DECISION DOCUMENT REVIEW PLAN

USING THE PROGRAMMATIC REGIONAL REVIEW PLAN

Pools 2 and 3 Allegheny River Islands Restoration, Pennsylvania

Continuing Authority Program Section 1135

Pittsburgh District

LRD Approval Date: *12/11/15*

Last Revision Date: *12/8/15*

US Army Corps
of Engineers ®

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I. PURPOSE AND REQUIREMENTS

A. Purpose

This Review Plan defines the scope and level of peer review for the Pools 2 and 3 Allegheny River Islands Restoration Section 1135 project decision document.

Section 1135 of the Water Resources Development Act of 1986, Public Law 99-662, provides the authority to modify existing Corps projects to restore the environment and construct new projects to restore areas degraded by Corps projects with the objective of restoring degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition considering the ecosystem's natural integrity, productivity, stability and biological diversity. This authority is primarily used for manipulation of the hydrology in and along bodies of water, including wetlands and riparian areas. 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 CAP is a delegated authority to plan, design, and construct certain types of water resource and environmental restoration projects without specific Congressional authorization.

B. Applicability

This review plan is based on the LRD CAP Programmatic Review Plan Model, which includes the GLFER Section 506 and Lake Michigan Waterfront Section 125 programs and accounts for CAP Section 103 and Section 205 projects that require case-by-case determinations on the appropriateness of Type I Independent External Peer Review (IEPR). The LRD CAP Programmatic Review Plan Model **is not approved** for use on any CAP, GLFER or Lake Michigan Waterfront projects where:

- A significant threat to human life/safety assurance exists;
- Total Project Cost are likely to exceed the limits established for the applicable Section in law.
- The Governor of an affected state has requested a peer review by independent experts;
- An Environmental Impact Statement (EIS) is required;
- Significant public dispute is likely due to the size, nature, or effects of the project;
- Significant public dispute is likely due to the economic or environmental cost or benefit of the project;
- Complex challenges will likely require use of novel methods, innovative materials, new techniques, precedent-setting methods or models, or result in conclusions that are likely to change prevailing practices;
- Redundancy, resiliency, and/or robustness are required or unique construction sequencing, or a reduced or overlapping design construction schedule will likely be required; or

- The Chief of Engineers or Director of Civil Works is likely to determine Type I IEPR is warranted.

If any of the circumstances above exist on the subject project, the LRD CAP Programmatic Review Plan Model is not applicable and a study specific review plan must be prepared by the home district, coordinated with the appropriate Planning Center of Expertise (PCX) and approved by the LRD in accordance with EC 1165-2-214.

Applicability of the LRD CAP Programmatic Review Plan Model for a specific project is initially determined by the Pittsburgh District and subsequently approved by the LRD Commander. If the LRD determines that the model plan is applicable for a specific study, the LRD Commander may approve the plan (including exclusion from IEPR) without additional coordination with a PCX or Headquarters, USACE. The initial decision as to the applicability of the model plan shall be made no later than the Federal Interest Determination (FID) milestone (as defined in Appendix F of ER 1105-2-100, F-10.e.1) during the feasibility phase of the project. A review plan for the project will subsequently be developed and approved prior to execution of the Feasibility Cost Sharing Agreement (FCSA) for the study. In addition, per EC 1165-2-214, the home district and LRD shall assess at the MSC Decision Meeting (MDM) whether the initial decision on Type I IEPR is still valid based on new information. If the decision on Type I IEPR has changed, the District and LRD shall promptly begin coordination with the appropriate PCX.

After approval of the project decision document and prior to execution of a Project Partnership Agreement with the non-federal sponsor to implement the Pools 2 and 3 Allegheny River Islands Restoration project, this review plan shall be updated and revised by the Pittsburgh District, and subsequently approved by the LRD Commander. The revised and approved review plan shall specify the Design and Implementation phase products to be reviewed and the associated level of peer review of each, including the appropriateness of a Type II IEPR (Safety Assurance Review).

C. References

(1) Engineering Circular (EC) 1165-2-214, Civil Works Review, 15 Dec 2012
(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 F, Continuing Authorities Program, Amendment #2, 31 Jan 2007
(5) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007
(6) Project Management Plan for Pools 2 and 3 Allegheny River Islands Restoration Section 1135

D. Requirements

This review plan was developed from the LRD CAP Programmatic Review Plan Model. It was developed in accordance with EC 1165-2-214 and 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 Major Subordinate Command (MSC) 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). Additionally, it ensures 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).

II. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The Review Management Organization (RMO) is responsible for managing the overall peer review effort described in this review plan. The RMO for CAP Section 1135 decision documents is typically LRD. However, in cases where Type I IEPR is scheduled, the appropriate Planning Center of Expertise (PCX) shall be designated as the RMO. RMO designation and an initial determination of whether Type I IEPR will be scheduled for Section 103, Section 205 or any other CAP decision documents will be made on a case-by-case basis at the FID approval stage. During the FID approval process, the home District may request LRD to delegate its RMO responsibility to the most appropriate PCX for any CAP project. The LRD maintains authority and oversight but may delegate the coordination and management of decision document reviews to the District, as specified herein. The home District is responsible for posting the LRD approved review plan on its public website.

When Type I IEPR will be performed, the home District and LRD will coordinate the Type I IEPR effort with the appropriate PCX, which will administer the Type I IEPR. The home District will post the approved review plan and approval memorandum on its public website. A copy of the approved review plan (and any updates) will be provided to the ECO-PCX to keep the PCX apprised of requirements and review schedules for each LRD CAP decision document subject to Type I IEPR.

III. STUDY INFORMATION

A. Decision Document.

The Pools 2 and 3 Allegheny River Islands Restoration Section 1135 decision document will be prepared in accordance with ER 1105-2-100, Appendix F. The preferred decision document format is contained in the Detailed Project Report (DPR) template in the LRD CAP Program Management Plan/Standard Operating Procedures, which integrates the environmental documentation required under NEPA and other relevant environmental statutes into the project decision document. The purpose of a DPR is to document the basis for a recommendation to invest Federal and non-Federal resources to address a local water resource problem or opportunity of significance to the Nation. The approval level of the decision document is the LRD Commanding General.

B. Study/Project Description.

This study will evaluate alternatives for ecosystem restoration immediately upstream and downstream of Lock and Dam 3 in Allegheny County, Pennsylvania on Allegheny Islands State Park which consists of two undeveloped alluvial islands and multiple shoals. The alternatives will seek to address problems

related to improving aquatic and riparian habitat, combating proliferation of invasive species, and erosion. Alternatives are expected to range between $300,000- $600,000 and will be comprised of management measures including restoration of fisheries habitat through the placement of habitat structure, removal of invasive species and restoration of native species, placement of in river erosion minimization structures and soft bank stabilization through the use of native species plantings. The non-Federal sponsor for this project is the Pennsylvania Department of Conservation and Natural Resources who will likely provide most of their feasibility study level costs via in kind services (data collection, contributions to technical analyses and report sections and project coordination). It is not anticipated that any policy waivers will be required for this project.

C. Factors Affecting the Scope and Level of Review.

This study is considered routine without any significant factors requiring special treatment such as Independent External Peer Review. The Governor of Pennsylvania has not requested any peer review by independent experts. The project is situated away from major population centers and resolves an issue that does not constitute a direct threat to human safety. The project is not likely to involve significant public dispute concerning size, nature or effects. The project has been requested by the DCNR who own the area impacted by a potential project.

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. It is anticipated that the sponsor will provide most of their cost share as in kind services for this project including data collection, contributions to technical analyses and report sections and project coordination.

IV. 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 LRD as documented in Qualtrax. Attachment 1 lists the DQC team members according to area of technical expertise.

A. Documentation of DQC.

DQC comments will be documented using the DrChecks (Projnet) software.

B. Products to Undergo DQC.

The Detailed Project Report, NEPA document, and all engineering appendices will undergo DQC.

C. Required DQC Expertise.

All DQC will be performed by the immediate supervisors of the Project Delivery Team (PDT).

V. 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 LRD.

A. Products to Undergo ATR.

ATR will be performed throughout the study in accordance with the regional Quality Management System as found in Qualtrax. The ATR shall be documented and discussed at the MDM milestone. Certification of the ATR will be provided prior to the District Commander signing the final report. Products to undergo ATR include the Design Project Report, NEPA document, and all engineering appendices.

B. Required ATR Team Expertise.

The Table below lists the technical disciplines and requisite expertise deemed appropriate to successful accomplishment of the subject project. The selected ATR members are listed according to discipline in Attachment 1.

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior level employee preferably with experience in preparing Section 1135 or other CAP 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 MUST be from outside LRD. The ATR lead will also fulfill the planning/plan formulation role.
Plan Formulation	The Planning reviewer should be a senior water resources planner with experience in aquatic habitat restoration and preparing CAP studies. The plan formulator should be familiar with planning projects within an active navigation pool. The ATR lead will also fulfill the planning/plan formulation role.

Environmental Resources/NEPA	The environmental reviewer should have experience with freshwater aquatic habitat restoration, preferably with big river fish species and island restoration. The environmental reviewer should also be a NEPA expert with familiarity with Clean Water Act permitting and the Corps regulatory program. The environmental reviewer should have experience with the IWR Planning Suite and conducting cost effectiveness/incremental cost analysis to determine best buy plans.
Hydraulic Engineering	The hydraulic engineering reviewer will be an expert in the field of hydraulics, have a thorough understanding of river dynamics, sediment transport, and be comfortable interpreting results from computer modeling methods such as HEC-RAS including flows in relation to navigation channels.
Civil/Geotechnical Engineering	The civil/geotechnical engineering reviewer should be familiar with aquatic ecosystem restoration projects including natural bank stabilization and placement of in river structures including chevrons and dikes.
Cost Engineering	Cost MCX Staff or Cost MCX Pre-Certified Professional as assigned by the Walla Walla Cost Engineering Mandatory Center of Expertise with experience preparing cost estimates for ecosystem restoration projects.
Real Estate	The real estate reviewer will be a senior level expert with experience in developing real estate plans and estimates for CAP studies.

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, LRD, 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.

VI. Independent External Peer Review

While CAP projects are generally smaller and less technically complicated than specifically authorized feasibility studies, IEPR may be required for CAP 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. Where designated, IEPR panels will consist of independent, recognized technical experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable for planning, design and construction of a Civil Works project. There are two types of IEPR:

- Type I IEPR. Type I IEPR reviews are managed outside the USACE and are conducted on project feasibility studies, which upon approval, serve as a federal decision document. 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. Type I IEPR covers the entire decision document, including key component actions taken to address the 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 1165-2-214.

  CAP project decision documents are generally excluded from Type I Independent External Peer Review (IEPR) except those under Section 103 and Section 205. The exceptions are any project that requires an EIS or any project that meets the mandatory triggers stated in Appendix D of EC 1165-2-214. Due to the nature of flood risks, Section 103 and Section 205 decision documents require a case-by-case risk informed decision to conduct a Type I IEPR, which may be prepared using the LRD CAP Programmatic Review Plan Model or prepared as a project specific Review Plan that meets the requirements of EC 1165-2-214. Section VI.A below specifies the project specific circumstances and rationale for Type I IEPR of the Pools 2 and 3 Allegheny River Islands Restoration project decision document.

- Type II IEPR. Type II IEPR, or Safety Assurance Review (SAR), is managed outside the USACE and is 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. Type II IEPR 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.

The decision on whether Type II IEPR is required will be verified and documented in the review plan prepared for the design and implementation phase of the project, which shall be completed and approved prior to execution of a Project Participation Agreement with the non-federal sponsor.

A. Decision on IEPR.

EC 1165-2-214 exempts CAP Section 1135 projects from Type I IEPR, and based on the consideration of project specific factors presented in Section III.C relative to the criteria in Paragraph I.B above, the level of risk of the Pools 2 and 3 Allegheny River Islands Restoration project does not warrant a Type I IEPR of the project decision document.

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

VII. 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 LRD 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.

VIII. COST ENGINEERING MANDATORY CENTER OF EXPERTISE AND AGENCY TECHNICAL REVIEW (MCX) REVIEW AND CERTIFICATION

The home District is responsible for coordinating with the Cost Engineering MCX located in the Walla Walla District for review of the cost estimate for all CAP decision documents. For decision documents prepared under the LRD CAP Programmatic Review Plan Model, 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. Either the designated ATR Lead or the Cost Engineering MCX shall make the selection of the cost engineering ATR team member.

IX. MODEL CERTIFICATION AND APPROVAL

The approval of planning models under EC 1105-2-412 is not required for CAP projects. MSC Commanders are responsible for assuring 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. Therefore, the use of a certified/approved planning model is highly recommended and should be used whenever appropriate. Planning models 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 selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC and ATR.

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 and ATR.

A. Planning Models.

The following planning models are anticipated to be used in the development of the decision document:

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Certification / Approval Status
IWR Planning Suite 2.0.6	This model assists with formulating plans, cost-effectiveness, and incremental cost analysis, which are required in ecosystem restoration projects.	Certified
Habitat Suitability Indices	Benefits for alternatives will be calculated using the Habitat Suitability Indices for proxy species for the project target species: such as common shiner, creek chub, or juvenile yellow perch.	Certified

B. Engineering Models.

The following engineering models are anticipated to be used in the development of the decision document:

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Approval Status
HEC-RAS 4.1 (River Analysis System)	The Hydrologic Engineering Center's River Analysis System (HEC-RAS) program provides the capability to perform one-dimensional steady and unsteady flow river hydraulics calculations. The program will be used for steady flow analysis to evaluate the future without- and with-project conditions along the Wild River and its tributaries. [For a particular study the model could be used for unsteady flow analysis or both steady and unsteady flow analysis. The review plan should indicate how the model will be used for a particular study.]	HH&C CoP Preferred Model

X. REVIEW SCHEDULES AND COSTS

A. ATR Schedule and Cost.

The ATR is estimated to cost $25,000 and will take approximately six weeks (2 weeks for the ATR team to provide comments, 2 weeks for the PDT to coordinate and provide responses, and 2 weeks for back check and close-out of the ATR). The ATR is scheduled to start in December 2016.

B. Type I IEPR Schedule and Cost.

Not Applicable

C. Model Review Schedule and Cost.

For decision documents prepared under the LRD CAP Programmatic Review Plan Model, use of existing certified or approved planning models is encouraged. Where uncertified or unapproved models are used, review of the model for use will be accomplished through the ATR process. The ATR team should 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. If specific uncertified models are identified for repetitive use within a specific district or region, the appropriate PCX, MSC(s), and home District(s) will identify a unified approach to seek certification of these models.

XI. PUBLIC PARTICIPATION

State and Federal resource agencies may be invited to participate in the study covered 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 scoping meeting will be held on this project once the feasibility study is initiated and state and federal agencies with expertise will be

worked with directly. The final report, NEPA document and draft FONSI will be available for public review via the LRP District Homepage.

XII. REVIEW PLAN APPROVAL AND UPDATES

The LRD Commander is responsible for approving this review plan and ensuring that use of the LRD CAP Programmatic Review Plan Model 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 LRD 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 LRD Commander following the process used for initially approving the plan. Significant changes may result in the MSC Commander determining that use of the LRD CAP Programmatic Review Plan Model 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.

XIII. REVIEW PLAN POINTS OF CONTACT

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

- [redacted]

ATTACHMENT 1: TEAM ROSTERS.

PDT			
[redacted]	Team Lead / Plan Formulator / Biologist	[redacted]	[redacted]
[redacted]	DCNR Lead	[redacted]	[redacted]
[redacted]	Environmental / Cultural Resources	[redacted]	[redacted]
[redacted]	H&H Engineer	[redacted]	[redacted]
[redacted]	Civil Engineer	[redacted]	[redacted]
[redacted]	Realty Specialist	[redacted]	[redacted]
[redacted]	Cost Engineer	[redacted]	[redacted]
[redacted]	GIS Specialist	[redacted]	[redacted]
[redacted]	Geotechnical Engineer	[redacted]	[redacted]
DQC			
[redacted]	Plan Formulation / Biology	[redacted]	[redacted]
[redacted]	Environmental / Cultural Resources	[redacted]	[redacted]
[redacted]	H&H Engineer	[redacted]	[redacted]
[redacted]	Civil Engineer	[redacted]	[redacted]
[redacted]	Real Estate	[redacted]	[redacted]
[redacted]	Cost Engineering	[redacted]	[redacted]
[redacted]	GIS Specialist	[redacted]	[redacted]
[redacted]	Geotechnical Engineer	[redacted]	[redacted]
ATR			
[redacted]	ATR Lead/Plan Formulation	[redacted]	[redacted]

[redacted]			
[redacted]	Environmental /NEPA	[redacted]	[redacted]
[redacted]	Hydraulic Engineer	[redacted]	[redacted]
[redacted] (MVM)	Civil/Geotechnical Engineering	[redacted]	[redacted]
[redacted]	Cost Engineering	[redacted]	[redacted]
[redacted]	Real Estate	[redacted]	[redacted]

ATTACHMENT 2: 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 DrChecks[sm].

SIGNATURE

_____ _____

Name Date

ATR Team Leader

Office Symbol/Company

SIGNATURE

_____ _____

Name Date

Project Manager (home district)

Office Symbol

SIGNATURE

_____ _____

Name Date

Architect Engineer Project Manager[1]

Company, location

SIGNATURE

_____ _____

Name Date

Review Management Office Representative (or Delegate)

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 (home district)

Office Symbol

SIGNATURE

Name Date

Chief, Planning Division (home district)

Office Symbol

SIGNATURE

Name Date

Chief, Real Estate (home district)

Office Symbol

[1] Only needed if some portion of the ATR was contracted

ATTACHMENT 3: REVIEW PLAN REVISIONS LOG

Revision Date	Description of Change	Page / Paragraph Number

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

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