

DECISION DOCUMENT REVIEW PLAN

**Lick Run, Allegheny County, Pennsylvania
Section 14 Project**

Pittsburgh District

MSC Approval Date: 18 August 2015

Last Revision Date: None



**US Army Corps
of Engineers®**

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1. PURPOSE AND REQUIREMENTS

- a. **Purpose.** This Review Plan defines the scope and level of peer review for the Lick Run Section 14, Allegheny County, Pennsylvania 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 based on the model Programmatic Review Plan for Section 14, 107, 111, 204, 206, 208 and 1135 project decision documents, which is applicable to projects that do not require Independent External Peer Review (IEPR), as defined in EC 1165-2-214 Civil Works Review Policy. A Section 14, 107, 111, 204, 206, 208 and 1135 project does not require 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.

c. References

- (1) Engineering Circular (EC) 1165-2-214, Civil Works Review, 15 Dec 2012
- (2) Director of Civil Works' Policy Memorandum #1, Jan 19, 2011
- (3) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2010

- (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 ensuring that planning models and analysis are compliant with Corps policy, theoretically sound, computationally accurate, transparent, described to address any limitations of the model or its use, and documented in study reports (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 Great Lakes and Ohio River Division (LRD) for this study. LRD maintains authority and oversight but delegates the coordination and management of decision document ATR to the District, the Pittsburgh District (LRP) for this study. LRP will post the MSC approved review plan on its public website. A copy of the approved review plan (and any updates) will be provided to the appropriate Planning Center of Expertise to keep the PCX apprised of requirements and review schedules.

3. STUDY INFORMATION

- a. Decision Document.** The Lick Run Emergency Streambank Section 14 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 LRD. An Environmental Assessment (EA) will be prepared along with the decision document. The EA for this study referred to the Pittsburgh District Programmatic EA titled Programmatic Environmental Assessment – Regional Emergency Streambank Protection Program with Special Conditions Pursuant to Section 14 of the 1946 Flood Control Act as Amended dated August 2006.
- b. Study/Project Description.** This study is to determine the feasibility of protecting facilities along Lick Run that form part of the Pleasant Hills Authority Sewage Treatment Plant. The Pleasant Hills Authority is the study sponsor, hereinafter designated as sponsor. The project area is located on the right bank of Lick Run within the corporate limits of South Park Township and Jefferson Hills Borough, both suburbs of the City of Pittsburgh. Erosion occurring over a distance of about 675 feet is threatening the lime tower, generator building and clarifier tank facilities within this plant. Three protection alternatives and the no-action plan have already been evaluated. The no-action plan has been defined as no protection being provided and bank erosion continuing until structural failure of the threatened facilities occurs. The protection alternatives considered different ways to protect the streambank, one would use a stone/interlocking block wall, another consisting of a

combination stone/concrete wall and the third being a combination stone/post and panel wall. Other forms of protection were considered such as bioremediation but eliminated as impractical due to steep bank and close proximity to the facilities. The cost of the No Action Plan has been estimated based on the replacement cost of the threatened facilities. A draft report was prepared and an Agency Technical Review conducted by reviewers from other districts. In 2011, study costs reached \$100,000, the cap for federal funding without non-federal cost share. This review plan focuses on the remaining activities and associated costs to complete the feasibility study phase only. Remaining tasks include completing the Feasibility Cost Share Agreement, updating the PDT team as several original members are no longer with the organization, revising the ATR team as appropriate, revising the report based on lessons learned from the uncompleted 2011 ATR, conducting the Alternative Formulation Briefing, conducting new DQC, ATR, and legal reviews of the revised report, updating NEPA and re-coordinating with resource agencies as appropriate, and finalizing report.

- c. Factors Affecting the Scope and Level of Review.** The recommended plan is expected to be low cost and routine without any significant factors requiring any special treatment such as Type I Independent External Peer Review. The Governor of Pennsylvania has not requested any peer review by independent experts. The project is situated far enough away from any population so as to not constitute a threat to human safety. No novel construction methods are required by any alternatives and therefore should not present any challenges to a competent construction firm. Due to the small footprint and lack of public interest expressed so far, the project is not likely to involve significant public dispute concerning size, nature or effects. The simple nature of streambank protection (using various materials) should not require any specialize redundancy, resiliency, and/or robustness, unique construction sequencing, or complicated construction schedule. The only factor that could conceivably complicate any construction is if facility failure is occurring such that special measures would need to be taken to ensure that project implementation would not exacerbate facility failure. The likelihood of this occurring is deemed to be very small and not worthy of consideration in any protection alternative. Project justification will not involve net benefits nor benefit cost ratios. The report will be updated to describe and consider existing site conditions in the project recommendations. The recommended plan will be the least cost alternative if it is less costly than the Do Nothing alternative.
- 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. No in-kind products or analyses are to be provided by the sponsor.

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.

Due to the uncomplicated nature of the report, all DQC will be performed by the immediate supervisors, or senior experienced member of their staff, of the Project Delivery Team (PDT). DQC comments will be documented using DrChecks (ProjNet) software 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.** ATR has been and will be performed for the draft feasibility report and cost estimates in accordance with the regional Quality Management System. 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 feasibility report and appendices.
- b. Required ATR Team Expertise.** The ATR Review team for this study established in 2010 consists of personnel from outside of the Pittsburgh District in the disciplines of plan formulation, environmental compliance, civil and cost engineering, and real estate. No economics reviewer is required as project justification does not require any comparison of benefits with costs. No operations disciplines are necessary due to the stationary nature of the alternatives. Alternative costs are critical for Section 14 project evaluations; therefore the cost reviewer will be added the Walla-Walla District Center of Expertise. However, a Real Estate representative will be added to this team to address real estate issues in the feasibility report and Real Estate Plan. ATR team members and lead are noted in Attachment 1.

ATR Lead	The ATR lead should be a senior professional preferably with experience in preparing Section 14 decision documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. Typically, the ATR lead will also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc). The ATR Lead will be from outside the Great Lakes and Ohio River Division.
Plan Formulation	The Planning reviewer should be a senior water resources planner preferably with experience in Section 14 Studies or similar types of studies.
Environmental	The Environmental Reviewer should be a senior environmental professional with NEPA experience.
Cost Engineering	Cost MCX Staff or Cost MCX Pre-Certified Professional as assigned by the Walla Walla Cost Engineering Mandatory Center of Expertise preferably with experience preparing cost estimates for Section 14 Studies or similar types of studies.
Real Estate	The real estate reviewer should preferably have experience in real estate plans associated with Section 14 studies or similar types of studies.
Civil Engineering	The civil engineering reviewer should have experience in the design of retaining walls or analogous types of work.

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 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 EC 1165-2-214 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. 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 1165-2-214, 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:

- A Type I IEPR for the Lick Run feasibility study is not required as all criteria listed in paragraph 1.b are met.
 - A Type II Safety Assurance Review on design and construction activities of the Lick Run Section 14 project resulting from this study is not expected to be required for design or construction activities for the plan identified as viable as there are no potential hazards associated with any viable project that pose a significant threat to human life.
- 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. All of the criteria outlined in paragraph 1(b) are met. A Type II Safety Assurance Review is not expected to be required for design or construction activities for the plan identified as viable as there are no potential hazards associated with any viable project that pose a significant threat to human life.
- 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 MANDATORY CENTER OF EXPERTISE (MCX) REVIEW AND CERTIFICATION

All decision documents shall be coordinated with the Cost Engineering MCX, located in the Walla Walla District. For decision documents prepared under the model Programmatic Review Plan, Regional cost personnel that are pre-certified by the MCX, and assigned by the Cost Engineering MCX, will conduct the

cost engineering ATR. The MCX will provide the Cost Engineering MCX certification. The Cost Engineering MCX will make the selection of the cost engineering ATR team member. The cost to complete the certification is tentatively estimated at \$3000 and will require about two weeks.

9. MODEL CERTIFICATION AND APPROVAL

No planning or engineering models will be used in the plan formulation or economic and environmental evaluation of alternatives for this study.

10. REVIEW SCHEDULES AND COSTS

- a. ATR Schedule and Cost.** The ATR comments and evaluations submitted in 2010 will be evaluated and the report revised as appropriate. The revised report and responses to the original ATR comments will then be submitted to the new ATR team for additional comments if necessary. The ATR is tentatively scheduled to begin January 2016 but could start much earlier depending on the report preparation and availability of the ATR team. The cost is tentatively estimated as \$8000 and will require about four weeks (initial ATR review-2 weeks; PDT evaluation of ATR comments-1 week; ATR back check of PDT's evaluation comments-1 week).
- b. Type I IEPR Schedule and Cost.** Not applicable.
- c. Model Review Schedule and Cost.** Not applicable.

11. PUBLIC PARTICIPATION

A Finding of No Significant Impact (FONSI) has been determined for this project based on a Programmatic Environmental Assessment (PEA) for the Regional Emergency Streambank Protection Program signed by the Pittsburgh District Engineer in 2006. The PEA was circulated to Federal and state agencies as well as the public prior to finalizing the FONSI. Subsequent coordination with resource agencies for the Lick Run study included development of a Pennsylvania Natural Database Inventory review to fulfill requirements of the Endangered Species Act and communication with the State Historic Preservation Officer (Pennsylvania Historical and Museum Commission-SHPO) to fulfill requirements of Section 106 of the National Historic Preservation Act. Additional public coordination of any draft documents for comment is not anticipated.

12. REVIEW PLAN APPROVAL AND UPDATES

The home MSC Commander is responsible for approving this review plan and ensuring that use of the Model Programmatic Review Plan is appropriate for the specific project covered by the plan. 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. Significant changes may result in the MSC Commander determining that use of the Model Programmatic Review Plan is no longer appropriate. In these cases, a project specific review plan will be prepared and approved in accordance with EC 1165-2-214 and Director of Civil Works' Policy Memorandum #1. 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:



ATTACHMENT 1: TEAM ROSTERS.

Project Delivery Team:

Plan Formulation/Environmental: [REDACTED]

Civil Engineering: [REDACTED]

Cost Engineering: [REDACTED]

Real Estate: [REDACTED]

District Quality Control Team (to be confirmed):

Plan Formulation and Economics Chief: [REDACTED]

Civil Design Chief: [REDACTED]

Technical Design (for Cost Engineering) Chief: [REDACTED]

Real Estate Chief: [REDACTED]

Agency Technical Team (Original ATR Team members are denoted below by *, future participation to be confirmed by MSC):

Lead and Plan Formulation: [REDACTED]

Environmental: [REDACTED]

Civil Engineering: [REDACTED]

Cost Engineering: [REDACTED]

Real Estate: [REDACTED]

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 Lick Run Section 14 Streambank Protection, Allegheny County, Feasibility Report. 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 (home district)
Office Symbol

Date

SIGNATURE

Name
Architect Engineer Project Manager¹
Company, location

Date

SIGNATURE

Name
Review Management Office Representative (or Delegate)
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 (home district)
Office Symbol

Date

SIGNATURE

Name
Chief, Planning Division (home district)
Office Symbol

Date

¹ Only needed if some portion of the ATR was contracted

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
DPR	Detailed Project Report	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
DQC	District Quality Control/Quality Assurance	OEO	Outside Eligible Organization
DX	Directory of Expertise	OSE	Other Social Effects
EA	Environmental Assessment	PCX	Planning Center of Expertise
EC	Engineer Circular	PDT	Project Delivery Team
EIS	Environmental Impact Statement	PAC	Post Authorization Change
EO	Executive Order	PMP	Project Management Plan
ER	Ecosystem Restoration	PL	Public Law
FDR	Flood Damage Reduction	QMP	Quality Management Plan
FEMA	Federal Emergency Management Agency	QA	Quality Assurance
FRM	Flood Risk Management	QC	Quality Control
FSM	Feasibility Scoping Meeting	RED	Regional Economic Development
GRR	General Reevaluation Report	RMC	Risk Management Center
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RMO	Review Management Organization
IEPR	Independent External Peer Review	RTS	Regional Technical Specialist
LRR	Limited Reevaluation Report	SAR	Safety Assurance Review
MSC	Major Subordinate Command	USACE	U.S. Army Corps of Engineers
		WRDA	Water Resources Development Act