

# **REVIEW PLAN**

## **South Florida Ecosystem Restoration Critical Project Seminole Big Cypress Reservation Basins 1, 2, and 4 Water Control Manual**

Jacksonville District

September 2013

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Enclosure 1

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## 1. PURPOSE AND REQUIREMENTS

**a. Purpose.** This Review Plan defines the type of document classification and the scope of review activities for completing the South Florida Ecosystem Restoration Critical Project Seminole Big Cypress Reservation Basins 1, 2, and 4 Water Control Manual (WCM). The WCM will also include the Basin 1 Interim Water Control Plan and the Basin 4 Water Control Plan (WCP), previously approved by the South Atlantic Division (SAD) Commander in March 2012 and May 2013, respectively.

The WCM is prepared in accordance with the requirements of Engineering Regulation (ER) 1110-2-240, Water Control Management and ER 1110-2-8156, Preparation of Water Control Manuals. The related review activities are defined in Engineering Circular (EC) 1165-2-214, Civil Works Review Policy as review for other work products. EC 1165-2-214 stipulates a risk informed decision process be used to determine if the documents covered by this review plan are U.S. Army Corps of Engineers (USACE) decision documents, implementation documents, or other work products and the appropriate level of review for those documents.

### **b. References.**

- (1) ER 1110-2-240, Water Control Management, 8 October 1982
- (2) EM 1110-2-3600, Management of Water Control Systems, 30 November 1987
- (3) ER 1110-2-8156, Preparation of Water Control Manuals, 31 August 1995
- (4) ER 1130-2-530 Flood Control Operations and Maintenance Policies, 30 October 1996
- (5) ETL 1110-2-362 Environmental Engineering Initiatives for Water Management, 31 July 1995
- (6) EC 1165-2-214, Civil Works Review, 15 December 2012
- (7) EC 1105-2-412, Assuring Quality of Planning Models, 13 March 2011
- (8) ECB No. 2007-6, Model Certification Issues for Engineering Software in Planning Studies
- (9) ER 1110-1-12, Quality Management, 30 September 2006

**c. Requirements.** This Review Plan was developed in accordance with EC 1165-2-214, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and Operation, Maintenance, Repair, Replacement and Rehabilitation (OMRR&R). The EC provides the procedures for ensuring the quality and credibility of USACE decision, implementation, and operations and maintenance documents and work products. The EC outlines three levels of review: District Quality Control (DQC), Agency Technical Review (ATR), and Independent External Peer Review (IEPR).

(1) **DQC.** DQC is the review of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). It is managed in the home district and may be conducted by staff in the home district as long as they are not doing the work involved in the study, or overseeing contracted work that is being reviewed. Basic quality control tools include a Quality Management Plan providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. Additionally, the PDT is responsible for a complete reading of the work product to assure the

overall integrity of the document, technical appendices and any recommendations before approval by the District Commander. The Major Subordinate Command (MSC)/District quality management plans address the conduct and documentation of this fundamental level of review.

(2) **ATR.** ATR is an in-depth review, managed within USACE, and conducted by a qualified team outside of the home district that is not involved in the day-to-day production of the project/product. The purpose of this review is to ensure the proper application of clearly established criteria, regulations, laws, codes, principles and professional practices. The ATR team reviews the various work products and assures that all the parts fit together in a coherent whole. ATR teams will be comprised of senior USACE personnel (Regional Technical Specialists (RTS), etc.), and may be supplemented by outside experts as appropriate. To assure independence, the leader of the ATR team shall be from outside the parent MSC.

(3) **IEPR.** IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted.

**d. Review Management Organization (RMO).** With the exception of DQC, all reviews shall be managed by an office outside the home district and shall be accomplished by professionals that are not associated with the work that is being reviewed. The USACE district/division managing a particular review effort is designated the RMO for that effort. Different levels of review and reviews associated with different phases of a single project can have a different RMO. The RMO for the WCM is the Jacksonville District.

## **2. PROJECT INFORMATION AND BACKGROUND**

The Seminole Big Cypress Reservation Water Conservation Plan Project (SBC Project) is located on the Seminole Tribe of Florida Big Cypress Reservation located south of Lake Okeechobee and east of Fort Lauderdale, as shown on Figure 1. The SBC Project was authorized under Section 528 (b)(3) of the Water Resources Development Act (WRDA) of 1996, P.L. 104-303 (Everglades and South Florida Ecosystem Restoration Critical Projects). The purpose of the SBC Project is to provide a comprehensive water management system to accommodate the Seminole Tribe of Florida's (non-Federal sponsor) water entitlement and support sustainable agriculture while contributing to the restoration of the greater Everglades ecosystem. This includes providing protection against a 25-year, 72-hour flood event, providing irrigation water on an as-needed basis, and improving the quality of agricultural water runoff within the Big Cypress Reservation.

The SBC Project involves construction and operation of water management and wetlands ecosystem restoration features in three basins identified as Basins 1, 2, and 4 on the Seminole Big Cypress Reservation, as shown on Figure 2. Ecological benefits would consist primarily of water quality and wetland hydroperiod improvements. The completed network of surface water management structures in the SBC Project is intended to produce the following substantial restoration, preservation, and protection benefits:

- Remove phosphorous and other pollutants from water discharged from Reservation lands

flowing to the Everglades Protection Area (EPA)

- Provide the opportunity to restore more natural hydroperiods to wetlands in the Big Cypress National Preserve
- Restore a more natural hydropattern and hydroperiod in the 14,000 acres of the Native Area, located south of the West Feeder Canal on the Reservation and north of Big Cypress National Preserve
- Increase water storage capacity
- Provide improved flood control designed to mimic the historic timing and distribution of flows

The Design Documentation Report as well as the Plan and Specifications for the SBC Project were prepared by Burns & McDonnell Engineering following USACE procedures and regulations in 2004. SBC Project features for Basin 1 and Basin 4 have been completed and were transferred to the Seminole Tribe of Florida in December 2009 and August 2013, respectively. Although SBC Project features had previously been outlined to be included in Basin 3, in 2013 the USACE and the Seminole Tribe of Florida agreed that SBC Project features would not be constructed in Basin 3.

The WCM contains water management operating criteria for all three Basins (1, 2, and 4). Due to the phased construction of the SBC Project, water management operating criteria in the WCPs for Basins 1 and 4 will be assessed as part of the development of the WCM. If an update to Basin 1 or 4 water management operating criteria is needed it will be included in the WCM, if additional National Environmental Policy Act (NEPA) documentation is not required. If the need for additional NEPA documentation is identified during WCM development, this Review Plan will be updated and resubmitted, as appropriate.

### **3. POLICY AND LEGAL COMPLIANCE REVIEW**

Guidance for policy and legal compliance reviews of Water Control Systems is contained in ER 1110-2-240, Water Control Management, and ER 1110-2-8156, Preparation of Water Control Manuals. The guidance culminate in determinations that the recommendations in the documents 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. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods and the presentation of findings in decision documents.

### **4. RISK INFORMED DECISION ON TYPE OF DOCUMENT AND APPROPRIATE LEVEL OF REVIEW**

The EC 1165-2-214 for review policy directs the team to make a risk informed decision to determine if the documents are decision documents, implementation documents or other work products and the appropriate level of review. DQC is required for all products. The appropriateness of ATR and IEPR are based on the risk informed decision process as presented in this section.

**a. DQC.** DQC and Quality Assurance activities for other work products are stipulated in ER 1110-1-12, Engineering & Design Quality Management. The WCM will be prepared by the Jacksonville District and will undergo DQC. All DQC comments will be documented and addressed through Dr. Checks. All DQC activities will be conducted in accordance with ER 1110-1-12.

**b. ATR.** EC 1165-2-214 for review policy directs the Project Delivery Team (PDT) to make a risk informed decision regarding ATR for other work products through questions provided in Section 15 (Risk Informed Decisions on Appropriate Reviews). Review of the below answers to Section 15b. questions indicate that ATR is not warranted for the WCM.

(1) Does it include any design (structural, mechanical, hydraulic, etc)? No. There is not design work ongoing or currently proposed for any project features included in this WCM.

(2) Does it evaluate alternatives? No.

(3) Does it include a recommendation? No.

(4) Does it have a formal cost estimate? No.

(5) Does it have or will it require a NEPA document? Yes. The previously completed 2010 Environmental Compliance for the SBC Project will be provided in the transmittal memorandum package requesting approval of WCM.

(6) Does it impact a structure or feature of a structure whose performance involves potential life safety risks? No. There is no life safety risk associated with the WCM.

(7) What are the consequences of non-performance? The consequence of non-performance is the loss of water available for irrigation during dry periods.

(8) Does it support a significant investment of public monies? No.

(9) Does it support a budget request? No.

(10) Does it change the operation of the project? Existing water management operating criteria for Basins 1 and 4 is not anticipated to be changed; however, development of the WCM will include an assessment of Basin 1 and 4 water management operating criteria with appropriate updates included in the WCM if additional NEPA documentation is not necessary.

(11) Does it involve excavation, subsurface investigations (drilling or sampling or both) or placement of soil? No. There is no construction associated with this WCM nor will the water management operations of the system introduce any such disturbances.

(12) Does it affect any special features, such as cultural resources, historic properties, survey markers, etc, that should be protected or avoided? No. The WCM does not propose any actions that will affect any cultural resource or historic properties or other related appurtenances.

(13) Does it involve activities that trigger regulatory permitting such as Section 404 or stormwater/NPDES related actions? No. There will be no off-site discharges that warrant Section 404 or NPDES permit actions.

(14) Does it involve activities that could potentially generate hazardous wastes and/or disposal of materials such as lead based paints or asbestos? No. This WCM only involves water management operations; no hazardous waste will be generated or disposed.

(15) Does it reference use of or reliance on manufacturers' engineers and specifications for items such as prefabricated buildings, playground equipment, etc? No. This work product is operational in nature, no additional infrastructure is proposed in support of the WCM.

(16) Does it reference reliance on local authorities for inspection/certification of utility systems like wastewater, stormwater, electrical, etc? No. This work product has no affect on any local utilities for inspection/certification of utility systems.

(17) Is there or was there expected to be any controversy surrounding the Federal action associated with the work product? No.

**c. Independent External Peer Review (IEPR).** EC 1165-2-214 provides implementation guidance for both Sections 2034 and 2035 of the WRDA of 2007 (Public Law (P.L.) 110-114). The EC addresses review procedures for the planning, engineering, design, construction and operations and maintenance phase responsibilities.

IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision, as described in EC 1165-2-214, is made as to whether IEPR is appropriate. IEPR panels will consist of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable for the review being conducted. There are two types of IEPR:

**(1) Type I Independent External Peer Review (IEPR) Determination (Section 2034).** In addition to the questions and answers in paragraph 4 of this Review Plan, the following items were considered in making the risk-informed decision concerning Type I IEPR:

- (a) The WCM do not pose a significant threat to human life.
- (b) The cost of the WCM does not exceed \$45M.
- (c) An IEPR has NOT been requested by the Governor of Florida, any Federal agencies, local Native American Tribes, or State agencies.
- (d) The WCM does not involve significant public dispute as to the size, nature, or effects of the SBC Project.
- (e) The WCM does not involve significant public dispute as to the economic or environmental cost or benefit of the SBC Project.

(2) **Type II Independent External Peer Review (IEPR) Determination (Section 2035).** This WCM does not trigger WRDA 2007 Section 2035 factors for Safety Assurance Review (termed Type II IEPR in EC 1165-2-214). The District Chief of Engineering, as the Engineer-In-Responsible-Charge, does not recommend a Type II IEPR Safety Assurance Review for this effort. There are no design or construction activities associated with WCM. The WCM contains a water management operating criteria that does not impact a structure or feature whose performance involves potential life safety risks. The project does not have potential hazards that pose a significant threat to human life.

**Decision on Type I and Type II IEPR.** Based on the questions and answers presented in Section 4 and the information presented above, the Jacksonville District has determined that the WCM would not significantly benefit from additional independent peer review and have recommended that the WCM does not require a Type I or a Type II IEPR.

## **5. MODEL CERTIFICATION AND APPROVAL**

The WCM does not use any engineering models.

## **6. BUDGET AND SCHEDULE**

The schedule for the 2014 South Florida Ecosystem Restoration Critical Project Seminole Big Cypress Reservation Basins 1, 2, and 4 Water Control Manual is as follows:

- 1) SAD approval of Review Plan – complete November 2013.
- 2) DQC review – complete January 2014.
- 3) Draft South Florida Ecosystem Restoration Critical Project Seminole Big Cypress Reservation Basins 1, 2, and 4 Water Control Manual – complete February 2014.
- 4) SAD approval of 2014 South Florida Ecosystem Restoration Critical Project Seminole Big Cypress Reservation Basins 1, 2, and 4 Water Control Manual – complete March 2014.

## **7. PUBLIC PARTICIPATION**

The NEPA process has already been completed. The purpose of the SBC Project is to provide a comprehensive water management system to accommodate the Seminole Tribe of Florida's (non-Federal sponsor) water entitlement and support sustainable agriculture while contributing to the restoration of the greater Everglades ecosystem. As with SBC Project Basins 1 and 4 WCPs, the WCM (and Basin 2 WCP) will be prepared in collaboration with the Seminole Tribe of Florida. This will include iterative review and comment intended to produce a WCM for use on the Seminole Big Cypress Reservation.

## **8. REVIEW PLAN APPROVAL AND UPDATES**

The South Atlantic Division Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving district, MSC, RMO, and HQUSACE members, as appropriate) as to the appropriate scope and level of review. Like the

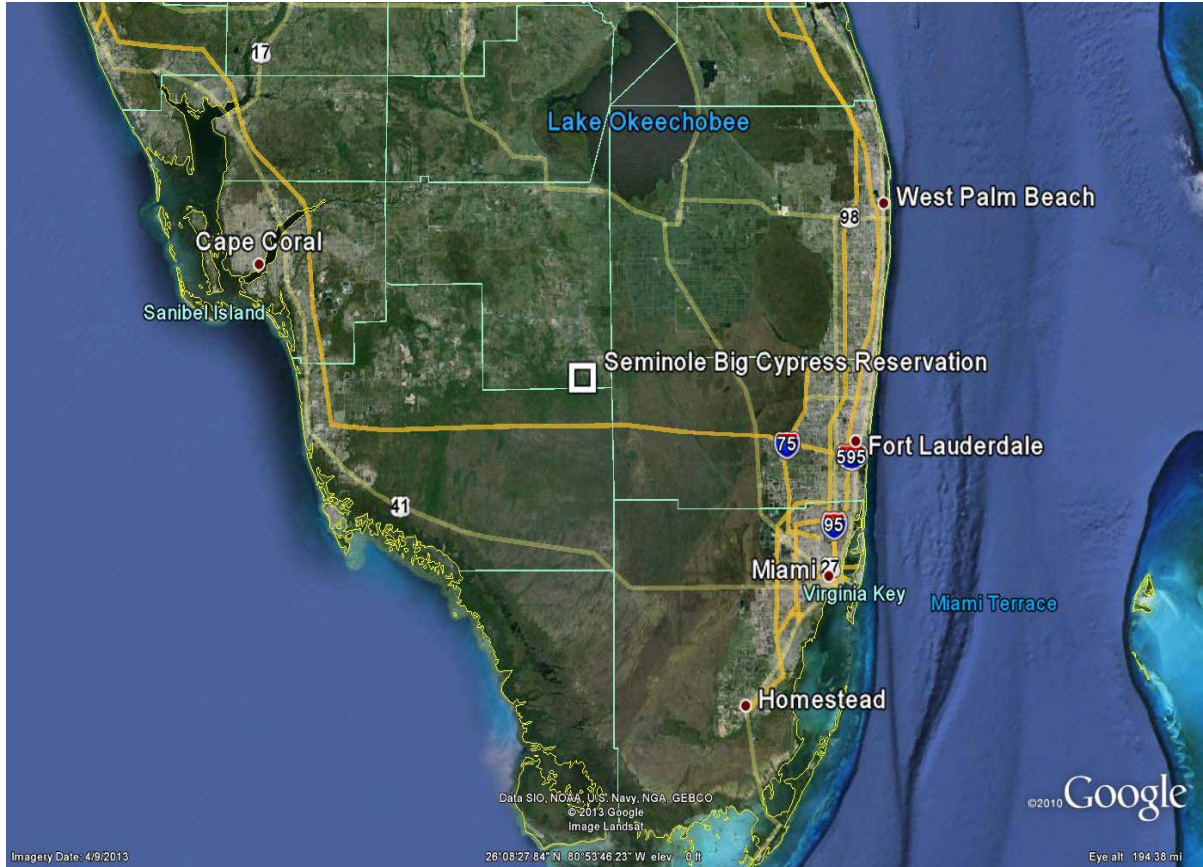


PMP, the Review Plan will be a living document and may change as the study progresses. The Jacksonville District will be responsible for keeping the Review Plan up to date. All significant changes to the Review Plan (such as changes to the scope and/or level of review) will be re-approved by the MSC Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commanders' approval memorandum, will be posted on the Jacksonville District's webpage. The latest Review Plan will also be provided to the RMO and home MSC.

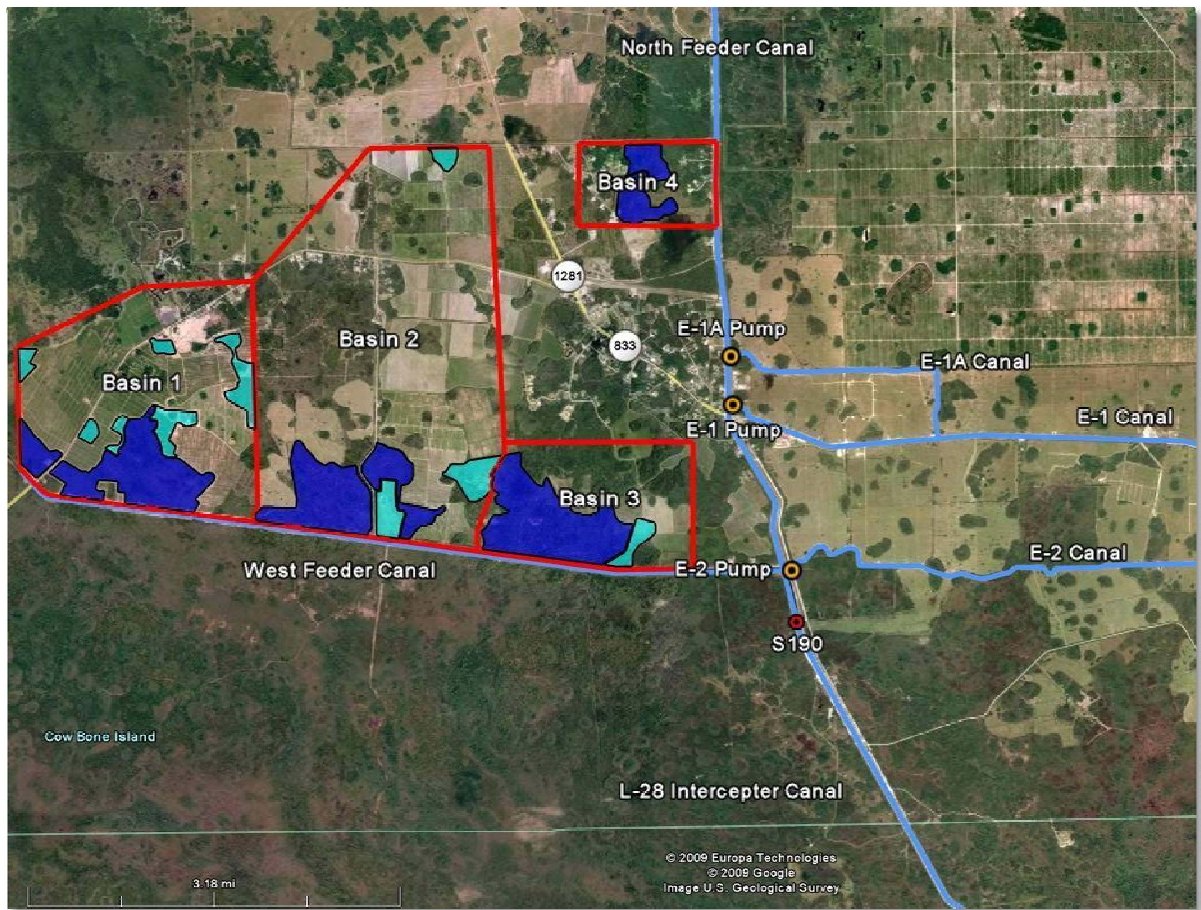
## **9. REVIEW PLAN POINTS OF CONTACT**

Public questions/comments on this Review Plan can be directed to the following points of contact:

- Jacksonville District Water Management Section Chief, 904-232-1661
- South Atlantic Division, RMO, MSC point of Contact, 404-562-5121



**Figure 1. Seminole Big Cypress Basin Reservation General Location Map**



**Figure 2. Seminole Big Cypress Basins 1, 2, 3 and 4 Delineation Map**