

**PEER REVIEW PLAN**

**POOL 2 WINGDAMS/SIDE CHANNEL MODIFICATION  
NAVIGATION AND ECOSYSTEM SUSTAINABILITY PROGRAM  
PROJECT IMPLEMENTATION REPORT WITH  
INTEGRATED ENVIRONMENTAL ASSESSMENT**

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September 30, 2007

#### I. PURPOSE AND REQUIREMENTS

This document is the Peer Review Plan (PRP) for the Pool 2 Wingdams and Sidechannel Modification Ecosystem Restoration Project Implementation Report (PIR) with Integrated Environmental Assessment and Appendices (Pool 2 Decision Document). The project is a component of the Navigation and Ecosystem Sustainability Program (NESP). The PIR for this project builds on the comprehensive feasibility study and provides the site specific planning details necessary for project approval.

This PRP has been developed in accordance with Engineering Circular (EC) 1105-2-408 dated 31 May 2005, "Peer Review of Decision Documents", which 1) establishes procedures to ensure the quality and credibility of Corps decision documents by adjusting and supplementing the review process and 2) requires that documents have a peer review plan. The Circular applies to all feasibility studies and reports and any other reports that lead to decision documents that require authorization by Congress.

#### II. PROJECT DESCRIPTION

**A. Decision Document.** The purpose of the Pool 2 Decision Document is to present the results of a study undertaken to help restore aquatic habitat within Pool 2 of the Upper Mississippi River (UMR). This report provides planning, engineering, and implementation details of the recommended restoration plan to allow final design and construction to proceed subsequent to the approval of the plan.

**B. General Site Description.** Pool is located at UMR in and downstream of St. Paul, MN (Dakota, Washington and Ramsey Counties, MN). The project area in Pool 2 extends from River Mile 836 downstream to 817. The area of project influence is Reno Bottoms. Project features would occur within main channel border areas, as well as one side channel near RM 827.

**C. Project Scope.** Total project construction cost would be below \$250 thousand.

**D. Problems and Opportunities.** Approximately 215 wing dams and closing dams were historically constructed for the purpose of channel management within Pool 2 of the Upper Mississippi River (UMR). These channel training structures have significantly modified hydraulic conditions and sediment transport, resulting in degraded main channel border and secondary channel habitat within Pool 2.

**E. Product Delivery Team.** The St. Paul District Corps of Engineers is preparing the Pool 2 Decision Document. PDT Members include the following:

Project Management and Environmental  
Cultural Resources  
Hydraulics  
Operations  
Real Estate

Planning Center of Expertise Point of Contact

The Corps' Project Manager is the primary point-of-contact for this document, and can be reached by telephone at (651) 290-5260.

### III. METHODOLOGY AND MODEL CERTIFICATION

**A. Planning Models.** EC 1105-2-407 provides the following definition of a planning model:

“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.”

**B. Habitat Evaluation.** Habitat outputs will be assessed and derived using the Habitat Evaluation Procedures (HEP) developed by the U.S. Fish and Wildlife Service and other agencies. The two specific models to be used to assess habitat outputs are the Walleye Habitat Suitability Index Model, USFWS 1984; and Channel Catfish Habitat Suitability Index Model, USFWS 1982 (both generally described as one of the “FWS Blue Books”)

The HEP is an established approach to assessment of natural resources. The HEP approach has been well documented and is approved for use in Corps projects as an assessment framework that combines resource quality and quantity over time, and is appropriate throughout the United States. The Habitat Suitability Index (HSI) models are the format for quantity determinations that are applied within the HEP framework. The following guidelines are provided to help determine the need for certification. ITR of input data may also be appropriate.

- New HSI models developed by the Corps are subject to certification.
- Published HSI models, while peer-reviewed and possibly tested by the developers, are subject to review and approval by the PCX.
- Modifications to published HSI models, where relationships or formulas are changed, may be subject to certification.

These models may need approval by the ERPCX. We do not anticipate using any planning models that will need certification. All are standard models. Given the nature of the project under evaluation, a single life-requisite component will be used from the models to evaluate habitat changes. In both cases, this would be the “cover” component of the HSI model. The catfish model will not use any modified formulas. The walleye model will use a modified formula to better represent known conditions at this location. However, this modification is relatively minor. Given this, the small scale of the project (approximate construction cost of \$200,000), and the low risk of the project, model certification should not be warranted. The

modeling approach, including any modifications, will be included in an appendix to the PIR, and thus would be provided for review by the public, as well as the Corps at the district, MVD and HQ levels.

**C. Ecological Goals and Objectives.** The Ecological Goals and Objectives for the UMRS, and associated metrics, established by the NESP Science Panel and the PDT, will guide the planning, implementation, and evaluation of this project.

**D. Cost Effectiveness.** Cost effectiveness and incremental cost analyses will be based upon the Institute for Water Resources (IWR) PLAN program and other standard methods of analysis.

#### **IV. INDEPENDENT TECHNICAL REVIEW PLAN**

**A. Independent Technical Review.** ITR is the primary method of quality control for this decision document. ITR is a critical examination by a qualified person or team that was not involved in the day-to-day technical work that supports the decision document. ITR is intended to confirm that such work was accomplished in accordance with clearly established professional principles, practices, codes, and criteria, and that recommendations are in compliance with laws and policy. The St. Paul District is responsible for ensuring adequate technical review of this decision document.

**B. ITR Team.** The Ecosystem Restoration Planning Center of Expertise (ERPCX) will be contacted and requested to set up the ITR team. The ITR team will be lead by one person from an outside Corps Division. The expertise and technical backgrounds of the ITR team members qualify them to provide a comprehensive technical review of the product. ITR of the project cost component will be coordinated with the Walla Walla District Cost Estimating Directory of Expertise. Because work for this project would be performed entirely by St. Paul Districts Operations Division (Physical Support Staff); and because the cost estimate was produced with direct assistance from Physical Support Staff, the PDT would prefer to scale the level of the cost ITR to that of the total project. The specific ITR team members are yet to be identified. The ERPCX will be requested to establish the ITR team. ITR would include the following disciplines:

- Plan Formulation/Environmental
- Hydraulics Engineering
- Real Estate
- Cost Estimation (as needed, and identified through coordination with (CENWW))

The ITR team will use DR CHECKS software to record its comments and to document resolution of issues, as required by EC 1105-2-408. All comments resulting from the independent technical review will be resolved prior to forwarding the feasibility study to higher authority and local interests. The report will be accompanied by a certification, indicating that the independent technical review process has been completed and that all technical issues have been resolved.

**C. Value Engineering Plan.** Value Engineering (VE) evaluations provide another method for ensuring quality. The goal of VE is to ensure that a full array of alternatives is considered in order to maximize cost effectiveness. VE studies will be pursued for most projects under NESP. However, given the scope of the project (construction cost likely under \$250 thousand), limited economic or environmental risk, and limited alternative options, the need for a VE study is probably limited. As such, a VE study will be considered but may not be incorporated. This

need will be coordinated with appropriate representatives of St. Paul and Rock Island Districts, MVD and appropriate Centers of Expertise.

**D. Quality Control.** Quality control will also be monitored via internal/District functional element reviews, and Higher Authority/vertical team conferences and reviews.

**E. External Peer Review.** This feasibility study will not be subject to External Peer Review. The study is not anticipated to generate influential scientific information that would be either controversial or of sufficient risk and magnitude as to require External Peer Review as described in EC 1105-2-408. Construction costs are expected to be in around \$250 thousand. This approach has been supported to date by the NESP Program, and will be further coordinated with the vertical team to ensure consensus on this approach.

**F. Public Review.** The St. Paul District will pursue public involvement and review. This will be accomplished via public review of an Environmental Assessment, and a public meeting during the review period. The formal public review will be scheduled after the Alternative Formulation Briefing and before submitting the report to the Civil Works Review Board in accordance with the study schedule defined in the Project Management Plan. If after public comment, significant changes are made to the report, the report may need to be reviewed by the ITR again.

**V. SCHEDULE.** The schedule for study tasks related to review and public input are shown in the following table. As of this writing, there is uncertainty regarding the amount and timing of FY 2008 NESP for any given project. Because of this, the schedule is expressed as time durations rather than specific dates.

Task Name	Duration	Start Date	Finish Date
Develop draft PIR (includes Alts).	<b>4 wks</b>	<b>TBD</b>	<b>TBD</b>
<b>Alt. Formulation Briefing</b>	4 wks	<b>TBD</b>	<b>TBD</b>
HQ/MVD review	4 wks	<b>TBD</b>	<b>TBD</b>
Complete PIR/EA	4 wks	<b>TBD</b>	<b>TBD</b>
Public review and meeting (local)	30 days	<b>TBD</b>	<b>TBD</b>
ITR Review	4 wks	<b>TBD</b>	<b>TBD</b>
Revise, Complete & Sign PIR	2 wks	<b>TBD</b>	<b>TBD</b>
<b>Division Engineer transmit to HQ</b>	<b>0 days</b>	<b>TBD</b>	<b>TBD</b>
HQUSACE policy review	4 wks	<b>TBD</b>	<b>TBD</b>
CWRB briefing	1 day	<b>TBD</b>	<b>TBD</b>
Write Draft Chief's report	1 wk	<b>TBD</b>	<b>TBD</b>
Agency and Public Review	6 wks	<b>TBD</b>	<b>TBD</b>

Bold font designates Major Milestones.