Continuing Authorities Program
Section 14, Flood Control Act of 1946, as amended
Emergency Streambank and Shoreline Erosion Protection of Public Works

DECISION DOCUMENT REVIEW PLAN

Hookerton, NC - Section 14 Combined Feasibility Report and Environmental Assessment, Greene County, NC

Wilmington District

MSC Approval Date: 5 February 2015
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US Army Corps of Engineers ®

DECISION DOCUMENT REVIEW PLAN

Hookerton, NC Emergency Stream bank & Shoreline Erosion Protection, Hookerton, NC
Section 14 Project

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1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope and level of peer review for the *Hookerton, NC Emergency Streambank and Shoreline Erosion Protection* study in Hookerton, NC, Section 14 project decision document.

Section 14 of the Flood Control Act of 1946, as amended, authorizes the US Army Corps of Engineers (USACE) to study, design and construct emergency streambank and shoreline works to protect public services including (but not limited to) streets, bridges, schools, water and sewer lines, National Register sites, and churches from damage or loss by natural erosion. It is a Continuing Authorities Program (CAP) which focuses on water resource related projects of relatively smaller scope, cost and complexity. Traditional USACE civil works projects are of wider scope and complexity and are specifically authorized by Congress. The Continuing Authorities Program is a delegated authority to plan, design, and construct certain types of water resource and environmental restoration projects without specific Congressional authorization.

Additional Information on this program can be found in Engineering Regulation 1105-2-100, Planning Guidance Notebook, Appendix F.

b. Applicability. This review plan is for a CAP Section 14 project decision document. In accordance with Engineering Regulation (ER) 1165-2-214 Civil Works Policy Review, a project does not require Independent External Peer Review (IEPR) if ALL of the following specific criteria are met:

- The project does not involve a significant threat to human life/safety assurance;
- The total project cost is less than $45 million;
- There is no request by the Governor of an affected state for a peer review by independent experts;
- The project does not require an Environmental Impact Statement (EIS),
- The project/study is not likely to involve significant public dispute as to the size, nature, or effects of the project;
- The project/study is not likely to involve significant public dispute as to the economic or environmental cost or benefit of the project;
- The information in the decision document or anticipated project design is not 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;
- The project design is not anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule; and
- There are no other circumstances where the Chief of Engineers or Director of Civil Works determines Type I IEPR is warranted.

This review plan does not cover implementation products. A review plan for the design and implementation phase of the project will be developed prior to approval of the final decision document in accordance with EC 1165-2-214.

c. References

(1) Director of Policy Memorandum #1 dated January 19, 2011, subject: *Continuing Authorities Program Planning Process Improvements*
(2) Engineering Circular (EC) 1165-2-214, Civil Works Review Policy, 15 Dec 2012
(3) EC 1105-2-407, Planning Models Improvement Program: Model Certification, 31 May 2005
(4) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
(5) ER 1105-2-100, Planning Guidance Notebook, Appendix F, Continuing Authorities Program, Amendment #2, 31 Jan 2007
(6) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007

d. Requirements. This review plan was developed in accordance with EC 1165-2-214, 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/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 1165-2-214) and planning model 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 Section 14 decision documents is the home MSC. The MSC will coordinate and approve the review plan and manage the ATR. The home District will post the approved review plan on its public website. A copy of the approved review plan (and any updates) will be provided to the FRM-PCX to keep the PCX apprised of requirements and review schedules. The ATR lead will be from outside the home MSC unless the CAP review plan justifies an exception and is explicitly approved by the MSC Commander, per EC 1165-2-214, paragraph 9c. This review plan does not request the ATR lead to be within the home MSC.

3. STUDY INFORMATION

a. Decision Document. The *Hookerton, NC Emergency Streambank and Shoreline Erosion Protection* decision document will be prepared in accordance with ER 1105-2-100, Appendix F. The approval level of the decision document (if policy compliant) is the home MSC – South Atlantic Division. An Environmental Assessment (EA) will be prepared along with the decision document.

b. Study/Project Description. The Town of Hookerton is located in Greene County in eastern North Carolina. The Town currently operates a 0.06 MGD wastewater treatment plant (WWTP) which includes three wastewater settling lagoons located on the north side of Contentnea Creek. The facility treats raw wastewater and discharges treated effluent to the north shore of the Creek in accordance with the provisions of NPDES Discharge Permit No. NC0025712. The southernmost of the three lagoon cells is located adjacent to an oxbow bend on Contentnea Creek, which feeds the Neuse River. Severe erosion along the bend of the Creek poses an imminent threat to the adjacent berm which stabilizes the large wastewater lagoon. A site inspection on 17 December 2014 showed

erosion within three (3) feet of the toe of the berm at its closest point. There is concern that a slope failure of the berm may soon occur at this site. Slope failure appears very likely to occur due to a combination of erosion and high head between the water in the pond and the creek. Consequences of failure would include loss of wastewater services to the Town of Hookerton, and potentially significant sewage spills into Contentnea Creek. The problem can be addressed by a structural or non-structural solution. The study will investigate a no action alternative and various protection alternatives for the wastewater settling lagoon cell nearest to the oxbow bend of Contentnea Creek. Alternatives will likely include variations of shoreline armoring in addition to relocation. Estimated costs for a recommended plan will likely be within the range of $500k - $1,500k. The non-Federal sponsor for this study and project will be the Town of Hookerton, NC.

c. Factors Affecting the Scope and Level of Review. This section of the Review Plan discusses the factors to determine the appropriate scope and level of review for the decision document as specified in EC 1165-2-214. This information has been used to recommend the appropriate level of review and select the types of expertise represented on the review teams.

- The purpose of this study is to identify alternatives to protect a wastewater treatment lagoon from erosion along Contentnea Creek. The scope and size of the project is very limited, and alternative designs are expected to be routine without considerable challenges.
- The proposed project does not appear to include risks that are greater than normally would be expected for an Emergency Streambank & Shoreline protection study. The total project costs are anticipated to be less than $2 million. Design of the protection for the wastewater lagoon berm will need to adequately prevent erosion from threatening the facility to prevent eventual berm failure.
- No significant threat to human life exists. The project involves constructing measures, likely a revetment of some type, to project a wastewater treatment lagoon along Contentnea Creek.
- There is no request by the Governor of an affected state for a peer review by independent experts.
- It is very unlikely that the proposed study will involve significant public dispute as to the size, nature, or effects of the project due to the small nature and imminent threat to the public facility.
- Due to the requirements for the project to cost less than the price of relocation of the facility, and due to the lack of significant environmental resources in the immediate area, it is unlikely that the study will involve significant public dispute over economic or environmental costs and benefits.
- Streambank and shoreline erosion protection for structures is common practice and has been designed by the USACE on many occasions. It is likely that the methods or materials used will be routine.
- The project design is not anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule. Standard shoreline erosion protection methods are anticipated.

d. In-Kind Contributions. Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC and ATR, similar to any products developed by USACE. However, no in-kind products are anticipated.

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.

DQC comments will be documented in a Microsoft Word document and provided to the ATR team.

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 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. The ATR shall be documented and discussed at the Alternative Formulation Briefing (AFB) milestone. Certification of the ATR will be provided prior to the District Commander signing the final report. Products to undergo ATR include the Draft Combined Feasibility Report and Environmental Assessment, including technical appendices. ATR will occur after the identification of the NED/NER plan and prior to the Alternative Formulation Briefing (AFB).

b. Required ATR Team Expertise. The ATR team lead will reside outside the Wilmington District, but may reside inside South Atlantic Division (SAD).

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional preferably with experience in preparing Section 14 documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. **The ATR lead will also serve as a reviewer for a specific discipline** (such as planning, economics, environmental resources, etc). The ATR Lead MUST be from outside South Atlantic Division.
Planning	The Planning reviewer should be a senior water resources planner with experience in plan formulation of CAP projects, preferably with Section 14 experience.
Environmental Resources	Team member will have experience with NEPA and EA. Experience with streambank erosion protection projects is preferable.
Civil Engineering	Civil Engineer should be familiar with the design of streambank erosion protection structures. Team member also should have

	experience with hydraulic design for determination of rip-rap stone design.
Cost Engineering	Cost DX Staff or Cost DX Pre-Certified Professional with experience preparing cost estimates for CAP projects, preferably with Section 14 experience.

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 been 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, comments 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 either ER 1110-2-12 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 prior to the District Commander signing the final report. A sample Statement of Technical Review is included in Attachment 2.

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

IEPR may be required for decision documents under certain circumstances as described in EC 1165-2-214. However, CECW-P memorandum, 19 Jan 2011, subject: Continuing Authorities Program Planning Process Improvements provides that IEPR is not required for this type of project.

a. Decision on IEPR. Based on the information and analysis provided in the preceding paragraphs of this review plan, the project covered under this plan is excluded from IEPR because it does not meet the mandatory IEPR triggers and does not warrant IEPR based on a risk-informed analysis.

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.

7. 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.

8. COST ENGINEERING DIRECTORY OF EXPERTISE (DX) REVIEW AND CERTIFICATION

All decision documents shall be coordinated with the Cost Engineering DX, located in the Walla Walla District. According to the DIRECTOR OF CIVIL WORKS' POLICY MEMORANDUM #1, CAP Planning Process Improvements memo dated January 19, 2011, regional cost personnel that are pre-certified by the DX can conduct the cost engineering ATR. The DX will provide the Cost Engineering DX certification. The RMO will coordinate with the Cost Engineering DX on the selection of the cost engineering ATR team member.

9. MODEL CERTIFICATION AND APPROVAL

Approval for planning models under EC 1105-2-412 is not required for CAP projects. However, ATR of planning models and their use or application for this specific study is required and will ensure soundness of models. 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. The use of engineering models is also subject to DQC, ATR, and IEPR (if required).

The ATR team will ensure the model is theoretically and computationally sound, consistent with USACE policies, and adequately documented.

a. Planning Models. No planning models are anticipated to be used in the development of the decision document:

b. Engineering Models. No engineering models are anticipated to be used in the development of the decision document.

10. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost. The next milestone review utilizing ATR is estimated to be completed in May 2015. This is after identification of the NED Plan and prior to the Alternative Formulation Briefing (AFB). Based upon a previous Section 14 ATR, and in coordination with potential ATRT members, the ATR is estimated to cost approximately $10k, and take 2 to 3 weeks. The estimates may change as the study progresses.

b. Type I IEPR Schedule and Cost. Not applicable.

c. Model Certification/Approval Schedule and Cost. Use of existing certified or approved planning models is encouraged. However, approval of planning models under EC 1105-2-412 is not required for CAP projects. The ATR team will apply the principles of EC 1105-2-412 during the ATR to ensure the model is theoretically and computationally sound, consistent with USACE policies, and adequately documented.

11. PUBLIC PARTICIPATION

State and Federal resource agencies may be invited to participate in the study **c**overed by this review plan as partner agencies or as technical members of the PDT, as appropriate. Agencies with regulatory review responsibilities will be contacted for coordination as required by applicable laws and procedures. The ATR team will be provided copies of public and agency comments. A Public Scoping letter soliciting comments will be submitted to the local news paper as well as the local municipality and various

agencies. The final decision document and associated review reports will be made available to the public via posting on the District website.

12. REVIEW PLAN APPROVAL AND UPDATES

The review plan will be approved by the MSC Commander. 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) should be re-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.

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:

- Chris Moore, Project Manager – (910) 251-4483
- Jason Glazener, Planning Technical Lead – (910) 251-4910

MSC/RMO:

- Kenitra Stewart, SAD Planning CAP Manager – (404) 562-5229

ATTACHMENT 1: TEAM ROSTERS

Project Delivery Team				
Name	**Role**	**Office Symbol**	**Telephone**	**Email**
Chris Moore	Project Manager	SAW-PM	910-251-4483	Daniel.C.Moore@usace.army.mil
Jason Glazener	Planning Lead	SAW-ECP-PS	910-251-4910	Jason.s.glazener@usace.army.mil
Justin Bashaw	Biologist & Cultural Resources	SAW-ECP-PE	910-251-4581	Justin.P.Bashaw@usace.army.mil
Larry Creech	Engineering Design	SAW-ECP-ED	910-251-4718	Larry.T.Creech@usace.army.mil
John Caldwell	Cost Engineering	SAW-ECP-ET	910-251-4586	John.C.Caldwell@usace.army.mil
Zach Nichols	Geotechnical Engineering	SAW-ECP-EG	910-251-4696	Zachry.L.Nichols@usace.army.mil
Lisa Bordeaux	CAP Program Manager	SAW-PM-P	910-251-4638	Lisa.S.Bordeaux@usace.army.mil
Angie Tooley	Sponsor/ Town Planner	Town of Hookerton	252-747-3816	Atooley777@yahoo.com

Agency Technical Review (ATR) Team
ATR members have not been selected at this time, although there has been coordination with Monica Dodd from SAS as an ATR Lead/Planner role.

Major Subordinate Command (MSC)
Pat O'Donnell (404) 562-5226

ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECSION 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 1165-2-209. 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 _____ Date _____
Name
ATR Team Leader
Office Symbol/Company

SIGNATURE _____ Date _____
Name
Project Manager (home district)
Office Symbol

SIGNATURE _____ Date _____
Name
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 _____ Date _____
Name
Chief, Engineering Division (home district)
Office Symbol

SIGNATURE _____ Date _____
Name
Chief, Planning Division (home district)
Office Symbol

ATTACHMENT 3: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

Term	Definition	Term	Definition
AFB	Alternative Formulation Briefing	NED	National Economic Development
ASA(CW)	Assistant Secretary of the Army for Civil Works	NER	National Ecosystem Restoration
ATR	Agency Technical Review	NEPA	National Environmental Policy Act
CAP	Continuing Authorities Program	O&M	Operation and maintenance
CSDR	Coastal Storm Damage Reduction	OMB	Office and Management and Budget
DI	Design and Implementation Phase	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
DPR	Detailed Project Report	OEO	Outside Eligible Organization
DQC	District Quality Control/Quality Assurance	OSE	Other Social Effects
DX	Directory of Expertise	PCX	Planning Center of Expertise
EA	Environmental Assessment	PDT	Project Delivery Team
EC	Engineer Circular	PAC	Post Authorization Change
EIS	Environmental Impact Statement	PMP	Project Management Plan
EO	Executive Order	PL	Public Law
ER	Ecosystem Restoration	QMP	Quality Management Plan
FDR	Flood Damage Reduction	PPA	Project Partnership Agreement
FEMA	Federal Emergency Management Agency	QA	Quality Assurance
FID	Federal Interest Determination	QC	Quality Control
FRM	Flood Risk Management	RED	Regional Economic Development
FSM	Feasibility Scoping Meeting	RMC	Risk Management Center
GRR	General Reevaluation Report	RMO	Review Management Organization
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RTS	Regional Technical Specialist
IEPR	Independent External Peer Review	SAR	Safety Assurance Review
LRR	Limited Reevaluation Report	USACE	U.S. Army Corps of Engineers
MSC	Major Subordinate Command	WRDA	Water Resources Development Act