



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
U.S. ARMY CORPS OF ENGINEERS, SOUTH ATLANTIC DIVISION  
60 FORSYTH STREET SW, ROOM 10M15  
ATLANTA, GA 30303-8801

CESAD-PDP

5 March 2019

MEMORANDUM FOR Commander, Jacksonville District, (CESAJ-PM)

Subject: Approval of Revised Review Plan and Type I Independent External Peer Review Exclusion for the Central Everglades Planning Project (CEPP) Florida, South Components Validation Study

1. References:

a. Memorandum, CESAJ-PD, 21 Dec 2018, subject: CESAJ-PD Review Plan Approval Request for Central Everglades Planning Project - South Components Validation Study, South Florida (CEPP-South).

b. Engineer Circular 1165-2-217, Civil Works Review, 20 Feb 2018.

2. The attached revised Review Plan for the CEPP South Validation Report has been prepared consistent with EC 1165-2-217. The Review Plan and request for IEPR exclusion has been coordinated with the Ecosystem Restoration Planning Center of Expertise (ECO-PCX), which is the lead office to execute this plan. For further information, contact the ECO-PCX at (651) 290-5259. The Review Plan does not include independent external peer review.

3. I hereby approve this Review Plan and the request for exclusion from Independent External Peer Review, which is subject to change as circumstances require, consistent with study development under the Project Management Business Process. Subsequent revisions to this Review Plan or its execution due to significant changes in the study, study scope, or level of review will require new written approval from this office. The District shall post the approved Review Plan and a copy of this approval memorandum to the District public internet website and provide a link to the ECO-PCX for their use. Before posting to the website, the names of Corps employees should be removed.

4. The point of contact for this action is \_\_\_\_\_ at (404) 562-5206 or \_\_\_\_\_@usace.army.mil.

Brigadier General,  
USA Commanding

REVIEW PLAN  
February 19, 2019

**Project Name:** Central Everglades Planning Project – South Validation Report, South Florida  
**P2 Number:** 370939

Decision Document Type: Validation Report

**Project Type:** Ecosystem Restoration

**District:** Jacksonville District

**District Contact:** Lead Planner, (904) 232-2125

**Major Subordinate Command (MSC):** South Atlantic Division (SAD)

**MSC Contact:** Everglades Program Mgr., (404) 562-5206

**Review Management Organization (RMO):** National Ecosystem Restoration Planning Center of Expertise (ECO-PCX)

**RMO Contact:** ECO-PCX Account Mgr. (651) 290-5259; Operating Director, NER-PCX (504) 862-2310

Key Review Plan Dates

Date of RMO Endorsement of Review Plan: December 18, 2018

Date of MSC Approval of Review Plan: March 5, 2019

Date of IEPR Exclusion Approval: March 5, 2019

Has the Review Plan changed since PCX Endorsement? Yes. Non-substantive changes (coordinated with ECO-PCX).

Date of Last Review Plan Revision: None

Date of Review Plan Web Posting: Pending Approval

Date of Congressional Notifications: Pending IEPR Exclusion Approval

Milestone Schedule

	Scheduled	Actual	Complete
<u>Alternatives Milestone:</u>	N/A	N/A	N/A
<u>Tentatively Selected Plan:</u>	N/A	N/A	N/A
Release Draft Report to Public:	N/A	N/A	N/A
<u>Agency Decision Milestone:</u>	N/A	N/A	N/A
<u>Final Report Transmittal:</u>	2/11/2019	Pending	No
<u>Senior Leaders Briefing:</u>	N/A	N/A	N/A
<u>Final Validation Report:</u>	2/28/2019	Pending	No

Project Fact Sheet  
February 2019

**Project Name:** Central Everglades Planning Project (CEPP) – South Validation Report, South Florida

**Location:** The CEPP will be implemented in three different phases (North, South and New Water) made up of logical groupings of elements of the full project. The CEPP South Validation Study focuses only on the features located in the CEPP South phase. It is part of the Everglades ecosystem which encompasses a system of diverse wetland landscapes that are hydrologically and ecologically connected across more than 200 miles from north to south and across 18,000 square miles of southern Florida.

**Authority:** The CEPP study was conducted under the authority provided by Section 601(d)(2)(b) of the Water Resources Development Act (WRDA) 2000, which requires preparation of a PIR to implement components of the Comprehensive Everglades Restoration Plan (CERP). The CEPP Recommended Plan was submitted to Congress and was authorized by section 1401 of the Water Resources Development Act of 2016, Public Law 114-332, signed December 16, 2016. Authorization makes CEPP eligible for funding in a future appropriations bill. The CEPP Chief's Report required preparation of an additional report for each project phase (the Validation Report meets this requirement).

A Post Authorization Change Report for the CEPP New Water phase was authorized subject to certain requirements in Section 1308(a) of the Water Resources Development Act of 2018 (WRDA 18). Section 1308 of WRDA18 authorized the Secretary to carry out the project for ecosystem restoration, Central and Southern Florida, Everglades Agricultural Area, Florida in accordance with Section 601 of the Water Resources Development Act of 2000, as recommended in the addendum to the Central Everglades Planning Project Post Authorization Change Report, Feasibility Study and Draft Environmental Impact Statement prepared by South Florida Water Management District dated May 2018, with such modifications as the Secretary considers appropriate.

**Sponsor:** South Florida Water Management District

**Type of Study:** Validation Study

**SMART Planning Status:** The CEPP South Validation Study is 3x3x3 compliant. The study is expected to be completed in less than one year for less than \$1 Million dollars.

***Project Area:** The CEPP encompasses a portion of the greater Everglades system including Lake Okeechobee, the Northern Estuaries (St. Lucie River and Indian River Lagoon, and the Caloosahatchee River and Estuary), the Everglades Agricultural Area, the Water Conservation Areas, Everglades National Park, Southern Estuaries (Florida Bay and Biscayne Bay), and the Lower East Coast Area (also referred to as the Atlantic Coastal Ridge) (Figure 1). This review plan will only focus on features to be implemented as part of CEPP South (See Figure 2). These features are located at the L67 A and C levees and extend south of the Tamiami Trail into Everglades National Park. It encompasses the southern part of Water Conservation Area (WCA) 3A and 3B. See*

Figure 2.

**Problem Statement:** Current operations of the Central and South Florida (C&SF) Project involve water supply and flood releases to manage stage levels in Lake Okeechobee, the WCAs, and the Everglades. Prolonged high volume discharges of water from Lake Okeechobee to the Northern Estuaries coupled with excessive nutrient concentrations in Lake Okeechobee water and downstream basin water have resulted in damaging effects on the plants and animals inhabiting these areas. System changes have resulted in point source peak flows that are higher just prior to and/or following major rain events, and flow rates that decline more abruptly during the end of the wet season. Due to limited storage capacity and water quality treatment requirements, flows to the Everglades from Lake Okeechobee have shifted from primarily wet season flows in response to rainfall to controlled dry season deliveries in response to urban and agricultural water demands. The impoundment of the natural system, construction of drainage canals and conveyance features, and current C&SF operations have disrupted the annual pattern of rising and falling water depths in the remaining wetlands. These hydrologic changes have contributed to degradation and loss of valuable tree islands. The current system is now too wet in some areas and too dry in others.

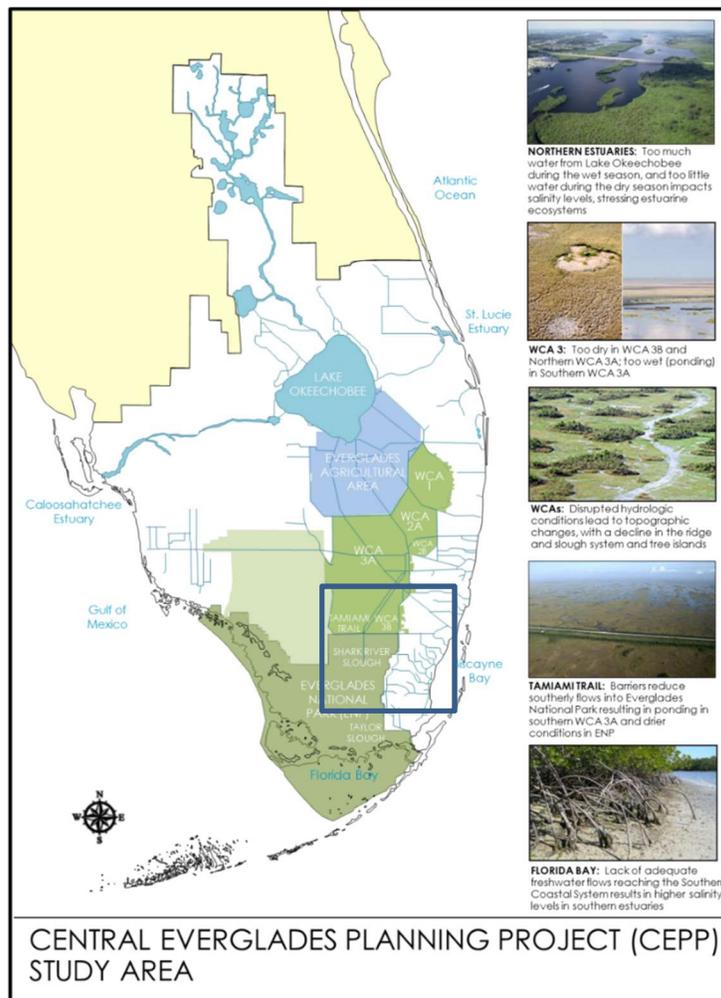


Figure 1: Map of Study Area

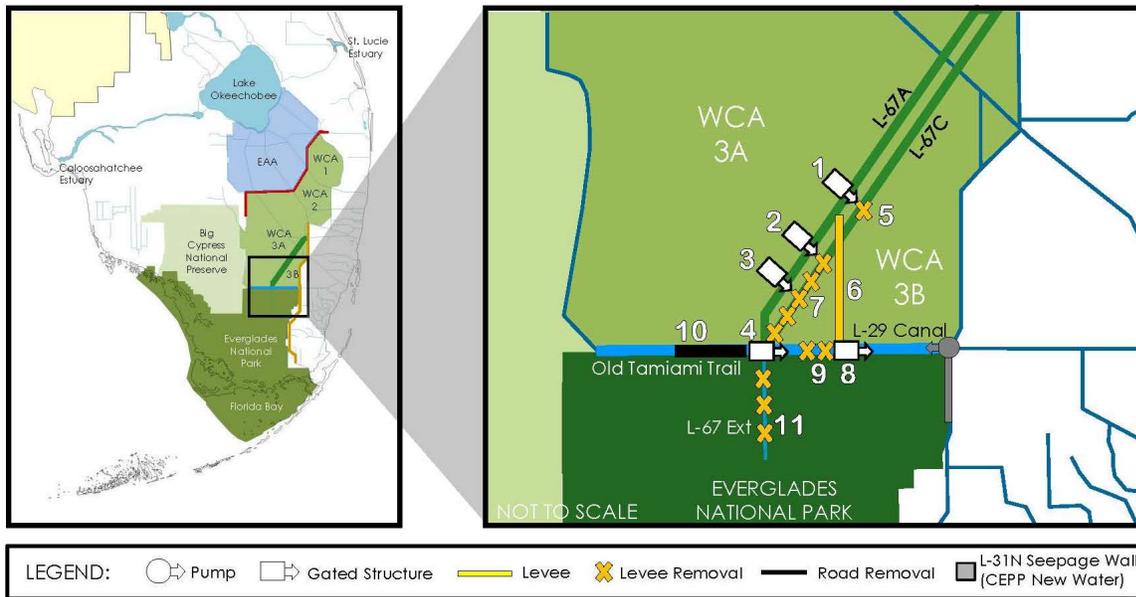


Figure 2: CEPP-South Study Area and Recommended Plan from CEPP Final Integrated PIR

Additionally, the conversion of natural areas for urban and agricultural uses and the network of C&SF Project canals have altered the natural system, causing complete shifts in vegetative communities and loss of fish and wildlife resources. The result is reduced water storage capacity in the remaining natural system and an unnatural mosaic of impounded, fragmented, over-inundated and over-drained marshes.

**Federal Interest:** The 2014 Central Everglades Planning Project (CEPP) PIR/EIS identified a federal interest and recommended a plan of improvements which were authorized by Congress in section 1401 of the Water Resources Development Act of 2016, Public Law 114-332, signed December 16, 2016. The CEPP will be implemented in three different phases (North, South and New Water) made up of logical groupings of elements of the full project. The CEPP South Validation Study focuses only on the features located in the CEPP South phase. It will complete actions required in paragraph 15 the Chief’s Report for CEPP to address risks and uncertainties in the authorized plan.

**Risk Identification:** The 2014 Central Everglades Planning Project (CEPP) PIR/EIS identified a recommended plan of improvements which were authorized by Congress in section 1401 of the Water Resources Development Act of 2016, Public Law 114-332, signed December 16, 2016. The CEPP South Validation Study focuses only on the features located in the CEPP South phase. It will complete actions required in paragraph 15 the Chief’s Report for CEPP to address risks and uncertainties in the authorized plan. The potential new risks for this validation study are very low and are not expected to present risks to human life or the environment not previously considered in the CEPP PIR. The project is confirming features that were authorized as part of CEPP South, in 2016. Very little has changed since 2016 and therefore, the authorized features are expected to be validated with little to no change.

## 1. FACTORS AFFECTING THE LEVELS OF REVIEW

**Scope of Review.** The CEPP was authorized in Section 1401(4) of WRDA 2016 (alternate legislation name per Section 1001 of the WIIN Act of 2016). As part of the development of the 2014 Final Project Implementation Report and Environmental Impact Statement (PIR/EIS), five (5) Agency Technical Reviews (ATRs) were conducted and along with a Type I Independent External Peer Review. Since the purpose of the CEPP South Validation Report is to confirm that project components, construction sequencing, and project dependencies as identified in the 2014 CEPP PIR/EIS and Chief's Report are still valid for implementation of CEPP South, only District Quality Control is being proposed for the scope of review in conjunction with a limited scope of work for the Agency Technical Review. The existing conditions and future without project conditions have not changed and the project dependencies as identified in the 2014 CEPP PIR/EIS remain the same; there are no additional data or analyses to review that would require additional Type I IEPR beyond the review previously performed on the 2014 CEPP PIR/EIS. The CEPP South Validation Report will have no additional modeling than what was presented in the 2014 CEPP PIR/EIS and the report will be a qualitative analysis of the following items based on any changed conditions since 2014:

- Project dependencies identified in the CEPP PIR/EIS,
  - Construction sequencing of the CEPP South Features;
  - Risk and Uncertainties identified in the CEPP PIR/EIS; and
  - Features constructed by State and local sponsors.
- Will the study likely be challenging?

No, the CEPP South Validation Study will not be challenging. Extensive agency and public coordination was conducted as part of the plan formulation process and NEPA efforts for the 2014 CEPP PIR/EIS. The project was authorized in Section 1401(4) of WRDA 2016 and there have been minimal to no changes since authorization for the CEPP features in the South phase of the project.

- Provide a preliminary assessment of where the project risks are likely to occur and assess the magnitude of those risks.

The Validation Study is low risk. Since the project was authorized in 2016 and minimal changes have taken place since that time, the features to be implemented as part of the CEPP South phase are expected to be confirmed with very low risk associated with them.

Risk and uncertainties were identified as part of the 2014 CEPP PIR/EIS. The CEPP South Validation Report will review these risks and uncertainties and evaluate if the risks and uncertainties have changed since authorization. The team will also brainstorm and identify any additional risk and uncertainties since authorization. The team expects the risk to be low and the uncertainties to be decreased since authorization in 2016.

One uncertainty that was identified in the 2014 CEPP PIR/EIS was associated with the benefits gained from sending new water south from Lake Okeechobee which relied on operational refinements which are outside of the authority of the current 2008 Lake Okeechobee Regulation

Schedule. The CEPP hydrologic modeling effort provided reasonable and likely implementable future operating conditions under CEPP that can be translated to an implementable update to the System Operating Manual (formerly regulation schedule) for Lake Okeechobee. The revisions to the Lake Okeechobee System Operating Manual (LOSOM) are expected to allow the CEPP to provide additional benefits attributed to sending more water south that could not be achieved unless the LOSOM was revised. At the time of CEPP, it was uncertain when the planning study for the revised LOSOM would begin. The LOSOM study has begun and the District expects to have it completed by 2022. The LOSOM planning efforts will take into account necessary revisions to realize full CEPP benefits. However, depending on the ultimate outcome of these future LOSOM revisions, including the level of inherent operational flexibility provided with these revisions, CEPP implementation may still require further LOSOM revisions to optimize system-wide performance and ensure compliance with Savings Clause requirements.

Another uncertainty identified in the PIR/EIS is associated with the design and implementation of a seepage barrier from Tamiami Trail southward approximately 4.2 miles along the L-31N Levee, identified in the 2014 PIR as a CEPP New Water feature. This seepage barrier is critical for balancing ecological performance, including in ENP and Biscayne Bay, and water supply and flood control performance of the recommended plan. There is an existing 5-mile wall in the same vicinity that was constructed by the Miami-Dade Limestone Products Association in 2016 as mitigation to offset authorized impacts under a CWA Section 404 permit. A technical evaluation of the existing seepage barrier wall will be conducted during PED to determine its capability and acceptability to meet the CEPP project requirements. CEPP will benefit from continued analysis of the monitoring data collected for the existing seepage wall through gained knowledge of how the barrier affects hydroperiod in the ENP and effects on seepage along the project footprint. Additionally, to the extent it functions properly and addresses CEPP requirements, CEPP may save costs by not constructing a duplicate feature or possibly retrofit the existing wall to bring it up to the standard of the USACE, if feasible. The extent to which additional seepage management features will be constructed along L-31N as part of CEPP will be determined during the PED phase and be implemented as part of CEPP New Water.

- Is the project likely to be justified by life safety or is the study or project likely to involve significant life safety issues?

The proposed project will involve modifications to the Central and Southern Florida Project for Flood Control and Other Purposes (C&SF). The C&SF Project established a perimeter levee through the eastern portion of the Everglades, blocking sheetflow so that lands farther east would be protected from direct Everglades flooding. In accordance with the Programmatic Regulations developed for CERP, the proposed project cannot reduce the levels of flood risk below those existing in December 2000. Non-performance of the C&SF Project or modifications to the C&SF Project system could result in increased risk to human life by potentially reducing the levels of flood protection the system provides to the Lower East Coast. Flood risk will be considered during the study when qualitatively validating features based on changed conditions. Additional analyses will be conducted during the first phase of pre-construction engineering and design (PED) to ensure that flood risk management will not be diminished in accordance with the Savings Clause provisions in Section 601 of WRDA 2000 and will not result in a significant threat to life safety.

- Has the Governor of an affected state requested a peer review by independent experts?

No such request has been made nor is such a request anticipated.

- Will the project/study likely involve significant public dispute as to the project's size, nature, or effects?

The CEPP South Validation Report is not likely to involve significant public dispute as to the size, nature, or effects of the project since little was experienced during preparation of the 2014 CEPP PIR/EIS. It is important to note that there is overwhelming public support for CEPP. The proposed project includes measures to implement ecosystem restoration within the vital part of the Everglades system. Implementation of the project is expected to result in positive, nationally significant environmental effects via the ecosystem restoration benefits. USACE commits to avoiding, minimizing or mitigating for adverse effects and will develop a robust adaptive management and monitoring plan for the project once the plan is further designed and once a better understanding is gained of the how features will operate after construction.

- Is the project/study likely to involve significant public dispute as to the economic or environmental cost or benefit of the project?

An economic analysis and analysis of environmental effects was conducted as part of the 2014 CEPP PIR/EIS. The 2014 CEPP PIR/EIS describes the alternatives that were analyzed and criteria used to evaluate, compare and select the Recommended Plan. This Validation Study will confirm that the features to be implemented as part of CEPP South phase are still justified based on any changed condition that may have occurred since 2014. The study is not likely to involve significant public dispute as to the size, nature, or effects of the project since little was experienced during preparation of the 2014 CEPP PIR/EIS.

- Is the information in the decision document or anticipated project design likely to be based on novel methods, involve innovative materials or techniques, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices?

Alternative designs are expected to be neither novel nor precedent setting. The Validation Report will confirm the authorized features that include levee removal, levee backfill, spoil mound removal, increasing spillway capacity, and the like. These features are commonplace for USACE and do not change the scope or function of the authorized project.

- Does the project design require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design/construction schedule?

The CEPP South Validation Report is not expected to change the project design proposed in the 2014 CEPP PIR/EIS, nor is it expected to substantively alter construction sequencing or necessitate reduction or overlapping of design/construction schedules in ways that differ from that envisioned in the original PIR/EIS. Project features will likely include basic measures to achieve the project objectives of ecosystem restoration (i.e. canal backfill, spoil mound removal, gated spillways).

USACE has extensive and reputable credibility in the design, construction and operation and maintenance of these typical project features as a result of previous civil works construction projects. There may be some overlap in the design, but do not anticipate overlap in construction except for those features that are already pulled together in contracts for efficiency of material handling, hauling and disposal as described in the CEPP PIR/EIS.

- Is the estimated total cost of the project greater than \$200 million?

The CEPP will be implemented in three different phases (North, South and New Water) made up of logical groupings of elements of the full project. The CEPP South Validation Study focuses only on the features located in the CEPP South phase. Based upon previous Everglades's restoration projects the costs to implement the features in CEPP South are likely to exceed \$200 million. The total project first cost for CEPP was estimated to be \$1,951,000,000 rounded to the nearest million based upon October 2014 price levels. The project costs were developed for CEPP as a whole yet allows for features to be grouped together based on the phase which they reside. Costs reflect the earliest opportunity to realize benefits, including features that can provide benefits utilizing existing water meeting State water quality standards, additional outlet capacity from the south end of WCA 3A and sources of material to minimize costs associated with double handling and stockpiling of materials. The FY 18 Project First Cost for CEPP South only, was last certified in February 2017 price levels and based on the last certified cost in February 2017, is estimated to be \$506,301,000. The Total Project Cost Summary estimate was adopted by SAJ from Walla Walla District (NWW).

- Will an Environmental Impact Statement be prepared as part of the study?

No, an Environmental Impact Statement was completed in 2014 as part of the overall CEPP PIR/EIS and sufficiently covers the actions that are being proposed in the CEPP South Validation Study and Report.

- Is the project expected to have more than negligible adverse impacts on scarce or unique tribal, cultural, or historic resources?

Section 106 consultation under the National Historic Preservation Act was initiated under the CEPP PIR/EIS for the full project and is on-going for features contained within the CEPP South phase. All actions will be taken to minimize potential effects on scarce, unique tribal, cultural and historic resources. Preparation of the Validation Report has no impact on these activities.

- Is the project expected to have substantial adverse impacts on fish and wildlife species and their habitat prior to the implementation of mitigation measures?

No, the 2014 CEPP PIR/EIS is an aquatic ecosystem restoration project and will provide significant benefits to fish and wildlife resources within the project area. Preparation of the Validation Report has no impact on these activities.

- Is the project expected to have, before mitigation measures, more than a negligible adverse impact on an endangered or threatened species or their designated critical habitat?

No, the 2014 CEPP PIR/EIS is an aquatic ecosystem restoration project and will provide significant benefits to fish and wildlife resources, including threatened and endangered species within the project area. In fact, construction of CEPP features included within the CEPP South phase have been identified as a Reasonable and Prudent Alternative within a 2016 Jeopardy Biological Opinion from the U.S. Fish and Wildlife Service (2016 Everglades Restoration Transition Plan Biological Opinion, dated July 24, 2016). Preparation of the Validation Report has no impact on these activities.

## 2. REVIEW EXECUTION PLAN

This section describes each level of review to be conducted. Based upon the factors discussed in Section 1, this study will undergo the following types of reviews:

**District Quality Control.** All decision documents (including data, analyses, environmental compliance documents, etc.) undergo DQC. This internal review process covers basic science and engineering work products. It fulfills the project quality requirements of the Project Management Plan.

**Agency Technical Review.** Five ATRs were conducted on the 2014 CEPP PIR/EIS. The CEPP South Validation Study will focus on changes in conditions for the existing and future without project conditions, and the project dependencies identified in the 2014 CEPP PIR/EIS. Since there is minimal to no change in the conditions and dependencies since 2014, the CEPP South Validation Report will use only hydrologic modeling which was previously presented in the 2014 CEPP PIR/EIS and was subject to ATR at that time. Based on this information an exclusion is being requested to limit the scope of ATR to cost engineering review only.

**Cost Engineering Review.** All decision documents shall be coordinated with the Cost Engineering Mandatory of Expertise (MCX). The MCX will provide the Cost Engineering certification. The RMO is responsible for coordinating with the MCX for the reviews.

**Independent External Peer Review (IEPR).** A Type I Independent External Peer Review was conducted on the 2014 CEPP PIR/EIS and will also be performed during design phase. The purpose of the CEPP South Validation Report is to confirm that project components, construction sequencing, and project dependencies as identified in the 2014 CEPP PIR/EIS and Chief's Report are still valid for implementation of PPA South. The existing conditions and future without project conditions have minimal to no change since 2014 and the project dependencies remain very similar and also there little to no additional data, modeling, or analysis to review. For all these reasons stated, a Type I IEPR is not warranted and an exclusion is being requested.

**Model Review and Approval/Certification.** No new hydrologic modeling will be conducted for the CEPP South Validation Report. Additional hydrologic modeling will be conducted during the future CEPP Preconstruction, Engineering, and Design (PED) Phase for CEPP South to support a quantitative assessment of the Savings Clause requirements for the CEPP South features, and this assessment will be utilized to develop the Project Operations Manual for CEPP South features and any required environmental compliance documentation.

The CEPP South Validation Report may include reference to the previous hydrologic modeling that was conducted in support of the 2014 CEPP PIR/EIS. The application of hydrologic modeling

tools for the 2014 CEPP PIR/EIS adhered to the validation requirements prescribed through the engineering software validation process administered by the USACE Hydrologic, Hydrologic, and Coastal Community of Practice (HH&C CoP), as detailed in the Engineering Appendix to the 2014 PIR (Section A.8.1.1). The hydrologic modeling included application of the Regional Simulation Model (RSM), including the following sub-regional RSM applications: RSM Basins model for Lake Okeechobee, the Northern Estuaries, and the EAA (RSM-BN); and RSM for the Everglades and Lower East Coast (RSM-GL). The RSM-BN and RSM-GL models were reviewed through the HH&C CoP validation process for engineering software, as part of the CEPP project. The RSM (including RSM-BN and RSM-GL) was classified as “allowed for use” for South Florida applications in August 2012. The Hydrologic Engineering Centers’ River Analysis System (HEC-RAS), which was also used for the hydraulic design efforts in the 2014 PIR, had been previously reviewed and classified as a “CoP Preferred” hydraulic design and river hydraulics modeling tool. For the 2014 PIR, based on coordination with the USACE South Atlantic Division (SAD) and subsequent coordination with the CEPP USACE ATR team, it was determined that four model building software tools used during the initial CEPP screening process would be appropriately reviewed as part of the CEPP ATR: the RESOPS, LOOPS, and C-43 spreadsheet model tools; and the iModel optimization tool. ATR review and approval of these modeling tools for CEPP application was completed in November 2012.

**Policy and Legal Review.** All decision documents will be reviewed for compliance with law and policy. ER 1105-2-100, Appendix H provides guidance on policy and legal compliance reviews. These reviews culminate in determinations that report recommendations and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the home MSC Commander.

Table 1 provides the schedules and costs for reviews. The specific expertise required for the teams are identified in later subsections covering each review. These subsections also identify requirements, special reporting provisions, and sources of more information.

Table 1: Levels of Review

<b>Product(s) to undergo Review</b>	<b>Review Level</b>	<b>Start Date</b>	<b>End Date</b>	<b>Cost</b>	<b>Complete</b>
Draft CEPP South Validation Report	District Quality Control (SAJ)	10/22/2018	11/5/2018	\$30,000	Yes
Draft Revised CEPP Cost Estimate	District Quality Control (SAJ)	10/22/2018	11/5/2018	\$5,000	Yes
Draft Revised CEPP Cost Estimate	Cost Certification Review (Cost MCX)	02/07/2019	02/21/2019	\$8,000	No, submitted but not certified
Draft CEPP South Validation Report	Policy and Legal Review (SAD)	12/13/2018	1/22/2019	\$15,000	Yes
Draft Final CEPP South Validation Report	District Quality Control (SAJ)	2/04/2019	2/08/2019		Yes
Draft Final CEPP South Validation Report	Policy and Legal Review (SAD)	2/11/2019	2/28/2019		No

a. DISTRICT QUALITY CONTROL

The home district shall manage DQC and will appoint a DQC Lead to manage the local review (see EC 1165-2-217, section 8.a.1). The DQC Lead should prepare a DQC Plan and provide it to the RMO and MSC prior to starting DQC reviews. Table 2 identifies the required expertise for the DQC team.

Table 2: Required DQC Expertise

DQC Team Disciplines	Expertise Required
DQC Lead	A senior professional with extensive experience preparing Civil Works decision documents and conducting DQC. The lead may serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc).
Planning	A senior water resources planner with experience in large scale, component-based ecosystem restoration.
Economics	A senior economist experience evaluating ecosystem restoration project benefits and costs and identifying incidental benefits.
Environmental/Cultural Resources	A senior biologist/ecologist/environmental engineer, with experience in ecosystem restoration and familiarity with freshwater, coastal and estuarine systems.
Engineering Design	Experience in engineering/construction management for water storage, conveyance and sediment control.
Cost Engineering	Experience in performing cost engineering/construction management for all phases of the project, including safety assurance. Familiar with the construction industry and practices used in Florida and/or the southeastern United States.
Construction/Operations	Familiar with the operations of the State water system, specifically in south Florida and the Everglades.

**Documentation of DQC.** Quality Control should be continuously performed. A specific certification of DQC completion is required at the draft and final report stages. Documentation of DQC should follow the District Quality Manual and the MSC Quality Management Plan. An example DQC Certification statement is provided in EC 1165-2-217, on page 19 (see Figure F).

Documentation of completed DQC should be provided to the MSC, RMO and ATR Team leader prior to initiating an ATR. The ATR team will examine DQC records and comment in the ATR report on the adequacy of the DQC effort. Missing or inadequate DQC documentation can result in delays to the start of other reviews (see EC 1165-2-217, section 9).

b. AGENCY TECHNICAL REVIEW

The Agency Technical Review will assess whether the cost analyses are technically correct and comply with guidance, and that documents explain the cost analyses and results in a clear manner. The review is conducted by a Cost Engineer who is certified to perform reviews. Lists of certified reviewers are maintained by the various technical Communities of Practice (see EC 1165-2-217, section 9(h)(1)). Table 3 identifies the discipline and required expertise for this Cost Engineering Review.

Table 3: Required Cost Engineering Review Team Expertise

Review Team Discipline	Expertise Required
Cost Engineering	An engineer with a minimum 5 years' experience in performing cost engineering/construction management for all project phases including safety assurance. The team member should be familiar with the construction industry and practices in Florida and/or the southeastern U.S. EC 1165-2-217, page 42 states, "Each PCX must coordinate with the Cost Engineering MCX at the Walla Walla District. In cases where the Cost Engineering MCX identifies the need for Type I IEPR, it will inform the assigned PCX and will assist with establishing the Charge."

**Documentation of Agency Technical Review.** DrChecks will be used to document all Agency Technical Review comments, responses and resolutions. Comments should be limited to those needed to ensure product adequacy. If a concern cannot be resolved by the review team and PDT, it will be elevated to the vertical team for resolution using the EC 1165-2-217 issue resolution process. Concerns can be closed in DrChecks by noting the concern has been elevated for resolution. ATR may be certified when all concerns are resolved or referred to the vertical team and the review documentation is complete.

c. INDEPENDENT EXTERNAL PEER REVIEW

(i) Type I IEPR.

**Decision on Type I IEPR.** A Type I Independent External Peer Review was conducted on the 2014 CEPP PIR/EIS and will also be performed during design phase. The purpose of the CEPP South Validation Report is to confirm that project components, construction sequencing, and project dependencies as identified in the 2014 CEPP PIR/EIS and Chief's Report are still valid for implementation of CEPP South. The existing conditions and future without project conditions have minimal to no change since 2014 and the project dependencies remain very similar and also there little to no additional data, modeling, or analysis to review. For all these reasons stated, a Type I IEPR is not warranted and an exclusion is approved.

(ii) Type II IEPR.

**Decision on Type II IEPR.** Type II IEPR will be required for PED phase plans and specifications, construction and operations activities. Team to be identified later by USACE.

d. MODEL CERTIFICATION OR APPROVAL

The CEPP South Validation Study will focus on changes in conditions for the existing and future without project conditions, and the project dependencies identified in the 2014 CEPP PIR/EIS. Since there is minimal to no change in the conditions and dependencies since 2014, the CEPP South Validation Report will use only hydrologic modeling which was previously presented in the 2014 CEPP PIR/EIS. All models used for the 2014 CEPP PIR/EIS were certified or approved at that time, if appropriate, in accordance with appropriate regulations such as EC 1105-2-412 (refer to

Section 2, Model Review and Approval/Certification, for additional details). Based on the above information, no additional model certifications or approvals are needed for this validation study.

#### e. POLICY AND LEGAL REVIEW

Policy and legal compliance reviews for draft and final planning decision documents are delegated to the MSC (see Director's Policy Memorandum 2018-05, paragraph 9).

##### (i) Policy Review.

The policy review team is identified through the collaboration of the MSC Chief of Planning and Policy and the HQUSACE Chief of the Office of Water Project Review. Attachment 1 of this Review Plan identifies the team. The makeup of the Policy Review team will be drawn from Headquarters (HQUSACE), the MSC, the Planning Centers of Expertise, and other review resources as needed.

- The Policy Review Team will be invited to participate in key meetings during the development of decision documents. These engagements may include In-Progress Reviews, Issue Resolution Conferences or other vertical team meetings.
- The input from the Policy Review team should be documented in a Memorandum for the Record (MFR) produced for each team engagement and distributed to all participants.
- In addition, teams may choose to capture some of the policy review input in a risk register if appropriate. These items should be highlighted at future meetings until the issues are resolved. Any key decisions on how to address risk or other considerations should be documented in an MFR.

##### (ii) Legal Review.

Office of Counsel (OC) representatives will be assigned to participate in reviews. OC members may participate from the District, MSC and HQUSACE. The MSC Chief of Planning and Policy will coordinate membership and participation with the office chiefs.

- In some cases legal review input may be captured in the MFR for the particular meeting or milestone. In other cases, a separate legal memorandum may be used to document the input from the Office of Counsel.
- Each participating Office of Counsel will determine how to document legal review input.

ATTACHMENT 1: TEAM ROSTERS

PROJECT DELIVERY TEAM			
Name	Office	Position	Phone Number
	USACE	Project Manager	(904)-232-1179
	SFWMD		(561) 682-6483
	USACE	Plan Formulation	(904)-232-2125
	USACE	NEPA	(904)-232-1368
	USACE	Archaeologist	(904)-232-3634
	USACE	Economist	(904)-232-1058
	USACE	Civil Engineer (Technical Lead)	(904)-232-1604
	USACE	Cost Engineer	(904)-232-2165
	USACE	Hydraulic Engineer	(904)-232-1079
	USACE	Geotechnical Engineer	(904)-232-1657
	USACE		(904)-232-1236
	USACE	Mechanical/Electrical Engineer	(904)-232-1081
	USACE		(904)-232-1050
	USACE	Structural Engineer	(904)-232-1307
	USACE	Water Quality Specialist	(904)-232-2438
	USACE	Office of Counsel	(904)-232-3713
	USACE	Tribal Liason	(561)-340-1531
	USACE	Public Involvement	(904)-232-1004

DISTRICT QUALITY CONTROL TEAM			
Name	Office	Position	Phone Number
	CESAJ-PD-ES	Section Chief	904-232-2077
	CESAJ-PD-D	Branch Chief	904-232-1058
	CESAJ-EN-D	Branch Chief	904-232-3702
	CESAJ-OC	Supervisory CW Attorney	904-232-1164
	CESAJ-EN-W	Branch Chief	904-232-2230
	CESAJ-EN-WM	Section Chief	904-232-1159

COST ENGINEERING REVIEW TEAM			
Name	Office	Position	Phone Number
	Walla Walla (Cost CX)	Cost Engineer	509-527-7585

VERTICAL TEAM			
Name	Office	Position	Phone Number
	MVD	RMO Contact	(504)-862-2310
	HQ	RTT	(202)-761-1367
	MVP	Eco-PCX Contact	(651)-290-5259

POLICY REVIEW TEAM			
Name	Office	Position	Phone Number
	SAD	MSC Planning Chief	(404)-562-5220
	CESAD-PDP	Plan Formulation	(404)-562-5206
	CESAD-PDP	Environmental	(404)-562-5227
	CESAD-RBT	Structural Engineering	(404)-562-5120
	CESAD-RBT	Engineering H&H	(404)-562-5128
	CESAD-RBT	Cost Engineering	(404)-562-5109