

**DECISION DOCUMENT REVIEW PLAN
USING THE REGIONAL REVIEW PLAN MODEL
for**

**Great Lakes Fisheries and Ecosystem Restoration (GLFER) Program
Section 506, Water Resources Development Act of 2000, as Amended**

***DETAILED PROJECT REPORT/ENVIRONMENTAL ASSESSMENT
Henry Ford Estate Dam Modification for
Fish Passage (Fairlane Fish Passage)
Dearborn, Michigan***

Detroit District

**MSC Initial Approval Date: Pending
Last MSC Approved Revision Date: None**



**US Army Corps
of Engineers ®**

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1. PURPOSE AND REQUIREMENTS

- a. **Purpose.** This Regional Review Plan Model defines the scope and level of peer review for the *Henry Ford Estate Dam Fish Passage, Rouge River, Michigan Great Lakes Fisheries and Ecosystem Restoration (GLFER)* Program which was authorized by Section 506, Water Resources Development Act of 2000, as amended by Section 5011 of the Water Resources Development Act of 2007.

Section 506 of the WRDA of 2000 provides authority for restoration of the Great Lakes fishery and ecosystem. Section 506 called for the Secretary to develop a plan to support the management of Great Lakes fisheries not later than one year after the date of enactment of the legislation. That plan, coined the “Support Plan”, provides the guidance for the planning, design, construction, and evaluation of projects to restore, the fishery, ecosystem, and beneficial uses of the Great Lakes in cooperation with other Federal, State, and local agencies and the Great Lakes Fisheries Commission. Costs for the planning, design, construction, and evaluation of restoration projects are cost-shared 65 percent Federal and 35 percent non-Federal. Non-Federal interests may contribute up to 100 percent of their share for projects in the form of services, materials, supplies, or other in-kind contributions. Non-Federal interests will receive credit for lands, easements, rights-of-way, relocations, and dredged material disposal areas needed for project construction and must be responsible for the operation, maintenance, repair, rehabilitation, and replacement of projects. Non-Federal interests may include private and non-profit entities.

The planning process of the GLFER program was closely modeled after planning and implementation program described for section 206 of the WRDA 1996 in the Continuing Authorities Program. Generally projects for study are selected by an integrated panel of Federal and non-Federal Great Lakes natural resources professionals. Projects selected for further study go through a Federally funded reconnaissance phase that results in a document called a “Preliminary Restoration Plan” (PRP). Projects are approved for feasibility level studies based on factors such as benefits to the Great Lakes fisheries and ecosystem, applicability to the GLFER program, implementation costs, and level of sponsorship.

- b. **Applicability.** This review plan is based on the Regional Review Plan Model for GLFER project 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 GLFER project generally does not require IEPR if it is determined during the course of the study that 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 is not likely to have significant economic, environmental, and/or social effects to the Nation;
- The project/study is not likely to have significant interagency interest;
- The project/study is not likely highly controversial;
- The decision document is not likely to contain influential scientific information or be a highly influential scientifically;

- The information in the decision document or proposed 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; and
- The project has not been deemed by the USACE Director of Civil Works or Chief of Engineers to be controversial nature.

If any of the above criteria are not met, the model GLFER Regional Review Plan is not applicable and a study specific review plan must be prepared by the home district, coordinated with the National Ecosystem Planning Center of Expertise (ECO-PCX) and approved by the home Major Subordinate Command (MSC) in accordance with EC 1165-2-214.

Applicability of the model GLFER Regional 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 the ECO-PCX or Headquarters, USACE. The initial decision as to the applicability of the model plan should be made no later than the completion of the Preliminary Restoration Plan. In addition, the home district and MSC should assess at the Alternatives Formulation Briefing (AFB) whether the initial decision on the use of the model plan is still valid or if a project specific review plan should be developed based on new information. If a project specific review plan is required, it must be approved prior to execution of the Feasibility Cost Sharing Agreement (FCSA) for the study.

This Regional Review Plan Model may be used to cover implementation products. Following the format of the Regional Review Plan Model, 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) EC 1105-2-412, Assuring Quality of Planning Models, 11 March 2011
- (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) Implementation Guidance for the Water Resources Development Act of 2007 – Section 5011, Great Lakes Fishery and Ecosystem Restoration Program

- d. Requirements.** This review plan was developed in accordance with EC 1165-2-214, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and operation, maintenance, repair, replacement and rehabilitation (OMRR&R). The EC outlines four general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. In addition to these levels of review, decision documents are subject to cost engineering review and certification (per EC 1165-2-214) and planning model certification/approval (per EC 1105-2-412).

- (1) District Quality Control/Quality Assurance (DQC). All 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 Major Subordinate Command (MSC).
- (2) Agency Technical Review (ATR). ATR is mandatory for all 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 US Army Corps of Engineers (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 a designated Review Management Organization (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.

For documents prepared under the model GLFER Regional Review Plan, the leader of the ATR team shall be from outside the home MSC.

- (3) Independent External Peer Review (IEPR). IEPR may be required for 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 is generally for decision documents and Type II is generally for implementation products.
 - (a) 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 decision documents prepared under the GLFER Regional Review Plan Model, Type I IEPR is not required.

(b) Type II IEPR. Type II IEPR, or Safety Assurance Review (SAR), are managed outside the USACE and are 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 documents prepared under the model GLFER Regional Review Plan, Type II IEPR is not required except where public safety issues are present.

(4) Policy and Legal Compliance Review. All 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.

(5) Cost Engineering DX Review and Certification. All documents shall be coordinated with the Cost Engineering Directory of Expertise (DX), located in the Walla Walla District.

For documents prepared under the GLFER Regional Review Plan Model, Regional cost personnel that are pre-certified by the DX will conduct the cost estimate ATR. The DX will provide the Cost Engineering DX certification.

(6) Model Certification/Approval. EC 1105-2-412 mandates the use of certified or approved models for all planning activities to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. Planning models, for the purposes of the EC, are defined as any models and analytical tools that planners use to define water resources management problems and opportunities, to formulate potential alternatives to address the problems and take advantage of the opportunities, to evaluate potential effects of alternatives and to support decision making. The use of a certified/approved planning model does not constitute technical review of the planning product. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required). EC 1105-2-412 does not cover engineering models used in planning. The responsible use of well-known and proven USACE developed and commercial engineering software will continue and the professional practice of documenting the application of the software and modeling results will be followed. The use of engineering models is also subject to DQC, ATR, and IEPR (if required).

For documents prepared under the GLFER Regional Review Plan Model, use of existing certified or approved planning models is encouraged. Where uncertified or unapproved model are used, approval of the model for use will be accomplished through the ATR

process. The ATR team will apply the principles of EC 1105-2-412 during the ATR to ensure the model is theoretically and computationally sound, consistent with USACE policies, and adequately documented. 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.

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 GLFER decision documents is the home MSC. The MSC will coordinate and approve the review plan and manage the ATR. The home District will post the approved review plan on its public website. A copy of the approved review plan (and any updates) will be provided to the National Ecosystem Planning Center of Expertise (ECO-PCX) to keep the PCX apprised of requirements and review schedules.

3. STUDY INFORMATION

- a. **Decision Document.** The *Henry Ford Estate Dam Fish Passage, Rouge River, Michigan Detailed Project Report (DPR)* decision document will be prepared in accordance with the Great Lakes Fisheries Support Plan April 2006. The approval level of decision documents (if policy compliant) is the home MSC. An Environmental Assessment (EA) will be prepared along with the decision document.

Study/Project Description. The dam at the Henry Ford Estate (known as the Fairlane Mansion) was originally constructed in 1830 and redesigned by noted landscape architect Jens Jensen in 1909 (**Figure 1**). The estate and dam are designated as National Historic Landmarks. The dam is a concrete structure approximately 200 feet long with a 12-foot head. Jensen faced the dam with stepped limestone. Both downstream banks of the dam have limestone faced concrete wing walls that extend several hundred feet along the banks. Together the dam and the wing walls comprise the Estate's historical landscape. The Hydroelectric generators on the estate use the impounded water to produce power for the mansion.

The dam at the Henry Ford Estate is the first dam on the Rouge River, about 8 miles upstream of the Rouge River's confluence with the Detroit River. The next upstream dams along the Middle and Upper Branches of the Rouge are 18 and 36 miles, respectively. Restoring fish passage at the Henry Ford Estate would reconnect non-jumping fish species to historical spawning and rearing habitat. A fish passageway at the Henry Ford Estate would increase the aquatic biodiversity throughout the upper and lower portions of the main branch not only for fish species, but also for macro-invertebrates, mussels, and other aquatic life forms. Fish species that have been identified at the dam by the Michigan Department of Natural Resources (Fisheries Division) include small mouth bass, white suckers, walleye, redhorse suckers, northern pike, and steelhead.



Figure 1. Location Map.

b. Factors Affecting the Scope and Level of Review. Challenges associated with providing fish passage around the dam at the Henry Ford Estate include developing a feasible upstream and downstream component to pass fish, in particular the walleye, around the combined historic dam structure and the operational hydropower facility. Another challenge to providing sustainable passage is the Historical significance of the Henry Estate including the landscape. Regarding the review team, a fisheries expert, along with a civil engineer/designer with experience in fish-passage, would be desirable.

Risks associated with the Ford Estate Dam Fish Passage study include the potential obstruction of the passage due to sedimentation and debris, destruction of the passage due to ice floes, operation and maintenance limitations, risk of invasive species traversing the passage, and the transmission of fish diseases upstream.

The risks associated with passage failure, damage or destruction as a result of sedimentation or ice floes are very real, but these risks can be reduced with a well designed passage. The goal of the project is to allow walleye and other non-jumping species to access high quality spawning and rearing habitat upstream of the dam. If a fish passage were destroyed or damaged, this goal would be delayed or halted completely. Similarly, the limitations associated with operation and maintenance can be detrimental to the ability of the passages to move fish upstream and downstream.

Passing of invasive species or fish diseases upstream or downstream of the dams would result in undesirable impacts not only to the local ecosystem, but could have impacts regionally. If these scenarios were to occur, this would negatively affect the quality of the fish habitat which is contradictory to the goals of the project.

This project will not involve significant threats to human life or safety. The fish will be passed around the dam in a manner that does not disturb the structure or function of the dam. If the fish passage were to fail, the dam would continue to operate however there would be a temporary impact to the Estate's ability to produce hydropower.

Significant interagency interest is not expected beyond supporting the project for its fishery benefits and assisting in the processing of the appropriate permits to allow for construction. However the implementation of the project involves the limited alteration of the Historical Viewshed of the Henry Ford Estate, because of this there is expected be an elevated interest by cultural resource agencies at both the State and Federal level.

It is not expected that the fish passage will be controversial. State and local agencies have expressed that reconnecting historical spawning and rearing habitat is key to the restoration of the Great Lakes Fishery. The fish passage does not involve removing the dam, changing water levels or releasing polluted sediment and is seen as a positive improvement to the area.

Influential scientific information is not contained in this project. Assisting the movement of fish around dams has been thoroughly studied on the Rouge River.

This project is based on methods developed through years of experience passing fish around dams and does not involve the use of innovative or unique techniques. The method chosen for fish passage will be proven, does not contain precedent setting methods or models, does not present complex challenges for interpretation, and is not likely to change prevailing practices.

- c. **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 are anticipated during the feasibility phase of the project.

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. 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 Detroit 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.

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)

- a. Products to Undergo ATR.** ATR will be performed throughout the study in accordance with the regional quality management system (QMS). The ATR shall be documented and discussed at the AFB milestone. Certification of the ATR will be provided prior to the District Commander signing the final report. Products to undergo ATR include the 100% submittal of the Detailed Project Report (DPR), which includes the Environmental Assessment (EA).
- b. Required ATR Team Expertise.**

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional with experience in preparing Section 206 or GLFER 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).
Planning	The Planning reviewer should be a senior water resources planner with experience in ecosystem restoration plan formulation.
Environmental	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 ecosystem restoration planning requirements.
Cultural Resource Specialist	The team member should have extensive knowledge of the compliance requirements, pursuant to Section 106 of the National Historic Preservation Act and executive orders governing Nationally recognized Cultural Resources.
Economics	The Economics Team member should have experience with calculating Cost Effectiveness (CE) and conducting an Incremental Cost Analysis (ICA) for restoration projects.
Hydraulic Engineering	Hydrology & Hydraulics: Team member will be an expert in the field of hydrology & hydraulics and have a thorough understanding of open channel dynamics, application of, flood routing, and watershed hydrology and a working knowledge of HEC-RAS. The H&H Team member should also be knowledgeable about sediment transport modeling.
Geotechnical Engineering	Geotechnical evaluation of dams and spillway structures such as static and dynamic slope stability evaluation; ability to provide the analysis and evaluation of the river and impoundment bottom to support the placement of a pipeline, especially near the dam where some excavation near the dam may be required.
Civil Engineering	Team member will be an expert in the art and science of civil design, especially familiar with the design of dams. Should also be a licensed professional engineer.

Cost Engineering	Cost Engineer: Team member shall be familiar with estimates for civil works (water retention, flood control, etc.), structural work (bridges, overpass, etc.) and environmental clean-up. The Cost Engineer will be required to perform some quantity checks. Be familiar with the USACE estimating software MII in reviewing cost estimate.
Real Estate	The Team member will be an expert in ecosystem restoration planning outside the client district, and selected from the Real Estate ATR Roster.

c. **Documentation of ATR.** DrChecks review software will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. Comments should be limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:

- (1) The review concern – identify the product’s information deficiency or incorrect application of policy, guidance, or procedures;
- (2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not been properly followed;
- (3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and
- (4) The probable specific action needed to resolve the concern – identify the action(s) that the reporting officers must take to resolve the concern.

In some situations, especially addressing incomplete or unclear information, comments may seek clarification in order to then assess whether further specific concerns may exist.

The ATR documentation in DrChecks will include the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district, RMO, MSC, and HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-2-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks with a notation that the concern has been elevated to the vertical team for resolution.

At the conclusion of each ATR effort, the ATR team will prepare a Review Report summarizing the review. Review Reports will be considered an integral part of the ATR documentation and shall:

- Identify the document(s) reviewed and the purpose of the review;
- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions;
- Identify and summarize each unresolved issue (if any); and

- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

ATR may be certified when all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. The ATR Lead will prepare a Statement of Technical Review certifying that the issues raised by the ATR team have been resolved (or elevated to the vertical team). A Statement of Technical Review should be completed prior to the District Commander signing the final report. A sample Statement of Technical Review is included in Attachment 2.

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

- a. **Decision on IEPR.** Based on the information and analysis provided in paragraph 3(c) 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, the Regional Review Plan Model is not applicable and a study specific review plan must be prepared by the home district, coordinated with the National Ecosystem Planning Center of Expertise (ECO-PCX) and approved by the home Major Subordinate Command (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. MODEL CERTIFICATION AND APPROVAL

- 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 Plan	IWR Plan will be used to identify the NER plan	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	Certification / Approval Status
HEC-RAS	HEC-RAS predicts the impacts that will be experienced during a 100-year flood event. This model will be used to predict 100-year flood elevations	Certified

8. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost.

Description	Scheduled Date	Cost
ATR of Draft Report	Aug 2014	\$0
ATR Certification of Final Report	Sep 2014	\$0
Total Estimated ATR Cost		\$0

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

c. Model Certification/Approval Schedule and Cost. For documents prepared under the model GLFER Regional Review Plan, use of existing certified or approved planning models is encouraged. Where uncertified or unapproved model are used, approval of the model for use will be accomplished through the ATR process. The ATR team will apply the principles of EC 1105-2-412 during the ATR to ensure the model is theoretically and computationally sound, consistent with USACE policies, and adequately documented. 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.

9. 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. 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 feasibility study and the Environmental Assessment (EA) will be released to the general public for a 30 day review period and a public meeting will be held during the review period.

10. REVIEW PLAN APPROVAL AND UPDATES

The home MSC Commander is responsible for approving this and ensuring that use of the GLFER Regional 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 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 Regional 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. The latest version of the review plan, along with the MSC Commanders' approval memorandum, will be posted on the home district's webpage.

11. REVIEW PLAN POINTS OF CONTACT

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

POC	Position	Phone Number
	Project Manager	(313) 226-2074
	Project Planner	(313) 226-6815
	Division Liaison	(513) 684-6212
	LRD Environmental	(513) 684-6050

ATTACHMENT 1: TEAM ROSTERS. Include contact information for the PDT, ATR team, and MSC. The credential and years of experience for the ATR team should be included when it is available.

PDT Team Roster

Discipline	Name	Office/Agency
Project Manager		CELRE-PM-C
Lead Planner		CELRE-PL-P
Environmental Analysis		CELRE-PL-E
Environmental Analysis		CELRE-PL-E
Cultural Resources Specialist		CELRE-PL-E
Economic Analysis		CELRE-PL-P
Real Estate		CELRE-RE
Civil Design Analysis		CERLE-ED-G
Geotechnical Analysis		CERLE-ED-G
Hydrology and Hydraulic Engineering		CELRE-HH-E
Cost Engineering		CELRE-ED-C
Contracting		CELRE-CT
Office of Counsel		CELRE-OC

ATR Team Roster

Discipline	Name	Office/Agency
Regional Technical Specialist (RTS)		CENAP
Planner		CENAP
Environmental Analysis		CENAP
Cultural Resources Specialist		CENAP
Economic Analysis		CENAP
Real Estate		CELRN
Civil Design Analysis		CENAP
Geotechnical Engineering		CENAP
Hydrology and Hydraulic Engineering		CENAP
Cost Engineering		CELRB
Cost Engineering (Costs DX)		CENWW

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 _____ Date _____
Name
ATR Team Leader
Office Symbol/Company

SIGNATURE _____ Date _____
Name
Project Manager
Office Symbol

SIGNATURE _____ Date _____
Name
Architect Engineer Project Manager¹
Company, location

SIGNATURE _____ Date _____
Name
Review Management Office Representative
Office Symbol

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: Describe the major technical concerns and their resolution.

As noted above, all concerns resulting from the ATR of the project have been fully resolved.

SIGNATURE _____ Date _____
Name
Chief, Engineering Division
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SIGNATURE _____ Date _____
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Chief, Planning Division
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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
ITR	Independent Technical Review	SAR	Safety Assurance Review
LRR	Limited Reevaluation Report	USACE	U.S. Army Corps of Engineers
MSC	Major Subordinate Command	WRDA	Water Resources Development Act