

**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***

**Little Manistee River Sea Lamprey Barrier,  
Manistee County, Michigan  
Section 506**

**Detroit District**

**MSC Initial Approval Date: 27 December 2013**

**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 Little Manistee River Sea Lamprey Barrier and Trap, Manistee County, 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. 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 highly scientifically influential;
- 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 in nature.

If any of the above criteria are not met, the model GLFER 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.

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, 31 March 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

- 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 (*Policy Compliance Review and Approval of Decision Documents – 20 November 2007*) in 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 Mandatory Center of Expertise (MCX) Review and Certification. All documents shall be coordinated with the Cost Engineering MCX, located in the Walla Walla District.

For documents prepared under the GLFER Regional Review Plan Model, cost personnel that are pre-certified and appointed by the MCX will conduct the cost estimate ATR. The DX will provide the Cost Engineering MCX 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 models 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 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 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 Little Manistee River Sea Lamprey Barrier and Trap, Manistee County, 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.
- b. Study/Project Description.** The United States Fish and Wildlife Service (USFWS), acting as the U.S. sea lamprey control agent for the Great Lakes Fishery Commission (GLFC), is identifying streams in the U.S. where the construction of barriers would be expected to be a successful control measure, be cost effective, and have few adverse ecological effects.

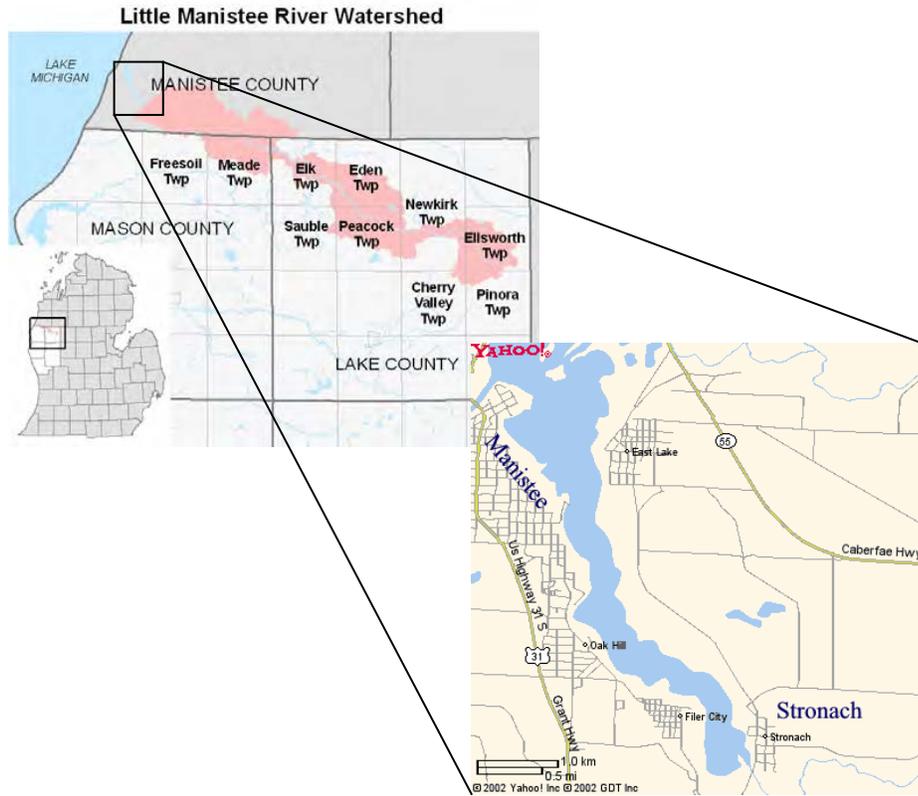
The Little Manistee River is a tributary of Lake Michigan and is located in west-central Michigan in Lake, Mason, and Manistee counties (Figure 1). The Little Manistee River watershed drains 145,280 acres and originates from several wetlands in eastern Lake County, about eight miles east of the Village of Luther. The Little Manistee River flows northwest through most of Lake County, the very northeast tip of Mason County, and then southwestern Manistee County. Manistee Lake empties into Lake Michigan through a channel in the town of Manistee.

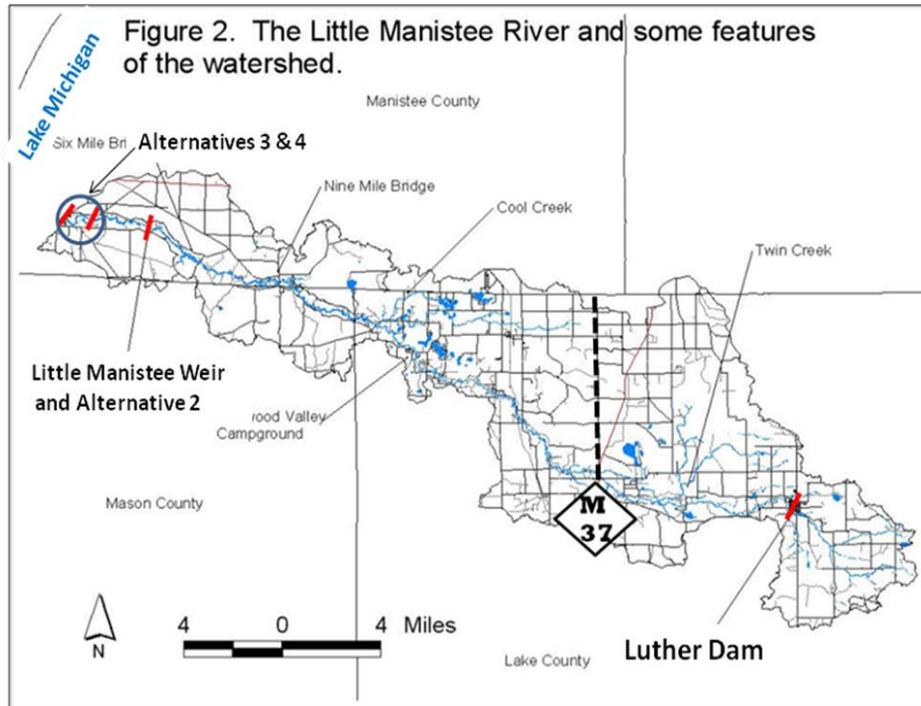
The Little Manistee River is freeflowing for 55 miles downstream of Luther Dam (see Figure 2) before entering Manistee Lake in the Village of Stronach. The only other impoundment on the mainstem of the Little Manistee River is the Little Manistee weir, which is operated seasonally by the MDNR Fisheries Division. The weir is located about three river miles from the mouth of the Little Manistee River on Lake Michigan.

Aggressive chemical control, along with manipulation of the weir gates for blocking access to spawning grounds, has reduced sea lamprey populations to lower, more manageable levels.

However, lamprey populations in the Little Manistee River are still significant. Despite the weir being a considerable barrier to spawning phase sea lamprey, lamprey continue to migrate upstream of the weir. Without TFM (or lampricide) treatments, the USFWS estimates that the Little Manistee River could have a maximum larval population of approximately 615,000.

**Figure 1. Little Manistee River Watershed**





The ideal condition for balancing healthy fisheries and lamprey control in the Little Manistee River would involve the placement of a permanent lamprey barrier with at least 18" of vertical head, and permanent lamprey trap, at or upstream of the Little Manistee weir.

**c. Factors Affecting the Scope and Level of Review.**

The installation of lamprey barriers and the exercise of trapping operations have been implemented throughout the Great Lakes Basin and, as a result, the technologies are fairly developed. There is very little risk or uncertainty associated with the lamprey barrier and trap project.

This project will not involve significant threats to human life or safety. The trap will be constructed in a manner that does not disturb the structure or function of the barrier. If the trap were to fail, the barrier would continue to function normally.

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. Permits allowing for construction in and around the Little Manistee River will involve contacting State agencies.

It is not expected that the sea lamprey trap will be controversial. Local agencies and groups have expressed a need to improve the sea lamprey control on the Little Manistee River. The construction of the trap should not negatively impact the ecology in the adjacent river and is seen as a positive improvement to the area. Hydrologic studies will be performed to determine the impact(s) of the newly-created backwater pool upstream of the barrier. Impacts to native fish migration upstream of the barrier will also be estimated so that others may consider fish-passage options if so desired.

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

##### **Products to Undergo ATR.**

ATR will be performed throughout the study in accordance with EC 1165-2-214 and 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. The reviewer also needs to have invasive species and fish-passage knowledge and experience, preferably of those of the Great Lakes.
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, floodplain inundation, and watershed hydrology.
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 barrier and trap system.
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. Shall 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 EC 1165-2-214 and 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:

<b>Model Name and Version</b>	<b>Brief Description of the Model and How It Will Be Applied in the Study</b>	<b>Certification / Approval Status</b>
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

- b. **Engineering Models.** The following engineering models are anticipated to be used in the development of the decision document:

<b>Model Name and Version</b>	<b>Brief Description of the Model and How It Will Be Applied in the Study</b>	
HEC-RAS ver. 4.10	One-dimensional hydraulic model to determine impacts to raising the pool upstream of a barrier.	H&H CoP Preferred Model

**8. REVIEW SCHEDULES AND COSTS**

- a. **ATR Schedule and Cost.**

<b>Description</b>	<b>Scheduled Date</b>	<b>Cost (in 1,000)</b>
ATR of Draft Feasibility Report	April 2015	
ATR Certification of Feasibility Report	August 2015	
Total Estimated ATR Cost		

- 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. 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. In accordance with EC 1105-2-412, the ATR team will ensure that the applied model and resultant analyses 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.

**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 will 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 Detroit District’s webpage.

**11. REVIEW PLAN POINTS OF CONTACT**

**12. REVIEW PLAN POINT OF CONTACT**

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

Position	Phone Number
Project Manager	(616) 842-5510 (x25521)
District Liaison	513-684-6212

**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.

**Project Delivery Team Roster**

Discipline	Name	Office/Agency
Project Manager		CELRE-PM-C
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
Geotechnical Analysis		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)		MVP
Planner		MVP
Environmental Analysis		MVP
Economic Analysis		MVR/MVP
Real Estate		LRN
Geotechnical Engineering		MVP
Hydrology and Hydraulic Engineering		MVP
Cost Engineering		MVP
Cost Engineering (Costs DX)		NWW

**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 DrChecks<sup>sm</sup>.

SIGNATURE \_\_\_\_\_ Date \_\_\_\_\_  
Name  
ATR Team Leader  
Office Symbol/Company

SIGNATURE \_\_\_\_\_ Date \_\_\_\_\_  
Name  
Project Manager  
Office Symbol

SIGNATURE \_\_\_\_\_ Date \_\_\_\_\_  
Name  
Architect Engineer Project Manager<sup>1</sup>  
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  
Office Symbol

SIGNATURE \_\_\_\_\_ Date \_\_\_\_\_  
Name  
Chief, Planning Division  
Office Symbol

<sup>1</sup> Only needed if some portion of the ATR was contracted

**ATTACHMENT 3: REVIEW PLAN REVISIONS**

<b>Revision Date</b>	<b>Description of Change</b>	<b>Page / Paragraph Number</b>

#### ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

<u>Term</u>	<u>Definition</u>
AFB	Alternative Formulation Briefing
ATR	Agency Technical Review
Corps	U.S. Army Corps of Engineers
DPR	Detailed Project Report
DQC	District Quality Control/Quality Assurance
EA	Environmental Assessment
EC	Engineer Circular
EIS	Environmental Impact Statement
ER	Engineering Regulation
HQUSACE	Headquarters, U.S. Army Corps of Engineers
IEPR	Independent External Peer Review
ITR	Independent Technical Review
MCX	Mandatory Center of Expertise
MSC	Major Subordinate Command
NEPA	National Environmental Policy Act
PCX	Planning Center of Expertise
PDT	Project Delivery Team
PMP	Project Management Plan
RMO	Review Management Organization
RTS	Regional Technical Specialist
USACE	U.S. Army Corps of Engineers
WRDA	Water Resources Development Act