DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DIVISION, GREAT LAKES AND OHIO RIVER
CORPS OF ENGINEERS
550 MAIN STREET
CINCINNATI, OH 45202

CELRD-PD

20 NOV 12

MEMORANDUM FOR Commander, Chicago District

SUBJECT: Review Plan for the Ft. Sheridan Section 506 project, Great Lakes Fisheries and Ecosystem Restoration, Lake County, Illinois

1. The attached Review Plan (RP) for the Ft. Sheridan Section 506 project was presented to the Great Lakes and Ohio River Division for approval in accordance with EC 1165-2-209 "Civil Works Review" dated 31 January 2010.

2. The project is located near Lake Michigan, east of Sheridan Road in the City of Lake Forest and Highland Park, Deerfield Township, Fort Sheridan, Illinois. The proposed restoration footprint is approximately 250-acres. The goal of this proposed project is to stabilize coastal communities, restore historical native plant communities along Lake Michigan and restore nearshore fish habitat. The project objectives are to promote littoral processes, naturalize ravine hydraulics, promote bluff stability, and reduce or eliminate invasive plants.

4. The MSC has reviewed the attached RP and concurs that it describes the scope of review for work phases and addresses all appropriate levels of review consistent with the requirements described in EC 1165-2-209.

5. I concur with the recommendations and approve the enclosed RP for the Ft. Sheridan Section 506 project.

6. The District is requested to post the RP to its website. Prior to posting, the names of all individuals identified in the RP should be removed.

7. If you have any questions or need additional information, please contact Dr. Hank Jarboe, CELRD-PDS-P, at (513) 684-6050.

Margaret W. Burcham

Encl

MARGARET W. BURCHAM
Brigadier General, USA
Commanding

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

DECISION DOCUMENT REVIEW PLAN

USING THE NATIONAL PROGRAMMATIC REVIEW PLAN MODEL

Ft. Sheridan Section 506

Chicago District, US Army Corps of Engineers

MSC Approval Date: Pending
Last Revision Date: 5 November 2012

US Army Corps
of Engineers ®

DECISION DOCUMENT REVIEW PLAN
USING THE NATIONAL PROGRAMMATIC REVIEW PLAN MODEL

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

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1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope and level of peer review for the Ft. Sheridan Restoration Project, located in Lake County, Illinois. This project is part of the 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 programmatic 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 of 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 ecosystem restoration experts. 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. The studies are classified as either a Planning Design Analysis (PDA) or Detailed Project Report (DPR) based on estimated total Federal project costs. Projects utilizing a PDA format have an estimated Federal cost of $1,500,000 or less, and projects that require a DPR have estimated Federal costs which exceed $1,500,000. In cases where the total Federal cost of the project is expected to exceed $10,000,000, the Support Plan recommends the procedures for specifically authorized projects be followed which require an individual review plan.

b. Applicability. This review plan is based on the model National Programmatic Review Plan for GLFER project decision documents, which is applicable to projects that do not require Independent External Peer Review (IEPR), as defined in ER 1165-2-209 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 scientific;
- 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 Programmatic 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 1165-2-209.

Applicability of the model GLFER 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 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 may be used to cover implementation products. The following the format of the regional model 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) 1165-2-209, Civil Works Review Policy, 31 Jan 2010
(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 programmatic review plan was developed in accordance with EC 1165-2-209, 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 1165-2-209) and planning model certification/approval (per EC 1105-2-412).

(1) District Quality Control/Quality Assurance (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 Major Subordinate Command (MSC).

(2) 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 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 **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 1165-2-209, 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 1165-2-209.

For decision documents prepared under the model GLFER Programmatic Review Plan, 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 decision documents prepared under the model GLFER Programmatic Review Plan, Type II IEPR is not required except where public safety issues are present.

(4) 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.

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

For decision documents prepared under the GLFER Programmatic 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 decision documents prepared under the model GLFER Programmatic 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.

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 PDA decision document for the Ft. Sheridan Restoration project, located in Chicago, Illinois 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 study area is part of the Lake Michigan coastline. The proposed restoration project would be located east of Sheridan Road in the City of Lake Forest and Highland Park, Illinois in Deerfield Township Fort Sheridan, Illinois. The proposed restoration footprint is approximately 250-acres. The project site lies within the ecological area called the North Shore Ravine, Woodland and Littoral. The surface topography was formed by glacial drift and lacustrine sediments from ancient Lake Chicago. This area is primarily highly erosive, which is evident from the deep ravines that are cut along the lakefront bluffs. The nearshore lake consists of sand, gravel and cobble substrates that provide excellent habitat for littoral fishes and invertebrates. There are many manmade, unnatural structures that are littered about the bottom within the project site that are disrupting natural substrate movement and are aesthetic eyesores.

The goal of this proposed project is to stabilize coastal communities, restore historical native plant communities along Lake Michigan and restore nearshore fish habitat. This includes the following objectives:

- Promote Littoral Processes
- Naturalize Ravine Hydraulics
- Promote Bluff Stability

- Reduce / Eliminate Invasive Plants

The Feasibility Study Report (FS) would complete the plan formulation process, identify cost effective plans for ecosystem restoration purposes and complete preliminary design of the recommended plan. This FS will serve as the decision document for the approval of construction funding.

b. Factors Affecting the Scope and Level of Review. This is a medium-risk ecosystem restoration project that focuses on increasing habitat heterogeneity by adding several local ecotypes including oak savanna, prairie, woodland, and pond. Eradication of invasive species and planting of native species will restore ecological function. There is no threat to human health and life associated with this project.

- There are no foreseeable technical, institutional or social challenges.
- There is no reason to believe there will be any significant economic, environmental or social effects to the Nation
- The project/study will not be highly controversial for the reason stated above.

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. During Feasibility there are no WIK contributions.

4. DISTRICT QUALITY CONTROL (DQC)

The product team is responsible for producing quality services and/or products. The technical element assembling the PDA is the Environmental Plan Formulation Section (PM-PL-E). Methodology, concurrence, technical adequacy and product quality (i.e., format, grammar, spelling, consistency, computations, etc.) are obtained through periodic internal reviews by the product team and technical supervisors. Within engineering and real estate, the Branch Chiefs responsible for product preparation will document this internal review through certification of product development checklists. The checklists, to be followed by the product team and certified by the technical supervisors, are not attached to this RP. Each PDT member is responsible for following current checklist, and coordinating review of document and checklist with their technical supervisor for signature.

5. AGENCY TECHNICAL REVIEW (ATR)

a. Products to Undergo ATR. ATR will be performed throughout the study in accordance with the District and MSC Quality Management Plans. 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 DPR.

b. Required ATR Team Expertise. For this medium risk Ecosystem Project there would be an additional reviewer for plan formulation due to its complexity. There would be two reviewers for H&H, once for fluvial H&H and the other for coastal H&H. The cost analysis will be reviewed by a certified cost ATR reviewer, and certified by NWW. Real Estate ATR will be conducted using the RE ATR process.

ATR Team Members/Disciplines	Expertise Required
Plan Formulation/Lead	The ATR lead should be a RTS Regional Technical Expert in Plan Formulation.
Planning / NEPA Compliance	LRD RTS for Ecosystem Plan Form/NEPA
Cost Engineer (CX Certified)	The cost ATR Reviewer will be a certified cost ATR reviewer.
Hydrology & Hydraulics	The H&H ATR Reviewer will be well versed in the subject matter.
Coastal	The H&H ATR Reviewer will be well versed in the subject matter.
Real Estate	The Real Estate reviewer will be a qualified real estate specialist.

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 be 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 model National Programmatic 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 1165-2-209.

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
Qualitative Habitat Evaluation Index (QHEI)	The QHEI developed by the Ohio EPA would be employed to assess the physical riverine habitat quality. Riverine habitat would be surveyed in transects. The sites would be assessed from a river right descending perspective. A variable of impoundment would be added to the QHEI for this particular study under the channel morphology section to give weight to stream connectivity. If backwater effects from a downstream structure impacted the stream section, a score of zero was	Under review for Regional Certification

	received, if the stream section was free flowing, a score of nine was received. Other impacts of dams were indirectly reflected in stream morphology and function parameter. The QHEI consists of eight sections with a maximum total of 100 points: 1. Characterization of substrate types and the effects of siltation 2. Characterization of in-stream cover 3. Characterization of channel morphology 4. Characterization of the riparian zone and bank erosion 5. Assessment of the pool / glide & riffle / run 6. Gradient 7. Shade 8.Channel incision	
Native Fish Species Richness	This portion of the assessment uses fish species richness (R), which is the total number of native fish species. An assessment was done utilizing the Chicago Region Fish Database.	Under review for Regional Certification
IWR Planning Suite	IWR Planning Suite assists with plan formulation by combining user-defined solutions to planning problems and calculating the effects of each combination, or "plan." The program can assist with plan comparison by conducting cost effectiveness and incremental cost analyses, identifying the plans which are best financial investments and displaying the effects of each on a range of decision variables.	Certified

b. Engineering Models. Engineering models are not required for this project.

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study
HEC-RAS v4.1.0	HEC-RAS is a one-dimensional hydraulic model designed to perform computations for a full network of natural and constructed channels. The program will be used to develop flow characteristics of the ravines under design conditions. Selected parameters from the model output will be used to appropriately design selected measures for the design conditions.
HEC-HMS v3.5	HEC-HMS is a hydrologic model developed by the Hydrologic Engineering Center. The program is designed to simulate precipitation-runoff processes of dendritic drainage basins. It will be used to determine the peak discharges for selected synthetic storm events which will subsequently be used as input into the HEC-RAS model.
EPA-SWMM v5.0	EPA SWMM is a dynamic rainfall-runoff-subsurface runoff simulation model used primarily for urban/suburban areas. The software will be used to simulate the storm sewer networks present within the project area. Hydrographs from the storm sewer outfalls tributary to a project ravine will be input into the appropriate HEC-HMS model.
CGWAVE	CGWAVE is a general-purpose wave prediction model for simulating the propagation and transformation of ocean waves in coastal regions and harbors. The software will be used to determine design wave heights for the coastal features of this project.

8. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost. An estimate of 10K has been budgeted for ATR. ATR is scheduled for December 2012.

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

c. Model Certification/Approval Schedule and Cost. For decision documents prepared under the model GLFER Programmatic 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. Public will have an opportunity to comment during the NEPA process.

10. REVIEW PLAN APPROVAL AND UPDATES

The home MSC Commander is responsible for approving this review plan and ensuring that use of the GLFER 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 1165-2-209. 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:

LEAD PLANNER

ATTACHMENT 1: TEAM ROSTERS

PDT Members

Discipline	Name	Phone	Email
Project Manager			
Lead Planner			
Botanist/Restoration Ecologist			
Cultural & Arch Resources			
Real Estate			
Cost Engineering			
Civil Design			
Environmental Engineering			
Hydrology & Hydraulics			
Geotechnical			
Surveyor			

ATR Team Members

Discipline	Name	Phone	E-mail
Plan Formulation			
Planning / NEPA Compliance			
Cost Engineer (CX Certified)			
Hydrology & Hydraulics			
Coastal			
Real Estate			

MSC Team

Name	Discipline	Phone	E-mail
	LRDGL Environmental Engineer		
	LRDOR		
	Attorney		
	LRDOR		
	LRDOR		
	LRDOR		
	CELRD		

ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECSION DOCUMENTS

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the Planning and Design Analysis for Northerly Island Restoration Section 506 Project, located in Chicago, Illinois. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-209. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrChecks[sm].

SIGNATURE _____ Date _____

ATR Team Leader

SIGNATURE _____ Date _____

Project Manager

SIGNATURE _____ Date _____

Review Management Office Representative

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: There are no significant concerns.

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

SIGNATURE _____ Date _____

Chief, Design Branch

SIGNATURE _____ Date _____

Chief, Planning Branch

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