

REVIEW PLAN

For

**Interim Water Control Plan
and Environmental Assessment
For
Seminole Big Cypress Reservation Water
Conservation Plan Critical Project Basin 1**

Hendry County, Florida

Jacksonville District

26 July 2011

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**US Army Corps
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1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope of review activities for the Interim Water Control Plan and Environmental Assessment (EA) for Seminole Big Cypress Reservation Water Conservation Plan Critical Project (Basin 1). Review activities consist of District Quality Control (DQC).

The water control plan was prepared in accordance with the requirements of ER 1110-2-240, Water Control Management. The related review activities are defined in EC 1165-2-209, Civil Works Review Policy as review for other work products. The other work products category was selected since the water control plan is neither a decision document nor an implementation document. The EC 1165-2-209 Risk Informed Decision process was used to determine the appropriate level of review for the Water Control Plan.

This Interim Water Control Plan will be placed into the Water Conservation Areas, Everglades National Park (ENP) and ENP-South Dade Conveyance System Master Water Control Manual. This Interim Water Control Plan is for implementation prior to the construction of other Basins of the Seminole Big Cypress Reservation Water Conservation Plan Critical Project and will be updated as other SBC Project Basins are developed.

b. References.

- (1). ER 1110-2-240, Water Control Management, 8 October 1982
- (2). ER 1110-1-12, Engineering and Design Quality Management, 21 July 2006
- (3). EC 1165-2-209, Civil Works Review Policy, 31 January 2010

c. Requirements. This review plan was developed in accordance with EC 1165-2-209, 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 U.S. Army Corps of Engineers (USACE) decision, implementation, and operations and maintenance documents and work products. The EC outlines three levels of review: District Quality Control, Agency Technical Review, and Independent External Peer Review.

(1) District Quality Control (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 report to assure the overall integrity of the report, technical appendices and the 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) Agency Technical Review (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) Independent External Peer Review (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. A risk-informed decision, as described in EC 1165-2-209, 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: Type I is generally for decision documents and Type II is generally for implementation products.

- (a) Type I IEPR reviews are managed outside the USACE and are conducted on project studies. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study. Type I IEPR will cover the entire decision document or action and will address all underlying engineering, economics, and environmental work, not just one aspect of the study. For decision documents where a Type II IEPR (Safety Assurance Review) is anticipated during project implementation, safety assurance shall also be addressed during the Type I IEPR per EC 1165-2-209.
- (b) Type II IEPR. Type II IEPR, or Safety Assurance Review (SAR), are managed outside the USACE and are conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. In accordance with Section 2035 of Water Resources Development Act (WRDA) of 2007 and EC 1165-2-209, a Type II IEPR (SAR) shall be conducted on design and construction activities for hurricane and storm risk management and flood risk management projects, as well as other projects where existing and potential hazards pose a significant threat to human life prior to initiation of physical construction and periodically thereafter until construction activities are completed. IEPR should occur on a regular schedule sufficient to inform the Chief of Engineers on the adequacy, appropriateness, and acceptability of the design and construction activities for the purpose of assuring public health, safety, and welfare.

d. Review Management Organization (RMO). The South Atlantic Division (SAD) is designated as the RMO for the Interim Water Control Plan for Seminole Big Cypress Reservation Water Conservation Plan Critical Project (Basin 1). The RMO is responsible for managing the review activities described in this Review Plan.

2. PROJECT INFORMATION AND BACKGROUND

The Seminole Big Cypress Reservation Water Conservation Plan Project (SBC Project) was authorized under Section 528 (b)(3) of the Water Resources Development Act (WRDA) of 1996, P.L. 104-303 (Central and Southern Florida Ecosystem Restoration Critical Project), for the purpose of 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 (Reservation). The purpose of the Critical Project is to provide a comprehensive water management system to accommodate the Seminole Tribe of Florida's water entitlement and support sustainable agriculture while contributing to the restoration of the Greater Everglades ecosystem. The Critical Project involves construction and operation of water control and wetlands ecosystem restoration features in four basins identified as Basins 1 through 4 (Figure 1) on the Seminole Big Cypress Reservation. Ecological benefits would consist primarily of water quality and wetland hydroperiod improvements.

Basin 1 Project is completed and transferred to the tribe in December of 2009. The project Design Documentation Report and P&S were prepared by Burns & McDonnell Engineering following USACE procedures and regulations in 2004.

This Interim Water Control Plan contains water management operating criteria for Basin 1 only (Figure 2). The completed network of surface water management structures in the SBC Basin 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 hydroperiod 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 Preserve
- Increase water storage capacity
- Provide improved flood control designed to mimic the historic timing and distribution of flows

This Interim Water Control Plan will be placed into the Water Conservation Areas, Everglades National Park (ENP) and ENP-South Dade Conveyance System Master Water Control Manual. This Interim Water Control Plan is for implementation prior to the construction of other Basins of the SBC Project and will be updated as other SBC Project Basins are developed.

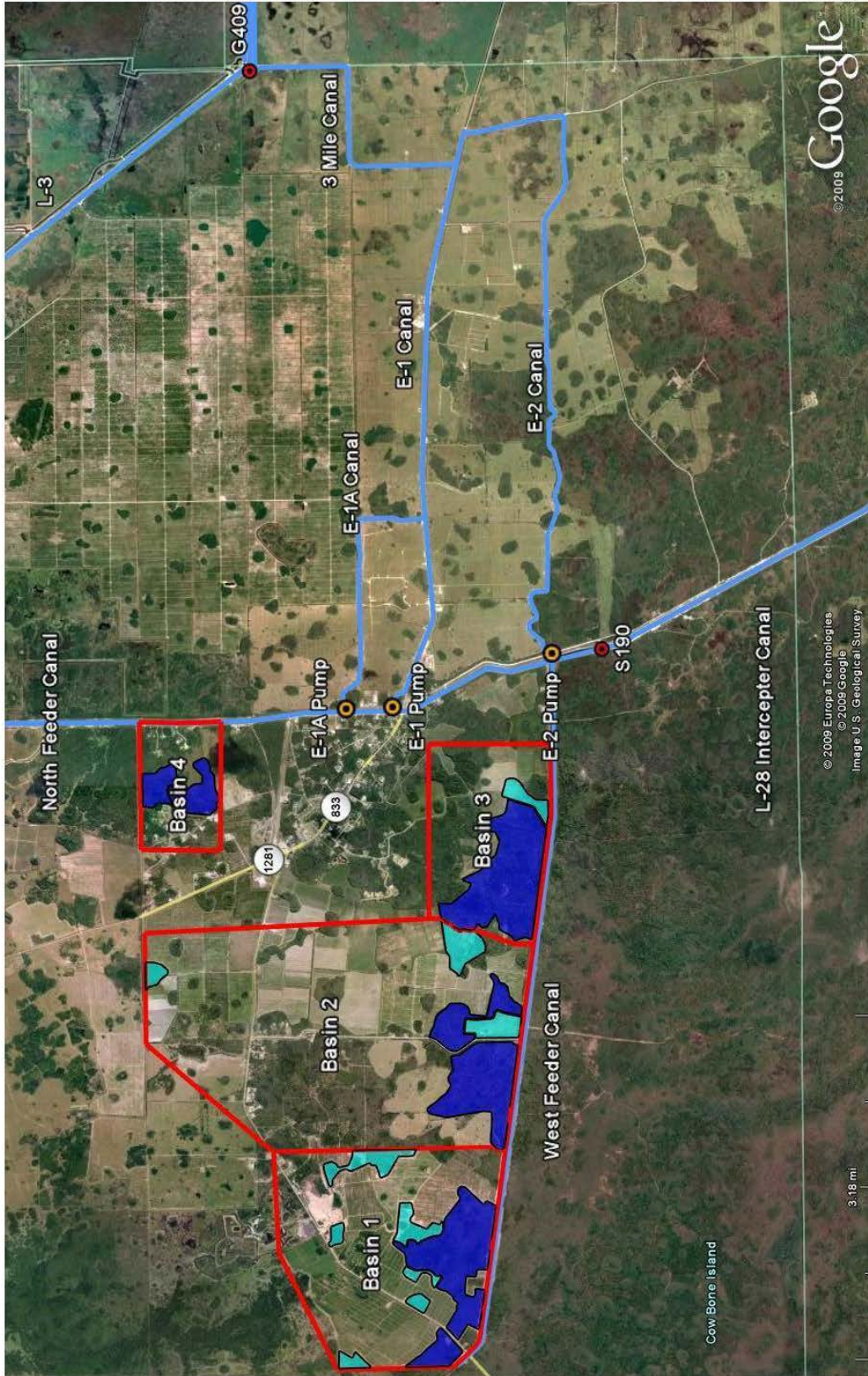
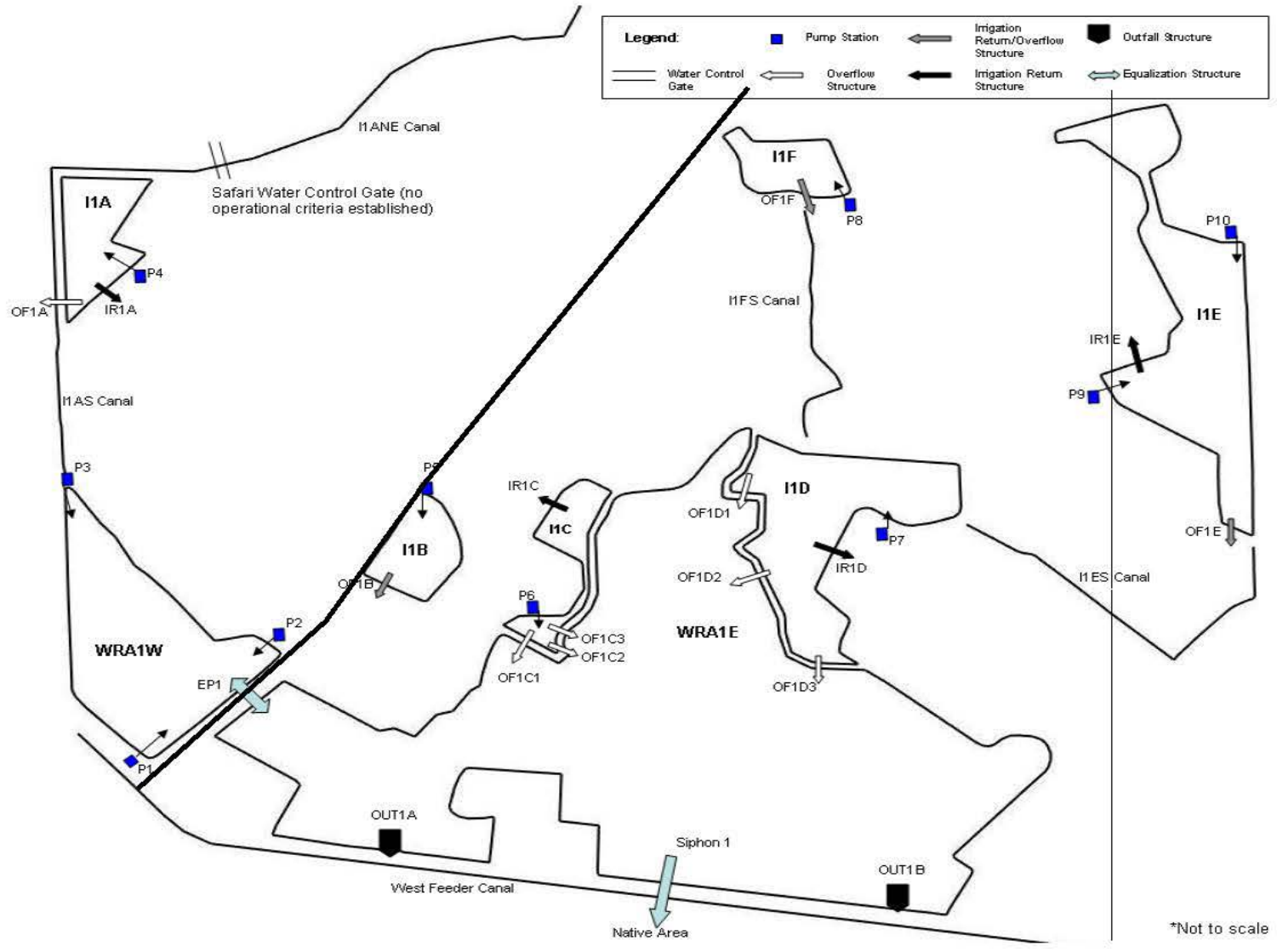


Figure 1: General Location Map

Figure 2: Basin 1 Layout



*Not to scale

3. DISTRICT QUALITY CONTROL

District Quality Control (DQC) activities for engineering products are stipulated in ER 1110-1-12, Engineering & Design Quality Management and EC 1165-2-209. DQC has been performed on the Interim Water Control Manual and Environmental Assessment.

4. AGENCY TECHNICAL REVIEW

a. Risk Informed Decision on Appropriate Level of Review

The EC 1165-2-209 for review policy directs the Project Delivery Team (PDT) to make a risk informed decision regarding ATR for other work products (Para 15). Review of the answers to the following questions from Para 15.b indicate that ATR is not warranted for the Interim Water Control Plan and Environmental Assessment. DQC on the Environmental Assessment and the Interim Operational Criteria have been completed.

- (1) Does it include any design (structural, mechanical, hydraulic, etc)? No. There is no design work for the water control plan and EA.
- (2) Does it evaluate alternatives? No.
- (3) Does it include a recommendation? No, other than interim water control.
- (4) Does it have a formal cost estimate? No.
- (5) Does it have or will it require a NEPA document? Yes. An Environmental Assessment.
- (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 interim water control plan.
- (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? No, the water control plan is for a new project in Basin 1.
- (11) Does it involve ground disturbances? No. There is no construction associated with this plan nor will the 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 water control criteria and EA do 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. There will be no hazardous wastes and/or disposal thereof generated by this plan.

(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 water control criteria.

(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. All work will be performed is confined to tribal lands.

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

5. INDEPENDENT EXTERNAL PEER REVIEW

a. General. EC 1165-2-209 provides implementation guidance for both Sections 2034 and 2035 of the Water Resources Development Act (WRDA) of 2007 (Public Law (P.L.) 110-114). The EC addresses review procedures for both the Planning and the Design and Construction Phases (also referred to in USACE guidance as the Feasibility and the Pre-construction, Engineering and Design Phases).

b. Type I Independent External Peer Review (IEPR) Determination (Section 2034).

EC1165-2-209, Paragraph 10 "Independent External Peer Review" indicates any work product, report, evaluation or assessment that undergoes DQC and ATR also MAY be required to undergo IEPR under certain circumstances. A risk-informed decision should be made based upon the conditions outlined in paragraph 15 of the EC. The results of the risk informed decision questions indicate an ATR is not warranted.

As previously indicated, no decision documents are addressed by this Review Plan and therefore Type I IEPR is also not warranted.

c. Type II Independent External Peer Review (IEPR) Determination (Section 2035). This project does not trigger WRDA 2007 Section 2035 factors for Safety Assurance Review (termed Type II IEPR in EC 1165-2-209) and therefore, a review under Section 2035 is not required. The factors in determining whether a Type II IEPR of the design and construction activities for this project are below.

- (1) The failure of the project would pose a significant threat to human life.

The scope of the interim water control plan is to operate a water management system with 3.0 ft height berms to accommodate the Seminole Tribe of Florida's water entitlement and support sustainable agriculture while contributing to the restoration of the Greater Everglades ecosystem. The operations performed under this interim water control plan do not rise to any level that would warrant concerns for loss of life, this project would not benefit from an IEPR.

- (2) The project involves the use of innovative materials or techniques.

This project will utilize methods and procedures used by the Corps of Engineers on other similar works.

- (3) The project design lacks redundancy.

The concept of redundancy is not applicable to water control plans.

- (4) The project has unique construction sequencing or a reduced or overlapping design construction schedule.

This water control plan does not have or pose unique sequencing or a reduced or overlapping design. The water control plan operation methods and procedures have been used successfully by the Corps of Engineers on other similar works.

6. MODEL CERTIFICATION AND APPROVAL

This project does not use any engineering models that have not been approved for use by USACE.

7. BUDGET AND SCHEDULE

Project Milestones.

Completion Submittal – completed

District Quality Control – completed

8. POINTS OF CONTACT

Per guidance, the names of the following individual will not be posted on the Internet with the Review Plan. Their titles and responsibilities are listed below.

Jacksonville District POCs:

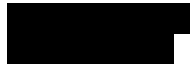
Review Plan, ATR and QM Process:



Project Information:



Project Manager:



South Atlantic Division,

