

**DECISION DOCUMENT REVIEW PLAN
USING THE PROGRAMMATIC REVIEW PLAN MODEL
for
Continuing Authorities Program
Section 14, 107, 111, 204, 206, 208 and 1135 Projects**

**Mainland Drain Aquatic Ecosystem Restoration
Waterford Township, Oakland County Michigan**

Section 206 Project

Detroit District

MSC Approval Date:

Last Revision Date: None



**US Army Corps
of Engineers ®**

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1. PURPOSE AND REQUIREMENTS

- a. **Purpose.** This Review Plan defines the scope and level of peer review for the Mainland Drain Aquatic Ecosystem Restoration, Waterford Township, Michigan, Section 206 project decision document.

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 14, 107, 111, 204, 206, 208 and 1135 project decision documents, which is applicable to projects that do not require Independent External Peer Review (IEPR), as defined in EC 1165-2-214 Civil Works Review Policy. A Section 14, 107, 111, 204, 206, 208 and 1135 project does not require IEPR if ALL of the following specific criteria are met:

- The project does not involve a significant threat to human life/safety assurance;
- The total project cost is less than \$45 million;
- There is no request by the Governor of an affected state for a peer review by independent experts;
- The project does not require an Environmental Impact Statement (EIS),
- The project/study is not likely to involve significant public dispute as to the size, nature, or effects of the project;
- The project/study is not likely to involve significant public dispute as to the economic or environmental cost or benefit of the project;
- The information in the decision document or anticipated project design is not likely to be based on novel methods, involve the use of innovative materials or techniques, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices;
- The project design is not anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule; and
- There are no other circumstances where the Chief of Engineers or Director of Civil Works determines Type I IEPR is warranted.

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 Mainland Drain Aquatic Ecosystem Restoration, Waterford Township, Michigan 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 Mainland Drain serves portions of Waterford Township and the City of Pontiac in the area of Oakland County's Administrative Complex. Overbank flow conditions occur with some frequency due to the buildup of sediment within the channel from eroded stream banks and culvert conditions. The aquatic ecosystem within the project area has high turbidity, nutrient, and *E. coli* levels. Erosion and sedimentation, lack of circulation and flow, and significant infestation by an invasive common reed, *Phragmites australis* (*Phragmites*), has virtually eliminated the remaining productive fish and wildlife habitat that previously existed at the site. The monoculture of *Phragmites* has resulted in a significant loss of open water and submergent/emergent vegetation which was used by fish and amphibians for spawning and as a nursery area; and used as nesting, resting and feeding habitat for reptiles, small mammals and other wildlife including waterfowl and wading birds.

The Mainland Drain Section 206 project objective is to restore the fauna and flora richness and diversity through the rehabilitation of the compromised wetland and prairie complexes. The project will restore connectivity between wetland complexes and promote species migration between the restored habitats.

A request for Policy Waiver for the Mainland Drain Aquatic Restoration project is not expected to be pursued under paragraph F-10.f.(4) of ER 1105-2-100, Appendix F.

- c. **Factors Affecting the Scope and Level of Review.** The Mainland Drain Section 206 project is not likely to be a technically, institutionally, or socially challenging project. The project alternatives consist of invasive plant removal and restoring connectivity between a series of wetland complexes and prairie zones. The project area is part of the Clinton River AOC and could result in the removal of BUIs. A preliminary assessment of risk is displayed in **Table 1**. Areas of uncertainty about this project include hydraulics, hydrology, and soil conditions. The use of the Programmatic Model Review Plan for CAP projects is applicable because of the following conditions:
 - The 16 acre aquatic restoration project does not involve a significant threat to life or safety. The project is not located near residential development and the project does not involve the manipulation or mitigation of flood flows.
 - There is no request by the Governor of the State of Michigan for a peer review by independent experts.
 - The Mainland Drain project is not likely to involve significant public dispute as to the economic or environmental costs or benefit of the project. The project is located in the

Clinton River Area of Concern (AOC). The removal of Beneficial Use Impairments (BUIs) in AOCs is a water resources priority for local, state and Federal agencies.

- The Detailed Project Report for the Mainland Drain project is not likely to contain alternatives or a design that is based on novel methods, the use of innovative materials or techniques, present complex challenges for interpretation, or contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices. The project goals will be achieved primarily through the removal of invasive plants and excavation to improve wetland function and provide connectivity between complexes.
- The Mainland Drain project is not anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing of a reduced or overlapping design construction schedule. It is expected that once construction is complete the project will perform as nature dictates without features that would add redundancy, resiliency, or robustness. There could be a Michigan Department of Natural Resources (MDNR) imposed construction restriction to accommodate birds that nest in the project area.

Table 1. Preliminary Risk Table

Risk	Risk Rating	Reason for risk rating	Consequence
The NFS does not have funding to cover its cost share of the project	Low	The NFS is a thriving community with a broad tax base.	The project schedule would be delayed and project costs would increase
The non-Federal sponsor may not have future funding to complete O&M	Moderate	The NFS could be constrained by budget restrictions and forced to prioritize its efforts over the life of the project	Restoration goals would not be met or the achievement of the goal delayed.
NFS cannot acquire the required real estate for the project	Low	The NFS either owns the project real estate or will acquire it from the county.	The restoration project could be partially completed on the property held by the NFS
The project restoration goal will be achieved and will result in the removal of an AOC BUI	Moderate	The project goal is well within the capabilities of current technology and can be sustained with a reasonable O&M plan.	Restoration of wetland and prairie richness and diversity

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. DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). The home district shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home MSC.

District Quality Control (DQC). DQC is the review of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). It is managed in the home district and may be conducted by staff in the home district as long as they are not doing the work involved in the study, including contracted work that is being reviewed. Basic quality control tools include a Quality Management Plan providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. Additionally, the PDT is responsible for a complete reading of the report to assure the overall integrity of the report, technical appendices and the recommendations before are all deemed sufficient approval by the District Commander. The Major Subordinate Command (MSC)/District quality management plans address the conduct and documentation of this fundamental level of review; DQC is not addressed further in this review plan.

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. As indicated in the Director of Civil Works' Policy Memorandum #1, Jan 19, 2011,"the ATR lead is to be outside the home MSC unless the CAP review plan justifies an exception and is explicitly approved by the MSC Commander".

- 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.** The proposed ATR team members are presented in Table 1. The following expertise is needed: Plan Formulation, Water Quality, Limnology, Incremental Cost Analysis, Civil or Structural Design, Hydrology and Hydraulics. The Review Team leader has expertise in aquatic ecosystem quality parameters, botany, water quality, and restoration of degraded reservoirs. The Plan Formulation/Economics team member is a senior planner and economist. The remaining team members will be selected by the team leader based on expertise and availability. All engineering ATR team members must be CERCAP certified.

Table 2. ATRT member requirements

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional 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).
Planning	The team member shall have extensive knowledge of Planning processes, with special emphasis on 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(s) should also have a thorough understanding of the approved environmental software used for this project.
Hydraulic Engineering	Team member will have a thorough understanding of open channel dynamics, application of detention/retention basins and computer modeling techniques that will be used such as Hydrologic Engineering Center - River Analysis System (HEC-RAS). Must be CERCAP certified
Geotechnical Engineering	Geotechnical Engineering reviewer should be a senior civil or geotechnical engineer with experience designing grading plans, bank-protection, removal, or modification, and habitat structures. Must be CERCAP certified
Civil Engineering	Team member will be knowledgeable in the art of science ecosystem restoration projects such as design of channels and detention ponds. Should also be a licensed professional engineer. Must be CERCAP certified
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 shall be assigned by Jim Neubauer of the Walla Walla Cost Engineering MCX and is required to coordinate with the Cost MCX for further cost engineering review and resulting certification. Must be CERCAP certified.
Real Estate	Team member(s) should have planning/appraisal/acquisition experience regarding ecosystem restoration type 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 14, 107, 111, 204, 206, 208 and 1135 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 14, 107, 111, 204, 206, 208 and 1135 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.** Section 206 ecosystem restoration projects are also excluded from Type I IEPRs as per the Director of Civil Works' Policy Memorandum # 1, Dated January 19, 2011, Subject: Continuing Authority Program Planning Process Improvements; Section 3a.
- 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 and should be used whenever appropriate. Planning models are defined as any models and analytical tools that planners use to define water resources management problems and opportunities, to formulate potential alternatives to address the problems and take advantage of the opportunities, to evaluate potential effects of alternatives and to support decision making. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC and ATR.

The responsible use of well-known and proven USACE developed and commercial engineering software will continue and the professional practice of documenting the application of the software and modeling results will be followed. As part of the USACE Scientific and Engineering Technology (SET) Initiative, many engineering models have been identified as preferred or acceptable for use on Corps studies and these models should be used whenever appropriate. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC and ATR.

- a. **Planning Models.** The following planning models are anticipated to be used in the development of the decision document:

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Certification / Approval Status
IWR – PLAN	The model will be used to identify the Cost Effective (CE) plan and to conduct an Incremental Cost Analysis (ICA)	Certified

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

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Approval Status
HEC-RAS 4.0 (River Analysis System)	The Hydrologic Engineering Center’s River Analysis System (HEC-RAS) program provides the capability to perform one-dimensional steady and unsteady flow river hydraulics calculations. The program will be used for steady flow analysis to evaluate the future without- and with-project conditions along the Clinton River and its tributaries. [For a particular study the model could be used for unsteady flow analysis or both steady and unsteady flow analysis. The review plan should indicate how the model will be used for a particular study.]	HH&C CoP Preferred Model
HEC-HMS 4.0 (watershed analysis system)	The physical representation of a watershed is accomplished with a basin model. Hydrologic elements are connected in a dendritic network to simulate runoff processes. Available elements are: subbasin, reach, junction, reservoir, diversion, source, and sink. Computation proceeds from upstream elements in a downstream direction.	HH&C CoP Preferred Model

10. REVIEW SCHEDULES AND COSTS

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

Table 3. ATR Costs

Description	Costs	Scheduled Completion Date
ATR of the DRAFT DPR & EA	\$25,000	December 2015
AFB MILESTONE	\$5,000	March 2016

*This table reflects the minimum number of products that would be subject to ATR. The Detroit District will revise this Review Plan to include additional products, review costs and schedule modifications as warranted by the study development process.

- 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.

After ATR review of the draft of the Detail Project Report (DPR) and Environmental Assessment (EA), the documents will be distributed for public comment. In accordance with NEPA, the EA will be made available for a 30 day public comment period and in accordance with USACE policy the DPR will also be made available for public review. During the public comment period, if the public comments are sent to the Corps by email, then the Corps will respond by email. If the public comments are sent to the Corps by letter, then the Corps 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

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:

Table 4. Study Points of Contact

POC	Title	Office Phone Number
	Project Manager	313 226- 2223
	Planner	313 226- 6815
	District Liaison	

ATTACHMENT 1: TEAM ROSTERS. (Table 5), ATR team (Table 6), and MSC. The credential and years of experience for the ATR team should be included when it is available.

Table 5. Study Product Delivery Team

Discipline	Name	Office/Agency	Phone Number
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		CERLE-ED-G	
Hydrology and Hydraulic Engineering		CELRE-HH-E	
Cost Engineering		CELRE-ED-C	
Contracting		CELRE-CT	
Office of Counsel		CELRE-OC	

Table 6. ATR Team

Discipline	Name	Office/Agency	Phone Number
Regional Technical Specialist (RTS)		CEMVP-PD-P	
Plan Formulation		CEMVP-PD-F	
Environmental Analysis		CEMVP-PD-P	
Economic Analysis		CEMVP-PD-P	
Hydrology and Hydraulic Engineering		CEMVP-EC-H	
GeoTech Engineering		CEMVP-EC-C	
Civil Design Analysis		CEMVP-EC-D	
Real Estate		CEMVP-EC-D	
Cost Engineering		CEMVP-PD-P	
Cost Engineering - MCX			

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

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