

**DECISION DOCUMENT REVIEW PLAN
USING THE PROGRAMMATIC REVIEW PLAN MODEL
for
Continuing Authorities Program**

**Honey Creek Aquatic Ecosystem Restoration
City of Wauwatosa, Milwaukee County, Wisconsin**

**Section 206, Water Resources Development Act of 1996, as Amended
Aquatic Ecosystem Restoration Projects**

Detroit District

MSC Approval Date: March 2015

Last Revision Date: None



**US Army Corps
of Engineers®**

TABLE OF CONTENTS

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

1. PURPOSE AND REQUIREMENTS

- a. **Purpose.** This Review Plan defines the scope and level of peer review for the **Honey Creek Aquatic Ecosystem Restoration, City of Wauwatosa, Milwaukee County, Wisconsin**. Aquatic Ecosystem Restoration project decision document developed under Section 206, Water Resources Development Act (WRDA) of 1996, as amended.

Section 206 of the Water Resources Development Act of 1996, Public Law 104-305, authorizes the Secretary of the Army to carry out a program of aquatic ecosystem restoration 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. This authority also allows for dam removal. 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 206 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 206 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.

If any of the above criteria are not met, the model Programmatic Review Plan 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 home Major Subordinate Command (MSC) in accordance with EC 1165-2-214.

Applicability of the model Programmatic Review Plan for a specific project is determined by the home MSC. If the MSC determines that the model plan is applicable for a specific study, the MSC 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 should 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 MSC should assess at the Alternatives Formulation Briefing (AFB) 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 MSC should begin coordination with the appropriate PCX immediately.

This programmatic review plan may be used to cover implementation products. Following the format of the model programmatic review plan, the project review plan may be modified to incorporate information for the review of the design and implementation phases of the project.

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 programmatic 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 206 decision documents is the home MSC. The MSC maintains authority and oversight but delegates the coordination and management of decision document ATR to the District. The home District 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 Honey Creek Aquatic Ecosystem Restoration project 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. An Environmental Assessment (EA) will be prepared along with the decision document.
- b. **Study/Project Description.** The proposed project would rehabilitate approximately 3,700 lineal feet of a concrete channel in Wauwatosa, Wisconsin located in the greater Milwaukee metropolitan area. The channel was lined with concrete in the 1960's by the City of Milwaukee for conveyance for flood discharges, but suppresses the natural riverine habitat. Alternatives for this study will be designed to:
- Offset degradation and loss of significant habitat in the study area via improvements in native vegetation, physical habitat, and water quality.
 - Contribute to National Ecosystem Restoration through restoration of degraded ecosystem structure, function, and dynamic processes to a less degraded and more naturally functioning condition.
 - Improve natural riverine functions of sedimentation, erosion, hydraulic forces and hydrologic fluctuations.
 - Improve richness and abundance of native plants, fish, and wildlife in both riverine and riparian communities.
 - Improve water quality incidentally through habitat restoration.
 - Reduce and work to eliminate beneficial use impairments (BUIs) within the Milwaukee Estuary Area of Concern (AOC) as identified by the United States Environmental Protection Agency (USEPA). Actions identified in this project may contribute to the delisting of BUIs. The USEPA lists the following BUIs in the Milwaukee Estuary AOC:
 - Restrictions on fish and wildlife consumption,
 - Eutrophication or undesirable algae,
 - Degradation of fish and wildlife populations,
 - Beach closings,
 - Fish tumors or other deformities,
 - Degradation of aesthetics
 - Bird or animal deformities or reproduction problems
 - Degradation of benthos
 - Degradation of phytoplankton and zoo plankton populations
 - Restriction on dredging activities, and
 - Loss of fish and wildlife habitat

The alternative/measures for this project will include: removal of the concrete channel, bank stabilization, creating microhabitat features, and riparian planting. Preliminary costs (total) for this rehabilitation are estimated at \$3.7 million dollars.

- c. **Factors Affecting the Scope and Level of Review.** The Honey Creek Aquatic Ecosystem Restoration Project is similar to other small urban restoration projects and is well suited to development under the Section 206 authority. As such the programmatic CAP Review Plan model is suited for this project.

One of the main challenges to provide aquatic ecosystem restoration for Honey Creek is to develop effective measures that produce benefits that outweigh the project cost. Identifying the resources/species upon which to measure that benefit is of major importance. Technical risks include designing a project that does not impact the 100 - year floodplain and that can effectively withstand large storm events. It is anticipated that this study will not be unique, controversial, or precedent setting, nor will it have significant national importance. This project is considered to have low overall risk and health and human safety factors are minimal.

This project study does not require an IEPR and will not include an Environmental Impact Statement (EIS) since the PDT has determined:

- The project does not involve a significant threat to human life/safety assurance due to the type of project it is and the relatively small amount of water that is impacted by the project;
 - is not expected to be controversial; this is not an expectation that there will be any public dispute as to the size, nature or effects of the project, based on the type of project that it is and the relatively small size;
 - is not expected to have any public dispute as to the economic or environmental cost or benefit of the project.
 - There is no request by the Governor of an affected state for a peer review by independent experts;
 - is not expected to have adverse impacts on scarce or unique cultural or historic resources;
 - 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, because of the simple and small nature of the project.
 - The project design is not anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule because of the simple and straight-forward nature of the 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. Work-in-kind (WIK) credit from the non-federal sponsored is planned to include, but is not limited to survey work, Phase I ESA (Phase II ESA if required), and credit for real estate costs.

4. DISTRICT QUALITY CONTROL (DQC)

All decision documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC as specified in EC 1165-2-214. 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 Detroit District shall manage DQC according to functional element

ISO 9001 quality procedures both local and regional. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home MSC.

Quality checks and reviews occur during the development process and are carried out as a routine management practice. Quality checks may be performed by staff responsible for the work, such as supervisors, work leaders, team leaders, designated individuals from the senior staff, or other qualified personnel. However, they should not be performed by the same people who performed the original work, including managing/reviewing the work in the case of contracted efforts.

The following disciplines will be represented during the DQC process: planning, programs, environmental analysis, design and cost engineering, hydrology, and geotechnical engineering. The DQC reviewers are not members of the PDT and include:

NAME	FUNCTIONAL DISCIPLINE	PHONE
	Planning	
	Programs	
	Environmental Analysis	
	Design and Cost	
	Hydraulics and Hydrology	
	Geotechnical	

Before DQC is conducted, the Project Delivery Team (PDT) reviews the completed draft document to ensure consistency and effective coordination across all project disciplines. Additionally, the PDT is responsible for a complete reading of any reports and accompanying appendices prepared by or for individual PDT members to assure the overall coherence and integrity of the report, technical appendices, and the recommendations, before approval by the Detroit District Commander. DQC efforts will include the necessary expertise to address compliance with published Corps policy. 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 HQ-USACE in accordance with the procedures outlined in Appendix H, ER 1105-2-100 or other appropriate guidance.

MSC and Detroit District quality manuals will prescribe specific procedures for the conduct of DQC including documentation requirements and maintenance of associated records for internal audits to check for proper DQC implementation. For each Agency Technical Review (ATR) event, the ATR team will examine, as part of its ATR activities, relevant DQC records and provide written comment in the ATR report as to the apparent adequacy of the DQC effort for the appropriate product or service.

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 will be performed throughout the study 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 Detailed Project Report (DPR) and Environmental Assessment (EA).
- b. **Required ATR Team Expertise.** Table one presents the proposed ATR team members. The ATR lead has been confirmed (Attachment 1), while the rest of the team will be selected closer to the ATR review date. It is anticipated that the full ATR team will be identified by July 2015.

Table 1. ATR Team members discipline and required expertise.	
ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional preferably with experience in preparing Section 206 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 the home District.
Planning	The Planning reviewer should be a senior water resources planner with experience in ecosystem restoration studies.
Economics	The Economics Team member should have extensive experience with calculating Cost Effectiveness (CE) and conducting an Incremental Cost Analysis (ICA) for restoration projects.
Environmental Resources	The team member should have extensive knowledge of the integration of environmental evaluation and compliance requirements, pursuant to national environmental statutes (NEPA), applicable executive orders and other Federal planning requirements, into the planning of Civil Works comprehensive plans and implementation projects. The team member should also have a thorough understanding of riverine restoration projects and any environmental software used for this project.
Hydraulic Engineering	Team member will have CERCAP certification and a thorough understanding of open channel dynamics in relation to ecosystem restoration projects, application of detention/retention basins and computer modeling techniques that will be used such as Hydrologic Engineering Center - River Analysis System (HEC-RAS).
Geotechnical Engineering	The Geotechnical Engineering reviewer should be a senior civil or geotechnical engineer with experience designing grading plans, bank-protection, excavation or modification, and habitat structures. They will have CERCAP certification.
Civil Engineering	Team member will have CERCAP certification and will be knowledgeable in the art and science of ecosystem restoration

	projects, including the design of channels and detention ponds. Should also be a licensed Professional Engineer.
Cost Engineering	Team member should be familiar with the most recent version of Micro-Computer Aided Cost Estimating System II (MCACES II) software and total project cost summary. The Cost Reviewer should be either Walla Walla District Cost DX staff or Cost Professional Pre-certified by the Cost DX and is required to coordinate with the Cost DX for further cost engineering review and resulting certification. Team member will have CERCAP certification.
Real Estate	Team member(s) should have planning/appraisal/acquisition experience involving ecosystem restoration projects, including, (but not limited to) knowledge of estates to be acquired, induced flooding, zoning/buffer ordinances, and NFS acquisition responsibilities.

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 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:

- **Type I IEPR.** Type I IEPR reviews are managed outside the USACE and are conducted on project 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. Type I IEPR will cover the entire decision document or action and will address all underlying engineering, economics, and environmental work, not just one aspect of the study. For decision documents where a Type II IEPR (Safety Assurance Review) is anticipated during project implementation, safety assurance shall also be addressed during the Type I IEPR per EC 1165-2-214.

For Section 206 decision documents prepared under the model Programmatic Review Plan, Type I IEPR is not required unless mandatory criteria for Type I IEPR has been triggered.

- **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.

For Section 206 decision documents prepared under the model Programmatic Review Plan, Type II IEPR is not anticipated to be required in the design and implementation phase, but this will

need to be verified and documented in the review plan prepared for the design and implementation phase of the 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. If any of the criteria outlined in paragraph 1(b) are not met, this model Programmatic Review Plan is not applicable and a study specific review plan must be prepared by the home district, coordinated with the appropriate PCX and approved by the home MSC in accordance with EC 1165-2-214.
- 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.

9. 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 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 Suite ver 1.0.11.0	Assists with formulating plans, cost-effectiveness, and incremental cost analysis, which are required in ecosystem restoration projects.	Certified
USFWS Habitat Suitability Index (varies, based on model used)	Models provide habitat requirements of identified species for population sustainment to guide water or land use changes in ecosystem restoration projects. These habitat models are useful in quantitative assessments.	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 ver. 4.10	One-dimensional hydraulic model to determine any river flow or stage impacts of potential increased Manning's coefficients in relation to constructing the project.	H&H CoP Preferred Model

10. REVIEW SCHEDULES AND COSTS

- a. ATR Schedule and Cost.**

Description	Scheduled Date	Cost (in 1,000)
ATR of Draft Feasibility Report	January 2016	\$35
Total Estimated ATR Cost		\$35

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

- c. Model Review Schedule and Cost.** For decision documents prepared under the model Programmatic Review Plan, 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.

11. 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.

In accordance with NEPA, the EA, along with the integrated Detailed Project Report, will be made available for a 30 day public comment period. During the public comment period, if the public comments are sent to the USACE by email, then the USACE will respond by email. If the public comments are sent to the USACE by letter, then the USACE will respond by letter. When the comment period is complete the comments will be forwarded to the ATR team lead electronically. During the public review period a public meeting will be held to address concerns of the project. The approved document(s) then will be posted to the District's public website.

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:

POC	Title	Office Phone Number
	Project Manager	
	Planner	
	Division Liaison	

ATTACHMENT 1: TEAM ROSTERS.

Project Delivery Team Roster

Discipline	Name	Office/Agency
Project Manager		CELRE-PM
Lead Planner		CELRE-PL-P
Environmental Analysis		CELRE-PL-E
Economic Analysis		CELRE-PL-P
Real Estate		CELRE-RE
Civil Design Analysis/Technical Coordinator		CERLE-ED-G
Hydrology and Hydraulic Engineering		CELRE-HH-E
Cost Engineering		CELRE-ED-C
Contract Administration Branch		CELRE-EC-A
Contracting		CELRE-CT
Office of Counsel		CELRE-OC

ATR Team Roster

Discipline	Name	Office/Agency
Regional Technical Specialist (RTS)		
Planner		
Economic Analysis		
Environmental Analysis		
Hydrology and Hydraulic Engineering		
Geotechnical Engineering		
Civil Engineering		
Cost Engineering		
Cost Engineering (Costs MCX)		
Real Estate		

* The ATR Team Lead will identify the ATR team when ATR is reasonably expected to start within 6 months. Current schedule suggests an ATR start date during 2nd quarter FY16. Therefore, ATR team will be identified by 4th quarter FY15.

ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECISION DOCUMENTS

COMPLETION OF AGENCY TECHNICAL REVIEW

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

SIGNATURE

Name

ATR Team Leader

Office Symbol/Company

Date

SIGNATURE

Name

Project Manager (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

<u>Term</u>	<u>Definition</u>	<u>Term</u>	<u>Definition</u>
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