US Army Corps of Engineers ®

REVIEW PLAN

Savannah River Below Augusta (SRBA)
Training Wall Disposition Study,
Augusta, Georgia

P2# 482977

Savannah District
U.S. Army Corps of Engineers

October 2019

MSC Approval Date:
Last Revision Date:

REVIEW PLAN

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Training Wall Disposition Study
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1. PURPOSE AND REQUIREMENTS

This Review Plan defines the scope and level of peer review for the Savannah River Below Augusta (SRBA) Training Wall Disposition Study as authorized by Section 216 of the 1970 Flood Control Act (P.L. 91-611).

A. References

(1) Engineering Circular (EC) 1165-2-217, Review Policy for Civil Works, 20 February 2018
(2) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2010
(3) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 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) Memorandum, CECW-P, Interim Guidance on the Conduct of Disposition Studies, 22 August 2016
(6) Real Estate Policy Guidance Letter No. 31, Real Estate Support to Civil Works Planning, 11 January 2019
(7) Real Estate Policy Guidance Letter No. 33, Interim Guidance on Disposition Studies, 28 September 2016
(8) Decision Meeting Milestone Memorandum for Record, 29 August 2019
(9) Interim Guidance on Streamlining Independent External Peer Review (IEPR) for Improved Civil Works Product Delivery, 5 April 2019
(10) CECW-P (2019-01), Director's Policy Memorandum FY2019, subject Policy & Legal Compliance Review, 9 January 2019

B. 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 of review for 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/Quality Assurance (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 (per EC 1105-2-412).

2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO is responsible for managing the overall peer review effort described in this Review Plan. 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. Savannah District (SAS) Engineering has determined that there is no significant threat of life loss and thus, no Safety Assurance Review (SAR) is required; therefore, the RMO for the peer review effort described in this Review Plan is the PCX for Inland Navigation (PCXIN). The RMO will coordinate with the Civil Works Cost Engineering Mandatory Center of Expertise (MCX) as needed to ensure the appropriate level of review is conducted for the subject study.

3. STUDY INFORMATION

A. Decision Document

The proposed decision document is titled: **"Savannah River Below Augusta (SRBA) Training Wall Disposition Study".** Authority for the Corps to complete this study is Section 216 of the 1970 Flood Control Act (P.L. 91-611). This study is being conducted at 100% Federal cost. Funding to complete the study was provided in July 2019, and included a Federal funding limit of $300,000 for all needed activities. After completion and approval of the Disposition Study, Congressional authorization will be needed to either de-authorize and dispose of the project by means recommended, or continue operations as previously directed by the Congress.

The level of approval for the decision document is anticipated to be the South Atlantic Division. An Environmental Assessment (EA) will be conducted to determine if an Environmental Impact Statement is required. The EA, or EIS if needed, will be integrated into the report to provide the necessary National Environmental Policy Act (NEPA) documentation.

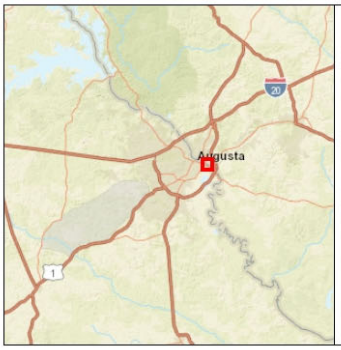
B. Study/Project Description

The proposed study is focused on an approximately 1.5 mile long training wall and associated structures located on the Savannah River at Augusta, GA between the 13th Street bridge and the I-520 (Palmetto Parkway) Bridge (approximately a 3 mile stretch). The training wall and associated structures were built between the late 1880's and early 1900's as part of the Savannah River Below Augusta navigation project. The purpose of the proposed study is to determine whether the water resources development project operated and maintained by the Corps of Engineers should be deauthorized, and if the associated real property and Government-owned improvements should undergo disposal. The proposed study will address several issues associated with removing the structure including fish and wildlife resources, water supply, recreation, reduction of Federal expense, commercial navigation, small boat navigation concerns, and potential disposal strategies. Potential alternatives to be investigated include leaving the training wall and associated structures in their current state (i.e., "caretaker status"), rendering the project "safe" by modifying the structures through partial or total removal, and potentially transferring the operation and maintenance of the structures to another government entity. In general the disposition report will follow the outline below:

Project Scope:

a. Purpose of the Study
b. Project Authorization and History
c. Study Area Detailed Project Description
d. Historic and Existing Conditions
e. Description of Federal Interest in Disposition
f. Plan Formulation and Evaluation of Alternatives
g. Recommended Plan
h. National Environmental Policy Act (NEPA) and other environmental Compliance
i. Description of Interested Party
j. Requirements for Implementation of Recommendation
k. Technical Appendices

Figure 1. Project Area – Savannah River at Augusta, GA



Legend

Approximate Location of Training Wall and Associated Structures

\+ Stationing

NOTE:
Soundings are from NOAA Nautical Chart 11515 and are in units of feet. Coordinate System is GA State Plane East, NAD 1983

SITE MAP
Savannah River Below Augusta (SRBA)
Training Wall Disposition Study
Augusta, GA

1 inch = 1,000 feet

0 500 1,000 Feet

N

US ARMY CORPS of ENGINEERS
Savannah District

DATE: AUG 2019 | FIGURE 1

Figure 2. Photograph of submerged training wall

C. Factors Affecting the Scope and Level of Review

- Funding will be 100% Federal.
- The approval authority for the study is the Commander, U.S. Army Corps of Engineers, South Atlantic Division
- This study is to be conducted under existing guidance identified in section 1A.
- The project will not be justified by life safety and does not involve significant threat to human life/safety assurance.
- It is anticipated that an EA will conclude that there are no significant impacts and will therefore be the appropriate document for NEPA compliance and will be integrated into the final report.
- Preliminary analysis indicates that impacts to fish and wildlife, including threatened and endangered species, are expected to be less than significant.
- This Review Plan seeks an exclusion from IEPR (see Section 6 for more information).
- Cost Engineering Mandatory Center of Expertise (MCX) certification is not required (see Section 8 for more information).
- The study is not highly controversial as it consists of a project that is widely viewed by the public as a hazard to navigation and a potential cause of

shoaling near docks. It is not anticipated that there will be a significant public dispute as to the size, nature, or effects of the project.

- The Final Disposition Study Report and supporting documentation will contain standard engineering, economic, and environmental analyses and information.

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. DQC documentation shall be provided to the ATR team prior to conducting each review. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home Major Subordinate Command (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.

A. Documentation of DQC. DQC includes documenting and maintenance of records for internal audits of proper DQC implementation. The reviewers will make written comments, and the respective team member will respond to comments noting concurrence or non-concurrence with an explanation of revised work and its location in the reviewed document. The review leader will compile all the comments and responses, note if the review and responses are comprehensive, note significant issues and responses and unresolved issues, before signing the DQC statement of technical review. The project manager will also sign and date the statement. Subsequently the Chiefs of Planning, Engineering, and Real Estate will describe the significant concerns and resolutions, and will sign a certification of Quality Control Review.

B. Products to Undergo DQC. DQC will be performed on interim reports and milestone documentation (i.e. Tentatively Selected Plan Milestone, Final Disposition Report) prior to ATR.

C. Required DQC Expertise. DQC Expertise shall include:

(1) Plan Formulation
(2) Cultural Resources
(3) NEPA compliance
(3) Real Estate
(4) Engineering
(5) Economics

5. 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 reviewers will be selected from the Communities of Practice rosters of certified reviewers. The ATR team lead will be from outside the home MSC.

A. Products to Undergo ATR.

1. Final Disposition Study and supporting appendices
2. Supporting NEPA documentation

B. Required ATR Team Expertise

ATR Team Members/Disciplines	Expertise Required
ATR Lead / Planning	The ATR Lead must be a senior professional with extensive experience preparing Civil Works decision documents and conducting ATR. The lead should have the skills to manage a virtual team through an ATR. The lead may serve as a reviewer for a specific discipline (such as plan formulation).
Plan Formulation	The reviewer must be a senior water resources plan formulator certified to perform ATR
Environmental Compliance	The reviewer must be familiar with NEPA documentation requirements and be an ATR certified reviewer.
Cultural Resources	The reviewer must be familiar with Section 106 requirements relative to expectations of USACE disposition studies and be a certified ATR reviewer.
Real Estate	Must be familiar with the Real Estate Disposition Study Guidance as outlined in PGL 33 - Interim Guidance on Disposition Studies.
Hydrology, Hydraulics and Water Management	Must have a minimum of 5 years' experience and must be familiar with riverine hydrology, hydraulics and water/sediment control structures.

Design	Must have a minimum of 5 years' experience and must be familiar with in-water construction and demolition.
Cost	Must have a minimum of 5 years' experience and must be familiar with costs of in-water construction and demolition.
Economics	Must be familiar with economics of riverine navigation systems and water/sediment control structures.
Climate Preparedness and Resilience CoP Reviewer	The Climate Preparedness and Resilience reviewer must be certified by the Climate Preparedness and Resilience Community of Practice (CoP). May also serve as a reviewer for another discipline if qualified.

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 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 will 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 EC 1165-2-217, 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 alternative formulation briefing, draft report, and final report. A sample Statement of Technical Review is included in attachment 2.

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

a. Decision on Type I IEPR. Type I IEPR is managed outside of USACE and is typically conducted on studies. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study.

Based upon the criteria identified in EC 1165-2-217 section 11 and the limited study/project scope, the PDT's risk informed assessment is that the study/project does not require Type I IEPR. The PDT will request an exclusion from conducting IEPR from the Commander, South Atlantic Division. The disposition study does not meet any of the mandatory triggers for Type I IEPR based upon consideration of the following

- The decision document does not meet any of the mandatory triggers for Type I IEPR described in paragraph 11.d.(1) of EC 1165-2-217.
- There is no significant threat to human life associated with the project as the potential outcomes of the recommended plan will likely decrease hazards to navigation

- The recommended plan will not likely involve construction in excess of $200 million
- Neither of the Governors (Georgia and South Carolina) have requested and are not expected to request peer review by independent experts
- The project is not anticipated to be controversial due to significant public dispute over either the size, nature, or effects of the project or economic or environmental costs or benefits of the project
- The project is for an activity for which there is ample experience within USACE and industry to treat the activity as being routine

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. Decision on Type II IEPR. Type II IEPR, Safety Assurance Review, is managed outside of the USACE and is performed on design and construction activities for any project where potential hazards pose a significant threat to human life. For Type II IEPRs, a panel is convened to review the design and construction activities before construction begins and periodically thereafter until construction activities are completed.

The PDT has assessed this study and potential outcomes and determined that it does not meet the criteria for conducting Type II IEPR:

- The Federal action will not be justified by life safety, and failure of the project would not pose a significant threat to human life as the project will be for an activity for which there is ample experience within the USACE.

- The project will not involve the use of innovative materials or techniques as engineering will not be based upon novel methods, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices. Information will be based on existing information and methods commonly used for USACE studies. Therefore, it is anticipated that there is minimal risk involved with the project. The final report and supporting documentation will contain standard engineering, economic, and environmental analyses and information.

- The project design will not require redundancy, resiliency, and/or robustness.

7. POLICY AND LEGAL COMPLIANCE REVIEW

Policy and legal compliance reviews for draft and final planning decision documents are delegated to the MSC (see Director's Policy Memorandum 2019-01, and 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.

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

It is expected that the recommended plan will only include rough order of magnitude costs. Based on HQUSACE guidance, Cost Engineering MCX certification will not be required for the Federal action recommended in this disposition study.

9. 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 responsible use of well-known and proven USACE developed and commercial engineering software will continue and the professional practice of documenting the application of the software and modeling results will be followed. As part of the USACE Scientific and Engineering Technology (SET) Initiative, many engineering models have been identified as preferred or acceptable for use on Corps studies and these models should be used whenever 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 (if required).

A. Planning Models. No planning models are anticipated to be used during this study.

B. Engineering Models. Engineering will use the 2D flow module in HEC-RAS 5.0 for this decision document. HEC-RAS is hydraulic modeling software developed and maintained by the Corps' Hydrologic Engineering Center in Davis, CA. HEC-RAS is the industry standard in hydraulic modeling and allows the user to perform 1D and 2D hydraulic computations (e.g. water surface profiles). HEC-RAS is the Hydraulics, Hydrology, and Coastal Community of Practice (HH&C CoP) preferred software for River Hydraulics and has been approved for use in planning studies. The model was previously developed and extensively reviewed under another study effort that overlaps with this study.

10. REVIEW SCHEDULES AND COSTS

A. ATR Schedule and Cost. Estimated Cost for ATR is $25,000. The ATR schedule will be incorporated in a future Review Plan amendment following coordination with the RMO.

B. Type Model Certification/Approval Schedule and Cost. Not applicable. There are no models requiring certification for this study.

C. IEPR Schedule and Cost. Not applicable.

11. PUBLIC PARTICIPATION

The Savannah District will make draft documents available for public review. Draft documents will be emailed or mailed to interested stakeholders and posted on the district website. The NEPA requirements for public involvement will be met including review timeframes. Significant and relevant public comments will be provided to reviewers. This review plan will be posted to the District web site for public review once it is reviewed by the MSC.

12. 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 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. Minor changes to the review plan since the last MSC Commander approval are documented in Attachment 3. 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.

13. REVIEW PLAN POINTS OF CONTACT

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

- District Contact, Project Manager: 912-652-5266
- MSC Contact: 404-562-5226
- Review Management Organization: 304-399-5848

ATTACHMENT I: TEAM ROSTER

Project Delivery Team

Role	Name	Office Symbol	Phone
Project Manager		CESAS-PM-C	912-652-5266
Plan Formulator		CESAS-PM-P	912-652-5375
Real Estate Specialist		CESAS-RE-RP	912-652-5207
Operations		CESAS-OP-T	864-333-1101
Geotechnical Engineer		CESAS-EN-GS	912-652-5040
Geologist		CESAS-EN-GG	912-652-5669
Biologist		CESAS-PM-P	912-652-5020
Archeologist		CESAS-PM-P	706-856-0378
Hydraulic Engineer		CESAS-EN-H	912-652-5814
Cost Engineer		CELRL-ED-M-C	502-315-6268
Economist		CESAW-ECP-PS	910-251-4745
Assistant District Counsel		CESAS-OC	910-251-4745

Agency Technical Review Team

Role	Name	Office Symbol	Phone
ATR Lead/Plan Formulation		LRH-PM-PD	304-942-7041
TBD			
TBD			
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 1165-2-217. 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 DrChecks[sm].

SIGNATURE _____ _____

Name Date
ATR Team Leader
Office Symbol/Company

SIGNATURE _____ _____

Name Date
Project Manager
Office Symbol

SIGNATURE _____ _____

Name Date
Review Management Office Representative
Office Symbol

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 Date
Chief, Engineering Division
Office Symbol

SIGNATURE _____ _____

Name Date
Chief, Planning Division
Office Symbol

ATTACHMENT 3: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number