

Progress Report on SFWMD Implementation of Senate Bill 10 (Section 373.4598 Florida Statutes)



INTRODUCTION

Senate Bill 10, approved by the Florida Legislature and signed into law by Governor Rick Scott in 2017, provided funding and direction to the South Florida Water Management District (SFWMD) to expedite planning, design and construction of the Everglades Agricultural Area (EAA) Storage Reservoir, an original component of the Comprehensive Everglades Restoration Plan (CERP) as approved by the U.S. Congress in 2000.

The goals of the EAA Storage Reservoir project are to significantly reduce the volume of damaging discharges from Lake Okeechobee to the northern estuaries and provide additional water storage, treatment and conveyance south to the Everglades.

SFWMD is dedicated to planning, designing and constructing the EAA Storage Reservoir project. To date, SFWMD has developed alternatives that will reduce the number of discharge events from Lake Okeechobee to the northern estuaries, in conjunction with authorized projects, by almost 60% while accomplishing

the goals and objectives defined in CERP, achieving state water quality standards and complying with state and federal laws. The alternatives are built on a foundation of sound scientific principles, data and modeling – such as those implemented successfully in Gov. Scott’s Restoration Strategies plan – while making the best use of Florida taxpayer dollars on lands identified by the Legislature.



SFWMD has made real progress in advancing this important project and remains on track to deliver this study to the U.S. Army Corps of Engineers by March 30, 2018. Delivery would provide six months for review and submission to the U.S. Congress by the Office of the Assistant Secretary of the Army for Civil Works. Therefore, SFWMD does not believe an extension of time is necessary. This summary document reflects the hard work completed to date and fulfills the reporting requirements set by the Legislature in 2017.

Letter from Dan O'Keefe, Chairman South Florida Water Management District



Dear Legislators:

As water managers, we recognize 2017 as a pivotal year for environmental progress in South Florida. Yet, it is not the triumphs that many remember, but instead, it is the image of blue-green algae damaging our northern estuaries from the prior year. The coverage was intense; the public outcry even more so. The call to craft an action plan to protect the St. Lucie and Caloosahatchee estuaries for future generations was loud and clear.

On May 9, 2017, Governor Rick Scott signed into law Senate Bill 10. As Florida legislators, your hard work in Tallahassee paid off and set forth bold direction for the professional engineers and scientists at the South Florida Water Management District (SFWMD) to make the Everglades Agricultural Area (EAA) Storage Reservoir a reality.

Since its passage, SFWMD's staff of professional engineers, scientists, modelers and restoration experts have worked tirelessly to meet the intent and letter of the law. Working with input from the public, they have developed alternatives to implement the EAA Storage Reservoir project on lands identified by the Legislature. Together with authorized projects including components of the Central Everglades Planning Project (CEPP), the reservoir will significantly reduce harmful Lake Okeechobee discharges, improve flow to the Everglades and achieve state water quality standards. Implementation of any selected alternative will provide much needed relief to the estuaries and foster resilience in the ecology of the entire region.

These alternatives presented to you today are built on a foundation of sound science, benefitting from an extensive and robust public outreach process. Each of these alternative plans will achieve state water quality standards. The work presented here is consistent with our broad portfolio of successful restoration activities such as Restoration Strategies, which when implemented has shown real-world results.

On behalf of our dedicated SFWMD workforce, I am proud to submit this report detailing progress on Senate Bill 10 that includes restoration components years in the making. After reading, I know that you will agree that this is a tremendous undertaking that identifies several options for helping our northern estuaries, while delivering additional fresh water south to the Greater Everglades. SFWMD is poised to move forward on delivering the much needed relief to the northern estuaries, resulting from our staff's monumental planning efforts for this project.

Sincerely,

A handwritten signature in blue ink that reads "Dan O'Keefe". The signature is written in a cursive, slightly slanted style.

Dan O'Keefe

Governing Board Chairman

South Florida Water Management District

Central Everglades Planning Project as the Starting Point

SFWMD is seeking federal approval and cost sharing of the project as a change to the congressionally approved Central Everglades Planning Project (CEPP).

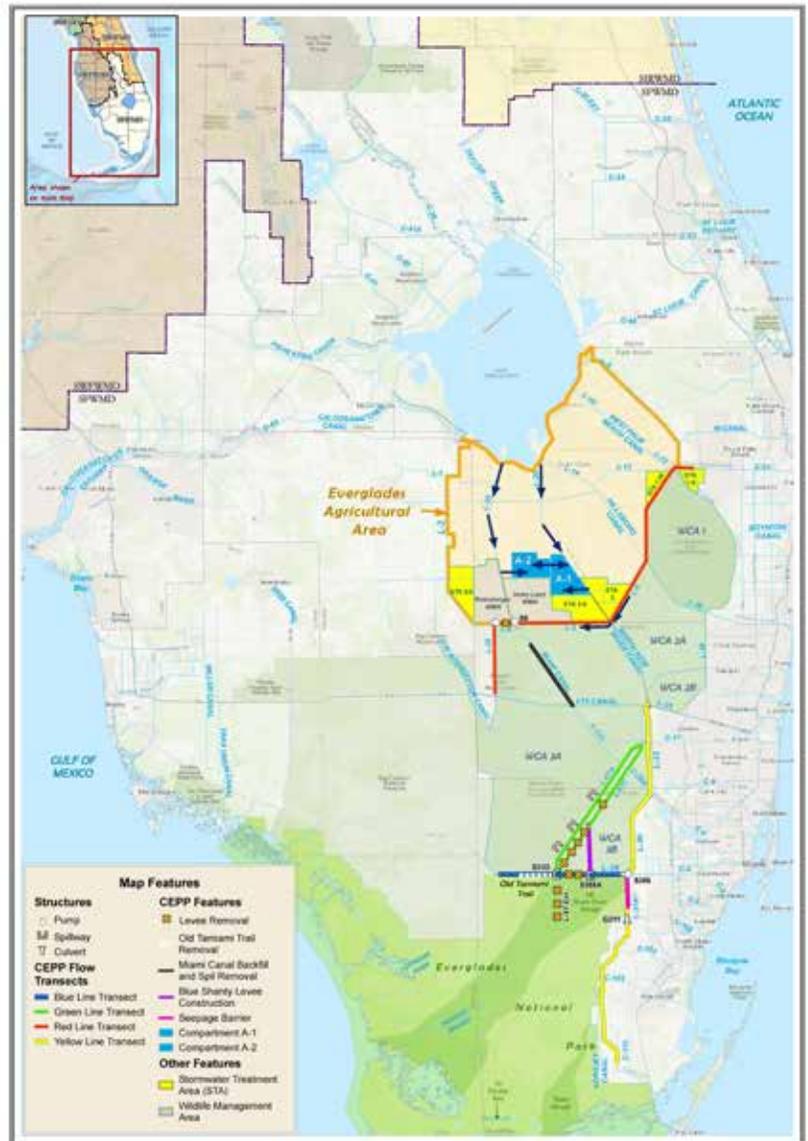
CEPP, authorized by the U.S. Congress in the Water Infrastructure Improvements for the Nation (WIIN) Act of 2016, included the first increment of Everglades Agricultural Area (EAA) storage described in the Comprehensive Everglades Restoration Plan (CERP).

SFWMD initiated the planning process for a Post Authorization Change Report (PACR) for CEPP in August 2017. Alternatives under consideration will benefit the ecology of the northern and southern Everglades by providing the final increment of EAA storage to:

- Aid in reducing harmful discharges to the northern estuaries.
- Achieve the CERP goal of increasing flow to the central portion of the Everglades by approximately 98 billion gallons (300,000 acre-feet) on an average annual basis.

Building on the first increment of CEPP, this PACR provides the final increments of the following components of CERP:

- EAA Storage Reservoirs (CERP Component G)
- Flow to Northwest and Central Water Conservation Area 3A (CERP Component II)
- Environmental Water Supply Deliveries to the St. Lucie Estuary (CERP Component C)
- Environmental Water Supply Deliveries to the Caloosahatchee Estuary (CERP Component E)



EAA Storage Reservoir Feasibility Study

Leading the collaboration in the public scoping process and with the guidance provided by state law, SFWMD identified the goals and objectives of the project.

The Everglades Agricultural Area (EAA) Storage Reservoir project has been formulated to address the following problems and opportunities:

- High-volume damaging freshwater discharges from Lake Okeechobee to the northern estuaries.
- Need for additional freshwater flow to the Everglades system.
- Identify the next increment of storage, treatment and conveyance south of Lake Okeechobee to reduce ongoing ecological damage to the northern estuaries and Everglades system.

With the overarching goal of formulating the next set of features that will enhance the ecology of the natural system, economic values and social wellbeing, the problems and opportunities identified above were paired with the restoration goals identified in the Comprehensive Everglades Restoration Plan (CERP). Among other important considerations, the benefits to the northern estuaries and the Everglades system identified in CERP included an 80% reduction in harmful discharges to the estuaries and an annual average increase of approximately 98 billion gallons (300,000 acre-feet) to the Everglades system, as compared to the existing conditions. In short, SFWMD started this project with the goals of CERP.

Through that lens, SFWMD's technical team developed models, formulated alternative plans and evaluated the effects of these plans. The additional acres of stormwater treatment areas needed to meet state water quality standards for the additional flow south to the Everglades are incorporated into all of the alternatives. At this step, where the effects of the alternative plans are under review and consideration, the results of the technical work show several alternatives are technically feasible and financially viable and have not indicated additional lands above and beyond those identified by the Legislature are needed. The best performing alternative plans will be compared and optimized in the coming weeks to continue to develop a cost-effective plan that meets the goals and objectives of the EAA Storage Reservoir project.



Ecological Benefits to the Northern Estuaries

All alternatives help restore the resiliency of the northern estuaries by reducing the number, duration and frequency of harmful discharges from Lake Okeechobee.

High-flow discharges to the St. Lucie Estuary of more than 2,000 cubic feet per second (cfs) are harmful to oysters and submerged aquatic vegetation due to salinities outside the healthy envelope. In comparison, the damaging flows to the Caloosahatchee Estuary are considered at or above 2,800 cfs at the S-79 structure. Evaluation of the alternatives showed significant reductions in the number, duration and frequency of harmful discharges to the estuaries, including:

- ✓ 33% reduction in high-flow discharge events lasting more than 60 days to the Caloosahatchee Estuary for all alternatives, in addition to the benefits provided by the Central Everglades Planning Project (CEPP).
- ✓ 55% reduction in high-flow discharge events lasting more than 42 days to the St. Lucie Estuary for all alternatives, in addition to the benefits provided by CEPP.
- ✓ 50-54% reduction in discharge volumes from Lake Okeechobee to the northern estuaries, in conjunction with authorized projects.
- ✓ 56-61% reduction in the number of discharge events from Lake Okeechobee to the northern estuaries, in conjunction with authorized projects.



Caloosahatchee Estuary
The alternatives provide an additional 30% to 45% reduction in harmful discharge events.



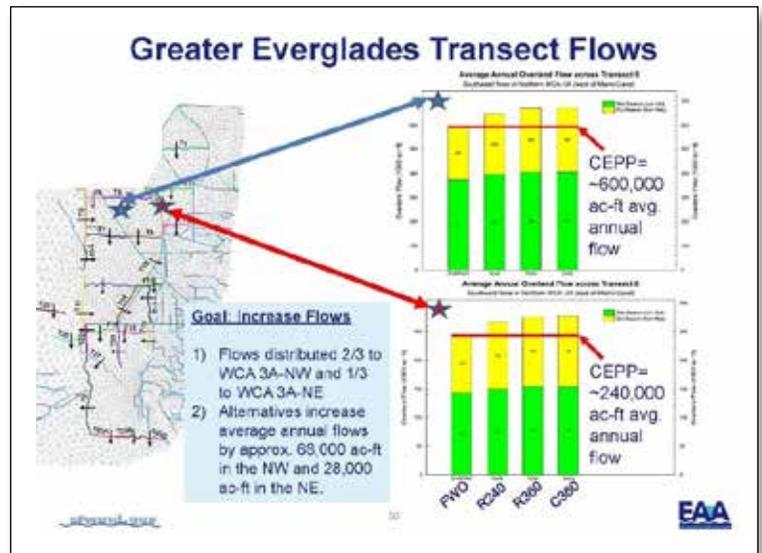
St. Lucie Estuary
The alternatives provide an additional 33% to 42% reduction in harmful discharge events.

Ecological Benefits to the Greater Everglades

All alternatives achieve the Comprehensive Everglades Restoration Plan (CERP) goal of delivering an annual average of approximately 98 billion gallons (300,000 acre-feet) of clean water south to the Greater Everglades. Further optimization of high-performing alternatives will improve this performance.

The Central Everglades Planning Project (CEPP), the starting point for the Everglades Agricultural Area (EAA) Storage Reservoir Feasibility Study, redistributed existing treated water in a more natural sheetflow pattern and provided an average of approximately 210,000 acre-feet per year of additional clean fresh water flowing into the Everglades. This increase in freshwater flow to the Everglades was approximately two-thirds of the additional flow estimated to be provided by CERP.

All of the alternatives evaluated for the EAA Storage Reservoir project build upon the benefits of CEPP and achieve the next increment of freshwater flows to the Everglades, providing the remaining one-third of additional flow called for by CERP. This additional flow will have the following ecological benefits:



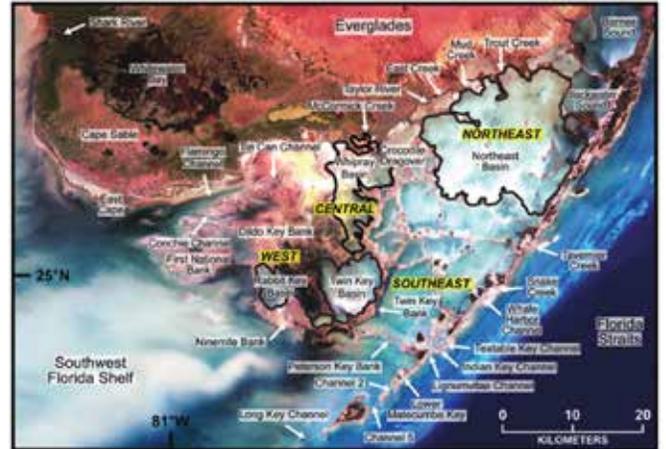
- ✓ Additional water flowing into northern Water Conservation Area 3A (WCA-3A) and Everglades National Park (ENP) will help restore vegetative communities and habitat for fish and wildlife – above and beyond the benefits provided by CEPP.
- ✓ In Northwest WCA-3A, all alternatives provide improved slough vegetation depths, reducing the time the water ponding depth in the sloughs falls below zero (less dry outs).
- ✓ In Northwest WCA-3A, all alternatives provide for longer durations where the CERP target ponding depths are achieved, which in turn improve slough vegetation suitability.
- ✓ In Northeast WCA-3A, all alternatives provide for improved slough vegetation by increasing the duration of beneficial water ponding depths.
- ✓ Overland flows across Tamiami Trail and into the northern portions of ENP are increased by an annual average of 74,000 acre-feet.
- ✓ Additional freshwater overland flow is also provided to Central Shark River Slough and Taylor Slough in all alternatives, which continues to build on the progress made by CEPP in improving the timing, distribution and continuity of sheet flow across the Everglades ridge and slough landscape. The benefits to Taylor Slough and the direct flows to Florida Bay are in part a result of improved operations of the C-111 South Dade and Florida Bay projects. The benefits of additional overland flow to Central Shark River Slough are a continuum of the additional flows across Tamiami Trail in the natural system.

Ecological Benefits to Florida Bay

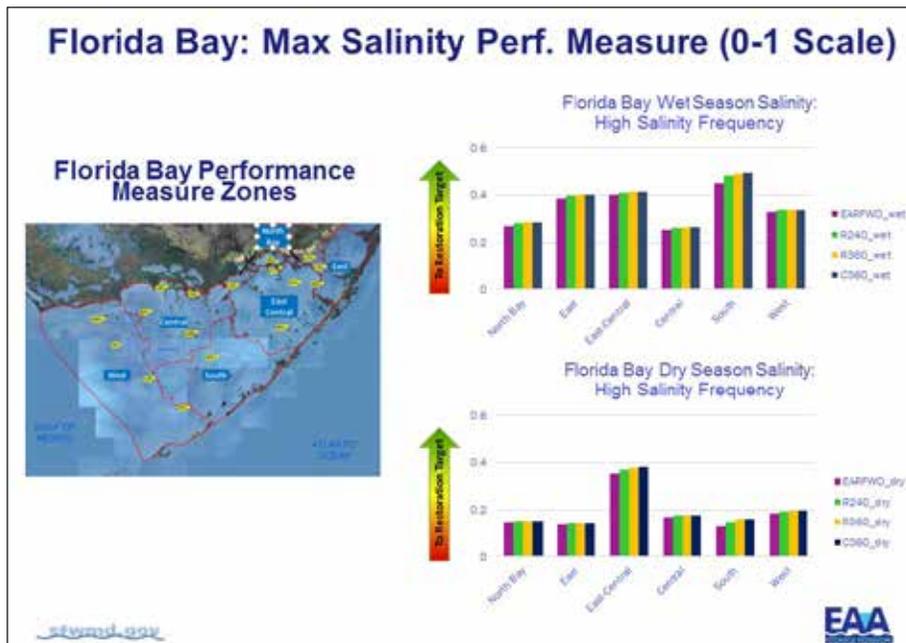
Alternatives, when used in conjunction with the other authorized and constructed restoration projects – particularly the C-111 South Dade and Florida Bay projects – show a small increase in surface water flows at Taylor Slough and a modest improvement in salinity across the Florida Bay performance measure zones.

As part of the federal planning process, habitat units are used to provide a standardized measure for benefit comparison in the cost effectiveness determination. In the Central Everglades Planning Process (CEPP), Florida Bay habitat units were calculated utilizing the habitat unit model and supporting regression model developed and applied by Everglades National Park. The changes in predicted Florida Bay salinity were calculated utilizing the regression relationship of water level stages in Taylor Slough, C-111 and Shark River Slough and 17 monitoring stations in Florida Bay.

In order to calculate the comparable incremental change in habitat units, the same tools were utilized for the alternatives. Although it is recognized that these tools are imperfect in estimating actual ecological improvements in Florida Bay, the tools do allow for the necessary comparison called for in the federal planning process. Modeling results show that all of the alternatives provide a modest improvement (around 0.5 salinity units) to the bay. SFWMD scientists look at ecosystem responses to explain habitat improvement, however; habitat units only allow for the comparison of alternatives. The interior of Florida Bay is dominated by a complex array of small islands and mud



Florida Bay is dominated by a complex array of small islands and mud embankments.

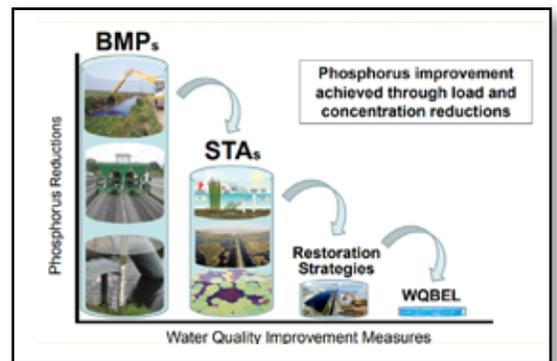


embankments. Circulation patterns in the bay have a strong influence on salinity, as exchanges of water between the basins are restricted by the mud embankments and the prevailing winds. The effect of small increases in surface water flow in Taylor Slough would have an influence in the nearshore area of northern Florida Bay.

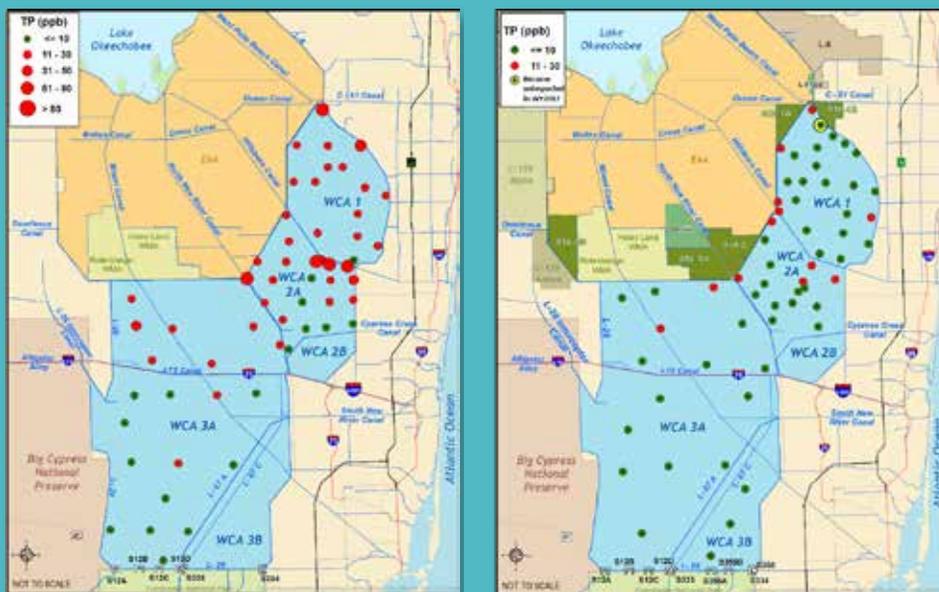
Building on the Successful Improvement of Water Quality in Greater Everglades

Florida has made tremendous investments to achieve water quality standards in the Everglades over the past two decades. Those real-world results have a foundation of science, modeling, engineering and regulatory oversight developed for activities such as Restoration Strategies – which compose the framework for the development of the Everglades Agricultural Area (EAA) Storage Reservoir project. All of the alternatives developed for the EAA Storage Reservoir project will achieve state water quality standards.

The state water quality criterion of 10 parts per billion of phosphorus is currently being achieved for more than 90% of the Everglades due to Governor Rick Scott’s Restoration Strategies plan and many prior water quality investments. Completed components of Restoration Strategies have produced real-world water quality improvements. The tools, methods and regulatory oversight are the same currently being applied to the EAA Storage Reservoir project. All of the alternatives put forward by SFWMD are designed to achieve state water quality standards by including additional stormwater treatment areas that will work in conjunction with SFWMD’s existing facilities to meet Comprehensive Everglades Restoration Project (CERP) flows south to the Everglades.



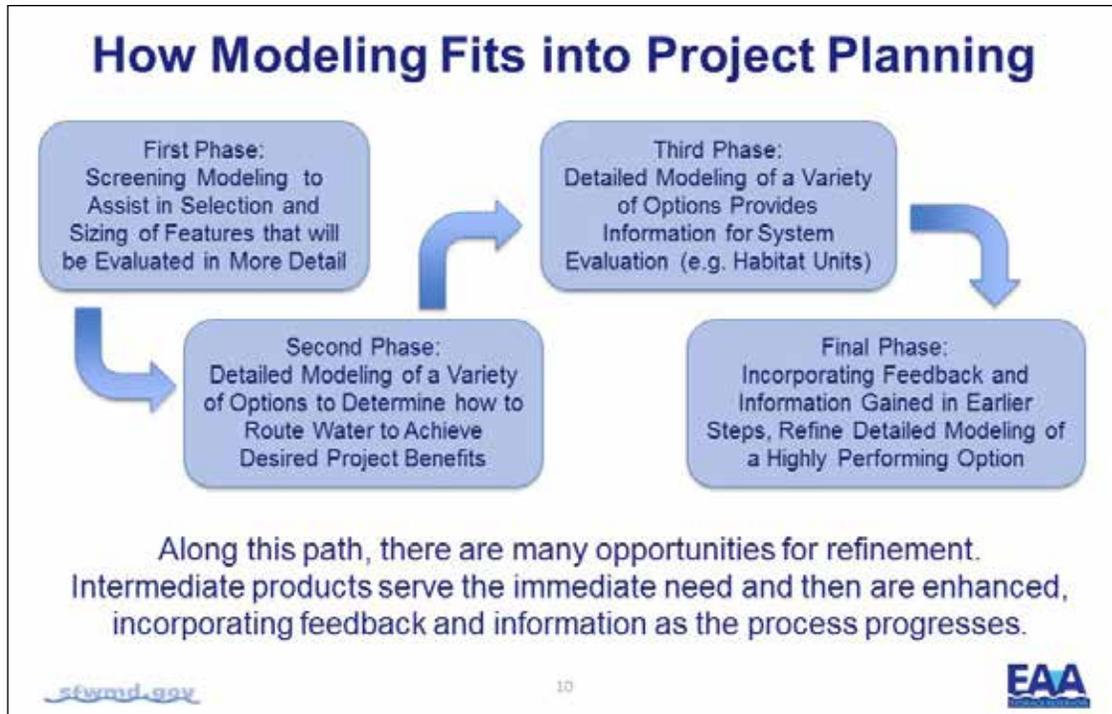
SFWMD will continue to work with its partner agencies to advance methods necessary to accurately monitor and determine compliance of water quality criteria for water entering Everglades National Park as components of the Central Everglades Planning Project (CEPP) are constructed, including the EAA Storage Reservoir.



Left: (1979-1983) Poor water quality marked by high phosphorus levels in Everglades water. Right: (2013-2017) After \$2 billion investment by Florida, including components of Restoration Strategies, water quality standards in more than 90% of the Everglades are being achieved.

The Role of Modeling in the EAA Storage Reservoir Planning Process

The modeling and design of the Everglades Agricultural Area (EAA) Storage Reservoir was based on the framework developed in the Central Everglades Planning Project (CEPP) and peer-reviewed tools that provide a sound engineering and scientific foundation.



During the ongoing planning process, SFWMD modelers have many opportunities for refinement of modeling products. Scientists, engineers and the public provide feedback that is incorporated in the following phases:

1. Screening modeling, the same used in the development of Restoration Strategies and CEPP, including the Dynamic Model for Stormwater Treatment Areas (DMSTA), assisted in selection and sizing of features. To achieve Comprehensive Everglades Restoration Plan (CERP) flows south into the Everglades and meet state water quality standards, additional acres of stormwater treatment areas, working in conjunction with the existing STAs, were identified in this step.
2. Using the Regional Simulation Model (RSM), detailed modeling of alternatives determined how to route water to achieve project benefits. This detailed modeling incorporated the new STA acreage, identified in the screening level modeling, into the system. Using the features on the ground today and authorized in CEPP, the modeling also diverted Lake Okeechobee discharges south to the Everglades.
3. Results of the RSM were used to develop habitat units.
4. Refinement of detailed modeling of a highly performing alternative incorporates feedback and information gained in earlier steps.

Modeling data is available to the public at <ftp://ftp.sfwmd.gov/pub/EAASR/>.

EAA Storage Reservoir Alternatives

Alternative plans for the Everglades Agricultural Area (EAA) Storage Reservoir have been designed, modeled and shared at a series of public meetings in 2017.

The five alternatives under consideration are listed below with storage in acre-feet and associated stormwater treatment areas (STAs).

The conceptual designs for each alternative along with objectives for measuring performance are depicted on pages 10-14. Cost estimates, listed in 2018 dollars, and benefits will be refined through the planning process.

Alternative Configurations

Alternative R240A: **COST EFFECTIVE + BEST BUY**

- 240,000 acre-foot reservoir plus A-1 Flow Equalization Basin
- Reservoir is approximately 10,100 acres and approximately 23 feet deep
- Stormwater Treatment Area (STA) is approximately 6,500 acres

Alternative R240B:

- 240,000 acre-foot reservoir plus A-1 Flow Equalization Basin
- Reservoir is approximately 10,100 acres and approximately 23 feet deep
- Stormwater Treatment Area (STA) is approximately 6,500 acres

Alternative R360C:

- 360,000 acre-foot reservoir
- Reservoir is approximately 19,700 acres and approximately 18 feet deep
- Stormwater Treatment Area (STA) is approximately 11,500 acres

Alternative R360D:

- 360,000 acre-foot reservoir
- Reservoir is approximately 19,700 acres and approximately 18 feet deep
- Stormwater Treatment Area (STA) is approximately 11,500 acres

Alternative C360C: **COST EFFECTIVE + BEST BUY**

- 360,000 acre-foot reservoir
- Same configuration as Alternative R360C
- Can also serve multiple purposes including water supply as identified in the Comprehensive Everglades Restoration Plan (CERP), Component G

- All costs are in 2018 dollars
- Costs and benefits will be refined throughout the planning process
- Selected cost effective + best buy alternatives will be optimized to increase benefits

All Alternatives:

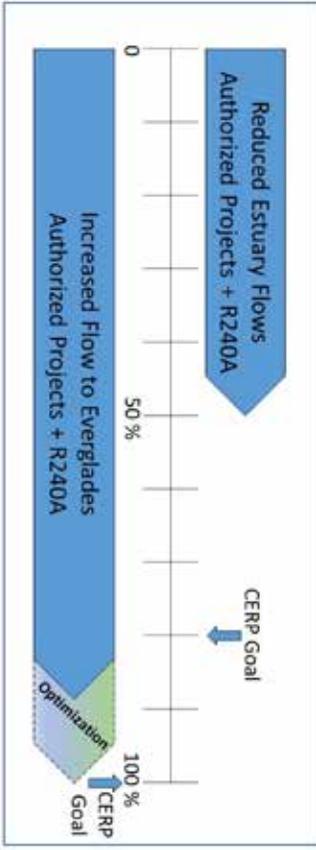
- ✓ Reduce discharges to Northern Estuaries
- ✓ Increase flows to Greater Everglades
- ✓ Achieve water quality standards

Alternative R240A

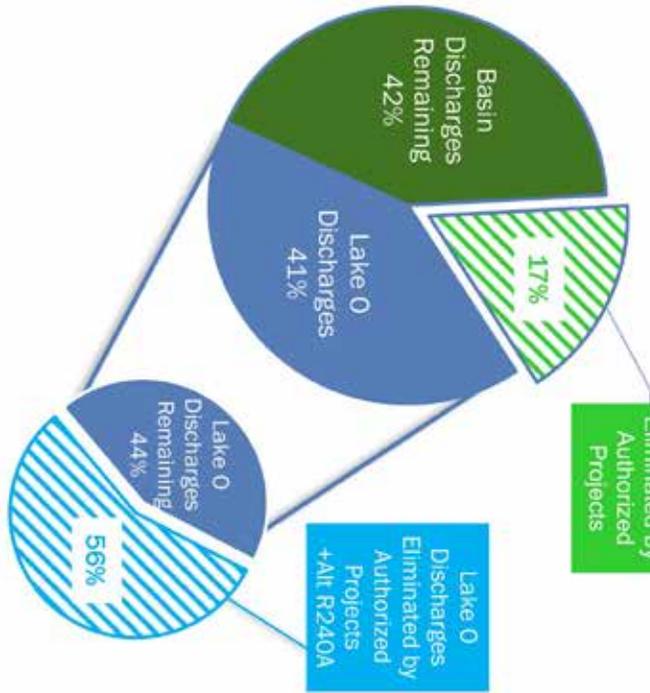
COST EFFECTIVE + BEST BUY



Improved Flow Conditions



% Northern Estuary Events Eliminated



Region	R240 Habitat Unit Lift
Northern Estuaries	2,169
Greater Everglades	10,775
Florida Bay	9,100
Total HU Lift	22,044

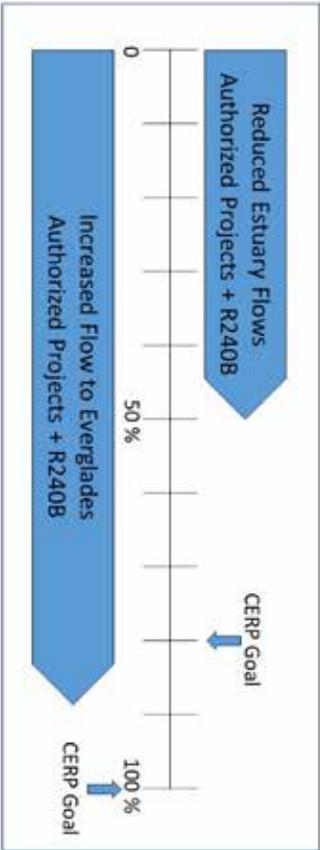
Plan Capital Cost \$1.74B⁽¹⁾ – CEPP New Water Component \$0.40B⁽²⁾ = **Capital Cost to Implement Plan \$1.34B**

⁽¹⁾Includes Reservoir + Stormwater Treatment Area + Real Estate \$1.64B, Canal Conveyance Improvement \$100M, and Recreation Plan \$2.2M Costs
⁽²⁾Includes CEPP A2 FEB and A2 Recreation Plan

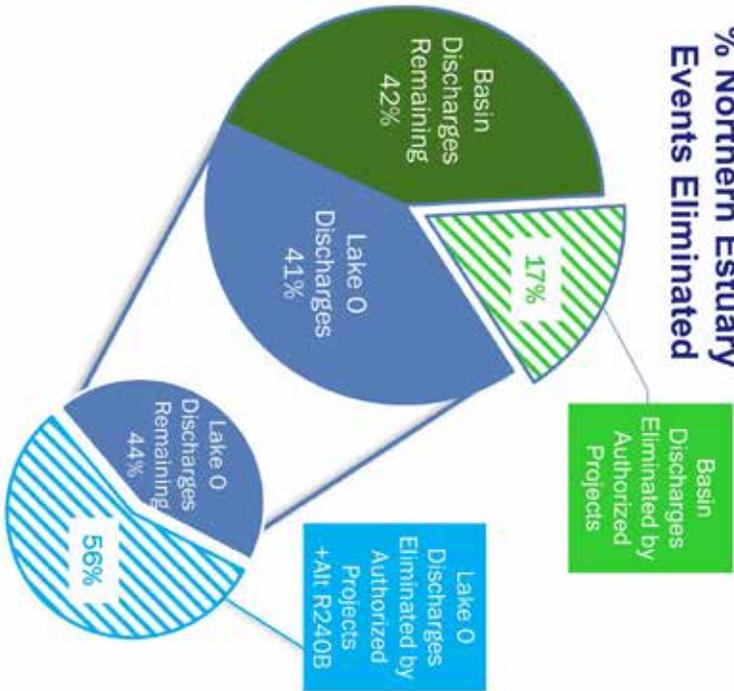
Alternative R240B



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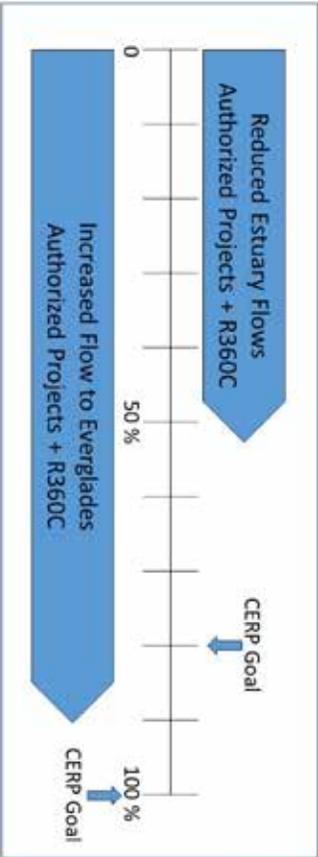
Plan Capital Cost \$1.76B⁽¹⁾ – CEPP New Water Component \$0.40B⁽²⁾ = **Capital Cost to Implement Plan \$1.36B**

⁽¹⁾Includes Reservoir + Stormwater Treatment Area + Real Estate \$1.66B, Canal Conveyance Improvement \$100M, and Recreation Plan \$2.2M Costs
⁽²⁾Includes CEPP A2 FEB and A2 Recreation Plan

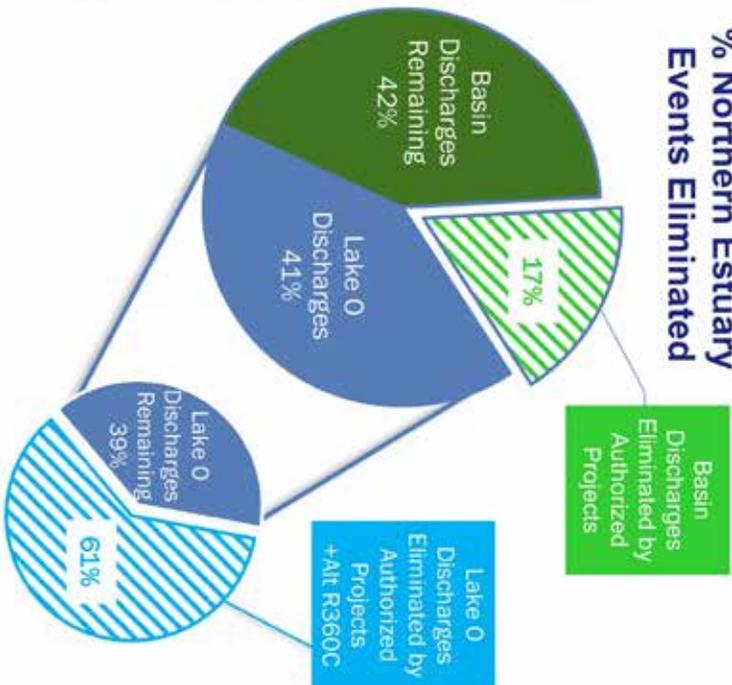
Alternative R360C



Improved Flow Conditions



% Northern Estuary Events Eliminated



Region	R360 Habitat Unit Lift
Northern Estuaries	3,329
Greater Everglades	13,161
Florida Bay	9,900
Total HU Lift	26,390

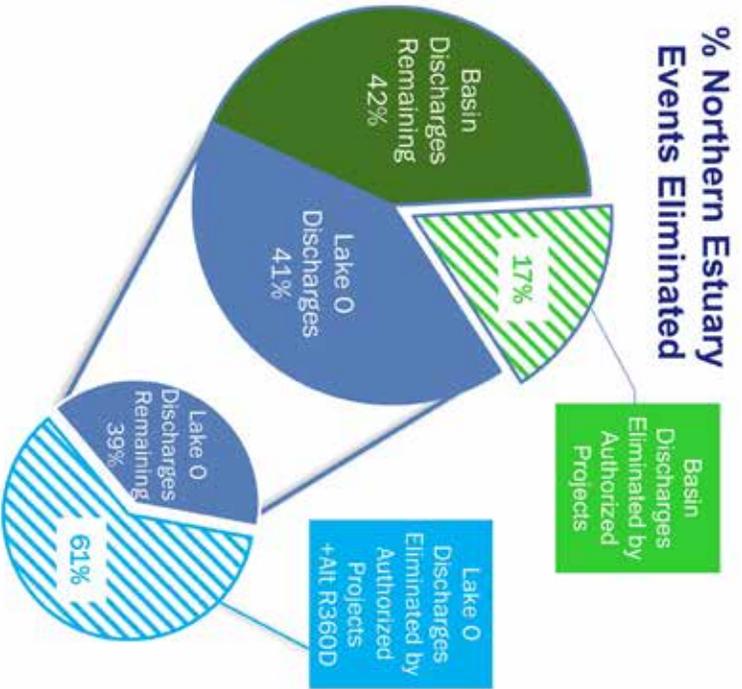
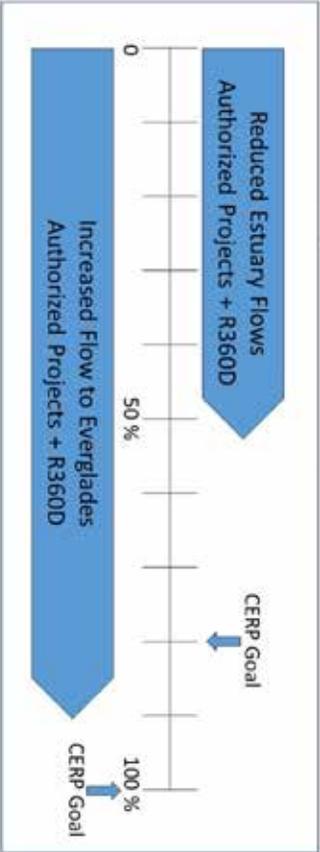
Plan Capital Cost \$2.11B⁽¹⁾ – CEPP New Water Component \$0.40B⁽²⁾ = **Capital Cost to Implement Plan \$1.71B**

⁽¹⁾Includes Reservoir + Stormwater Treatment Area + Real Estate \$2.01B, Canal Conveyance Improvement \$100M, and Recreation Plan \$2.2M Costs
⁽²⁾Includes CEPP A2 FEB and A2 Recreation Plan

Alternative R360D



Improved Flow Conditions



Region	R360 Habitat Unit Lift
Northern Estuaries	3,329
Greater Everglades	13,161
Florida Bay	9,900
Total HU Lift	26,390

Plan Capital Cost \$2.11B⁽¹⁾ – CEPP New Water Component \$0.40B⁽²⁾ = **Capital Cost to Implement Plan \$1.71B**

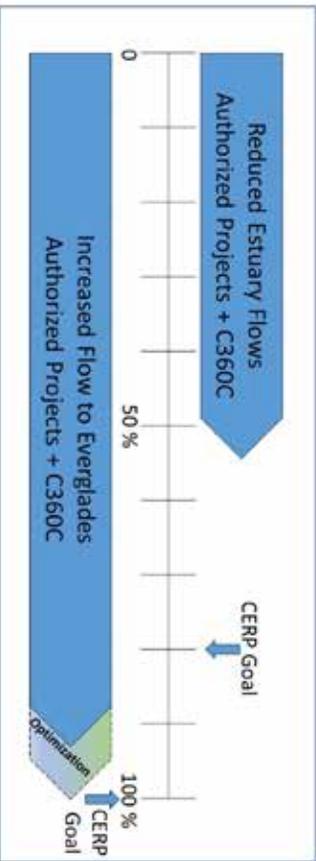
⁽¹⁾Includes Reservoir + Stormwater Treatment Area + Real Estate \$2.01B, Canal Conveyance Improvement \$100M, and Recreation Plan \$2.2M Costs
⁽²⁾Includes CEPP A2 FEB and A2 Recreation Plan

Alternative C360C

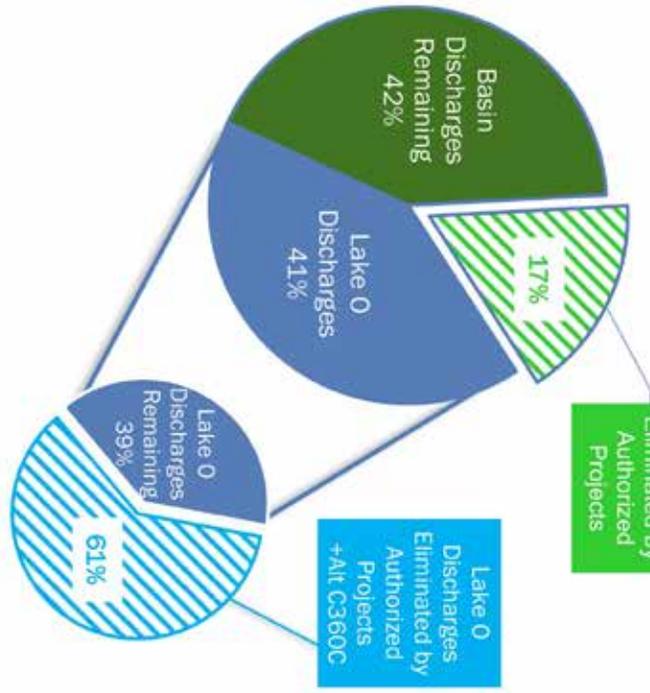
COST EFFECTIVE + BEST BUY



Improved Flow Conditions



% Northern Estuary Events Eliminated



Region	C360 Habitat Unit Lift
Northern Estuaries	4,039
Greater Everglades	13,161
Florida Bay	9,900
Total HU Lift	27,100

Plan Capital Cost \$2.11B⁽¹⁾ – CEPP New Water Component \$0.40B⁽²⁾ = **Capital Cost to Implement Plan \$1.71B**

⁽¹⁾Includes Reservoir + Stormwater Treatment Area + Real Estate \$2.01B, Canal Conveyance Improvement \$100M, and Recreation Plan \$2.2M Costs
⁽²⁾Includes CEPP A2 FEB and A2 Recreation Plan

Plan is Workable and Implementable

There are several state and federal laws, federal planning processes and other considerations that must be addressed in order to obtain the approvals necessary to partner with the federal government in the construction and operation of the Everglades Agricultural Area (EAA) Storage Reservoir project. Major considerations taken into account are listed below.

- Conveyance improvements are needed in the North New River and Miami canals. SFWMD plans to expand these canals within existing state-owned land and remove undulations on the canal bottoms to enhance the movement of water from Lake Okeechobee to the south.
- The project will comply with the requirements of the Water Resources Development Act of 2000 (also known as the Savings Clause) and Section 373.1501 of Florida Statutes by ensuring that existing legal water users and flood protection are not adversely affected by the project.



The Miami Canal (bottom right) is one of two canals where conveyance improvements would be made to ensure the EAA Storage Reservoir works as intended.

- The project will focus on the goals of the EAA Storage Reservoir project as identified in the Comprehensive Everglades Restoration Plan (CERP).
- The existing Central Everglades Planning Project (CEPP) Implementation Report approved by the U.S. Congress includes a sequencing plan for project features. Several CERP and non-CERP projects must be constructed and operating first before implementing most CEPP features to avoid unintended consequences. This EAA Storage Reservoir project will be consistent with CEPP phasing.
- State water quality standards will be achieved, and the reservoir will not cause or contribute to a violation of state water quality standards, permit discharge limits or specific permit conditions.

Public Involvement in the Development of the EAA Storage Reservoir Feasibility Study

SFWMD received extensive public input and developed a plan for recreational opportunities.



Hundreds of stakeholders and interested parties gave input on the project during public meetings like this one on Dec. 21, 2017.

Public Outreach: SFWMD conducted public outreach during the development of the Post Authorization Change Report (PACR). To ensure consistency with the National Environmental Policy Act (NEPA) and ensure eligibility for federal cost sharing, SFWMD held extensive public meetings. All interested parties and key stakeholders were kept apprised of the project through public meetings. During these forums, SFWMD highlighted the project's progress, while soliciting and receiving valuable public input. Additionally, SFWMD maintains a website (www.sfwmd.gov/eaareservoir) where the public can access up-to-date information and submit feedback in realtime.

Recreation: To ensure recreational opportunities were incorporated into the project, SFWMD presented proposed plans at the Water Resources Analysis Coalition Recreational Issues Forum on Dec. 18, 2017. Recreational opportunities for the reservoir and the stormwater treatment areas will include public access sites for hiking and biking on the levees, fishing, hunting and wildlife viewing. Non-motorized boats and public vehicle access will be allowed during managed events.

Real Estate Requirements and Actions

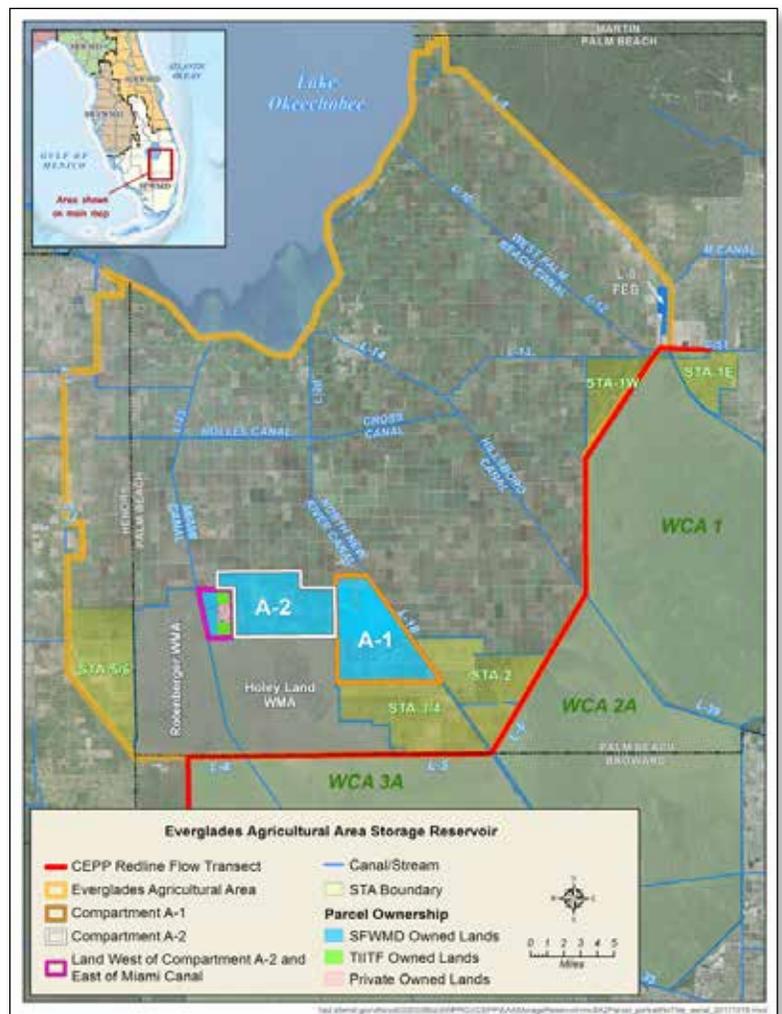
The Legislature directed SFWMD to take several real estate actions to facilitate the planning and implementation of the Everglades Agricultural Area (EAA) Storage Reservoir project. The requirements for real estate actions generally included the pursuit of willing sellers, termination of leases on state lands and land exchanges. SFWMD fulfilled these requirements, while maximizing the use of previously acquired land already in public ownership and adjacent to existing infrastructure.

Purchase of land from willing sellers: SFWMD has actively pursued the purchase of privately held lands in the area to the west of the A-2 parcel identified by the Legislature. SFWMD has made a written acquisition offer to both of the private landowners in those western lands between the A-2 parcel and the Miami Canal, and negotiations are moving forward favorably.

Following SFWMD's inquiry as part of the planning process, 15 private landowners who own the majority of the lands in the EAA notified SFWMD in writing that they are not willing to sell or remove agricultural land out of production for the project. Each of these landowners has an interest of more than 2,500 acres, totaling approximately 80% of the acreage within the EAA. To date, SFWMD inquiries to other EAA owners of parcels larger than 150 acres have been largely unresponsive about their willingness to sell or exchange.

Termination of leases on SFWMD lands in EAA: All SFWMD leaseholders located within the EAA have been notified that their leases will be terminated in accordance with lease terms. The Florida Department of Environmental Protection (FDEP) has been notified that state lands between the A-2 parcel and the Miami Canal will be needed for the project.

Land exchanges: As willing landowners are successfully identified within this planning process, SFWMD will work to exchange state-owned lands for private lands, as long as they can be used effectively in conjunction with existing facilities.



This map shows SFWMD-owned land (blue) and state-owned land (green) described in Senate Bill 10 to be used for the EAA Storage Reservoir project and privately owned land (pink), specifically identified by the Legislature to be acquired for the project. SFWMD has also contacted private landowners throughout the EAA (outlined in yellow) seeking willing sellers of their land.

Independent Reviews

Technical Review: SFWMD will engage an Independent External Peer Review (IEPR) of the draft Central Everglades Planning Project (CEPP) Post Authorization Change Report (PACR) for the EAA Storage Reservoir project study in the coming weeks. Independent, objective peer review is regarded as a critical element in ensuring the reliability of scientific analysis. The purpose of the IEPR is to provide an independent assessment of the project. Assessments include the adequacy and acceptability of the economic, engineering and environmental methods; models, data and analyses used; the range of alternatives; and the adequacy of risk and uncertainty analyses. SFWMD has engaged the same professionals who typically perform this work when the U.S. Army Corps of Engineers is the lead for a project.

Regulatory and Partner Agency Review: Section 373.1501 of Florida Statutes established Florida Department of Environmental Protection (FDEP) oversight to ensure that SFWMD conducts the required evaluations for all Comprehensive Everglades Restoration Plan (CERP) projects. SFWMD has evaluated and will continue to report on how the high-performing alternatives are technically feasible and cost effective. Beginning in mid-January, SFWMD will provide necessary and relevant information to FDEP to ensure consistency with all state laws and that the project can be permitted and operated as proposed, considering:

- a. Water resource issues including water supply, water quality, flood protection and threatened and endangered species.
- b. Project feasibility to determine if CEPP features are cost effective, consistent with CERP and can be operated as part of the Central and Southern Florida (C&SF) system.
- c. Consistency with state and federal laws.
- d. Project assurances to determine that there are no adverse impacts on existing legal users, no diminishment of existing levels of flood protection and that adaptation of water management practices meet restored natural environment.
- e. Coordination between utilities and public infrastructure entities has taken place, reducing impacts to relocation of public infrastructure and utilities.

These evaluations and project information are required to fulfill the requirements of Section 373.1501 Florida Statutes and will be documented in the state compliance report.



SFWMD Working with U.S. Army Corps of Engineers to Help Ensure Federal Approval

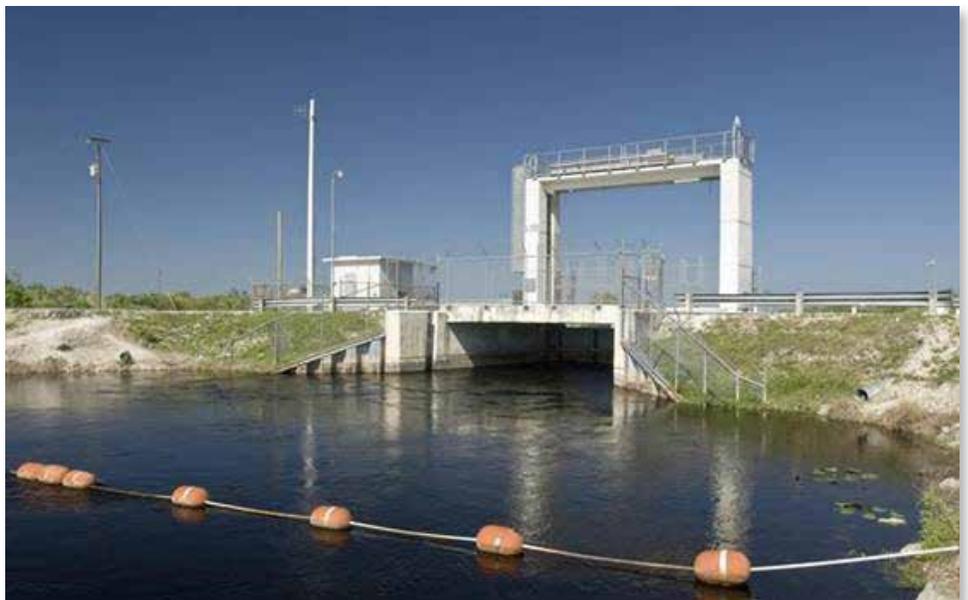
SFWMD coordinated with the U.S. Army Corps of Engineers (USACE) and identified several potential mechanisms to develop a feasibility study to modify the storage, treatment and conveyance features in the Central Everglades Planning Project (CEPP) to meet the objectives of Senate Bill 10.



Together with USACE, SFWMD identified the most likely path forward to achieve the timeframes required in Senate Bill 10 and protect the eligibility for federal cost share. The mechanism selected is authorized under Section 203 of the U.S. Water Resources Development Act of 1986 (as amended), which encourages local sponsors to develop feasibility studies with technical assistance from the federal government.

SFWMD and USACE have executed a Memorandum of Agreement for technical assistance for the Post Authorization Change Report to CEPP under Section 203. As a required follow-up step, SFWMD has coordinated with USACE to develop the supporting scopes of work and proposed to fund their participation. Ongoing coordination with the Jacksonville District, South Atlantic Division and Headquarters and the Assistant Secretary of the Army's (ASA) office is continuing to develop and refine the supporting scopes of work that detail the level of technical assistance. After additional guidance was provided by USACE Headquarters, the revisions to the scope of work reduce the value added to the process and are inconsistent with other instances where USACE has provided technical assistance to other local sponsors across the nation. SFWMD will continue to work with the ASA to ensure participation by USACE, resulting in meaningful participation in the remainder of the planning process.

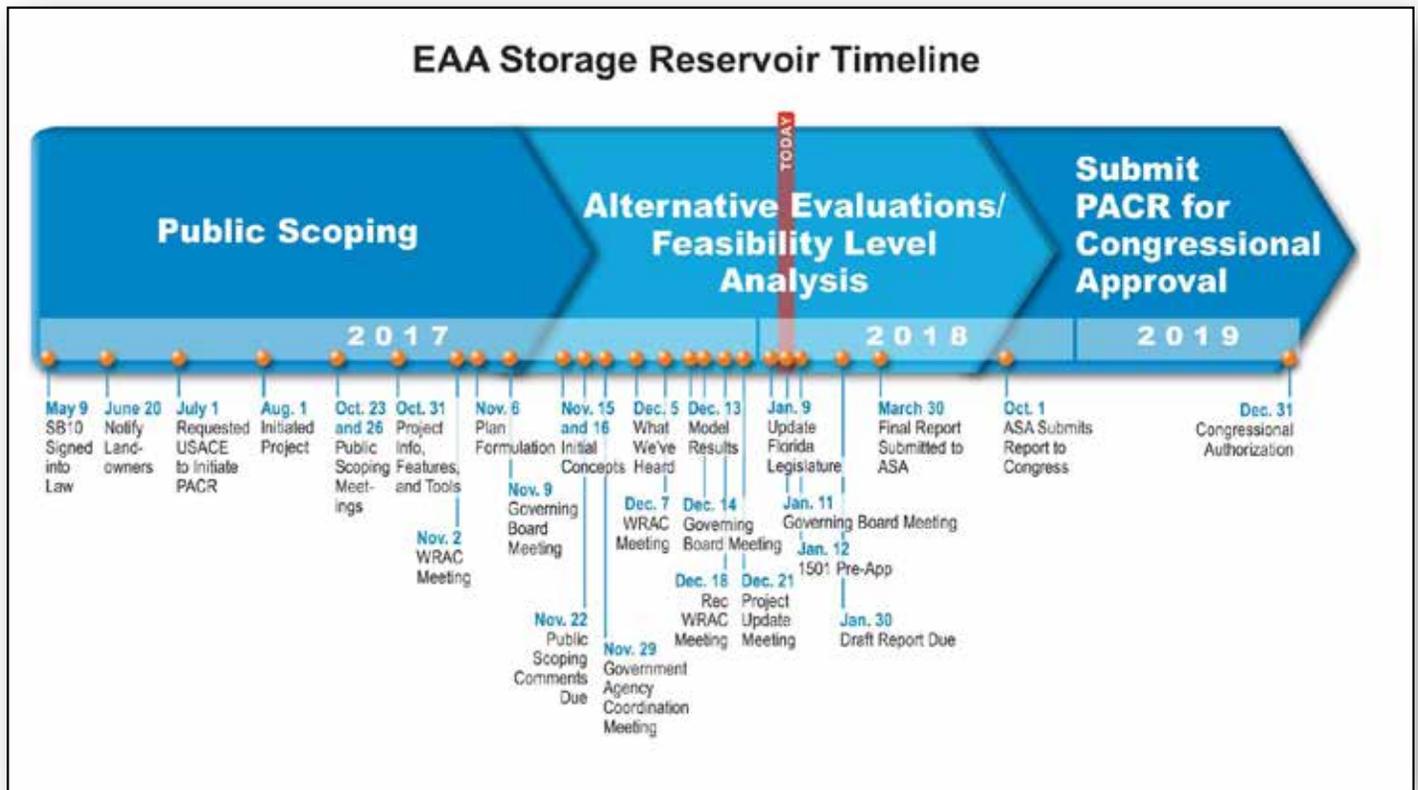
SFWMD and USACE continue to partner on the design and implementation of the authorized portions of CEPP, including the first of three Project Partnership Agreements titled "CEPP South." Such ongoing activities will be necessary to achieve the benefits anticipated by the storage project.



SFWMD is accelerating construction of two features of CEPP, a new flood control structure in Miami-Dade County and Old Tamiami Trail modifications, to increase conveyance of water south through the Everglades.

EAA Storage Reservoir Timeline and Next Steps

The next step after submittal of this progress report to the Legislature is to complete the Central Everglades Planning Project (CEPP) Post Authorization Change Report (PACR) for submittal to the Assistant Secretary for the U.S. Army Civil Works (ASA), by March 30, 2018.



SFWMD will continue to optimize the “cost effective + best buy” alternatives, with these weighed against several factors including:

- **Acceptability:** The extent to which the alternative plans are acceptable in terms of applicable laws, regulations and public policies.
- **Completeness:** The extent to which the alternative plans provide and account for all necessary actions to ensure the realization of the planning objectives, including actions by other federal and non-federal entities.
- **Effectiveness:** The extent to which the alternative plans contribute to achieve the planning objectives.
- **Efficiency:** The extent to which the alternative plans are a cost-effective means of achieving the objectives.

Once the high-performing alternative has been identified, SFWMD will optimize it based on the information gained in the development of the array of alternatives through the public process and in conjunction with multiple additional operational scenarios. The optimization process will refine and document the high-performing alternative’s costs and benefits for inclusion in the March 2018 report for consideration by the ASA.

Checklist of Senate Bill 10 Requirements

Senate Bill 10 directed the South Florida Water Management District (SFWMD) to perform several tasks regarding the Everglades Agricultural Area (EAA) Storage Reservoir with the ultimate goal of reducing harmful discharges to the coastal estuaries, improving flow to the Everglades and achieving state water quality standards. The table below depicts which tasks SFWMD has completed and which have yet to be completed (TBC).

Task Title	Task Description	Required Completion Date	Completed
Negotiate leased lands	<i>SFWMD is authorized to negotiate the amendment or termination of leases on SFWMD lands within the EAA for the reservoir.</i>	N/A	✓
Identification of leased lands and privately owned lands for project	<i>SFWMD to identify 3,200 acres of leased lands owned by SFWMD or the state and 500 acres of privately owned land for the project.</i>	May 9, 2017	✓
Request PACR development	<i>SFWMD will request that U.S. Army Corps of Engineers (USACE) jointly develop a Post Authorization Change Report (PACR) for CEPP to include EAA Storage Reservoir.</i>	July 1, 2017	✓
Request PACR development	<i>SFWMD and USACE execute memorandum of agreement for technical assistance under Section 203 of Water Resources Development Act (WRDA).</i>	N/A	✓
Contact lessees and private landowners	<i>SFWMD shall contact the lessors and landowners of its interest in acquiring land for the project.</i>	July 31, 2017	✓
Contact TIITF	<i>SFWMD to request Trustees of the Internal Improvement Trust Fund (TIITF) to terminate or amend any leases for lands necessary to implement the project.</i>	July 31, 2017	✓
Water quality standards	<i>Total acreage necessary for additional water treatment may not exceed amount reasonably required to meet state and federal water quality standards.</i>	N/A	✓
Water quality standards	<i>SFWMD shall use the latest version of the Dynamic Model for Stormwater Treatment Areas and other modeling tools in the planning of the reservoir.</i>	N/A	✓
Development of PACR initiated	<i>Development of a PACR must begin by Aug. 1, 2017.</i>	Aug. 1, 2017	✓
Status report to Legislature	<i>SFWMD must report to the Legislature on status of Senate Bill 10 compliance.</i>	Jan. 9, 2018	✓
Request extension	<i>SFWMD may request a time extension to complete the PACR study at the time of the progress report.</i>	Jan. 9, 2018	Not necessary
Submit PACR to U.S. Congress	<i>PACR must be completed, approved by the USACE and submitted to U.S. Congress for approval.</i>	Oct. 1, 2018	TBC
SFWMD requests initiation of PIR	<i>Request for a Project Implementation Report (PIR) must be initiated unless Florida Legislature approves extension of the Oct. 1, 2018 and Dec. 31, 2019 deadlines.</i>	Oct. 1, 2018 or Dec. 31, 2019	TBC
Congressional authorization	<i>U.S. Congress must approve the PACR, thereby authorizing the EAA Storage Reservoir Project.</i>	Dec. 31, 2019	TBC
Request the Corps to re-evaluate LORS	<i>SFWMD shall request USACE to expedite the re-evaluation of Lake Okeechobee Regulation Schedule (LORS).</i>	N/A	TBC