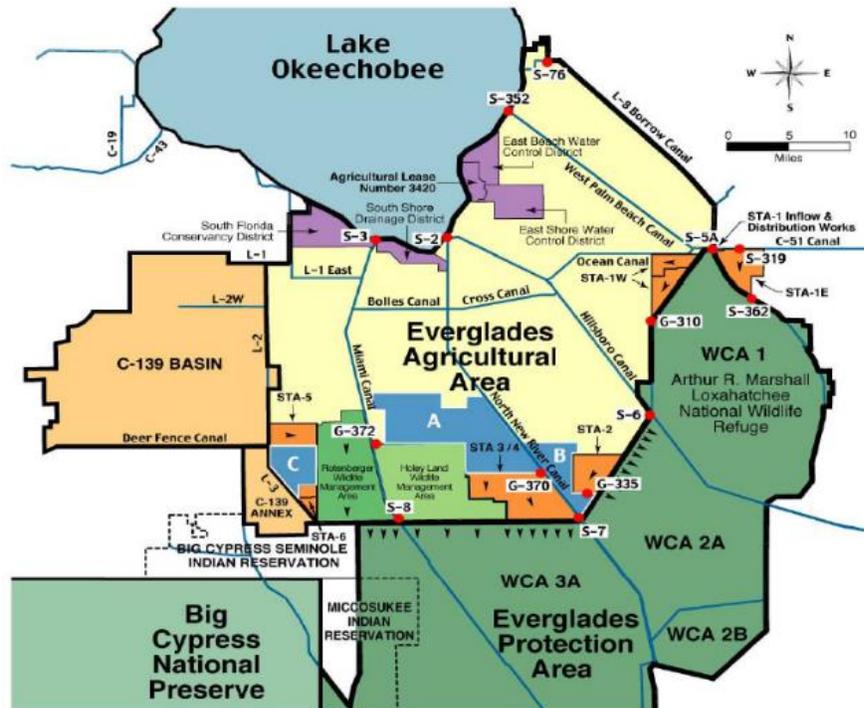
<sup>47</sup> USACE, *Fact Sheet: Indian River Lagoon – South* (Jan. 2017), available at [http://www.saj.usace.army.mil/Portals/44/docs/Environmental/C-44/IRL\\_FactSheet\\_January2017\\_web.pdf?ver=2017-01-18-122229-807](http://www.saj.usace.army.mil/Portals/44/docs/Environmental/C-44/IRL_FactSheet_January2017_web.pdf?ver=2017-01-18-122229-807) (last visited Jan. 31, 2017).

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

discharge into the St. Lucie Estuary are from Lake Okeechobee and these discharges carry significant nutrient loads, which have a known impact on the estuary.<sup>49</sup>

**Everglades Agricultural Area**

The Everglades Agricultural Area (EAA) consists of lands located within the eastern portion of Hendry County and western portion of Palm Beach County.<sup>50</sup> This area includes approximately 700,000 acres of fertile agricultural land, a large portion of which is dedicated to the production of sugarcane.<sup>51</sup> This area is considered one of the most important agricultural regions in Florida.<sup>52</sup> Water is supplied and managed in the EAA through conveyance and drainage canals including the Miami, the North New River, the Hillsboro, and the West Palm Beach Canals, which traverse north and south, and the Bolles and Cross Canals, which traverse east and west.<sup>53</sup>



**Restoration Efforts**

Beginning in the 1970s concerns regarding the effects of the C&SF began mounting. The design of system, while effective for flood control, resulted in unintended consequences including:

- Extreme fluctuations in high and low water levels in the lake;

<sup>49</sup> St. Lucie River and Estuary Basin Technical Stakeholders and FDEP, *Final Basin Management Action Plan for the Implementation of Total Maximum Daily Loads for Nutrients and Dissolve Oxygen by the FDEP in the St. Lucie River and Estuary Basin*, xiv (May 2013), available at <http://www.dep.state.fl.us/water/watersheds/bmap.htm> (last visited Jan. 31, 2017).

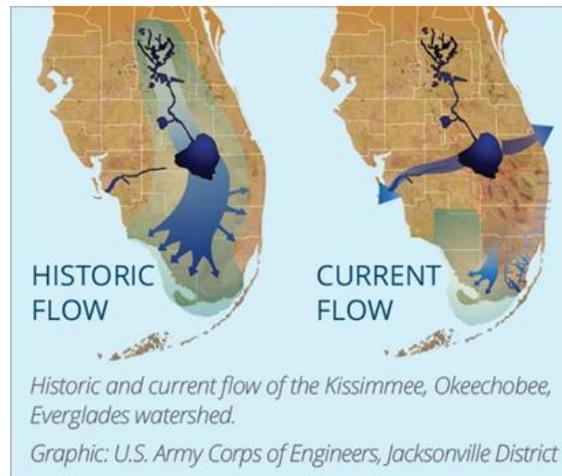
<sup>50</sup> *LORS FSEIS* at 7.

<sup>51</sup> *Restudy* at 1-15.

<sup>52</sup> *LORS FSEIS* at 7.

<sup>53</sup> *Restudy* at 1-15.

- Extreme fluctuations between too much and too little freshwater discharged into the coastal estuaries;
- Detrimental hydrological conditions in freshwater wetland habitats; and
- Unsuitable freshwater flows to Florida Bay, Biscayne Bay, and the Lake Worth Lagoon.<sup>54</sup>



With nearly half of the original footprint of the Everglades system drained and converted to urban and agricultural uses, there has been a substantial acceleration in the flow of water through the system and a significant reduction in water storage capacity.<sup>55</sup> The Central and Southern Florida Project Comprehensive Review Study Final Integrated Feasibility Report and Programmatic Environmental Impact Statement (Restudy) concluded:

The lack of storage in the system, particularly during wet periods, has led to ecological damage of Lake Okeechobee's littoral zone and damaging regulatory releases to the St. Lucie and Caloosahatchee estuaries. Conversely, in dry periods, this lack of storage has led to water supply shortages for both the human and natural environment.<sup>56</sup>

### ***Kissimmee River Restoration (KRR)***

The Kissimmee River Restoration project (KRR) was authorized by Congress in 1992 with the goal of restoring a third of the river flood plain system that was altered when the river was channelized back in the 1960s. The project includes backfilling 22 miles of canals, removing water control structures, and reconnecting remnant river segments. The KRR is designed to attenuate peak flows into Lake Okeechobee and, once complete, the project is expected to provide an additional storage capacity of 130,000 acre-feet.<sup>57</sup> When restoration is complete in

<sup>54</sup> Restudy at iii.

<sup>55</sup> *Id.* at 1-2.

<sup>56</sup> *Id.* at 1-2.

<sup>57</sup> USACE, *South Florida Ecosystem Restoration (SFER) Program Overview* (June 2016), available at [http://www.saj.usace.army.mil/Portals/44/docs/Environmental/Everglades%20Restoration%20Overview%20Placemat\\_June2016\\_web.pdf?ver=2016-08-08-154107-193](http://www.saj.usace.army.mil/Portals/44/docs/Environmental/Everglades%20Restoration%20Overview%20Placemat_June2016_web.pdf?ver=2016-08-08-154107-193) (last visited Jan. 31, 2017).

2020, more than 40 square miles of river-floodplain ecosystem will be restored, including almost 20,000 acres of wetlands and 44 miles of the historic river channel.<sup>58</sup>

Three construction phases are now complete, and a continuous water flow has been reestablished to 24 miles of meandering river.<sup>59</sup> The environmental improvements resulting from the project have already been documented.<sup>60</sup> In October of 2016, testing began to evaluate the ability to retain additional water in the Kissimmee River basin to reduce flows into Lake Okeechobee and, consequently, into the Caloosahatchee and St. Lucie estuaries.<sup>61</sup>

### ***Comprehensive Everglades Restoration Plan (CERP)***

In light of the unintended consequences of the C&SF, Congress required the USACE to reevaluate the performance and impacts of the project and to provide recommended improvements and modifications to restore the south Florida ecosystem and to protect the water quality in, and reduce the loss of freshwater from the Everglades and Florida Bay.<sup>62</sup> The USACE, in coordination with the state, developed the Restudy which provided a recommended plan for Everglades restoration. The Comprehensive Everglades Restoration Plan (CERP) was approved by Congress in the Water Resources Development Act of 2000.<sup>63</sup>

The Water Resources Development Act of 2000 provided the framework for the CERP as a 50/50 cost-share program between the state and the federal government. The CERP covers approximately 18,000 square miles and includes all or part of 16 counties in central and southern Florida, constituting about one-half of the State's population.<sup>64</sup> The future progress of the CERP projects and their relationship among other relevant state and federally funded South Florida ecosystem restoration projects is outlined in the Integrated Delivery Schedule (IDS).<sup>65</sup> The IDS is not an action or decision document, rather it is a guide for planning, design, construction sequencing, and budgeting.<sup>66</sup> The IDS serves as a communication tool that reflects diverse stakeholder input.<sup>67</sup>

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<sup>58</sup> USACE, *Kissimmee River Restoration Project* (Jan. 2017), available at [http://www.saj.usace.army.mil/Portals/44/docs/Environmental/Kissimmee/Kissimmee\\_FS\\_January2017\\_web.pdf?ver=2017-01-18-114834-273](http://www.saj.usace.army.mil/Portals/44/docs/Environmental/Kissimmee/Kissimmee_FS_January2017_web.pdf?ver=2017-01-18-114834-273) (last visited Jan. 31, 2017).

<sup>59</sup> SFWMD, *SFWMD Begins Historic Test to Help Reduce Discharges to the Coastal Estuaries* (Oct. 12, 2016), available at [https://www.sfwmd.gov/sites/default/files/documents/nr\\_2016\\_1012\\_kiss\\_headwaters\\_test.pdf](https://www.sfwmd.gov/sites/default/files/documents/nr_2016_1012_kiss_headwaters_test.pdf) (last visited Jan. 31, 2017).

<sup>60</sup> USACE, *Kissimmee River Restoration Project* (Jan. 2017).

<sup>61</sup> SFWMD, *SFWMD Begins Historic Test to Help Reduce Discharges to the Coastal Estuaries* (Oct. 12, 2016).

<sup>62</sup> The Water Resources Development Act of 1996 (P.L. 104-303, Oct. 12, 1996).

<sup>63</sup> The Water Resources Development Act of 2000 (P.L. 106-541, Dec. 11, 2000).

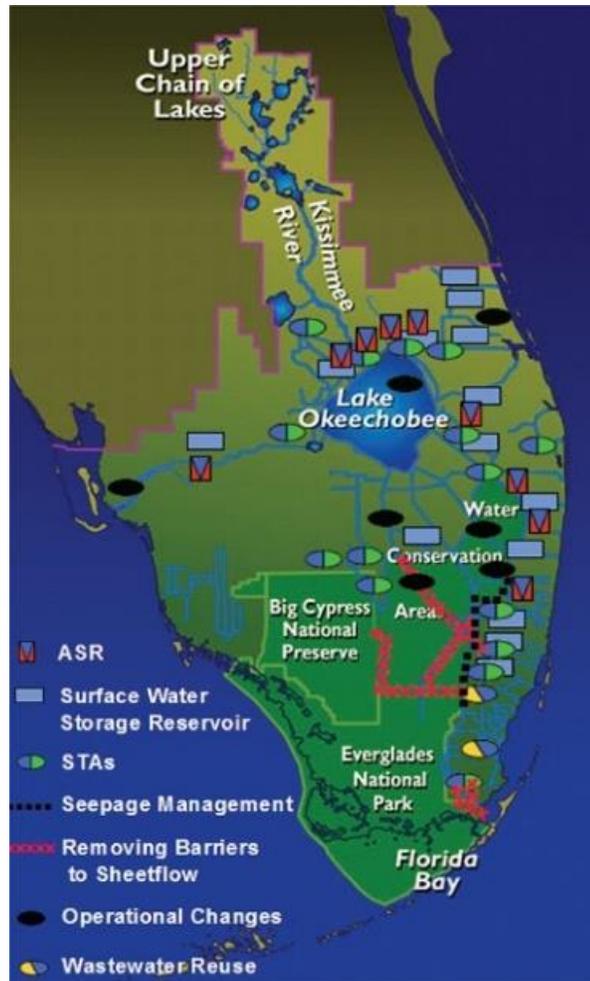
<sup>64</sup> United States Department of Interior Office of Everglades Restoration Initiatives, *Comprehensive Everglades Restoration Plan, CERP: The Plan in Depth – Part 1*, [http://141.232.10.32/about/rest\\_plan\\_pt\\_01.aspx](http://141.232.10.32/about/rest_plan_pt_01.aspx) (last visited Jan. 31, 2017).

<sup>65</sup> *The Sixth Biennial Review* at 46.

<sup>66</sup> *Id.*

<sup>67</sup> *Id.* at 47.

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. 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, storage of water in existing quarries, reuse of wastewater, and the improvement of water flows to Florida Bay.<sup>68</sup>



***CERP: Aquifer Storage and Recovery***

The CERP recommended the construction and operation of up to 333 Aquifer Storage and Recovery (ASR) systems located throughout South Florida.<sup>69</sup> ASR systems are designed to store large volumes of water in the Floridan Aquifer System during the wet periods for subsequent recovery during dry periods. In 2015 the ASR Regional Study was completed and found that large capacity ASR systems could be built and operated in South Florida; however, due to groundwater monitoring evaluations, the study recommended that the overall number of wells be

<sup>68</sup> Restudy at vii-ix.

<sup>69</sup> USACE, *Aquifer Storage and Recovery (ASR) Regional Study Fact Sheet* (June 2015), available at [http://www.saj.usace.army.mil/Portals/44/docs/FactSheets/ASR\\_FS\\_June2015\\_web.pdf](http://www.saj.usace.army.mil/Portals/44/docs/FactSheets/ASR_FS_June2015_web.pdf) (last visited Jan. 31, 2017).

reduced to 131, or about one-third of the original proposed amount.<sup>70</sup> Overall, the amount of water that can be stored through ASR was reduced by about 60 percent.<sup>71</sup> Additionally, two pilot projects were completed: one in the Kissimmee Basin and one near the Hillsboro Canal, which determined that ASR systems north of Lake Okeechobee 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, would require successive cycles over a few years to achieve a target of 70 percent recoverability.<sup>72</sup>

### ***CERP: C-43 Basin Storage Reservoir***

The Caloosahatchee River (C-43) West Basin Storage Reservoir project is designed to help ensure that a more consistent, natural flow of freshwater is delivered to the estuary. The project is designed to capture and store runoff from the local basin along with a portion of water discharged from Lake Okeechobee to be released slowly to the estuary as needed.<sup>73</sup> The project includes an above-ground reservoir with the total storage capacity of 170,000 acre-feet.<sup>74</sup> The first phase of construction began in late 2015 and is anticipated to be completed in 2020.<sup>75</sup>

### ***CERP: Indian River Lagoon – South***

The Indian River Lagoon–South (IRL-S) project is designed to help restore the balance of fresh and salt water in the lagoon and estuary and capture, store, and treat runoff from the local basins before it enters the natural system.<sup>76</sup> The IRL-S includes one above-ground storage reservoir in the C-44, C-23, C-24, and C-25 basins, with a total storage capacity of approximately 200,000 acre-feet, and three stormwater treatment areas (STAs).<sup>77</sup> Additionally, water from the C-23/C-24 basin will be redirected to the North Fork of the St. Lucie River to attenuate freshwater flows to the St. Lucie Estuary.<sup>78</sup> Construction is completed on some features included in the C-44 reservoir, including intake and drainage canals, access roads, and staging areas. Construction also began on the C-44 reservoir pump station and STA, with reservoir construction expected to be completed in 2019.<sup>79</sup>

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<sup>70</sup> USACE and SFWMD, *Final Regional Aquifer Storage and Recovery Technical Data Report*, 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](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).

<sup>71</sup> *Id.* at 131.

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

<sup>73</sup> USACE, *Fact Sheet: Caloosahatchee River (C-43) West Basin Storage Reservoir* (Jan. 2016), available at [http://www.saj.usace.army.mil/Portals/44/docs/FactSheets/C-43\\_FS\\_January2016\\_web.pdf](http://www.saj.usace.army.mil/Portals/44/docs/FactSheets/C-43_FS_January2016_web.pdf) (last visited Jan. 31, 2017).

<sup>74</sup> USACE, *South Florida Ecosystem Restoration (SFER) Program Overview* (June 2016).

<sup>75</sup> USACE and SFWMD, *Integrated Delivery Schedule 2016 Update* (Dec. 2016), available at [http://www.saj.usace.army.mil/Portals/44/docs/Environmental/IDS/IDS\\_PLACEMAT\\_05JAN2017\\_web.pdf?ver=2017-01-07-164638-380](http://www.saj.usace.army.mil/Portals/44/docs/Environmental/IDS/IDS_PLACEMAT_05JAN2017_web.pdf?ver=2017-01-07-164638-380) (last visited Jan. 31, 2017).

<sup>76</sup> USACE, *Fact Sheet: Indian River Lagoon – South* (Jan. 2017), available at [http://www.saj.usace.army.mil/Portals/44/docs/Environmental/C-44/IRL\\_FactSheet\\_January2017\\_web.pdf?ver=2017-01-18-122229-807](http://www.saj.usace.army.mil/Portals/44/docs/Environmental/C-44/IRL_FactSheet_January2017_web.pdf?ver=2017-01-18-122229-807) (last visited Jan. 31, 2017).

<sup>77</sup> *The Sixth Biennial Review* at 70; Stormwater Treatment Areas, or STAs, are constructed wetlands that remove and store nutrients through plant growth and the accumulation of dead plant material that is slowly converted to a layer of peat soil; See SFWMD, *Water Quality Improvement*, available at <https://www.sfwmd.gov/our-work/wq-stas> (last visited Feb. 6, 2017).

<sup>78</sup> *Id.*

<sup>79</sup> USACE and SFWMD, *Integrated Delivery Schedule 2016 Update* (Dec. 2016), available at [http://www.saj.usace.army.mil/Portals/44/docs/Environmental/IDS/IDS\\_PLACEMAT\\_05JAN2017\\_web.pdf?ver=2017-01-07-164638-380](http://www.saj.usace.army.mil/Portals/44/docs/Environmental/IDS/IDS_PLACEMAT_05JAN2017_web.pdf?ver=2017-01-07-164638-380) (last visited Jan. 31, 2017).

***CERP: Central Everglades Planning Project (CEPP)***

The Central Everglades Planning Project (CEPP) consists of a suite of the CERP projects whose purpose is to improve the quantity, quality, timing, and distribution of water flows to the Northern Estuaries, central Everglades, Everglades National Park, and Florida Bay while increasing the water supply for urban and agricultural users.<sup>80</sup> The CEPP received Congressional authorization in the 2016 Water Infrastructure Improvements for the Nation Act.<sup>81</sup>

The project is designed to send an annual average of approximately 210,000 acre-feet of water south from Lake Okeechobee and set the foundation for restoring the central portion of the Everglades ecosystem.<sup>82</sup> The project includes:

- Increasing storage, treatment and conveyance of water south of Lake Okeechobee;
- Removing canals and levees within the central Everglades; and
- Retaining water within the Everglades National Park and protecting urban and agricultural areas to the east from flooding.<sup>83</sup>

Some of the features included in the CEPP are an A-2 Flow Equalization Basin (FEB)<sup>84</sup> that will be integrated with the A-1 FEB, a project that is part of the Restoration Strategies Plan; removal of approximately six miles of the Old Tamiami Trail road; construction of seepage barriers; and increases in structural capacities.<sup>85</sup>

***Northern Everglades and Estuaries Protection Program (NEEPP)***

The Northern Everglades and Estuaries Protection Program (NEEPP) was established to promote a comprehensive, interconnected watershed approach to protect Lake Okeechobee and the Caloosahatchee and St. Lucie watersheds. It includes the Lake Okeechobee Watershed Protection Program and the Caloosahatchee and St. Lucie River Watershed Protection Programs.<sup>86</sup> The NEEPP led to the creation of the Lake Okeechobee Phase II Technical Plan in 2008, which requires, in part, that the SFWMD:

- Provide for additional measures, including voluntary water storage and water quality improvements on private land, increase water storage and reduce excess water levels in Lake Okeechobee, and reduce excess discharges to the estuaries; and

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<sup>80</sup> USACE and SFWMD, *Central Everglades Planning Project Final Project Implementation Report and Environmental Impact Statement*, 1-3 (July 2014), available at [http://www.saj.usace.army.mil/Portals/44/docs/Environmental/CEPP/01\\_CEPP%20Final%20PIR-EIS%20Main%20Report.pdf](http://www.saj.usace.army.mil/Portals/44/docs/Environmental/CEPP/01_CEPP%20Final%20PIR-EIS%20Main%20Report.pdf) (last visited Jan. 31, 2017).

<sup>81</sup> The Water Infrastructure Improvements for the Nation Act (P.L. 114-322, Dec. 16, 2016).

<sup>82</sup> USACE, *Central Everglades Planning Project*, Facts & Information (Jan. 2017), available at [http://www.saj.usace.army.mil/Portals/44/docs/FactSheets/CEPP\\_FS\\_January2017\\_revised\\_web.pdf](http://www.saj.usace.army.mil/Portals/44/docs/FactSheets/CEPP_FS_January2017_revised_web.pdf) (last visited Jan. 31, 2017).

<sup>83</sup> *Id.*

<sup>84</sup> A flow equalization basin (FEB) is a constructed storage feature used to capture and temporarily store peak stormwater flows. Water managers can move water from FEBs to Stormwater Treatment Areas (STAs) at steady rates to optimize STA performance and help achieve water quality improvement targets. See SFWMD, *Just the Facts: A-1 Flow Equalization Basin (FEB)*, available at [https://www.sfwmd.gov/sites/default/files/documents/jtf\\_a1\\_feb.pdf](https://www.sfwmd.gov/sites/default/files/documents/jtf_a1_feb.pdf) (last visited Jan. 31, 2017).

<sup>85</sup> *Id.*

<sup>86</sup> Section 373.4595, F.S.

- Develop the appropriate water quantity storage goal to achieve the desired Lake Okeechobee range of lake levels and inflow volumes to the Caloosahatchee and St. Lucie estuaries while meeting the other water-related needs of the region, including water supply and flood protection.<sup>87</sup>

The NEEPP provided the basis for the development of Basin Management Action Plans (BMAPs). A BMAP is the blueprint for restoring impaired water by reducing pollutant loadings to meet a Total Maximum Daily Load (TMDL). The BMAP is a comprehensive set of strategies including water quality and water storage projects, permit limits on wastewater facilities, urban and agricultural best management practices (BMPs), and conservation programs, to implement the nutrient load reductions necessary to achieve a TMDL.

The 2016 Legislature enacted, ch. 2016-1, Laws of Florida, to update and restructure the NEEPP to reflect and build upon the Department of Environmental Protection's implementation of BMAPs for Lake Okeechobee, the Caloosahatchee River and Estuary, and the St. Lucie River and Estuary. The BMAP will include the construction of water projects, water monitoring programs, and the implementation, verification, and enforcement of BMPs within these watersheds. The BMAPs are now required to include 5-, 10-, and 15-year milestones towards achieving the TMDLs for those water basins within 20 years.<sup>88</sup>

### ***River of Grass – U.S. Sugar Land Acquisition***

In 2008, Governor Charlie Crist announced a plan to acquire more than 180,000 acres of agricultural land for Everglades restoration from the United States Sugar Corporation. The River of Grass planning process was started to evaluate the lands to be acquired under the plan and analyze how the land would affect the future of Everglades restoration. During this planning process, additional treatment capacity necessary to achieve state and federal Everglades water quality standards and the volume of storage needed to reduce damaging discharges and move more water south of the lake was evaluated.<sup>89</sup>

Because of the magnitude of the acquisition, restoration projects were effectively put on hold during the re-evaluation process. Ultimately, the SFWMD approved an agreement on August 12, 2010, to purchase approximately 26,800 acres of land, substantially less land than originally envisioned, because of a decline in the SFWMD revenues.<sup>90</sup> Under the Second Amended and Restated Agreement for Purchase and Sale (Agreement), the SFWMD took ownership of approximately 17,900 citrus acres in Hendry County and 8,900 sugarcane acres in Palm Beach County.<sup>91</sup>

Under the Agreement, the SFWMD retained the following various options to purchase the remaining 153,200 acres of land over the next ten years:

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<sup>87</sup> *Id.*

<sup>88</sup> Chapter 2016-1, Laws of Fla.

<sup>89</sup> *Id.*

<sup>90</sup> SFWMD, *Just the Facts: Revising the River of Grass, Second Amended & Restated Agreement for Sale and Purchase* (Aug. 12, 2010), available at [https://www.sfwmd.gov/sites/default/files/documents/jtf\\_2010\\_081210\\_final\\_gbvote.pdf](https://www.sfwmd.gov/sites/default/files/documents/jtf_2010_081210_final_gbvote.pdf). See [https://www.sfwmd.gov/sites/default/files/documents/rog\\_0\\_amended\\_restated\\_agt\\_for\\_sale\\_and\\_purchase.pdf](https://www.sfwmd.gov/sites/default/files/documents/rog_0_amended_restated_agt_for_sale_and_purchase.pdf) (last visited Jan. 31, 2017).

<sup>91</sup> *Id.*

- An exclusive 3-year option to purchase either a specified 46,800 acres or the entire 153,200 acres at a fixed price of \$7,400 per acre. This option expired in 2013.
- After the expiration of this exclusive option period, a subsequent 2-year non-exclusive option to purchase approximately 46,800 acres at fair market value. This option expired in 2015.
- A subsequent 7-year non-exclusive option to purchase the remaining acres at fair market value. Because the previous options were not exercised, the entire remaining option property, approximately 153,200 acres, is available to be purchased. This option will expire in 2020.<sup>92</sup>

### ***Restoration Strategies***

After years of litigation concerning the water quality in the Everglades Protection Area (EPA), a consent decree was entered in the case of *United States v. South Florida Water Management District* in 1992.<sup>93</sup> The consent decree, as implemented by the Everglades Forever Act in 1994, set forth a two-pronged approach consisting of building STAs and implementing best management practices (BMPs) in the EAA to reduce the total phosphorous levels in the Everglades Protection Area. The plan originally consisted of the construction of four STAs covering 35,000 acres, but by 2006 the need for additional STA acreage became clear. By 2010, approximately 57,000 acres of STAs were built and operating.<sup>94</sup> Subsequently conversations began between the United States Environmental Protection Agency and the 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>95</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. Under these strategies, the SFWMD must complete six projects that will create more than 6,500 acres of new STAs and 110,000 acre-feet of additional water storage.<sup>96</sup>

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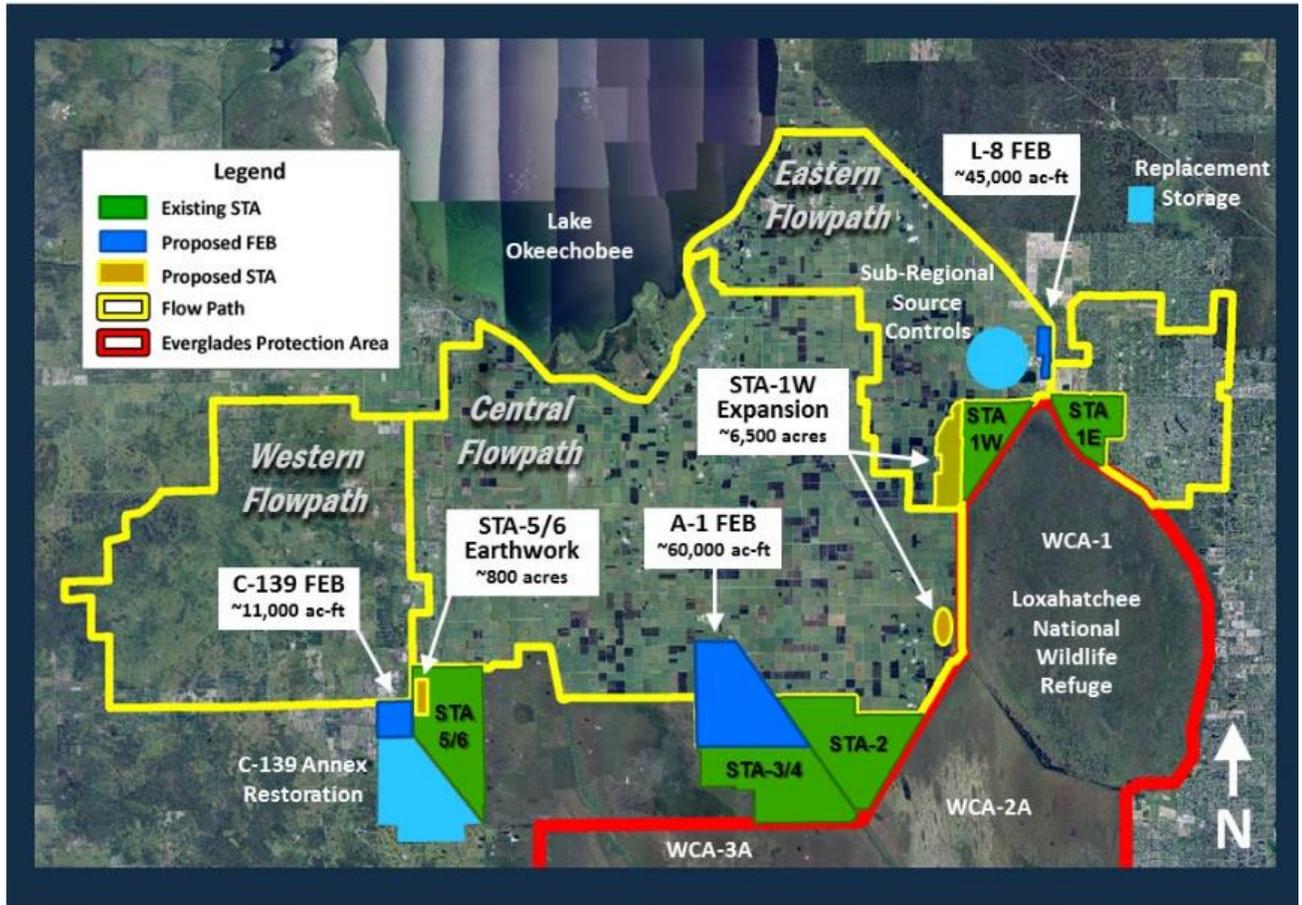
<sup>92</sup> *Id.*

<sup>93</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 [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) (last visited Jan. 31, 2017).

<sup>94</sup> *Science Plan* at 2.

<sup>95</sup> SFWMD, *quick facts on...Restoration Strategies for Clean Water for the Everglades* (Feb. 2016), available at [https://www.sfwmd.gov/sites/default/files/documents/spl\\_restoration\\_strategies.pdf](https://www.sfwmd.gov/sites/default/files/documents/spl_restoration_strategies.pdf) (last visited Jan. 31, 2017).

<sup>96</sup> *Science Plan* at 3.



Design and construction of the projects is scheduled to be accomplished in three phases over a 12-year timeframe, with completion set for 2025.<sup>97</sup> In 2013, the Legislature appropriated \$32 million on a recurring basis through the 2023-2024 Fiscal Year to support the implementation of the plan.<sup>98</sup> The A-1 FEB, providing approximately 60,000 acre-feet of storage, was completed in 2015 and is currently in an operational and testing phase and has proved successful at improving the performance of the STAs, effectively reducing the total phosphorous loads to the STAs by approximately 80 percent.<sup>99</sup> The expansion of STA-1W is expected to be completed in December of 2018. The L-8 FEB is designed to provide 48,000 acre-feet of storage and substantial completion of the project has been achieved, except the outflow pump station, but full capacity is not yet available due to manufacturing issues with the pumping units.<sup>100</sup>

<sup>97</sup> Science Plan at 3.

<sup>98</sup> Ch. 2013-59, s. 2, Laws of Fla.

<sup>99</sup> SFWMD, *Restoration Strategies Program Update* (Jan. 2017), available at [https://www.sfwmd.gov/sites/default/files/documents/restoration\\_strategies\\_update\\_2017\\_jan\\_0.pdf](https://www.sfwmd.gov/sites/default/files/documents/restoration_strategies_update_2017_jan_0.pdf) (last visited Jan. 31, 2017); See also Terrie Bates, Water Resources Division Director, SFWMD, Governing Board Meeting, *Environmental Conditions Update*, slide 26 (June 09, 2016), available at <https://www.sfwmd.gov/news-events/meetings> (last visited Jan. 31, 2017).

<sup>100</sup> SFWMD, *Restoration Strategies Program Update* (Jan. 2017).

## Damaging Discharges from Lake Okeechobee to the Coastal Estuaries

Because of the lack of operational flexibility within the system's design, the LORS requires lake levels to be kept low before the wet season, to account for additional inflow to ensure that lake levels do not rise to dangerous levels, which could cause the dike to be breached.<sup>101</sup> Furthermore, during a high rainfall event water enters into the lake from direct rainfall, large basins, and other sources, which causes the water levels in the lake to rise six times faster than can be discharged from the lake.<sup>102</sup> The only outlets that are capable of quickly releasing the necessary volume of water from the lake are through the St. Lucie and Caloosahatchee Canals to the coastal estuaries.<sup>103</sup> Therefore, when heavy rainfall events occur, the only option in the current system to maintain safe lake levels is to send high volumes of water east and west.

For the majority of 2016, Martin, St. Lucie, and Lee counties were under a state of emergency due to the negative effects of freshwater discharges from Lake Okeechobee on the coastal communities and ecosystems.<sup>104</sup> Due to El Nino conditions, the dry season of Water Year 2016 (May 1, 2015-April 30, 2016) was unusually wet with 26.67 inches of rainfall, much greater than the long-term average of 12.78 inches.<sup>105</sup> January of 2016 was the wettest January on record, with rainfall amounts approximately 476 percent more than the historical average.<sup>106</sup> The wetter than normal dry season necessitated releases from Lake Okeechobee to the St. Lucie and Caloosahatchee estuaries, compounding the freshwater inflow to the estuaries from the local basins. From January to November of 2016, approximately 2.23 million acre-feet, which is approximately 727 billion gallons of freshwater, was released from Lake Okeechobee alone to the St. Lucie and Caloosahatchee estuaries.<sup>107</sup>

High volume freshwater discharges have significant effects on the coastal estuaries. The releases from the lake along with other local basin inflows cause large fluctuations in salinity, which often expose the animal and plant life within the estuary to salinities outside of their tolerance ranges.<sup>108</sup> When the high flows last for a sustained time period, the impacts to the estuaries are more severe.<sup>109</sup> Species, such as oysters and seagrasses, become more susceptible to disease and

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<sup>101</sup> *The Sixth Biennial Review* at 131.

<sup>102</sup> Erika Skolte, USACE, *Lake Okeechobee: Following the flow*, <http://www.saj.usace.army.mil/Media/News-Stories/Article/479659/lake-okeechobee-following-the-flow/> (last visited Jan. 31, 2017).

<sup>103</sup> University of Florida Water Institute, *Options to Reduce High Volume Freshwater Flows to the St. Lucie and Caloosahatchee Estuaries and Move More Water from Lake Okeechobee to the Southern Everglades*, 17 (2015) [hereinafter *UF Study*], available at <http://waterinstitute.ufl.edu/research/downloads/contract95139/UF%20Water%20Institute%20Final%20Report%20March%202015.pdf> (last visited Jan. 31, 2017).

<sup>104</sup> Fla. Exec. Order No. 16-59 (Feb. 26, 2016); Fla. Exec. Order No. 16-155 (June 29, 2016); and Fla. Exec. Order No. 16-156 (June 30, 2016). Note that Palm Beach County was also under a state of emergency but only during the June 30, 2016, Executive Order.

<sup>105</sup> SFWMD, *Draft 2017 South Florida Environmental Report*, 8c-10 (Sept. 2016), available at [http://apps.sfwmd.gov/sfwmd/SFER/2017\\_SFER\\_DRAFT/v1/sfer\\_toc\\_v1.pdf](http://apps.sfwmd.gov/sfwmd/SFER/2017_SFER_DRAFT/v1/sfer_toc_v1.pdf) (last visited Jan. 31, 2017).

<sup>106</sup> See John Mitnik, Bureau Chief of Engineering and Construction, SFWMD, Water Resources Advisory Council, *Operations in Response to Recent Heavy Rains*, slide 4 (Feb. 2, 2016), available at <https://www.sfwmd.gov/news-events/meetings> (last visited Jan. 31, 2017).

<sup>107</sup> SFWMD, *Release Volumes from Lake Okeechobee and Local Basin Inflow to the Estuaries – CY 2016* (Jan. 6, 2017) (on file with the Senate Committee on Environmental Preservation and Conservation).

<sup>108</sup> *LORS FSEIS* at 147.

<sup>109</sup> *Id.* at 149.

predation as the duration of the high volume discharges increase.<sup>110</sup> Oysters and seagrasses are indicator species and are widely used to evaluate the effects of the discharges on overall estuarine health. Beginning in February the salinity levels of the St. Lucie Estuary dropped significantly. The levels rebounded slightly as the freshwater discharges decreased, but plummeted again at the end of May when the discharges were again increased. The drop in salinity levels greatly affected oyster spat recruitment in May of 2016.<sup>111</sup>

In addition to requiring high volume discharges, higher lake stages correlate with algae blooms in the lake.<sup>112</sup> The lake receives large amounts of nutrients from its tributaries and has high levels of nutrients within the water column, which support the growth of algae blooms.<sup>113</sup> Periodically conditions are just right and cyanobacteria, referred to as blue-green algae, rapidly reproduces to form a bloom.<sup>114</sup> In May of 2016, a massive *Microcystis* algae bloom formed in Lake Okeechobee.<sup>115</sup> The algae in the lake was sampled and tested positive for levels well above the low-level risk threshold.<sup>116</sup> Operating under the LORS, the USACE continued the regulatory releases east and west to the coastal estuaries to maintain the lake's level. The discharges carried the algae from the lake through the C-44 canal and out through the S-80 structure into the St. Lucie Estuary.

The National Academies of Sciences, Engineering, and Medicine in their biennial review of Everglades restoration progress stated:

What causes *Microcystis* blooms in the St. Lucie Estuary? Philips et. al (2012) found that internally driven blooms are mainly limited to the north fork of the St. Lucie Estuary and occur during dry periods when water residence time is long enough to allow the algae to proliferate. Those blooms are mainly caused by a kind of algae called dinoflagellate. In contrast, externally driven blooms are much more severe, happen in the main stem of the estuary, and are caused by *Microcystis*. Philips et al. (2012) documented that the 2005 algal bloom, which coincided with regulatory water discharges from the lake, was seeded by an upstream bloom that happened in Lake Okeechobee...It is highly likely that the same situation occurred in 2016.

The *Microcystis* algae bloom covered the waterways of the St. Lucie River and Estuary during the peak of the 2016 tourist season. Health advisories were issued and even some of the beaches closed. Usually the *Microcystis* algae blooms, which consists of freshwater algae, are unable to

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<sup>110</sup> *Id.*

<sup>111</sup> See Terrie Bates, Water Resources Division Director, SFWMD, Governing Board Meeting, *Environmental Conditions Update*, slides 9-12 (June 09, 2016), available at <https://www.sfwmd.gov/news-events/meetings> (last visited Jan. 31, 2017).

<sup>112</sup> United States Fish and Wildlife Service, *Final Fish and Wildlife Coordination Act Report, 2006 Lake Okeechobee Regulation Schedule Study*, 21 (Oct. 12, 2007), available at [http://www.saj.usace.army.mil/Portals/44/docs/h2omgmt/LORSdocs/ACOE\\_STATEMENT\\_APPENDICES\\_A-G.pdf](http://www.saj.usace.army.mil/Portals/44/docs/h2omgmt/LORSdocs/ACOE_STATEMENT_APPENDICES_A-G.pdf) (last visited Jan. 31, 2017).

<sup>113</sup> *The Sixth Biennial Review* at 30.

<sup>114</sup> *Id.*

<sup>115</sup> *Id.*

<sup>116</sup> For full sampling results see FDEP, *South Florida Algal Bloom Response and Monitoring*, <https://depnewsroom.wordpress.com/algae-bloom-monitoring-and-response/> (last visited Jan. 31, 2017).

survive offshore, due to the high salinity levels. However, because the system had been experiencing high volume freshwater discharges for a long duration, the salinity levels offshore were low enough for the bloom to survive. Samples taken at Bathtub Reef Beach in Martin County confirmed that the algae present was highly toxic *Microcystis* algae.<sup>117</sup>

Exposure to algal toxins may occur through the consumption of tainted water, fish or shellfish; recreational activities; or inhalation of aerosolized toxins.<sup>118</sup> The toxins can have a range of lethal and non-lethal effects on humans, wildlife, and companion animals.<sup>119</sup> The excessive freshwater discharges in 2016 impacted not only the ecology of the estuaries, but the quality of life of the residents, regional property values, revenues of area businesses, and continue to have effects on the local economies.<sup>120</sup>

### **Additional Storage**

According to the National Academies of Sciences, Engineering, and Medicine in their biennial review of Everglades restoration progress, little has been accomplished through CERP to reduce the high volume discharges to the St. Lucie and Caloosahatchee estuaries.<sup>121</sup> Additionally, the review noted that storage components in CERP have been scaled back and provided an analysis of the significance of that loss of storage. The review concluded that a scaled-back CERP under LORS has resulted in 104 and 167 percent increases in regulatory releases by volume to the St. Lucie and Caloosahatchee estuaries, respectively, compared to the original CERP projections under the previous regulation schedule.<sup>122</sup>

The 2015 University of Florida Water Institute Study (UF Study), titled *Options to Reduce High Volume Freshwater Flows to the St. Lucie and Caloosahatchee Estuaries and Move More water From Lake Okeechobee to the Southern Everglades*, concluded that providing relief to the estuaries would require an enormous increase in storage and treatment both north and south of the lake and that all existing and currently authorized projects are insufficient to achieve these goals.<sup>123</sup> The KRR project is expected to attenuate the flows into Lake Okeechobee; the C-43 and C-44 reservoir projects are expected to significantly reduce local-basin flows into the estuaries; and Restoration Strategies and CEPP together are expected to increase the delivery of clean water to the Everglades.<sup>124</sup> The UF Study concluded, however, that even after all of these projects are completed as planned, the lake-triggered high volume discharges to the estuaries would be reduced by less than 55 percent.<sup>125</sup>

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<sup>117</sup> FDEP, *South Florida Algal Bloom Response and Monitoring* (June 30, 2016).

<sup>118</sup> The United States Department of Interior, United States Geological Survey (USGS), *Harmful Algal Blooms* (Jan. 2007), available at [https://pubs.usgs.gov/fs/2006/3147/pdf/FS2006\\_3147.pdf](https://pubs.usgs.gov/fs/2006/3147/pdf/FS2006_3147.pdf) (last visited Jan. 31, 2017).

<sup>119</sup> USGS, *New Science Challenges Old Assumptions about Harmful Algal Blooms*, <https://www.usgs.gov/news/new-science-challenges-old-assumptions-about-harmful-algal-blooms> (last visited Jan. 31, 2017).

<sup>120</sup> See Caloosahatchee Watershed Regional Management Issues, *Storage and Treatment Progress Summary*, 1 (updated July 1, 2016), available at <https://estero-fl.gov/wp-content/uploads/library/Agenda%20Attachments/Caloosahatchee%20Watershed%20Regional%20Water%20Management%20Issues%20White%20Paper%20-%205a.pdf> (last visited Jan. 31, 2017).

<sup>121</sup> *The Sixth Biennial Review* at 108.

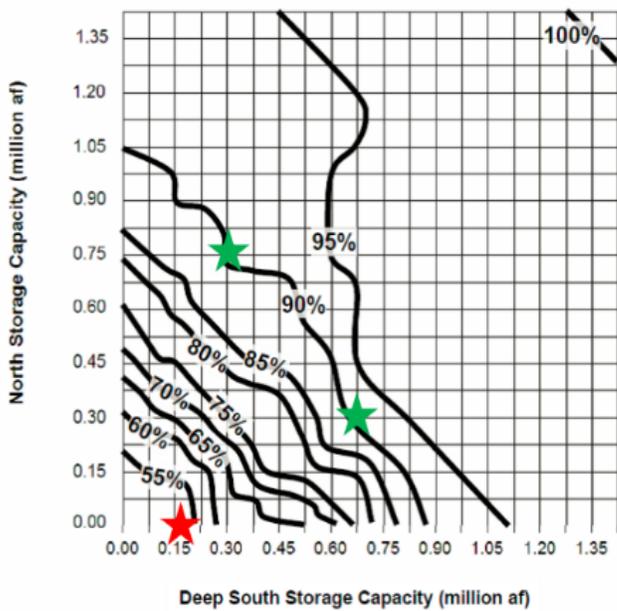
<sup>122</sup> *Id.* at 139.

<sup>123</sup> *UF Study* at 36.

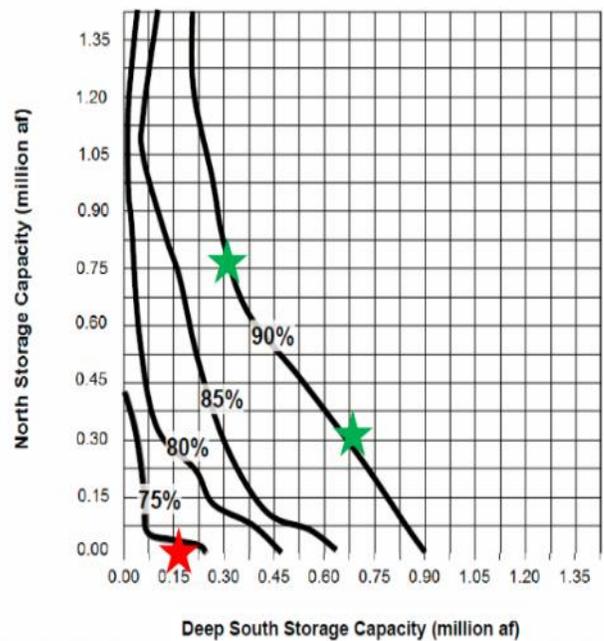
<sup>124</sup> *Id.* at 85.

<sup>125</sup> *Id.*

% Reduction in Lake-Triggered High Discharges to the Northern Estuaries



Dry Season Everglades Demand Target Delivered – Standard Score



The UF Study provided two possible configurations that are expected to provide a 90 percent reduction in lake-triggered discharges. In the graphs above, the red stars represent system performance after 112,000 acre-feet of storage is added under current projects and the green stars represent the two possible configurations that would achieve 90 percent restoration.<sup>126</sup>

Based on the modeling results, the UF Study made the following findings:

[These figures show] that storage can be effective at reducing damaging discharges to the St. Lucie and Caloosahatchee estuaries whether it is constructed north or south of the lake. Storage north of the lake is effective for managing lake levels within a desirable range and thus reducing damaging discharges to the estuaries. Furthermore, water storage and treatment is needed north of the lake to meet the Lake Okeechobee TMDL. However, due to the extended time it takes to route water from north of the lake to the Water Conservation Areas (WCAs), northern storage is not likely to be as effective as southern storage in meeting the timing and distribution objectives of the water deliveries to the [Everglades Protection Area]. Furthermore, it is likely that water stored north of the lake, if passed through the Lake or through perimeter canals subject to agricultural runoff, may need to undergo additional water quality treatment to meet applicable standards before it is released to the [Everglades Protection Area]. Thus, the additional required storage will be needed to be distributed both north and south of the lake to achieve all restoration objectives.<sup>127</sup>

<sup>126</sup> *Id.* at 86.

<sup>127</sup> *Id.* at 87.

### ***Lake Okeechobee Watershed Project***

Planning began in August 2016 under the CERP for the Lake Okeechobee Watershed Project (LOW). The study area for the project consists of approximately 950,000 acres, primarily located north of Lake Okeechobee extending to Lake Istokpoga.<sup>128</sup> The LOW is designed to increase water storage capacity in the northern watershed, which will improve water levels in Lake Okeechobee; improve the quantity and timing of discharges to the St. Lucie and Caloosahatchee estuaries; restore degraded habitat for fish and wildlife; and increase the spatial extent and functionality of wetlands.<sup>129</sup> The following conceptual storage and restoration features under consideration to be included in the LOW are a Taylor Creek/Nubbin Slough storage and treatment area, a 5,000-acre reservoir with total storage capacity of 50,000 acre-feet; and the North of the Lake Okeechobee Storage Reservoir, a 17,500-acre reservoir with a total storage capacity of 200,000 acre-feet.<sup>130</sup>

### ***Everglades Agricultural Area Storage Reservoir***

The EAA Storage Reservoirs – Phase I project was initially authorized in the Water Resources Development Act of 2000.<sup>131</sup> The CERP originally planned for 360,000 acre-feet of storage located in the EAA.<sup>132</sup> The initial design assumed 60,000 acres, divided into three, equally sized compartments with water depth fluctuating up to 6 ft.<sup>133</sup> The purpose of the project was to improve the timing of environmental water deliveries to the WCAs by reducing damaging flood releases from the EAA; reduce Lake Okeechobee regulatory releases to the estuaries; meet supplemental agricultural irrigation demands; and increase flood protection within the EAA.<sup>134</sup>

Planning began under the assumption that the project would be located on lands associated with the Talisman Land purchase in the EAA and the Woerner South property acquisition.<sup>135</sup> A portion of such lands are commonly referred to as the A-1 and A-2 land parcels: A-1 consists of approximately 17,000 acres and A-2 consists of approximately 14,000 acres. In 2005, the State of Florida initiated the Acceler8 program to accelerate the funding, design, and construction of critical restoration projects, one of which was a part of Phase-I of the EAA Reservoir.<sup>136</sup>

<sup>128</sup> USACE, *Fact Sheet: Lake Okeechobee Watershed Project* (Jan. 2017), available at [http://www.saj.usace.army.mil/Portals/44/LOW\\_FS\\_January2017\\_web.pdf](http://www.saj.usace.army.mil/Portals/44/LOW_FS_January2017_web.pdf) (last visited Jan. 31, 2017).

<sup>129</sup> *Id.*

<sup>130</sup> USACE, *Lake Okeechobee Watershed Project, Frequently Asked Questions* (Sept. 2016), available at [http://www.saj.usace.army.mil/Portals/44/docs/Environmental/Lake%20O%20Watershed/LakeO\\_FAQs\\_September2016\\_web.pdf?ver=2016-09-21-150613-913](http://www.saj.usace.army.mil/Portals/44/docs/Environmental/Lake%20O%20Watershed/LakeO_FAQs_September2016_web.pdf?ver=2016-09-21-150613-913) (last visited Jan. 31, 2017).

<sup>131</sup> The Water Resources Development Act of 2000 (P.L. 106-541, Dec. 11, 2000).

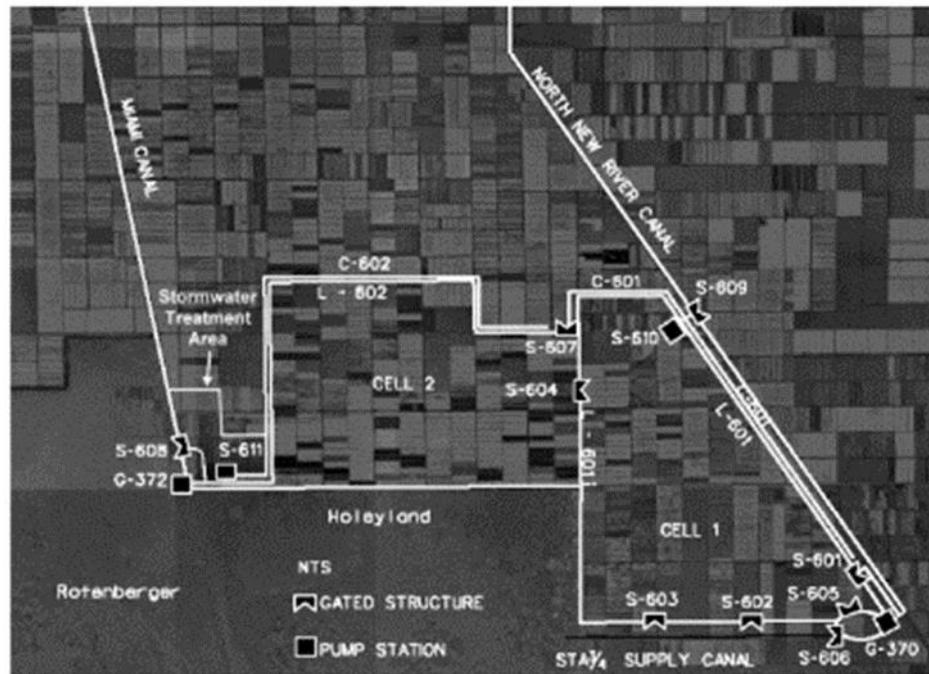
<sup>132</sup> *Restudy* at 9-9.

<sup>133</sup> *Id.*

<sup>134</sup> USACE and SFWMD, *Everglades Agricultural Area Storage Reservoirs – Phase I, Project Management Plan*, 11 (Jan. 2002), available at [http://141.232.10.32/pm/pmp/pmp\\_docs/pmp\\_08\\_eaa/pmp\\_eaa\\_main\\_current.pdf](http://141.232.10.32/pm/pmp/pmp_docs/pmp_08_eaa/pmp_eaa_main_current.pdf) (last visited Jan. 31, 2017).

<sup>135</sup> *Id.*

<sup>136</sup> USACE and SFWMD, *Central and Southern Florida Project Everglades Agricultural Area Storage Reservoirs Revised Draft Project Implementation Report and Environmental Impact Statement*, ES-xiv (Feb. 2006), available at [http://141.232.10.32/pm/projects/project\\_docs/pdp\\_08\\_eaa\\_store/revised\\_draft\\_pir/022206\\_eaa\\_pir\\_mainbody.pdf](http://141.232.10.32/pm/projects/project_docs/pdp_08_eaa_store/revised_draft_pir/022206_eaa_pir_mainbody.pdf) (last visited Jan. 31, 2017).



The SFWMD moved forward under the Acceler8 program and completed the detailed design and engineering work on the A-1 reservoir project, which was to be constructed on the A-1 land parcel, as depicted in Cell 1 on the map above.<sup>137</sup> During 2007, construction for the A-1 reservoir was in full swing and was expected to be completed in the spring of 2011.<sup>138</sup> Then, in May of 2008, a lawsuit was filed against the USACE alleging that the Section 404 Dredge and Fill Permit to construct the A-1 reservoir was inconsistent with the intent of the Water Resources Development Act of 2000 and the National Environmental Policy Act.<sup>139</sup> Due to this litigation and in light of the pending *River of Grass* land acquisition, the reservoir construction contract was terminated so that the site could be integrated into plans that would be developed following the major acquisition.<sup>140</sup>

The state decided to use some of the Talisman lands to expand the existing STAs and another portion of the lands for interim shallow features to help improve the water quality and treatment in STA 3/4.<sup>141</sup> To fulfill federal water quality standards, the A-1 Reservoir was converted to a FEB as part of the mandated Restoration Strategies Plan. The project is now in an operational testing and monitoring phase and has proved successful at improving the performance of the

<sup>137</sup> *Id.*

<sup>138</sup> SFWMD, *2008 South Florida Environmental Report*, 7A-14 (2008), available at [http://my.sfwmd.gov/portal/page/portal/pg\\_grp\\_sfwmd\\_sfer/portlet\\_sfer/tab2236041/volume1/chapters/v1\\_ch\\_7a.pdf](http://my.sfwmd.gov/portal/page/portal/pg_grp_sfwmd_sfer/portlet_sfer/tab2236041/volume1/chapters/v1_ch_7a.pdf) (last visited Jan. 31, 2017).

<sup>139</sup> SFWMD, *2009 South Florida Environmental Report*, 7A-3 (2009), available at [http://my.sfwmd.gov/portal/page/portal/pg\\_grp\\_sfwmd\\_sfer/portlet\\_sfer/tab2236041/2009report/report/v1/chapters/v1\\_ch7A.pdf](http://my.sfwmd.gov/portal/page/portal/pg_grp_sfwmd_sfer/portlet_sfer/tab2236041/2009report/report/v1/chapters/v1_ch7A.pdf) (last visited Jan. 31, 2017).

<sup>140</sup> *Id.*

<sup>141</sup> USACE, *CERP 2010 Report to Congress*, 11 (2010), available at [https://evergladesrestoration.gov/content/cerp/cerp\\_2010\\_rpt\\_to\\_congress.pdf](https://evergladesrestoration.gov/content/cerp/cerp_2010_rpt_to_congress.pdf) (last visited Jan. 31, 2017).

STAs, effectively reducing the total phosphorous loads to the STAs by approximately 80 percent.<sup>142</sup>

The A-2 land parcel, Cell 2 as depicted in the map above, is subject to lease agreements which are set to expire in 2018. The A-2 parcel is included in the project implementation report for the Central Everglades Planning Project (CEPP) as an FEB that will work in conjunction with the A-1 FEB. Cumulatively, the A-1 and A-2 FEBs will provide 116,000 acre-feet of storage, the primary purpose of which is to optimize the performance of the STAs.<sup>143</sup>

### ***C-51 Reservoir Project***

The C-51 reservoir project is being developed by Palm Beach Aggregates, LLC, on 2,200 acres of their property in western Palm Beach County.<sup>144</sup> The project will consist of a reservoir and conveyance structures to provide water supply and water management benefits to participating water utilities and environmental benefits by reducing freshwater discharges to tide. Phase I of the project will provide 14,000 acre-feet of water storage and cost approximately \$161 million.<sup>145</sup> The SFWMD has declared Phase I of the C-51 reservoir project as one of its alternative water supply pilot projects. The water will be used to provide direct aquifer recharge to offset withdrawals from the Biscayne Aquifer. The Broward County Water and Wastewater Services, the City of Sunrise, the City of Lauderhill, and the City of Dania Beach have submitted letters of intent to utilize water made available by Phase I of the C-51 reservoir project. Phase II of the C-51 reservoir project is estimated to provide 46,000 acre-feet of water storage and cost approximately \$286 million.<sup>146</sup> Phase II of the project is being considered under some of the alternatives that are being modeled for the Loxahatchee River Watershed CERP project component.

### **State Revolving Loan Fund**

The State Revolving Loan Fund (SRF) is a federal-state partnership that is administered by the state for the purpose of providing low-interest loans for investments in water and sanitation infrastructure, such as stormwater management facilities and drinking water treatment, as well as the implementation of nonpoint source pollution control and estuary protection projects.<sup>147</sup> The SRF receives its initial capital from federal grants and state funds, which then revolves through the repayment of principal and interest on outstanding loans.<sup>148</sup> The SRF program is the DEP's largest funding program and makes \$200-\$300 million or more available, primarily to local governments, each year.<sup>149</sup>

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<sup>142</sup> See Terrie Bates, Water Resources Division Director, SFWMD, Governing Board Meeting, *Environmental Conditions Update*, slide 26 (June 09, 2016), available at <https://www.sfwmd.gov/news-events/meetings> (last visited Jan. 31, 2017).

<sup>143</sup> *The Sixth Biennial Review* at 128.

<sup>144</sup> Palm Beach Aggregates, LLC, *C-51 Reservoir*, <http://www.palmbeachag.com/c-51-reservoir.html> (last visited April 6, 2017).

<sup>145</sup> See Lenhart J. Lindahl, P.E., Assistant Executive Director, SFWMD, Governing Board Meeting, *C-51 Reservoir Update*, slide 7 (Oct. 13, 2016), available at <http://my.sfwmd.gov/webapps/publicMeetings/viewFile/10150> (last visited April 6, 2017).

<sup>146</sup> *Id.*

<sup>147</sup> FDEP, *State Revolving Loan Fund*, <http://www.dep.state.fl.us/Water/wff/index.htm> (last visited Mar. 8, 2017).

<sup>148</sup> *Id.*

<sup>149</sup> *Id.*

The state currently administers two SRF programs: the Clean Water State Revolving Fund (CWSRF) under the federal Clean Water Act and the Drinking Water State Revolving Fund (DWSRF) under the federal Safe Drinking Water Act. Under the CWSRF there are generally eleven types of projects that are eligible under the program, including, but not limited to, projects for the construction, repair, or replacement of decentralized wastewater treatment systems; measures to manage, reduce, treat, or recapture stormwater; and measures to reduce the demand for publicly owned treatment works capacity through conservation, efficiency, or reuse.<sup>150</sup> Projects that address or prevent future violations of health-based drinking water standards are eligible under the DWSRF.<sup>151</sup> This includes projects that are necessary to maintain compliance with existing national primary drinking water regulations for contaminants with acute and chronic health effects.<sup>152</sup> Projects for dams or reservoirs, or projects needed primarily to serve future population growth are ineligible for assistance.<sup>153</sup>

### **Land Acquisition Trust Fund and Legacy Florida**

In 2014, Florida voters approved a constitutional amendment to provide a dedicated funding source for water and land conservation and restoration. The amendment required that, starting on July 1, 2015, for 20 years, 33 percent of net revenues derived from the existing excise tax on documents be deposited into the Land Acquisition Trust Fund (LATF).

To comply with Art. X, s.28 of the State Constitution, the Legislature, in the 2015 Special Session “A,” passed ch. 2015-229, L.O.F.<sup>154</sup> Chapter 2015-229, L.O.F., amended:

- Section 201.15, F.S., to conform to the constitutional requirement that the LATF receive at least 33 percent of net revenues derived from the existing excise tax on documents; and
- Section 375.041, F.S., to designate the LATF within the Department of Environmental Protection as the trust fund to serve as the depository for the constitutionally required funds.<sup>155</sup>

In 2016, the legislature passed ch. 2016-201, Laws of Florida, referred to as “Legacy Florida.”<sup>156</sup> Legacy Florida amended s. 375.041, F.S., to provide minimum distributions required from the funds deposited into the LATF. Under s. 375.041, F.S., funds deposited into the LATF must be distributed in the following order:

- First, obligations relating to debt service, specifically:
  - First to payments relating to Florida Forever Bonds and Everglades restoration bonds; and
  - Then to payments relating to bonds issued before February 1, 2009, by the South Florida Water Management District and the St. Johns River Water Management District;
- Then, of the funds remaining after the payment of debt service, and before funds are authorized to be appropriated for other uses:

<sup>150</sup> See Environmental Protection Agency (EPA), *Overview of Clean Water State Revolving Fund Eligibilities*, 3 (May 2016), available at [https://www.epa.gov/sites/production/files/2016-07/documents/overview\\_of\\_cwsrf\\_eligibilities\\_may\\_2016.pdf](https://www.epa.gov/sites/production/files/2016-07/documents/overview_of_cwsrf_eligibilities_may_2016.pdf) (last visited Mar. 9, 2017).

<sup>151</sup> 40 C.F.R. § 35.3520 (2014).

<sup>152</sup> *Id.*

<sup>153</sup> *Id.*

<sup>154</sup> Ch. 2015-229, Laws of Fla.

<sup>155</sup> Ch. 2015-229, s. 9, 50, Laws of Fla.

<sup>156</sup> Ch. 2016-201, Laws of Fla.

- A minimum of the lesser of 25 percent of the funds remaining or \$200 million annually for Everglades projects that implement the CERP, the Long-Term Plan,<sup>157</sup> and the NEEPP, with priority given to projects that reduce harmful discharges of water from Lake Okeechobee to the St. Lucie or Caloosahatchee estuaries in a timely manner. These funds are required to be distributed as follows:
  - \$32 million through the 2023-2024 Fiscal Year for the Long-Term Plan;
  - After deducting the \$32 million, a minimum of the lesser of 76.5 percent of the remainder or \$100 million through the 2025-2026 Fiscal Year for the CERP; and
  - The remainder 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 or \$50 million annually for springs restoration, protection, and management projects; and
- Five million annually for the restoration of Lake Apopka.<sup>158</sup>
- Then, any remaining moneys are authorized to be appropriated from time to time for the purposes set forth in Art. X, s. 28 of the State Constitution.<sup>159</sup>

The General Revenue Estimating Conference in December of 2016 estimated that for the 2017-2018 Fiscal Year a total of \$2.48 billion will be collected in documentary stamp taxes with \$814.1 million required to be deposited into the LATF in accordance with s. 28, Art. X of the State Constitution.<sup>160</sup>

### **Water Protection and Sustainability Program Trust Fund**

The Water Protection and Sustainability Program Trust Fund was created for the purpose of implementing the Water Sustainability Program created in s. 403.890, F.S.<sup>161</sup> The revenues appropriated into or appropriated to the trust fund are required to be distributed by the DEP in the following manner:

- Sixty-five percent for the implementation of an alternative water supply program;<sup>162</sup>
- Twenty-two and five-tenths percent for the implementation of best management practices and capital project expenditures necessary for the implementation of the goals of the total maximum daily load program; and
- Twelve and five-tenths percent for the Disadvantaged Small Community Wastewater Grant Program.<sup>163</sup>

<sup>157</sup> Note that the “Long-Term Plan” includes the Restoration Strategies Regional Water Quality Plan.

<sup>158</sup> Section 375.041, F.S.

<sup>159</sup> *Id.*

<sup>160</sup> Office of Economic and Demographic Research, Revenue Estimating Conference, *Documentary Stamp Tax, Executive Summary* (Dec. 12, 2016) available at <http://www.edr.state.fl.us/Content/conferences/docstamp/docstampexecsummary.pdf>.

<sup>161</sup> Section 403.891, F.S.

<sup>162</sup> The term “alternative water supply” is defined in s. 373.019(1), F.S., to mean salt water; brackish surface and groundwater; surface water captured predominately during wet-weather flows; sources made available through the addition of new storage capacity for surface or groundwater, water that has been reclaimed after one or more public supply, municipal, industrial, commercial, or agricultural uses; the downstream augmentation of water bodies with reclaimed water; stormwater; and any other water supply source that is designated as nontraditional for a water supply planning region in the applicable regional water supply plan.”

<sup>163</sup> Section 403.890, F.S.

### III. Effect of Proposed Changes:

**Section 1** amends s. 201.15, F.S., to authorize the payment on debt service on bonds issued for the purposes of s. 373.4598, F.S., for the remainder of the Fiscal Year (FY) in which such bonds are issued to be specifically appropriated by law other than in the General Appropriations Act.

**Section 2** amends s. 215.618, F.S., to provide that bond proceeds from Florida Forever bonds issued for the purposes of s. 373.4598, F.S., are exempt from certain distribution requirements.

**Section 3** creates s. 373.4598, F.S. to set out legislative findings and intent, define terms, and provide for additional storage south of Lake Okeechobee, which is intended to reduce the damaging discharges to the St. Lucie and Caloosahatchee estuaries.

#### *Everglades Agricultural Area lease agreements*

The bill authorizes the South Florida Water Management District (SFWMD) and the Board of Trustees of the Internal Improvement Trust Fund (TIITF) to amend or terminate leases on lands within the Everglades Agricultural Area (EAA) for exchange or use for the EAA reservoir project. The bill requires that if after any such lease is terminated:

- The lessee must be permitted to continue to farm on a field-by-field basis until such time as the lessee's operations are incompatible with implementation of the EAA reservoir project, as reasonably determined by the lessor; and
- If ratoon, stubble, or residual crop remaining on the lease premises is harvested or otherwise used by the lessor or any third party, the lessee is entitled to be compensated for any documented, unamortized planting costs, and any unamortized capital costs associated with the lease and incurred prior to notice.

The SFWMD and TIITF are authorized to swap land, assign leases, and use other methods of providing valuable consideration in negotiating the amendments to or termination of such lease agreements.

The bill requires that any lease agreement relating to land in the EAA which is leased to the Prison Rehabilitative Industries and Diversified Enterprises, Inc., or PRIDE Enterprises for an agricultural work program be terminated in accordance with the terms of the lease agreement. Any such land that was previously leased is authorized to be made available by TIITF to the SFWMD for exchange for lands for the EAA reservoir project or be leased for agricultural purposes. If the lands are leased, any such lease must include provisions authorizing the lessor to terminate the lease at any time during the lease term to any portion, or all of the premises, to be used for an environmental restoration purpose. The terms of the lease may not require more than one-year's notice in order for such termination to be effective. Any agricultural owner managing lands subject to an agreement with PRIDE Enterprises must be given the right of first refusal in leasing any such lands.

#### *Land acquisition*

The bill authorizes the SFWMD to acquire land, if necessary, to implement the EAA reservoir project with the goal of providing at least 240,000 acre-feet of water storage south of Lake

Okeechobee. The bill specifically prohibits the use of eminent domain in the EAA for the purpose of implementing the EAA reservoir project.

The SFWMD is required, upon the effective date of the act, to identify the lessees of the approximately 3,200 acres of land owned by the state or the SFWMD west of the A-2 parcel and east of the Miami Canal and the private property owners of the approximately 500 acres of land that is surrounded by such lands. By July 31, 2017, the SFWMD is required to contact the lessors and landowners of the land identified to express the SFWMD's interest in acquiring land through the purchase or exchange of lands or by the amendment or termination of EAA lease agreements. The bill clarifies that if land swaps or purchases are necessary to assemble the required acreage, the participation of private landowners must be voluntary.

The bill requires the SFWMD to contact the TIITF to request that any lease of land identified, the title to which is vested in the TIITF, be amended or terminated. The TIITF is required to provide to the SFWMD, through direct acquisition in fee or by a supplemental agreement, any land that the title to which is vested in the TIITF which the SFWMD identifies as necessary to construct the EAA reservoir project. The bill clarifies that all appraisal reports, offers, and counteroffers in relation to any land acquired or exchanged are confidential and exempt from public records requirements as provided in current law.

The bill prohibits the total acreage necessary for additional water treatment from exceeding the amount reasonably required to meet state and federal water quality standards as determined using the water quality modeling tools of the SFWMD, specifically the Dynamic Model for Stormwater Treatment Areas Model modeling tool and other modeling tools that will be required in the planning and design of the EAA reservoir project. The bill provides that if additional land is necessary for the EAA reservoir project, the district must acquire that land from willing sellers of property in conjunction with the development of the post-authorization change report.

#### ***Post-authorization change report***

The bill requires the SFWMD to request, by July 1, 2017, that the United States Army Corps of Engineers (USACE) jointly develop a post-authorization change report with the SFWMD for the project component of the Central Everglades Planning Project (CEPP) located on the A-2 parcel with the goal of increasing water storage provided by the project component to a minimum of 240,000 acre-feet. Upon agreement with the USACE, development of the report must begin by August 1, 2017, and does not preclude the implementation of the remaining CEPP project components.

Using the A-2 parcel and the additional land identified by the SFWMD and without modifying the A-1 parcel, the report is required to evaluate:

- The optimal configuration of the EAA reservoir project for providing at least 240,000 acre-feet of water storage; and
- Any necessary increases in canal conveyance capacity to reduce the discharges to the St. Lucie or Caloosahatchee estuaries.

If the SFWMD and the USACE determine that an alternate configuration of water storage and water quality features providing for significantly more water storage, but no less than 360,000

acre-feet of water storage, south of Lake Okeechobee can be implemented on a footprint that includes modification to the A-1 parcel, the SFWMD is authorized to recommend such an alternative configuration in the report. The bill requires that any such configuration include sufficient water quality treatment capacity to meet state and federal water quality standards.

The bill authorizes the SFWMD to begin the preliminary planning or construction of, or modification to, the project site to the extent appropriate and subject to the availability of funding, pending Congressional approval of the report. Upon receipt of Congressional approval, construction of the EAA reservoir project shall be completed parallel with construction of the other CEPP project components, subject to the availability of funding.

The SFWMD is required to report the status of the post-authorization change report to the Legislature by January 9, 2018. The status report must include information on the SFWMD's ability to obtain lease modifications and land acquisitions of the land identified. If the SFWMD in good faith believes that the post-authorization change report will receive ultimate Congressional approval, but that an extension of the October 1, 2018, deadline is needed, the SFWMD must include such a request in its status report and may be granted an extension by the Legislature. Any such extension must include a corresponding date by which the SFWMD, in coordination with the USACE, must begin the planning study for the EAA reservoir project and proceed with the A-2 parcel project component of CEPP in accordance with the project implementation report dated July 2014.

#### ***Planning study***

If, for any reason, the post-authorization change report does not receive Congressional approval by October 1, 2018, and the SFWMD has not been granted an extension by the Legislature, the SFWMD must, in coordination with the USACE, begin the planning study for the EAA reservoir project by October 31, 2018, and proceed with the A-2 parcel project component of CEPP in accordance with the project implementation report dated July 2014.

The SFWMD when developing the planning study must focus on the goal of the EAA reservoir project, which is to provide additional water storage and conveyance south of the lake to reduce the volume of regulatory discharges of water from the lake to the east and west. Upon completion of the planning study and the finalization of the project implementation report, the SFWMD, in coordination with the USACE, shall seek Congressional authorization for the EAA reservoir project.

#### ***Option agreement***

The SFWMD is required to terminate the Entire Option Property Non-Exclusive Option available to the SFWMD pursuant to the 2010 Second Amended and Restated Agreement at the request of the seller, if:

- The post-authorization change report receives Congressional approval; or
- The SFWMD certifies to the TIITF, the President of the Senate, and the Speaker of the House of Representatives that the acquisition of the land necessary for the EAA reservoir project has been completed.

***Agricultural workers***

The bill requires the SFWMD to give preferential consideration to the hiring of former agricultural workers primarily employed during 36 of the past 60 months in the EAA, consistent with their qualification and abilities, for the construction and operation of the EAA reservoir project. Any contract or subcontract for the construction and operation of the EAA reservoir project in which 50 percent or more of the cost is paid from state-appropriated funds must provide preference and priority in the hiring of such agricultural workers. The SFWMD is required to give preferential consideration to contract proposals that include the contractor's hiring practices training programs for such workers.

***C-51 reservoir***

The bill states that the C-51 reservoir project is a water storage facility that is located in western Palm Beach County south of the lake and consists of in-ground reservoirs and conveyance structures that will provide water supply and water management benefits to participating water supply utilities and environmental benefits by reducing freshwater discharges to tide and making water available for natural systems.

The SFWMD is authorized to negotiate with the owners of the C-51 reservoir project site for the acquisition of the project site for Phase II of the project or to enter into a public-private partnership. The SFWMD is authorized to acquire land near the C-51 reservoir through the purchase or exchange of land that is owned by the SFWMD or the state as necessary to implement Phase II of the project. The state and the SFWMD are authorized to consider potential swaps of land that is owned by the state or the SFWMD to achieve the optimal combination of water quality and water storage. The SFWMD is prohibited from exercising eminent domain for the purpose of implementing the C-51 reservoir project.

The bill requires that, if state funds are appropriated for Phase I or Phase II of the C-51 reservoir project:

- The SFWMD shall operate the reservoir to maximize the reduction of high-volume Lake Okeechobee regulatory releases to the St. Lucie or Caloosahatchee estuaries in addition to providing relief to the Lake Worth Lagoon;
- Water made available by the reservoir shall be used for natural systems in addition to any allocated amounts for water supply; and
- Any water received from Lake Okeechobee may not be made available to support consumptive use permits.

The bill authorizes Phase I of the C-51 reservoir project to be funded through the water storage facility revolving loan fund and Phase II of the C-51 reservoir project to be funded as a project component of CERP or pursuant to the distribution provided from the Land Acquisition Trust Fund in accordance with s. 375.041(3)(b)4., F.S.

***Funding***

The bill authorizes any cost, including but not limited to, the costs for land acquisition, planning and construction, and operation and maintenance, related to the water storage reservoirs to be funded using the proceeds from Florida Forever bonds in the amount of up to \$1.2 billion as

authorized under s. 215.618, F.S. The bill requires that the bond proceeds from such bonds be deposited into the Everglades Trust Fund. The bill authorizes the use of state funds for the EAA reservoir project and requires the SFWMD to actively seek additional sources of funding, including federal funding, for the EAA reservoir project.

#### ***Lake Okeechobee Regulation Schedule***

The bill requires the SFWMD to request that the USACE pursue the reevaluation of the Lake Okeechobee Regulation Schedule as expeditiously as possible, taking into consideration the repairs made to the Herbert Hoover Dike and the implementation of projects designed to reduce high-volume freshwater discharges from Lake Okeechobee, in order to optimally utilize the added water storage capacity to reduce the high-volume freshwater discharges to the St. Lucie and Caloosahatchee estuaries.

**Section 4** creates s. 373.475, F.S., to create a water storage facility revolving loan fund to provide funding assistance to local governments and water supply entities for the development and construction of water storage facilities to increase the availability of sufficient water for all existing and future reasonable-beneficial uses and natural systems.

The bill requires the Department of Environmental Protection (DEP) to adopt rules to implement the water storage revolving loan fund, including setting forth a priority system for loans based on compliance with state requirements, establishing the requirements for the award and repayment of financial assistance; and requiring evidence of credit worthiness and adequate security to ensure that each loan recipient can meet its loan repayment requirements.

The Water Protection and Sustainability Program Trust Fund established under s. 403.891, F.S., will be used to carry out the revolving loan fund.

**Section 5** amends s. 375.041, F.S., to provide examples of CERP projects that are authorized to be funded from the required distribution established for Everglades projects and appropriates \$100 million to the Everglades Trust Fund for the 2018-2019 fiscal year, and each fiscal year thereafter, for water storage reservoir projects that implement s. 373.4598, F.S. The bill requires that any funds remaining in any fiscal year be made available only for Everglades projects as identified in s. 375.041(3)(b)1., F.S., and be used in accordance with laws relating to such projects. The bill clarifies that any funds made available for such purposes in a fiscal year are in addition to the amount appropriated under that subparagraph. The bill requires that the distribution be reduced by an amount equal to the debt service paid for Florida Forever bonds or Everglades restoration bonds issued after July 1, 2017, for the purposes of the water storage reservoirs.

**Section 6** amends s. 403.890, F.S. to revise for what purposes the revenues deposited into or appropriated to the Water Protection and Sustainability Program Trust Fund may be distributed to include revenues and appropriations related to the water storage facility revolving loan fund. The bill also removes the provisions relating to the implementation of best management practices and capital improvement projects for the implementation of the goals of the total maximum daily load program and the provisions relating to the Disadvantaged Small Community Wastewater Grant Program. The removal of the other programs from this trust fund do not have any

immediate effect to those programs because the trust fund is not currently being used for such purposes.

**Section 7** creates s. 446.71, F.S., to require that the Department of Economic Opportunity (DEO), in cooperation with CareerSource Florida, Inc., establish the Everglades Restoration Agricultural Community Employment Training Program within the DEO. The DEO is required to use funds appropriated to the program by the Legislature to provide grants to stimulate and support training and employment programs that seek to match persons who complete such training programs to nonagricultural employment opportunities in areas of high agricultural unemployment, and to provide other training, educational, and information services necessary to stimulate the creation of jobs in the areas of high agricultural unemployment.

The bill provides legislative intent supporting projects that improve the economy in the EAA and legislative findings providing that the training of citizens of the state to fill the needs of these industries significantly enhances the economic viability of the region. The bill authorizes funds to be used for grants for tuition for public or private technical or vocational programs and matching grants to employers to conduct employer-based training programs, or for the purchase of equipment to be used for training purposes, the hiring of instructors, or any other purpose directly associated with the program. The bill prohibits the DEO from awarding a grant to any given training program which exceeds 50 percent of the total cost of the program. Matching contributions may include in-kind services, including, but not limited to, the provision of training instructors, equipment, and training facilities. The bill authorizes the DEO to grant up to 100 percent of the tuition for a training program participant primarily employed during 36 of the previous 60 months in the EAA.

The bill requires that programs established in the EAA include opportunities to obtain the qualifications and skills necessary for jobs related to federal and state restoration projects, the Airglades Airport in Hendry County, or an inland port in Palm Beach County. The bill requires that the DEO adopt rules to implement this section.

**Section 8** amends s. 946.511, F.S., to prohibit the use of inmates, beginning July 1, 2017, for correctional work programs in the agricultural industry in the EAA or in any area experiencing high unemployment rates in the agricultural sector. The bill requires that any lease agreement relating to PRIDE Enterprises for an agricultural work program be terminated in accordance with the terms of the lease agreement.

**Section 9** requires the Division of Law Revision and Information to replace the phrase “the effective date of this act” with the date the act becomes a law.

**Section 10** provides an appropriation for the 2017-2018 fiscal year in the sum of \$30 million in nonrecurring funds from the Land Acquisition Trust Fund (LATF) to the Everglades Trust Fund for the purposes of acquiring land or negotiating leases pursuant to s. 373.4598(4), F.S., or for any cost related to the planning or construction of the EAA reservoir project.

**Section 11** provides an appropriation for the 2017-2018 fiscal year in the sum of \$3 million in nonrecurring funds from the LATF to the Everglades Trust Fund for the purposes of developing the post-authorization change report pursuant to s. 373.4598, F.S., and the sum of \$1 million in

nonrecurring funds from the LATF to the Everglades Trust Fund for the purposes of negotiating Phase II of the C-51 reservoir project pursuant to s. 373.4598, F.S.

**Section 12** provides an appropriation for the 2017-2018 fiscal year in the sum of \$30 million in nonrecurring funds from the LATF to the Water Resource Protection and Sustainability Program Trust Fund for the purposes of implementing Phase I of the C-51 reservoir project as a water storage facility in accordance with ss. 373.4598 and 373.475, F.S.

**Section 13** provides that the bill takes effect upon becoming a law.

#### **IV. Constitutional Issues:**

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

#### **V. Fiscal Impact Statement:**

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

The impact of CS/SB 10 to the private sector is indeterminate. There will be an immediate positive impact to the landowners whose property is purchased. However, converting the agricultural land to a reservoir will have an indeterminate negative fiscal impact to local farmers due to the reduction in available farmland.

C. Government Sector Impact:

For Fiscal Year 2017-2018 the bill appropriates \$30 million from the LATF for acquiring land and negotiating leases for the EAA reservoir project.

For Fiscal Year 2017-2018 the bill appropriates \$30 million from the LATF to the Water Resource Protection and Sustainability Trust fund for the purpose of implementing Phase I of the C-51 reservoir project.

For Fiscal Year 2017-2018 the bill appropriates \$3 million from the LATF to develop the post-authorization report.

For Fiscal Year 2017-2018 the bill appropriates \$1 million from the LATF to negotiate Phase II of the C-51 reservoir project.

The bill appropriates \$100 million from the LATF annually to the Everglades Trust Fund for reservoir projects beginning in Fiscal Year 2018-2019.

The bill authorizes the option to issue up to \$1.2 billion in Florida Forever bonds to be deposited in the Everglades Trust Fund for the costs of land acquisition, planning, construction, and operation and maintenance for reservoir construction.

These additional distributions from the LATF may have an impact on other programs funded from the LATF.

The bill creates the storage facility revolving loan fund to provide loans to local governments for water storage projects to protect and conserve water resources. The bill expands the purposes of the Water Protection and Sustainability Trust Fund to include this program. The fiscal impact of this program is indeterminate.

**VI. Technical Deficiencies:**

None.

**VII. Related Issues:**

None.

**VIII. Statutes Affected:**

This bill substantially amends the following sections of the Florida Statutes: 201.15, 215.618, 375.041, 403.890, and 946.511.

This bill creates the following sections of the Florida Statutes: 373.4598, 373.475, and 446.71.

**IX. Additional Information:**

**A. Committee Substitute – Statement of Changes:**

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

**CS by Appropriations on April 5, 2017:**

The committee substitute

- Establishes options for providing additional water storage south of Lake Okeechobee, including the:
  - Everglades Agricultural Area (EAA) reservoir project with the goal of providing a minimum of 240,000 acre-feet of water storage; and
  - C-51 reservoir project with the goal of providing approximately 60,000 acre-feet of water storage.
- Authorizes the Board of Trustees of the Internal Improvement Trust Fund (TIITF) and the South Florida Water Management District (SFWMD) to negotiate the

amendment or termination of leases on lands within the EAA for exchange or use for the EAA reservoir project.

- Requires lease agreements relating to land in the EAA leased to the Prison Rehabilitative Industries and Diversified Enterprises, Inc., (PRIDE Enterprises) for an agricultural work program to be terminated in accordance with the lease terms.
- Requires the SFWMD to identify certain lessees and private property owners of lands and contact the lessors and landowners of such lands to express the SFWMD's interest in acquiring the land through the purchase or exchange of lands or by the amendment or termination of lease agreements.
- Requires the SFWMD to jointly develop a post-authorization change report with the United States Army Corps of Engineers (USACE) for the Central Everglades Planning Project (CEPP) to revise the project component located on the A-2 parcel for implementation of the EAA reservoir project.
- Requires that if, for any reason, the post-authorization change report does not receive Congressional approval by October 1, 2018, unless the district has been granted an extension by the Legislature, the SFWMD begin the planning study for the EAA reservoir project by October 31, 2018, and proceed with the A-2 parcel project component of CEPP in accordance with the project implementation report.
- Requires the SFWMD to give preference to the hiring of former agricultural workers primarily employed during 36 of the past 60 months in the EAA, consistent with their qualifications and abilities, for the construction and operation of the EAA reservoir project.
- Establishes the Everglades Restoration Agricultural Community Employment Training Program within the Department of Economic Opportunity. The program is required to include opportunities to obtain the qualifications and skills necessary for jobs related to federal and state restoration projects, the Airglades Airport in Hendry County, or an inland port in Palm Beach County.
- Prohibits, beginning July 1, 2017, the use of inmates for correctional work programs in the agricultural industry in the EAA or in any experiencing high unemployment rates in the agricultural sector.
- Requires the sum of \$100 million from the Land Acquisition Trust Fund (LATF) to be appropriated to the Everglades Trust Fund, beginning in Fiscal Year 2018-2019, for the purpose of implementing the water storage reservoir projects, with the remainder of such funds in any fiscal year to be made available for Everglades projects.
- Revises appropriations.

**B. Amendments:**

None.