

REVIEW PLAN

SAVANNAH RIVER BASIN COMPREHENSIVE STUDY



**US Army Corps
of Engineers®**

Savannah District

May 2010
Revised August 2010
Revised September 2010

REVIEW PLAN

SAVANNAH RIVER BASIN COMPREHENSIVE FEASIBILITY STUDY

TABLE OF CONTENTS

<u>TITLE</u>	<u>PAGE NUMBER</u>
1. PURPOSE.....	1
2. STUDY BACKGROUND.....	2
Project Authority.....	2
Project Description.....	3
Project Purpose.....	3
3. PROJECT DELIVERY TEAM (PDT).....	5
4. REVIEWS.....	5
5. DISTRICT QUALITY CONTROL (DQC).....	6
6. AGENCY TECHNICAL REVIEW (ATR).....	6
7. INDEPENDENT EXTERNAL PEER REVIEW (IEPR) PROCESS.....	8
Peer Review Schedule.....	9
8. POLICY AND LEGAL COMPLIANCE REVIEWS.....	9
9. MODEL CERTIFICATION AND APPROVAL.....	9
10. PUBLIC PARTICIPATION.....	10
11. RISK MANAGEMENT.....	11
12. NON-FEDERAL SPONSOR’S COST SHARE AND WORK-IN-KIND CONTRIBUTIONS.....	11

REVIEW PLAN

SAVANNAH RIVER BASIN COMPREHENSIVE FEASIBILITY STUDY

1. PURPOSE

The Review Plan (RP) for the Savannah River Basin Comprehensive (SRBC) Feasibility Study provides a series of peer review actions to ensure quality products are developed during the course of the study. The RP is intended to describe the processes that will be implemented to (independently from the Project Team) evaluate the technical sufficiency of the feasibility study and is a component of the latest Project Management Plan (PMP).

The RP is a collaborative product of the Project Delivery Team (PDT) and the Planning Center of Expertise for Ecosystem Restoration (ECO-PCX), the Planning Center of Expertise for Water Management and Reallocation Studies (WMRS-PCX), and the Planning Center of Expertise for Flood Risk Management (FRM-PCX). The ECO-PCX will manage the peer review processes for two of the three phases, the Drought Plan Modification Phase and the Comprehensive Evaluation of Storage Allocation Phase, and the WMRS-PCX shall manage the reviews for the third phase, the Water Supply Reallocation Phase. As one of the main project purposes for the projects being evaluated is flood damage reduction the FRM-PCX will be involved on an as needed basis throughout the study process. The reviews for this study are the District Quality Control reviews, Agency Technical Reviews (ATR), and the Independent External Peer Review (IEPR). The RP will describe the level of review needed and detail how that review will be accomplished. The components of this RP were developed pursuant to the requirements of EC 1165-2-209, Civil Works Review Policy, 31 January 2010.

District Quality Control (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, including 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.

Agency Technical Review (ATR) is an in-depth review managed by the Corps and conducted by a qualified team (outside the home district) that has not been involved in the study. The ATR lead shall be from outside the home MSC. The ATR team reviews work products to assure the proper application of established criteria, regulations, laws, codes, principles and professional practices. Reviewers will be individuals that have not

worked on the study and otherwise be free from conflicts of interest related to the proposed project. ATR is intended to confirm that such work was performed in accordance with clearly established professional principles, practices, codes and criteria informed by Engineering Regulation (ER) 1105-2-100.

Independent External Peer Review (IEPR) is the most independent level of review. It is applied when the project meets certain criteria of risk and magnitude such that review by an outside team is warranted. IEPR is conducted by a qualified team from outside USACE and is managed by an outside eligible organization. IEPR will be conducted where the analyses are based on novel methods; present complex challenges for interpretation, contains precedent-setting methods or modes, presents conclusions that are likely to change prevailing practices, or is likely to affect policy decisions that have a significant impact. In the absence of a technical requirement, high project cost by itself may necessitate IEPR.

The Savannah District will maintain copies of the most current Peer Review Plans for all studies on its public website for access by all interested parties. This Review Plan will be updated at least three times: when the without-project conditions are identified; when the array of alternatives to be considered is identified; and when the preferred alternative is identified.

2. PROJECT/STUDY BACKGROUND

Study Authorization: The Water Resources Development Act of 1996, Section 414 (Public Law 104-303) provides the Secretary of the Army authority to address current and future needs for flood damage prevention and reduction, as well as water supply and other related resource needs. The scope of the study encompasses the 44-county area within the Savannah River Basin. The study includes consideration of water resources issues that fall within the traditional civil works mission of the Corps.

The following language is the study authorization:

“Sec. 414 of the Water Resources Development Act of 1996, Section 414 (Public Law 104-303). Savannah River Basin Comprehensive Water Resources Study (a) In general--The Secretary shall conduct a comprehensive study to address the current and future needs for flood damage prevention and reduction, water supply, and other related water resources needs in the Savannah River Basin. (b) Scope--The scope of the study shall be limited to an analysis of water resources issues that fall within the traditional civil works missions of the Army Corps of Engineers. (c) Coordination--Notwithstanding paragraph (2), the Secretary shall ensure that the study is coordinated with the Environmental Protection Agency and ongoing watershed study by the Agency of the Savannah River Basin.”

The study involves a review of the current authorized project purposes and operating plans for Hartwell, Richard B. Russell and J. Strom Thurmond reservoirs to determine if changes in storage allocations or operations are warranted to meet current and future

needs for flood control, water supply, fish and wildlife, drought management, water quality, recreation and other related purposes. Water supply is a main concern in the basin. Population growth is causing a number of communities to look to the reservoirs in the Savannah Basin for future supply. This includes populations outside the basin in both South Carolina and Georgia. Inter-basin transfers would be required for these projects to meet those needs. Water management during droughts is also a major issue, which the Corps has been requested to examine. Environmental organizations have requested the Corps consider the environmental benefits that would result from the restoring natural variability to downstream river flows.

Project Location and Description: The project area consists of the main stem of the Savannah River Basin, which includes all or portions of 44 Counties within Georgia, South Carolina, and North Carolina. The surface area of the basin consists of approximately 10,577 square miles; of which approximately 5,821 are in Georgia, 4,581 are in South Carolina, and 175 square miles lie in North Carolina. The states of Georgia and South Carolina are the non-Federal sponsors for all three remaining phases.

The Corps' four existing projects on the Savannah River can be summarized as follows:

- Hartwell Dam and Lake
 - Dam located at River Mile 305
 - Reservoir covers 55,950 acres at full pool
 - Reservoir provides 2,549,600 acre-feet of storage at full pool
 - Power generation of 396,000 kilowatts
 - Includes several recreational parks
- Richard B. Russell Dam and Lake
 - Dam located at River Mile 275
 - Reservoir covers 26,650 acres at full pool
 - Reservoir provides 1,026,244 acre-feet of storage at full pool
 - Power generation of 600,000 kilowatts
 - Includes several recreational parks
- J. Strom Thurmond Dam and Lake
 - Dam located at River Mile 237.7
 - Reservoir covers 70,000 acres at full pool
 - Reservoir provides 2,510,000 acre-feet of storage at full pool
 - Power generation of 280,000 kilowatts
 - Includes several recreational parks
- Savannah River Below Augusta Navigation Project
 - Lock and Dam located at River Mile 187
 - Channel 9-feet deep and 90-feet wide; not maintained for 30 years
 - Includes one recreational park

Project Purpose: The Corps presently operates and manages four Congressionally-authorized water resource projects on the Savannah River. Those are the following:

- Hartwell Dam and Lake
- Richard B. Russell Dam and Lake
- J. Strom Thurmond Dam and Lake

- Savannah River Below Augusta Navigation Project

The first three are multi-purpose projects with substantial dams and reservoirs, while the fourth is a shallow-draft navigation project (including a lock and dam).

The Corps also operates and manages the Savannah Harbor Navigation Project, an active deep-draft harbor that is located on the lower 20 miles of the Savannah River. This study will not consider modifications to that project, but will detail any potential impacts that changes in the upper portion of the basin have on the water regime in Savannah Harbor.

The purpose of the Savannah River Basin Comprehensive Study is to address the current and future needs of the basin for flood risk management (FRM), hydropower, water supply and water quality, fish and wildlife management, recreation, and other water resource related issues. The overall objective of this study is to identify how to manage and/or modify the Corps' existing four authorized projects on the river to best meet today's water resource needs. The SRBC study encompasses four distinct phases. The first phase, which consisted of a preliminary evaluation of reallocation scenarios and the development of a Drought Contingency Plan that was implemented in the August 2006 environmental assessment, has already been completed. This Review Plan specifically addresses Phase 2 Drought Plan Modification, Phase 3 Water Supply Reallocation, and Phase 4 Comprehensive Evaluation of Storage Allocation. The primary Centers of Expertise for this RP will be the ECO-PCX and the WMRS-PCX.

In Phase 1, the Corps obtained an updated inflow dataset; developed and improved the HEC-RESSIM model of the Savannah Basin to include pumped storage, system power, and drought triggers; and conducted a water use survey. Data was used to study and change drought operations in response to the 1998-2002 drought of record in order to reduce impacts on project purposes. An environmental assessment was published to allow implementation of new drought rules from the Drought Contingency Plan derived from this phase.

Phase 2, will reassess the drought rules developed in Phase 1 and determine if further modifications are necessary. If further conservation measures are necessary, alternatives would be developed and analyzed using the most recent drought of record that occurred from 2007-2009. Alternatives would focus on maintaining minimal flow discharges from J. Strom Thurmond within the limits of previous NEPA documents.

Phase 2 will only evaluate the need to change drought trigger levels. It will not recommend changes to system guide curves or revise the volume of flood control storage in each of the three reservoirs. Any modifications to drought triggers are not expected to increase the risk of failure of any of the four projects and are not expected increase the risk to threat to human life. Phase 2 would attempt to limit adverse impacts of a drought on the resources served by three multi-purpose projects and on the river downstream of the projects. The anticipated construction cost for this phase is estimated to be less than \$10 million and an EA is expected to be required. The ECO-PCX would be responsible for the ATRs.

Phase 3, would evaluate reallocating water within the reservoirs from other authorized purposes to water supply using a systems approach for tandem reservoirs rather than as individual projects. The reallocations of water are not expected to increase the risk of failure of any of the three dams and therefore are not expected to create any significant threat to human life. A new authorization may be required if Congressionally-authorized project purposes are significantly changed. The construction cost for this phase is estimated to be less than \$5 million and an EA is expected to be required. The WMRS-PCX would be responsible for the ATRs.

Phase 4 would be a comprehensive examination of modifications to the three-reservoir system to change reservoir operations during flood, normal, and drought conditions. Alternatives would likely include reallocating existing storage within the reservoirs among project purposes and quantifying benefits associated with changes. This phase will incorporate the ecosystem flow restoration along with a comprehensive look at the entire Savannah River Basin. No significant threat to human life is anticipated within the study or resultant project modifications. However, if any significant threat to human life is identified, the Type I IEPR will include a Safety Assurance Review (SAR) and the PCX will coordinate with the USACE Risk Management Center, as appropriate, in developing the charge for the IEPR. The construction cost for this phase could be substantial and would be approximately \$30 million, with an EIS required. Therefore, both ATRs and an IEPR are required. The ECO-PCX would be responsible for the ATRs and IEPR. Phase 4 is the only phase that will likely require Congressional Authorization.

3. THE PROJECT DELIVERY TEAM (PDT)

The PDT is an interagency team directly involved in the development of the decision documents. At this point, the PDT will be the same people for each phase. Disciplines included on the PDT will include but may not be limited to the following:

Project Delivery Team

Discipline	Office/Agency
Project Manager	CESAS-PM-C
Plan Formulator	CESAS-PD
Biologist	CESAS-PD
Economist	CESAS-PD
Cultural Resources	CESAS-PD
Real Estate	CESAS-RE
EN Hydraulics & Hydrology	CESAS-EN-H
Cost Estimating	CESAC-EN
State of Georgia	
State of South Carolina	

4. REVIEWS

There are three levels of peer review: District Quality Control (DQC), Agency Technical Review (ATR), and Independent External Peer Review (IEPR). This study has three remaining phases, which are Phases 2, 3, and 4. All three phases qualify for the DQC and ATRs. The DQC will be managed by Savannah District in accordance with the Major Subordinate Command (MSC) and the Savannah District Quality Management Plans.

The Planning Center of Expertise for Phases 2 and 4 will be the ECO-PCX, while the Planning Center of Expertise for Phase 3 would be the WMRS-PCX, both centers would use Dr. Checks. SAS will be responsible for setting the reviews up in DrChecks. ATRs will be conducted on all three phases. Phase 4 will require an Environmental Impact Statement (EIS) and thus will warrant an IEPR.

5. DISTRICT QUALITY CONTROL (DQC)

District Quality Control is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). All studies undergo DQC. 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.

Quality checks and reviews occur during the development process and are carried out as a routine management practice. Quality checks may be performed by staff responsible for the work, such as supervisors, work leaders, team leaders, designated individuals from the senior staff, or other qualified personnel. However, they should not be performed by the same people who performed the original work, including managing/reviewing the work in the case of contracted efforts.

PDT reviews are performed by members of the PDT to ensure consistency and effective coordination across all project disciplines. Additionally, the PDT is responsible for a complete reading of any reports and accompanying appendices prepared by or for the PDT to assure the overall coherence and integrity of the report, technical appendices, and the recommendations before approval by the District Commander.

6. AGENCY TECHNICAL REVIEW (ATR)

During the planning process, ATR will be conducted prior to and be discussed in: the Feasibility Scoping Meeting (FSM), Intermediate Milestones and Alternative Formulation Briefing (AFB), the draft decision and NEPA documents, and the final decision and NEPA documents. In addition, interim ATR reviews may occur for key technical products, such as hydrology modeling, and economic and environmental inventories prior to performing subsequent analyses that depend on these products. In order to make ATR comments and responses a permanent part of study documentation, they will be entered into a comment tracking software program DR CHECKS.

Since separate products are envisioned for each remaining study phase, ATRs will be required for each phase. The ATR for the FSM would include at a minimum Plan Formulation, Environmental, Economics and Hydraulics and Hydrology for a total of \$5,000 for the Plan Formulator and \$3,000 for each of the other ATR team members, which would be approximately \$14,000.

Intermediate milestones that require limited ATRs for Phases 2 and 3 are the In Progress Reviews (IPR) with the MSC and HQUSACE. The ATR reviewer (Lead ATR/Plan formulator) would participate in these meetings and provide guidance as they believe is warranted, and they would document this via Dr. Checks. The approximate cost for each of these ATRs is \$10,000.

For Phase 4, SAS anticipates two interim products for each of the disciplines mentioned above. For this phase, the ATR team would consist of experts in engineering, economics, environmental, plus a lead ATR/plan formulator. The interim ATRs for this phase are estimated to cost \$90,000.

According to the EC, interim ATRs should occur for key technical products. The ATRs for the Alternative Formulation Briefing (AFB) for Phases 2 and 3 would include \$5,000 for the Plan Formulator, \$5,000 for the Economist, \$5,000 for the Environmental team member, \$5,000 for the H&H team member and \$5,000 for the Real Estate Specialist for a total of \$25,000 each. For Phase 4, all ATR members will be assigned \$10,000 each for the review of the AFB for a total of \$60,000. This is because of the complexity and size of this phase.

Phase 2 and 3 will produce one final product each, and the ATRs for each of those would include all of the disciplines, including the Cost Estimator if needed, for each phase. Each ATR member will be allotted \$5,000 for his/her review, for a total of \$25,000 for Phase 2 and \$25,000 for Phase 3. Because of the complexity of Phase 4, each ATR team member will be allotted \$10,000 including cost estimating for a total of \$60,000. Phase 4 will produce one final report. Phase 4 also requires an IEPR which should include independent recognized experts from outside of the USACE with substantial experience in Plan Formulation, Engineering, Economics, and Environmental.

In all phases, the ATR reviewers' mission will be to develop, maintain, and apply the best and most appropriate nationally available expertise, science, and engineering technology for planning of Ecosystem Restoration projects and Water Management and Reallocation projects. Each should support national goals of enhancing professional and technical development, creating and sharing knowledge, and promoting communication with a specific focus. The following disciplines will participate in the ATR of the reports for each phase of the study:

- (1) ATR Lead/Plan Formulation – The ATR Leads would also act as the plan formulation reviewer. The goal is for the ATR Lead/plan formulation reviewer to have recent experience in conducting the plan formulation process for Ecosystem Restoration for phases 2 and 4 and Water Management and Reallocation for Phase 3. The ATR

Lead/Plan formulator should be able to identify goals and objectives, recognizing planning constraints, distinguishing project alternatives, screening and evaluating project alternatives and selecting a recommended plan.

(2) Environmental - The ATR team members would be able to review the Environmental Assessments (EA) for Phases 2 and 3, review an EIS for Phase 4, and be familiar with Ecosystem Restoration projects for Phases 2 and 4, and Water Management and Reallocation projects for Phase 3. The habitat types expected to be restored include the following: Riverine emergent wetland, Riverine forested wetlands (bottomland hardwoods, riparian shrubs), and Riverine fishery habitats.

(3) Economics – The ATR team members would be Economists and have recent experience with an Ecosystem Restoration project for Phase 4, and a Water Management and Reallocation project, including hydropower, for Phase 3.

(4) Hydraulics and Hydrology – The ATR team members will have a good understanding of Ecosystem Restoration projects for Phases 2 and 4, Water Management and Reallocation for Phase 3, and the required modeling. They will also have a thorough understanding of coordination requirements with federal and state agencies. Reviewers should have a minimum of 5 years of combined experience on reallocation studies and ecosystem restoration projects. Reviewers need training on the referenced models as well as a minimum of 1 year experience with these models.

(5) Cost Engineering – The cost estimator will review the Rough Order Magnitudes (ROM) of the alternatives and also the final costs for the selected plan. A Cost Engineering Directory of Expertise (DX) located in the USACE Walla Walla District (NWW) will provide the cost engineering reviews and required certification. The Cost Engineering DX will review the final cost estimate and construction schedule and certification.

(6) Real Estate - A Real Estate specialist will be needed as a part of the ATR for Phase 4 only.

7. INDEPENDENT EXTERNAL PEER REVIEW (IEPR) PROCESS

Independent External Peer Review (IEPR) is the most independent level of review. It is applied when the project meets certain criteria of risk and magnitude such that review by an outside team is warranted. IEPR is conducted by a qualified team from outside USACE and is managed by an outside eligible organization. Because Phase 4 is a comprehensive phase, the ATR team and IEPR team should consist of seasoned individuals who have experience in comprehensive studies. No significant threat to human life is anticipated within the study, however, if any significant threat to human life is identified, the Type I IEPR will include an SAR and the PCX will coordinate with the USACE Risk Management Center as appropriate in developing the IEPR.

The deliverable for Phase 2 (Interim Report) is the updated Drought Contingency Plan. The deliverable for Phase 3 is a Water Supply Reallocation Report. An IEPR is not likely to improve the quality of the recommendation for Phases 2 and 3, and does not warrant resource expenditures required to secure it. Therefore, SAS is requesting a waiver of an IEPR from Phase 2 and Phase 3. There will be a final report for Phase 4 with interim reports for phase 2 and 3 that are fed into that final report. An IEPR is required for Phase 4 because this phase requires an EIS. All of the disciplines identified as being required for ATR will be required for the IEPR for Phase 4.

The IEPR will be documented in a Review Report and SAS will respond in writing to the IEPR comments. All comments and responses will be made available as a decision document via the SAS website.

Review Schedule* and Costs

Study Element	Estimated Schedule Phase 2	Approximate Cost Phase 2	Estimated Schedule Phase 3	Approx. Cost Phase 3	Phase 4	Approximate Cost Phase 4
ATR on FSM	FY 10 4 th Qtr	\$14,000	FY11 3 rd Qtr	\$14,000	FY12 3 rd Qtr	\$14,000
ATR on Interim Products	FY11 2 nd Qtr	\$10,000	FY12 2 nd Qtr	\$10,000	FY13 2 nd Qtr	\$90,000
ATR on AFB	FY11 3 rd Qtr	\$25,000	FY12 4 th Qtr	\$25,000	FY14 1 st Qtr	\$60,000
ATR on Draft and Final Reports	FY11 4 th Qtr	\$25,000	FY13 3 rd Qtr	\$25,000	FY14 4 th Qtr	\$60,000
IEPR		N/A		N/A	FY15 3 rd Qtr	\$250,000
TOTAL	1 year duration	\$74,000	2 years duration	\$74,000	3 years duration	\$474,000

*Scheduling is all dependent on Funding Flow. Phase 2 should begin in the fourth quarter of FY10 and the duration is expected to last for 1 year. Phase 3 should begin in the third quarter of FY11 and the duration is anticipated to last for 1 year. Phase 4 is anticipated to begin third quarter of FY12 and the duration should be approximately 3 years.

8. POLICY AND LEGAL COMPLIANCE REVIEWS

Decision documents are reviewed by the MSC and Office of Water Policy Review (OWPR) for legal and policy compliance. These reviews culminate in a Washington level determination on whether the report recommendations warrant approval and recommendation to higher authority by the Chief of Engineers. It is anticipated that only the Phase 4 final report will be reviewed by the Chief of Engineers as it is the only recommendation that will required Congressional authorization. For legal review, the home district Office of Counsel is responsible for legal reviews of decision documents. District legal certifications are also reviewed by MSC, OWPR, and Army General Counsel during the approval process.

9. MODEL CERTIFICATION AND APPROVAL

Both Planning models and Engineering models will be used on this study. Planning model use must be in accordance with EC 1105-2-407, Planning Models Improvement Program: Model Certification, 31 May 2005. Engineering models are subject to different certification requirements. All Planning models must be approved/certified for use by the HQUSACE Planning staff per EC 1105-2-407. Optimally, models should be identified by the FSM stage of the specific phase of study. Once identified, model review requirements will be coordinated with the appropriate PCX and the Review Plan will be updated as appropriate.

ENGINEERING MODELS

The engineering models used in this study are expected to be: HEC-HMS, HEC-ResSim, HEC-RAS, HEC-EFM, and HEC-FIA. Engineering models are subject to a different approval process. Engineering models are reviewed and receive a designation of either Enterprise, CoP (Community of Practice) Preferred, Allowed for Use, or Not Allowed For Use. The engineering models were a part of that process and were approved as follows:

HEC-HMS	CoP Preferred
HEC-RAS	CoP Preferred
HEC-ResSim	CoP Preferred
HEC-EFM	Allowed For Use
HEC-FIA	CoP Preferred

PLANNING MODELS

It is anticipated that three separate planning models will be used for this study. They are: HEC-FDA - Flood Damage Reduction Benefits, IWR Planning Suites - the Ecosystem Restoration Cost Effectiveness and Incremental Cost Analysis, and the ReDyn - Economic Impact Analysis SWD Super - Energy and Capacity Impacts models. The models which would be used to identify the ecological effects of changes in lake levels and river flows have not yet been identified. Once identified, the Project Management Plan will be updated to reflect the incorporation of work required by the ecological effects model work in each subsequent study phase. In the past, water quality in the downstream river turned out to be a dominant issue and for that topic we used modeling results provided by the States of Georgia and South Carolina. The States ran the hydrodynamic and water quality models that they use to manage their point source discharge program. In Phase 2, we would likely request the States provide that type of information again if we consider alternate downstream river flows.

10. PUBLIC PARTICIPATION

The District is responsible for providing an opportunity for public comments and for considering those comments in the final and draft reports.

Savannah District would hold a public workshop at the start of Phase 2 and 4. SAS anticipates holding at least 2 workshops at the beginning of Phase 4 due to the length of the river basin and the distance of the communities along the river. The District would hold another round of workshops soon after it releases the draft reports for public comment. Public comments will be accepted at and after the public workshops, and until the draft reports are submitted to the MSC. The Project Delivery Team (PDT) will consider all public comments from the public workshop while formulating the alternatives and also will consider the public's opinions while preparing the report.

11. RISK MANAGEMENT

The existing Corps projects on the Savannah River are multi-purpose projects. The modifications that would be investigated for those projects are not expected to increase the risk of failure of any of those three dams. Some alternatives that will be considered in Phase 4 would increase overbank flooding downstream to produce environmental benefits. The study will carefully consider the potential effects that such changes to the downstream hydrograph could have on residents in that area.

Risks will be re-assessed as the study progresses to determine if there is a point at which a Type II IEPR is necessary.

12. NON-FEDERAL SPONSOR'S COST SHARE AND WORK-IN-KIND CONTRIBUTIONS

This study is being conducted as a typical investigation at the standard 50 percent Federal, 50 percent Non-Federal cost share. The cost share expectations are primarily Work-In-Kind contributions and would not exceed the expectations of the Feasibility Cost Share Agreement. As the Non-Federal sponsors (the States of Georgia and South Carolina) submit work products, they will be reviewed for applicability to this study and with input from the team, and recommendation from the Project Manager, they will be approved by the Deputy District Engineer for Project Management (DDPM). All Work-In-Kind materials are subject to Corps ATR review.



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
SOUTH ATLANTIC DIVISION, CORPS OF ENGINEERS
ROOM 10M15, 60 FORSYTH ST., S.W.
ATLANTA GA 30303-8801

CESAD-PDS-P

30 September 2010

MEMORANDUM FOR Commander, Savannah District (CESAS-PM-CT/T. Alan Garrett)

SUBJECT: Revised Savannah River Basin Comprehensive Feasibility Study Review Plan

1. References:

- a. Memorandum, CESAS-PM-C, 28 September 2010, subject as above.
- b. EC 1165-2-209, Civil Works Review Policy, 31 January 2010.

2. In accordance with EC 1165-2-209, Civil Works Review Policy, 31 January 2010, the Review Plan (RP) 31 May 2010, revised September 2010, for the Savannah River Basin Comprehensive Feasibility Study (enclosure), has been reviewed by this office and is approved.

3. The district should take steps to post the SAD-approved Final Revised RP and a copy of this approval memorandum to the SAS District public internet website and provide a link to the Water Management and Reallocation Studies Planning Center of Expertise and the Ecosystem Restoration Planning Center of Expertise for their use. Before posting to the web site, the names of Corps/Army employees should be removed.

4. The SAD point of contact for this action is Ms. Karen Dove-Jackson, CESAD-PDS-P, (404) 562-5225.

WILBERT V. PAYNES
Chief, Planning and Policy
Community of Practice

Encl

CF:
CESWD-PDS-P (Hudgens)
CEMVD-RB-T (Staebell)