



**US Army Corps
of Engineers®**

REVIEW PLAN

LAKE HARTWELL WATER SUPPLY STORAGE REALLOCATION INTEGRATED FEASIBILITY REPORT AND ENVIRONMENTAL ASSESSMENT

Savannah District
P2# 111610

MSC Approval Date: 24 Jan 2019

Last Revision Date:

REVIEW PLAN

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TABLE OF CONTENTS

1. PURPOSE AND REQUIREMENTS.....	1
2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION.....	1
3. STUDY INFORMATION.....	2
4. DISTRICT QUALITY CONTROL (DQC)	4
5. POLICY REVIEW TEAM	5
6. AGENCY TECHNICAL REVIEW (ATR)	6
7. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)	9
8. POLICY AND LEGAL COMPLIANCE REVIEW	12
9. COST ENGINEERING AND ATR MANDATORY CENTER OF EXPERTISE (MSX) REVIEW AND CERTIFICATION.....	12
10. MODEL CERTIFICATION AND APPROVAL	13
11. REVIEW SCHEDULES AND COSTS	13
12. PUBLIC PARTICIPATION.....	14
13. REVIEW PLAN APPROVAL AND UPDATES.....	14
14. REVIEW PLAN POINTS OF CONTACT.....	14
ATTACHMENT I: TEAM ROSTER	15
ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECISION DOCUMENTS.....	16

1. PURPOSE AND REQUIREMENTS

a. Purpose

This Review Plan defines the scope and level of peer review for the Lake Hartwell Water Supply Storage Reallocation Integrated Feasibility Report and Environmental Assessment.

b. References

- (1) Engineer Circular (EC) 1165-2-217, Water Resources Policies and Authorities Review Policy for Civil Works 20 February 2018
- (2) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2011
- (3) Engineer Regulation (ER) 1110-1-12, Quality Management, 21 July 2006
- (4) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007
- (5) Project Management Plan (PMP) for study

c. Requirements

This review plan was developed in accordance with EC 1165-2-217, 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 outlines four general levels of review: District Quality Control (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. In addition to these levels of review, decision documents are subject to cost engineering review and certification (per EC 1165-2-217), and planning models are subject to certification/approval.

2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO for decision documents is typically either a Planning Center of Expertise (PCX) or the Risk Management Center (RMC), depending on the primary purpose of the decision document. The RMO for the peer review effort described in this Review Plan is the PCX for Water Management and Reallocation Studies at SWD.

The RMO will coordinate with the Civil Works Cost Engineering and Agency Technical Review Mandatory Center of Expertise (MCX) with Technical Expertise (TCX) to ensure the appropriate expertise is included on the review teams to assess the adequacy of cost estimates, construction schedules, and contingencies. The RMO will coordinate with the RMC.

3. STUDY INFORMATION

a. Decision Document

The proposed decision document is titled: "Hartwell Water Supply Storage Reallocation Integrated Reallocation Report and Environmental Assessment". This study is authorized under Title III of Public Law 85-500 (the 1958 River and Harbor Act) and is entitled "The Water Supply Act of 1958." Section 301(a) established a policy of cooperation in development of water supplies for domestic, municipal, industrial and other purposes. Section 301(b) is the authority for the Corps to include Municipal and Industrial (M&I) water storage in reservoir projects and to reallocate storage in existing projects to M&I water supply.

b. Study/Project Description

The Corps presently operates and manages three Congressionally-authorized multi-purpose dam and reservoir projects on the Savannah River. They are:

- Hartwell Dam and Lake (DSAC 4)
 - Clemson Lower Diversion Dam (DSAC 3)
 - Dam located at River Mile 305
 - Reservoir covers 55,950 acres at full pool (660' NGVD)
 - Reservoir provides 2,843,100 acre-feet of storage (665' NGVD)
 - Flood Storage (660-665') is 293,100 ac-ft
 - Conservation Storage (625-660') is 1,416,000 ac-ft
 - Inactive Storage (Below 625') is 1,134,000 ac-ft
 - Power generation of 396,000 kilowatts
- Richard B. Russell Dam and Lake (DSAC 5)
 - Dam located at River Mile 275
 - Reservoir covers 26,650 acres at full pool
 - Reservoir provides 1,166,200 acre-feet of storage
 - Flood Storage (475-480') is 140,000 ac-ft
 - Conservation Storage (470-475') is 126,800
 - Inactive Storage (Below 470) is 899,400
 - Power generation of 600,000 kilowatts
- J. Strom Thurmond Dam and Lake (DSAC 4)
 - Dam located at River Mile 237.7
 - Reservoir covers 70,000 acres at full pool
 - Reservoir provides 2,900,000 acre-feet of storage
 - Flood Storage (330-335') is 390,000 ac-ft
 - Conservation Storage (312-330') is 1,045,000 ac-ft
 - Inactive Storage (Below 312') is 1,465,000 ac-ft
 - Power generation of 280,000 kilowatts

The study will evaluate the reallocation of storage in Lake Hartwell in response to requests to meet the needs of four entities - Anderson Regional Joint Water Supply (16.05 million gallons per day (MGD)), Pioneer Rural Water District (5 MGD), City of Lavonia (3 MGD) and Currahee Club (.5 MGD). The three reservoirs are operated as a system, so impacts to project purposes will be evaluated across the system.

c. Factors Affecting the Scope and Level of Review

- **If the project has a cost estimate of more than \$200 million.** The total study cost will be less than \$200 million.
- **If parts of the study will be challenging.** These are normal routine analyses for the reallocation study.
- **A preliminary assessment of where the project risks are likely to occur and what the magnitude of those risks might be.** The regulation does establish in ER 1110-2-1156 according to paragraph 24.4.1.2, the following: “A reallocation that would require raising the conservation pool is not permitted while a project is classified DSAC 1, 2, or 3.” In this case, the conservation pool will not be raised. Therefore, there are no project flood risks. No other risks have been identified.
- **If the project will likely be justified by life safety or if the project likely involves *significant* threat to human life/safety assurance.** There is no significant threat to human life.
- **If there is a request by the Governor of an affected state for a peer review by independent experts.** There has been no request by a Governor, nor by the head of a Federal or State Agency.
- **If the project/study is likely to involve significant public dispute as to the economic or environmental cost or benefit of the project.** No public dispute is anticipated.
- **If the information in the decision document or anticipated project design is likely to 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.** No novel or complex methods are anticipated.
- **If the project design is anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule.** The project has already been constructed. The study will not evaluate design changes.

d. In-Kind Contributions

Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC, ATR, and IEPR. This study is being conducted at 100 percent Federal O&M costs. The requestors may submit data and information to support the development of the products. They will be reviewed by the PDT work elements specialist to determine their applicability and integrity.

4. DISTRICT QUALITY CONTROL (DQC)

All decision documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC. DQC 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). The home district shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home MSC. When policy and/or legal concerns arise during DQC efforts that are not readily and mutually resolved by the PDT and the reviewers, the district will seek immediate issue resolution support from the MSC and HQUSACE in accordance with the procedures outlined in Appendix H, Amendment #1, ER 1105-2-100 or other appropriate guidance.

The home district will manage and document DQC. The home district will assign a DQC Review Lead to each study who is responsible for ensuring that a formal DQC review is performed by all members who have been assigned to the DQC Review Team. The DQC Review Lead ensures coordination and interaction of team members, completeness of reviews, quality of review comments, and comment closeout and DQC Certification. The DQC Review Lead will be a qualified senior staff member (Supervisor, Regional Technical Specialist, Lead Planner, Engineering Technical Lead, or PM) who has no production role in the project/product. Note, for small projects/products the DQC Review Lead may be the only reviewer. The DQC Review Lead will assist in RP development and will regularly review the RP to ensure it is adequate and up to date for the current phase of the study. The DQC Review Lead ensures adequate DQC time and budget are identified in the RP, supports District's risk identification and assessment, and leads in coordination of risk assessment with District management and the vertical team. As a minimum, the requirements in accordance with EC 1165-2-217 will be followed, beyond which the home district and MSC can require more stringent DQC. The DQC Review Lead is responsible for coordinating ATR that is triggered by key risk-informed decisions and high risk items/features that warrant additional evaluation. Additional reviews occur when key risk-informed decisions are made. Product issues identified via DQC should be resolved prior to final ATR and IEPR. The DQC Review Lead is responsible for documenting commitments where changes are to be incorporated in the next phase of work and this information should be provided to the next level of review.

a. Documentation of DQC

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. Documentation of DQC will become a permanent part of report documentation and will be provided to the ATR

Team for use in their review. All DQC comments shall be put into DrChecks and closed out once DQC comments are adequately addressed by the PDT.

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 a decision can be made by the District Commander.

b. Products to Undergo DQC

- (1) Alternatives Milestone Documentation
- (2) Tentatively Selected Plan Milestone Documentation
- (3) Draft Report including NEPA and supporting documentation
- (4) All models utilized in the study shall also be reviewed
- (5) Final Report and documentation

DQC Team Members/Disciplines	Expertise Required
Planning – Water Supply Specialist	The Planning reviewer shall be a senior water resources planner with experience in water supply reallocation.
Economics	The reviewer shall have extensive knowledge of the principles and guidelines of economic analysis as it relates to models for water supply within the Corps of Engineers including water demand analysis and reallocations within reservoirs.
Hydraulic and Hydrologic Engineering – Reservoir Control	The engineer shall be familiar with running RESSIM on reservoirs and shall be familiar with how the information is used by the economists and the biologists in their assessments.
Civil Engineering	The professional engineers shall have the experience to estimate quantities for planning purposes. They shall be familiar with both the planning and the water supply reallocation process.
NEPA Specialist	The reviewer shall be an expert in the NEPA process. The reviewer shall be familiar with the impacts from water supply reallocation.
Dam Safety Professional	The professional engineer shall have experience in Dam Safety, and be able to verify the reliability of stability assessments.

5. POLICY REVIEW TEAM

The Policy Review Team, identified through the collaboration of the MSC Chief of Planning and Policy and the HQUSACE Chief of the Office of Water Project Review and documented in the Review Plan, will draw from HQUSACE, the MSC, the Planning Centers of Expertise, and other review resources as needed.

6. AGENCY TECHNICAL REVIEW (ATR)

ATR is mandatory for all decision documents (including supporting data, analyses, environmental compliance documents, etc.). The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. ATR is managed within USACE by the designated RMO and is conducted by a qualified team from outside the home district that is not involved in the day-to-day production of the project/product. ATR teams will be comprised of senior USACE personnel and may be supplemented by outside experts as appropriate. The ATR team lead will be from outside the home MSC.

a. Products to Undergo ATR

During the planning process, ATRs will be conducted on the draft package (including the draft report and EA), and final package (the final report and EA). 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.

b. Required ATR Team Expertise

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 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. Some or all of the following disciplines will participate in draft and final product ATRs:

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead shall be a senior professional with extensive experience in preparing Civil Works decision documents and conducting ATR. The lead shall also have the necessary skills and experience to lead a virtual team through the ATR process. The ATR lead may also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc.).
Planning – Water Supply Specialist	The Planning reviewer shall be a senior water resources planner with experience in water supply reallocation. Planner shall be ATR certified within the Planning Community of Practice. The Planning Reviewer/Plan Formulator may act as the lead for the ATR. This person shall have recent experience in conducting the plan formulation process for Water Supply Reallocation. This reviewer shall be able to identify goals and objectives, recognizing planning constraints, distinguishing project alternatives, screening and evaluating project alternatives and selecting a recommended plan.
Economics	The reviewer shall have extensive knowledge of the principles and guidelines of economic analysis as it relates to models for water supply within the Corps of Engineers including water demand analysis and reallocations within reservoirs. Economist shall be ATR certified within the Planning Community of Practice.
Hydraulic and Hydrologic Engineering – Reservoir Control	An engineer familiar with running RESSIM on reservoirs. The engineer shall be familiar with how the information is used by the economists and the biologists in their assessments. The ATR team member shall have a good understanding of Water Management and Reallocation and the required modeling. Reviewers shall have a minimum of 5 years of combined experience on reallocation studies. Reviewers shall have had training on the referenced models as well as a minimum of 1 year experience with these models and experience in developing capacity and energy values.
NEPA Specialist	The reviewer shall be certified ATR Reviewer in environmental compliance in the Planner Database. The reviewer shall be an expert in the NEPA process. The ATR team member shall be able to review the

	Environmental Assessments (EA), and be familiar with Water Supply Reallocation projects. The habitat types expected to be assessed include the following: Riverine emergent wetland, Riverine forested wetlands (bottomland hardwoods, riparian shrubs), Riverine fishery habitats and lacustrine fishery habitats.
Dam Safety Professional	The professional engineer shall have experience in Dam Safety, and be able to verify the reliability of stability assessments.

c. Documentation of ATR

DrChecks review software will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. Comments should be limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:

- (1) The review concern – identify the product’s information deficiency or incorrect application of policy, guidance, or procedures;
- (2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not be properly followed;
- (3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and
- (4) The probable specific action needed to resolve the concern – identify the action(s) that the reporting officers must take to resolve the concern.

In some situations, especially when addressing incomplete or unclear information, ATR team members may seek clarification in order to then assess whether further specific concerns may exist.

The ATR documentation in DrChecks shall include the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district, RMO, MSC, and HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-1-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks with a notation that the concern has been elevated to the vertical team for resolution.

At the conclusion of each ATR effort, the ATR team will prepare a Review Report summarizing the review. Review Reports will be considered an integral part of the ATR documentation and shall:

- Identify the document(s) reviewed and the purpose of the review;
- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions;
- Identify and summarize each unresolved issue (if any); and
- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

ATR may be certified when all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. The ATR Lead will prepare a Statement of Technical Review certifying that the issues raised by the ATR team have been resolved (or elevated to the vertical team). A Statement of Technical Review should be completed, based on work reviewed to date, for the AFB (if applicable), draft report, and final report. A sample Statement of Technical Review is included in Attachment 2.

7. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

IEPR may be required for decision documents under certain circumstances. 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 1165-2-217, 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 IEPR

Type I IEPR reviews are managed outside the USACE and are conducted on project studies. The 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 1165-2-217.

- 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. These panels will conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare.

a. Decision on IEPR

IEPR exclusion is requested.

(1) This project does not contain any of the mandatory triggers described in EC 1165-2-217.

- (a) There is no public safety component of the project.
- (b) The total project cost is less than \$200 million.
- (c) We do not expect the governor to request IEPR.
- (d) We do not expect the Chief of Engineers to determine this project is controversial due to significant public dispute over the size, nature, or effects of the project or the economic or environmental costs or benefits of the project.

(2) This project does not contain any of the discretionary triggers described in EC 1165-2-217.

(a) We do not expect a request to conduct IEPR from a head of a Federal or state agency charged with reviewing the project.

(3) This project is eligible for exclusion from IEPR because:

- (a) This reallocation does not require an Environmental Impact statement.
- (b) It is not controversial.
- (c) It has no more than negligible adverse impacts on scarce or unique tribal, cultural, or historic resources, and
- (d) It has no substantial adverse impacts on fish and wildlife species and their habitat prior to the implementation of mitigation measures.
- (e) It has, before implementation of mitigation measures, no more than a negligible adverse impact on a species listed as endangered or threatened species under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) or the critical habitat of such species designated under such Act.

(4) Per EC 1165-2-217, when a decision document does not trigger a mandatory Type I IEPR, a risk-informed recommendation will be developed. The process shall consider the consequences of non-performance on project economics, the environment, and social well-being (public safety and social justice), as well as indicate whether the product is likely to contain influential scientific information or be a highly influential scientific assessment, or involve other issues that provide a rationale for determining the appropriate level of review. Furthermore, the recommendation must make a case that the study is so limited in scope or impact that it would not significantly benefit from IEPR.

The District has considered the criteria above and is recommending an exclusion of this action from an IEPR. This action is a standard reallocation study involving standardized methods and well established criteria for determination of water demand, analysis of alternatives, and derivation of user costs. Therefore, there is minimal risk of substantial non-performance related to project economics. With regard to impacts on the environment, a draft environmental assessment (EA) and, if applicable, a Finding of No Significant Impact (FONSI) will be prepared in compliance with the National Environmental Policy Act (NEPA). A FONSI will be appropriate for signature by the District Commander if impacts to the environment are determined to be not significant. Accordingly, analysis of environmental impacts does not involve a large degree of uncertainty or high risk for underestimation. Health and safety would not be impacted through the recommended plan. Social justice considerations are being addressed through determination of low income eligibility determinations in accordance with Section 322 of the Water Resources Development Act (WRDA) of 1990. Given these considerations, the risk of non-performance with regard to matters pertaining to social well-being would be anticipated as minimal.

This standard reallocation study does not involve novel, untested, or influential scientific information or methods. The study analyses, while complex, are within the typical scope of similar reallocation studies. Methodology and required data and analyses are well-established in USACE guidance for such studies. It is not expected that the study would benefit from IEPR because the science and models used in the study have been used numerous times for reallocations throughout the Division.

It would not otherwise benefit from an IEPR because there is ample experience with USACE on water supply reallocation reports. This activity can be treated as routine.

The limited scope of this action, use of well-established criteria, minimal anticipated environmental impacts, and low uncertainty, are all indicative of an action that would benefit little from further review by IEPR. While providing little benefit, a requirement for IEPR would, however, result in the delay in delivery of a reliable water supply.

Finally, the recommended plan would not significantly affect project operations in terms of flood risk reduction, dam safety, fish and wildlife, water quality, recreation or hydropower. Environmental impacts will be addressed in the draft EA/FONSI for the project.

The Savannah District requests that the Division Commander approve the request for exclusion from IEPR.

Type II IEPR, the Safety Assurance Review, is conducted on design and construction activities for any 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. Any reallocation of storage addressed in this study is not anticipated to have a corresponding reduction in flood risk management storage or otherwise introduce a new failure mode. Consequently, Type II IEPR is not warranted for this study.

b. Products to Undergo Type I IEPR

Not Applicable.

c. Required Type I IEPR Panel Expertise

Not Applicable.

d. Documentation of Type I IEPR

Not Applicable.

e. Documentation of Type II IEPR

Based on the study as currently envisioned, the District Chief of Engineering, as the Engineer-In-Responsible-Charge, does not recommend a Type II IEPR Safety Assurance Review of this project at this time. 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.

8. POLICY AND LEGAL COMPLIANCE REVIEW

All decision documents will be reviewed throughout the study process for their compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100. These reviews culminate in determinations that the recommendations in the reports 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.

9. COST ENGINEERING AND ATR MANDATORY CENTER OF EXPERTISE (MCX) REVIEW AND CERTIFICATION

All decision documents shall be coordinated with the Cost Engineering and ATR MCX/TCX, located in the Walla Walla District. The MCX/TCX will assist in determining the expertise needed on the ATR team and Type I IEPR team (if required) and in the development of the review charge(s). The MCX/TCX will also provide the Cost Engineering certification. The RMO is responsible for coordination with the Cost Engineering MCX/TCX.

10. MODEL CERTIFICATION AND 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, for the purposes of the EC, are defined as any models and analytical tools that planners use 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 the planning product. 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 (if required).

EC 1105-2-412 does not cover engineering models used in planning. The process the Hydrology, Hydraulics and Coastal Community of Practice (HH&C CoP) of USACE follows to validate engineering software for use in planning studies and to satisfy the requirements of the Corps' Scientific and Engineering Technology (SET) initiative is provided in Enterprise Standard (ES)-08101 Software Validation for the Hydrology, Hydraulics and Coastal Community of Practice. 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 (if required).

a. Planning Models

It is anticipated that no Planning models will be used for this study.

b. Engineering Models

The engineering models used in this study are expected to be: HEC-ResSim, 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 used were a part of that process and were approved as follows: HEC-ResSim was CoP Preferred.

11. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost

The ATR on the draft Reallocation Report and EA is scheduled for the 4th quarter of FY19. A total of \$25,000 has been set aside for the ATR team members. The ATR for the Final Reallocation Report and EA is scheduled for the 2nd quarter of FY20 and a total of \$22,000 has been set aside for this ATR.

b. Type I IEPR Schedule and Cost

Not Applicable.

c. Model Certification/Approval Schedule and Cost

The Engineering models are scheduled for the 1st quarter of FY19. A total of \$26,000 has been set aside for this work.

12. PUBLIC PARTICIPATION

The District is responsible for providing an opportunity for public comments and for considering those comments in the final and draft reports. The Savannah District will make the draft documents available for the public review. Draft documents will be mailed to interested stakeholders and posted on the district website. All the public involvement requirements for NEPA have been and will continue to be met. Significant and relevant public comments will be provided to reviewers before they conduct their review. See ATR milestones for public comment periods.

13. 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 applicable) as to the appropriate scope and level of review for the decision document. Like the PMP, the Review Plan is a living document and may change as the study progresses. The home district is responsible for keeping the Review Plan up to date. Significant changes to the Review Plan (such as changes to the scope and/or level of review) must be 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 Home District's webpage. The latest Review Plan will also be provided to the RMO and home MSC.

14. REVIEW PLAN POINTS OF CONTACT

Public questions and/or comments on this review plan can be directed to the following points of contact:

- SAS Plan Formulation Team Lead: (912) 652-5008
- SAD Senior Plan Formulator SAD: (404) 562-5226
- WMRS-PCX Technical Director WRMS-PCS: (501) 324-5036

ATTACHMENT 1: TEAM ROSTER

Project Delivery Team	
Project Manager	
Plan Formulator	
Biologist/Environmental	
Economist	
Cultural Resources	
Real Estate	
Hydraulics & Hydrology	
Hydropower Engineer	

District Quality Control (DQC) Team	
Economics	
Plan Formulation-Water Supply Specialist	
NEPA Specialist	
Dam Safety Professional	TBD
HH - Reservoir Control	TBD
Civil Engineering	TBD

Policy Review Team *At time, the Policy Review Team is unavailable due to personnel transitions.	
HQUSACE	TBD
The MSC (SAD)	TBD
The Water Management and Reallocation Center of Expertise	TBD
Other Review Resources if needed	TBD

Agency Technical Review (ATR) Team	
Economics	TBD
Plan Formulation	TBD
NEPA Specialist/Environmental	TBD
Dam Safety Professional	TBD
HH - Reservoir Control	TBD
Civil Engineering	TBD

ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECISION DOCUMENTS

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the <type of product> for <project name and location>. The ATR was conducted as defined in the project’s Review Plan to comply with the requirements of EC 1165-2-214. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer’s needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrCheckssm.

SIGNATURE

Name

ATR Team Leader

Office Symbol/Company

Date

SIGNATURE

Name

Project Manager

Office Symbol

Date

SIGNATURE

Name

Architect Engineer Project Manager¹

Company, location

Date

SIGNATURE

Name

Review Management Office Representative

Office Symbol

Date

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: Describe the major technical concerns and their resolution.

As noted above, all concerns resulting from the ATR of the project have been fully resolved.

SIGNATURE

Name

Chief, Engineering Division

Office Symbol

Date

SIGNATURE

Name

Chief, Planning Division

Office Symbol

Date

¹ Only needed if some portion of the ATR was contracted