



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

Subject: Approval of Review Plan and Type I Independent External Peer Review  
Exclusion for Three CAP Conversion Feasibility Studies

1. References:

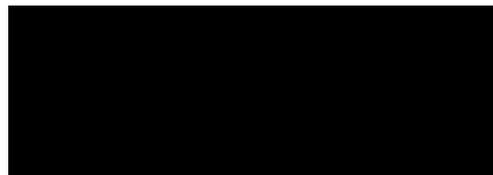
a. Memorandum, CESAJ-PW, subject: Rio Culubrinas, Puerto Rico and Savan Gut Phase II, and Turpentine Run, USVI, Section 205 Flood Risk Management Projects, 16 November 2018.

b. Memorandum, CECW-P, subject: Revised Delegation of Authority in Section 2034(a)(5)(A) of the Water Resources Development Act of 2007 (WRDA 2007), as amended (33 U.S.C. 2343), 07 June 2018.

2. The attached combined Review Plan for the Rio Culebrinas, Puerto Rico, Savan Gut Phase II, US Virgin Islands, and Turpentine Run, US Virgin Islands Continuing Authorities Program (CAP) Conversion Feasibility Studies has been prepared consistent with EC 1165-2-217. The Review Plan and request for IEPR exclusion has been coordinated with the South Atlantic Division, which is the lead office to execute this plan. For further information, contact the South Atlantic Division, Planning and Policy Division at (404) 562-5226. 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.

4. The point of contact for this action is [REDACTED] at (404) 562-5226 or patrick.e.odonnell@usace.army.mil.



Brigadier General, USA  
Commanding

## REVIEW PLAN

March 2019

**Project Names:** Río Culebrinas, Puerto Rico, Savan Gut Phase II and Turpentine Run, St. Thomas, USVI Flood Risk Management Study and Environmental Assessment

**P2 Numbers:**

Río Culebrinas - 475650

Savan Gut P-II - 475529

Turpentine Run - 475651

**Decision Document Type:** CAP Conversion Feasibility Report

**Project Type:** Flood Risk Management

**District:** Jacksonville District

**District Contact:** SAJ-PD Peer Review Manager

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

**MSC Contact:** 404-562-5226

**Review Management Organization (RMO):** South Atlantic Division

**RMO Contact:** 404-562-5226

### Key Review Plan Dates

<b>Date of RMO Endorsement of Review Plan:</b>	Pending
<b>Date of MSC Approval of Review Plan:</b>	Pending
<b>Date of IEPR Exclusion Approval:</b>	Pending
<b>Has the Review Plan changed since PCX Endorsement?</b>	NA
<b>Date of Last Review Plan Revision:</b>	None
<b>Date of Review Plan Web Posting:</b>	Pending
<b>Date of Congressional Notifications:</b>	Pending

### Milestone Schedule

	<b>Scheduled</b>	<b>Actual</b>	<b>Complete</b>
<b>Execute FCSA:</b>	09 Oct 18	09 Oct 18	Y
<b>Validation Milestone Meeting:</b>	30 Nov 18	(enter date)	Y
<b>Initiate ATR/MSC/HQ Review:</b>	20 Dec 18	(enter date)	No
<b>Initiate NEPA/Public Review</b>	17 Jan 19	(enter date)	No
<b>Final Report Transmittal:</b>	28 Feb 19	(enter date)	No

Río Culebrinas / Savan Gut Phase II / Turpentine Run Sec 205  
Flood Risk Management Study & EA Combined Review Plan

**Chief's Report or Director's Report:** 01 May 19 (enter date) No

**Project Fact Sheet**  
March 20189

**Project Name:** Río Culebrinas, Puerto Rico, Savan Gut Phase II and Turpentine Run, St. Thomas, USVI

**Location:**

Río Culebrinas: The Río Culebrinas basin is located in the northwestern part of Puerto Rico and flows between the towns of Aguadilla and Espinar. The Río Culebrinas River has a 272 square kilometer drainage basin. The Project is located in the northern area of the Río Culebrinas river flood plain in the Caño Madre Vieja tributary.

Savan Gut: The study area is the commercial business district adjacent to the Savan Gut drainage channel in Charlotte Amalie, located in the south central portion of the island of St. Thomas. The island is part of the U.S. Virgin Islands Territory and is located approximately 1,000 miles southeast of Miami, Florida and approximately 50 miles east of Puerto Rico.

Turpentine Run: The study area is the Nadir development along Turpentine Run, located on the southeaster end of the island of St. Thomas, USVI.

**Authority:** Section 205 of the 1948 Flood Control Act, as amended;

Section 205 of the 1948 Flood Control Act, as amended, which states: "The Secretary of the Army is hereby authorized to allot from any appropriations heretofore or hereafter made for flood control, not to exceed \$40,000,000 for any one fiscal year, for the construction of small projects for flood control and related purposes not specifically authorized by Congress, which come within the provisions of Section 1 of the Flood Control Act of June 22, 1936, when in the opinion of the Chief of Engineers such work is advisable. The amount allotted under this Section for a project shall be sufficient to complete Federal participation in the project. Not more than \$5,000,000 shall be allotted for a project at any single locality. The provisions of local cooperation specified in Section 3 of the Flood Control Act of June 22, 1936 as amended, shall apply. The work shall be complete in itself and not commit the United States to any additional improvements to insure its successful operation, except as may result from the normal procedure applying to projects authorized after submission of preliminary examination and survey reports."

The Bipartisan Budget Act of 2018 (Public Law 115-123), Division B, Subdivision 1, Title IV provides authority for this CAP Conversion Feasibility Report Study;

Title IV of the Bipartisan Budget Act of 2018 states: "For an additional amount for " Investigations" for necessary expenses related to the completion, or initiation and completion, of flood and storm damage reduction, including shore protection, studies which are currently authorized or which are authorized after the date of enactment of this subdivision, to reduce risk from future floods and hurricanes, at full Federal expense, \$135,000,000, to remain available until expended: Provided, That of such

amount, not less than \$75,000,000 is available for such studies in States and insular areas that were impacted by Hurricanes Harvey, Irma, and Maria: Provided further, That funds made available under this heading shall be for high-priority studies of projects in States and insular areas with more than one flood-related major disaster declared pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 et seq.) in calendar years 2014, 2015, 2016, or 2017: Provided further, That such amount is designated by the Congress as being for an emergency requirement pursuant to section 251 (b)(2)(A)(i) of the Balanced Budget and Emergency Deficit Control Act of 1985: Provided further, That the Assistant Secretary of the Army for Civil Works shall provide a monthly report to the Committees on Appropriations of the House of Representatives and the Senate detailing the allocation and obligation of these funds, including new studies selected to be initiated using funds provided under this heading, beginning not later than 60 days after the enactment of this subdivision.”

**Sponsors:**

Río Culebrinas – The Municipality of Aguadilla, Puerto Rico  
Savan Gut P-II and Turpentine Run - Virgin Islands Department of Public Works

**Type of Study:** CAP Conversion Feasibility Report

**SMART Planning Status:** This effort is a CAP Conversion Feasibility Study to document the information required to support a decision using supplemental appropriations to proceed to project construction as previously approved as part of the Continuing Authorities Program.

**Project Area:**

Río Culebrinas – The primary study area for the project is the Río Culebrinas basin. The study area lies in the alluvial flood plain of Río Culebrinas between the municipalities of Aguadilla and Aguada. This area is located in the northwestern coast of Puerto Rico. The Río Culebrinas has a drainage area of approximately 267 square kilometers. Río Culebrinas main channel has a relatively low hydraulic capacity at the alluvial valley. The excess discharge flows over the banks of the river into the Cano Madre Vieja alluvial valley producing damage in the adjacent communities. The 1 00-year flood for existing conditions will affect approximately 703 residential structures. Total damage range from approximately \$2.2 million for the 1 0-year flood to \$31.3 million for the Standard Project Flood (SPF) with average annual equivalent damage being approximately \$1,157,600. Residences, commerce, and public facilities are, in that order, the most affected land uses. The preliminary plan consists of a levee 1.1 kilometer long and 3.3 meters high from Highway 2 to the Espinar community. The recommended plan consists of two segments of levees with a total length of approximately 3,300 meters, a 60 meters pilot channel, and interior drainage facilities. The plan protects the southwest portion of Aguadilla and the community of Espinar in Aguada. The plan is design to protect against the 100-Year flood and would reduce 87 percent of the total annual flood damage. The levee would prevent floods from Río

Culebrinas to enter the Caño Madre Vieja drainage area. The scope of the project has not changed from the 2004 Detailed Project Report and Environmental Assessment.

Savan Gut P-II - The primary study area is the Charlotte Amalie central business district, adjacent to St. Thomas Harbor on the island of St. Thomas. The island is a part of the U.S. Virgin Islands Territory and is located about 1,000 miles southeast of Miami, Florida and about 50 miles east of Puerto Rico. The island of St. Thomas is the second largest of the more than 50 islands and cays that make up the Territory of the U.S. Virgin Islands. The scope of the project (project purposes, location) has not changed from the 1982 Detailed Project Report and Environmental Assessment.

Turpentine Run - The primary study area is the Nadir development along Turpentine Run, located on the southeastern end of the island of St. Thomas, USVI.

**Problem Statement:**

Río Culebrinas Puerto Rico Detailed Project Report was approved in 2004. An update report was started and compiled in 2015 which culminated with the update being terminated in 2016 due to escalation in costs. The update addendum was done to reinstate the project and to confirm the previous analysis of alternatives and impacts as to:

- Updating the costs and benefit analysis,
- Refinements needed to the 2004 levee design to meet the then current USACE design and construction standards,
- Implementation of a mitigation plan to offset wetland impacts,
- Update the environmental assessment based on the levee design refinements,
- No reformulation was done.

Savan Gut U.S. Virgin Islands Detailed Project Report was approved in 1982. The work under the first contract was completed in 1989. However construction was never begun on the second contract due to unexpected high bids for the work.

Turpentine Run U.S. Virgin Islands Detailed Project Report was completed in 1994. PCA was not executed due to lack of sponsor funds. Damaging flooding continues during significant storm events on all of these projects.

The scope of these Validation Studies are not expected to require any project reformulation and will focus on three primary factors: economic justification, environmental acceptability and technical feasibility, while validating that the previously approved project features continue to be appropriate to meet the project needs.

**Federal Interest:** Each of these projects had previously authorized Continuing Authority Projects confirming their Federal interest.

**Risk Identification:** The risks associated with these projects are minimal. These studies are not anticipated to be technically, institutionally, or socially challenging. The projects will each utilize the same design and construction techniques that were promoted in the

original project reports. The projects will not be justified by life safety nor do they involve significant threat to human life/safety assurance. Failure of the projects would not pose a threat to human life.

## 1. FACTORS AFFECTING THE LEVELS OF REVIEW

**Scope of Review.** Discuss factors affecting the risk informed decisions on the appropriate levels of review. Provide enough detail to assess the level of review and to support the RMO decision on the reviews and the review team(s) expertise. Discuss how each factor affects the level of review or if it does not affect the review. See EC 1165-2-217, Section 11(2) for other considerations that may need to be addressed to help scope the independent reviews.

- Will the study likely be challenging? These studies are not anticipated to be technically, institutionally, or socially challenging. The projects will utilize the same design and construction techniques that were promoted in the original project reports previously coordinated with the public. Scoping efforts will continue with the current Environmental Assessments to identify any social challenges that may arise as a result of this project.
- Provide a preliminary assessment of where the project risks are likely to occur and assess the magnitude of those risks.  
Currently, significant urban flooding occurs within the study areas with each significant storm/precipitation event. The project features proposed in the original studies were designed to address the situation and failure of any feature would not be expected to cause damages beyond what is currently experienced. The projects are not expected to adversely affect existing fish and wildlife habitat or cultural resources.
- Is the project likely to be justified by life safety or is the study or project likely to involve significant life safety issues?  
The projects will not be justified by life safety nor involve significant threat to human life/safety assurance. Failure of any of the projects would not pose a threat to human life.
- Has the Governor of an affected state requested a peer review by independent experts? The Governor of Puerto Rico nor the U.S. Virgin Islands has requested a peer review by independent experts.
- Will the project likely involve significant public dispute as to the project's size, nature, or effects? No significant public dispute is anticipated based on the previous history of any of the projects.
- Is the project/study likely to involve significant public dispute as to the economic or environmental cost or benefit of the project?  
No significant public dispute to the economic or environmental costs or benefits is anticipated.
- 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?

The information in the study documents and project designs will not be based on novel methods, involve the use of 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. The projects will each use the same design and construction techniques that were previously proposed and on similar projects.

- Does the project design require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design/construction schedule?  
The proposed project designs do not require any additional redundancy, resilience, or robustness.
- Is the estimated total cost of the project greater than \$200 million?  
No, the estimated project costs of each project do not exceed \$200 M.
- Will an Environmental Impact Statement be prepared as part of the study?  
An updated Environmental Assessment (EA) will be prepared as part of each study.
- Is the project expected to have more than negligible adverse impacts on scarce or unique tribal, cultural, or historic resources?  
The projects are not expected to adversely affect tribal, cultural, or historical resources.
- Is the project expected to have substantial adverse impacts on fish and wildlife species and their habitat prior to the implementation of mitigation measures?  
The projects are not expected to have substantial adverse impacts on fish and wildlife species. Agency consultations will be held and documented for the review process.
- 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 original EA's did not identify any adverse impacts to threatened or endangered listed species nor critical habitat within the project areas. An updated analysis will be conducted during the preparation of new Environmental Assessment for each effort.

## 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 fulfils the project quality requirements of the Project Management Plan.

**Agency Technical Review.** ATR is performed by a qualified team from outside the home district that is not involved in the day-to-day production of the project/product. These teams will be comprised of certified USACE personnel. The ATR team lead will be from outside the home MSC. If significant life safety issues are involved in a study or project a safety assurance review should be conducted during ATR.

**Independent External Peer Review.** Type I IEPR may be required for decision documents under certain circumstances. This is the most independent level of review, and is applied in cases that meet criteria where the risk and magnitude of the project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision is made as to whether Type I IEPR is appropriate.

**Cost Engineering Review.** All decision documents shall be coordinated with the Cost Engineering Mandatory of Expertise (MCX). The MCX will assist in determining the expertise needed on the ATR and IEPR teams. The MCX will provide the Cost Engineering certification. The RMO is responsible for coordinating with the MCX for the reviews. These reviews typically occur as part of ATR.

**Model Review and Approval/Certification.** EC 1105-2-412 mandates the use of certified or approved models for all planning work to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions.

**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. These reviews are not further detailed in this section of the Review Plan.

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**

(Include a table listing each product, the review type, and review schedule and cost. Indicate if the review is complete.)

(Update this table at each IPR and SMART Planning Milestone meeting and present it to the Vertical Team.)

<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>
Validation Report	DQC	05 DEC 2018	20 DEC 2018	\$15,000	No
Validation Report	ATR with concurrent MSC & HQ Review	20 DEC 2018	21 JAN 2019	\$25,000	No
EA	DQC	TBD	TBD	\$5,000	No
EA	ATR	TBD	TBD	\$10,000	No
Validation Report & EA & Chief's Report	MSC/HQ Review	01 MAR 2019	15 MAR 2019	n/a	No
Chief's Report & Final EA	State & Agency Review	25 MAR 2019	24 APR 2019	n/a	No

NOTE: This table may also be used to identify future review work in follow-on phases of a project. This may include products prepared during the pre-construction engineering and design phase or products prepared as part of planning for the Operations and Maintenance phase of a project.

**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 also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc.).
Planning	A senior water resources planner with experience in flood risk management projects and associated planning reports and documents.
Economics	A senior economist with demonstrated experience evaluating flood risk management project benefits and costs. Experience with evaluating the appropriateness of cost effectiveness and incremental cost analysis (CE/ICA), as applied to dollar costs & ecosystem restoration benefits; familiarity with the USACE tool IWR-PLAN. Experience in identifying incidental benefits (preferably flood risk management and water supply) is required.
Environmental Resources/NEPA Compliance	A senior biologist/ecologist/environmental engineer, preferably with experience in flood risk management and familiarity with freshwater, coastal and estuarine systems. They must be able to review for NEPA compliance (including cultural resources coordination) and quality and applicability of ecosystem benefits evaluations.
Hydrology/Hydraulics	The hydrology and hydraulics team member should be a registered professional with a minimum of 5 years' experience that encompasses detention/retention areas, embankments, weirs and flow way modeling and design.
Civil Engineering	The team member should be a registered professional engineer with experience in civil/site work.
Cost Engineering	The team member should be a registered professional with experience in cost engineering.
Real Estate	The real estate reviewer should be a senior real estate specialist with experience in ecosystem restoration projects.

**Documentation of DQC.** Quality Control should be performed continuously throughout the study. 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, page 19, 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 ATR will assess whether the analyses are technically correct and comply with guidance, and that documents explain the analyses and results in a clear manner. An RMO manages ATR. The review is conducted by an ATR Team whose members are 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 disciplines and required expertise for this ATR Team.

**Table 3: Required ATR Team Expertise**

<b>ATR Team Members/Disciplines</b>	<b>Expertise Required</b>
ATR Lead	The ATR lead should be a senior professional with extensive experience in preparing Civil Works decision documents and similar studies and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. The ATR lead may also serve as the reviewer for a specific discipline.
Plan Formulator	The plan formulator should be a senior water resources planner with experience in ecosystem restoration projects and associated planning reports and documents. Plan formulation ATR certification is required.
Economics	A senior economist with demonstrated experience evaluating flood risk management project benefits and costs. Experience with evaluating the appropriateness of cost effectiveness and incremental cost analysis (CE/ICA), as applied to dollar costs & ecosystem restoration benefits; familiarity with the USACE tool IWR-PLAN. Experience in identifying incidental benefits (preferably flood risk management and water supply) is required.

<b>ATR Team Members/Disciplines</b>	<b>Expertise Required</b>
Environmental Resources/NEPA Compliance	A senior biologist/ecologist/environmental engineer, preferably with a minimum of 10 years of experience in ecosystem restoration and familiarity with freshwater, coastal and estuarine systems. They must be able to review for NEPA compliance (including cultural resources coordination) and quality and applicability of ecosystem benefits evaluations.
Civil Engineering	The team member should be a registered professional engineer with 5 years minimum experience in civil/site work. Related construction experience is also desired.
Cost Engineering	The team member should be a registered professional with a minimum of 5 years' experience in cost engineering. Related construction experience is also desired.
Hydrology and Hydraulics	The hydrology and hydraulics team member should be a registered professional with a minimum of 5 years' experience that encompasses detention/retention areas, embankments, weirs and flow way modeling and design.
Real Estate	The real estate reviewer should be a senior real estate specialist with experience in ecosystem restoration projects.
Risk Analysis	The reviewer will be experienced with performing and presenting risk analyses in accordance with ER 1105-2-101 and other guidance, including familiarity with how information from the various disciplines involved in the analysis interact and affect the results.
Climate Preparedness and Resilience	One member of an Agency Technical Review Team for projects covered by this ECB must be certified by the Climate Preparedness and Resilience CoP in the Corps of Engineers Review Certification and Access Program (CERCAP).

**Documentation of ATR.** DrChecks will be used to document all ATR comments, responses and resolutions. Comments should be limited to those needed to ensure product adequacy. If a concern cannot be resolved by the ATR 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. The ATR Lead will prepare a Statement of Technical Review (see EC 1165-2-217, Section 9), for the draft and final reports, certifying that review issues have been resolved or elevated. ATR may be certified when all concerns are resolved or referred to the vertical team and the ATR documentation is complete.

### **c. INDEPENDENT EXTERNAL PEER REVIEW**

#### **(i) Type I IEPR.**

**Decision on Type I IEPR.** None of the mandatory triggers for Type I IEPR have been met.

- If the document doesn't meet the Type I IEPR mandatory triggers in EC 1165-2-217, discuss:

- the consequences of non-performance on project economics, the environmental and social well-being (public safety and social justice);

The Flood Risk Management Projects are expected to address current flood risks in the project areas. Construction of the features proposed are not expected to produce significant risks to public safety nor social justice issues.

- if the product is likely to contain influential scientific information or highly influential scientific assessment;

The projects will not contain influential scientific information or highly influential scientific assessment.

- If and how the decision document meets any of the possible exclusions described in EC 1165-2-217.

Additionally, this flood risk management project satisfies the criteria in EC 1165-2-217, paragraph 11.d(4)(a) for eligibility exclusion from Type I IEPR. The projects involve construction of small features to modify the direction of precipitation run off to reduce adverse urban flood impacts. The activity is one in which there is ample experience within the USACE and industry to perform and there is minimal life safety risk. The remaining work on the proposed project is so limited in scope that the study would not significantly benefit from Type I IEPR.

Additionally the original report DPRs were approved for construction and no reformulation has taken or will take place. The only changes are to meet current design/construction requirements that will further reduce risk for these projects.

And specifically, the 2015 Draft Río Culebrinas DPR Addendum Update was formally granted an IEPR Exemption due to the limited effort and no reformulation. As the current Río Culebrinas CAP Conversion Report contains less analysis than the 2015 Draft Río Culebrinas Addendum Update the current effort should keep the IEPR exemption that was granted for the 2015 update effort.

**(ii) Type II IEPR.**

The second kind of IEPR is Type II IEPR. These Safety Assurance Reviews are managed outside of the USACE and are conducted on design and construction for hurricane, storm and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. A Type II IEPR Panel will be convened to review the design and construction activities before construction begins, and until construction activities are completed, and periodically thereafter on a regular schedule.

**Decision on Type II IEPR.** Based on the project as currently envisioned, the District chief of engineering, as the Engineer-In-Responsible-Charge, has concluded that a Type II IEPR Safety Assurance Review of this project is not required for this decision document. A risk-informed decision concerning the timing and the appropriate level of reviews for the project implementation phase will be prepared and submitted for approval in an updated Review Plan prior to initiation of the design/implementation phase of this project to reassess the need for a Type II IEPR Safety Assurance Review during the project implementation phase.

**d. MODEL CERTIFICATION OR APPROVAL**

EC 1105-2-412 mandates the use of certified or approved models for all planning activities to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. Planning models are any models and analytical tools used to define water resources management problems and opportunities, to formulate potential alternatives to address the problems and take advantage of the opportunities, to evaluate potential effects of alternatives and to support decision making. The use of a certified/approved planning model does not constitute technical review of a planning product. The selection and application of the model and the input and output data is the responsibility of the users and is subject to DQC, ATR, and IEPR. Currently the confirmation report is not contemplated to have any additional plan formulation or alternative analysis conducted.

**Table 5: Planning Models.** The following models may be used to develop the decision document:

Model Name and Version	Brief Model Description and How It Will Be Used in the Study	Certification / Approval
N/A		

EC 1105-2-412 does not cover engineering models used in planning. The responsible use of well-known and proven USACE developed and commercial engineering software will continue. The professional practice of documenting the application of the software and modeling results will be followed. The USACE Scientific and Engineering Technology Initiative has identified many engineering models as preferred or acceptable for use in studies. These models should be used when appropriate. The selection and application

of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR. Currently the confirmation report is not contemplated to have any additional plan formulation or alternative analysis conducted. However additional engineering analysis will be conducted during PED to complete the design of the project.

**Table 6: Engineering Models.** These models may be used to develop the decision document:

<b>Model Name and Version</b>	<b>Brief Model Description and How It Will Be Used in the Study</b>	<b>Approval Status</b>
TBD	TBD	
TBD	TBD	

**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. The team is identified in Attachment 1 of this Review Plan. 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 as well as SMART Planning Milestone meetings. These engagements may include In-Progress Reviews, Issue Resolution Conferences or other vertical team meetings plus the milestone events.

The input from the Policy Review team should be documented in a Memorandum for the Record (MFR) produced for each engagement with the team. The MFR should be distributed to all meeting 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.**

Representatives from the Office of Counsel will be assigned to participate in reviews. 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**

RÍO CULEBRINAS PROJECT DELIVERY TEAM			
Name	Office	Position	Phone Number
	CESAJ-PM-EE	Project Manager	904.232.1018
	CESAJ-PD-D	Planning, PTL	904.232.1818
	CESAJ-EN-DL	Engineering, ETL	904.232.2385
	CESAJ-EN-TC	Engineering Cost	904.232.2408
	CESAJ-EN-WH	Engineering Hydraulic Design	904.232.1197
	CESAJ-EN-GS	Engineering Geotech	904.232.1657
	CESAJ-PD-D	Planning Socioeconomics	904.232.1652
	CESAJ-PD-EC	Planning Environmental	904.232.2918
	CESAJ-PD-ES	Planning Cultural	904.232.1577
	CESAJ-RE-A	Real Estate Acquisition	904.232.1656
	CESAJ-OC	Office Council	904.232.1102

TURPENTINE RUN PROJECT DELIVERY TEAM			
Name	Office	Position	Phone Number
	CESAJ-PM-EE	Project Manager	904.232.1454
	CESAJ-PD-PW	Planning, PTL	904.232.1125
	CESAC-PM-PL	Planning, Economics	843.329.8068
	CESAJ-EN-DL	Engineering, ETL	904.232.3448
	CESAJ-EN-TC	Engineering Cost	904.232
	CESAJ-EN-WH	Engineering Hydraulic Design	904.232.1402
	CESAJ-EN-GG	Engineering Geotech	904.232.1074

TURPENTINE RUN PROJECT DELIVERY TEAM			
	CESAJ- PD-EC	Planning Environmental	904.232.2918
	CESAJ- PD-ES	Planning Cultural	904.232.3028
	CESAJ- RE-A	Real Estate Acquisition	904.232.1656
	CESAJ- OC	Office Council	904.232.1102

SAVAN GUT P-II PROJECT DELIVERY TEAM			
Name	Office	Position	Phone Number
	CESAJ- PM-EE	Project Manager	904.232.1454
	CESAJ- PD-PW	Planning, PTL	904.232.1125
	CESAC- PM-PL	Planning, Economics	843.329.8068
	CESAJ- EN-DL	Engineering, ETL	904.232.3448
	CESAJ- EN-TC	Engineering Cost	904.232
	CESAJ- EN-WH	Engineering Hydraulic Design	904.232.1402
	CESAJ- EN-GG	Engineering Geotech	904.232.1074
	CESAJ- PD-EC	Planning Environmental	904.232.2918
	CESAJ- PD-ES	Planning Cultural	904.232.1557
	CESAJ- RE-A	Real Estate Acquisition	904.232.1656
	CESAJ- OC	Office Council	904.232.1102

DISTRICT QUALITY CONTROL TEAM			
Name	Office	Position	Phone Number
	CESAJ- PD-PW	PD Peer Review Manager	904.232.1818
	CESAJ- PD-PN	PD-DQC Review Coordinator	904.232.1238
	CESAJ- EN-QC	EN DQC Review Coordinator	904.232.3131

AGENCY TECHNICAL REVIEW TEAM			
Name	Office	Position	Phone Number
	CESAD	Plan Formulation	404.562.5226

VERTICAL/POLICY REVIEW TEAM			
Name	Office	Position	Phone Number
	CESAD- PDP	Plan Formulation	404.562.5206
	CESAD- PDP	Environmental	404.562.5227
	CESAD- RBT	Structural Engineering	404.562.5120
	CESAD- RBT	Engineering Hydrology & Hydraulics	404.562.5128
	CESAD- RBT	Cost Engineering	404.562.5109
	CEHQ- CEMP-CR	Real Estate	202.761.7238
	CEHQ- CECW-PC	Economist	202.761.8643
	CEHQ- CECW-PC	Plan Formulation	202.761.0668
	CEHQ- CECW-EC	Climate Preparedness & Resilience	202.761.4163.
	CEHQ- CECW-PC	Environmental Policy	202.761.0523