

## MVD DECISION DOCUMENT REVIEW PLAN

### UPPER MISSISSIPPI RIVER RESTORATION PROGRAM HABITAT REHABILITATION AND ENHANCEMENT PROJECT

*February 2023*

**Project Name:** Robinson Lake Habitat Rehabilitation and Enhancement Project (HREP), Upper Mississippi River Restoration (UMRR) (Wabasha County, MN)

**P2 Number:** 487930

**District:** St Paul District (MVP)

**District Contact:** Ben Nelson, Project Manager, [REDACTED]

Angela Deen, MVP UMRR Program Manager, [REDACTED]

Kacie Opat, Technical Lead, [REDACTED]

**Major Subordinate Command (MSC) and Review Management Organization (RMO):**  
Mississippi Valley Division (MVD) Samantha Thompson, [REDACTED]  
[REDACTED]

**MSC/RMO Contact:** Samantha Thompson, [REDACTED]  
[REDACTED]

#### Key Review Plan Dates

**Date of MSC Approval of Review Plan:** Pending

**Date of Last Review Plan Revision:**

**Date of Review Plan Web Posting:**

	<u>Milestone Schedule</u>		
	<u>Scheduled</u>	<u>Actual</u>	<u>Complete</u>
<b>FCSA Execution:</b>	N/A	N/A	N/A
<b>TSP Milestone:</b>	December 2024	N/A	No
<b>Release Draft Report to Public:</b>	March 2025	N/A	No
<b>Final Report Transmittal:</b>	October 2025	N/A	No

#### Programmatic Review Plan

Please reference the UMRR Programmatic Review Plan for additional information regarding the review of project studies in the program. For this Review Plan only project-specific review information is provided. The plan does not repeat standard information common to all UMRR reviews as noted in the programmatic review plan.

## **1. FACTORS AFFECTING THE LEVELS AND SCOPE OF REVIEWS**

The project area is within lower Pool 4 of the Upper Mississippi River within the Upper Mississippi River National Wildlife and Fish Refuge between river miles 759 to 756. The goal of the project is to maintain, enhance, and create habitat suitable for native and desirable, aquatic and terrestrial plants and animals. Please reference the UMRR Programmatic Review Plan for additional information regarding the factors affecting the levels and scope of reviews for HREP Projects.

## **2. REVIEW EXECUTION PLAN**

Table 1 provides the schedules and costs for reviews. The specific expertise required for the teams are identified in later subsections of this plan covering each review. These subsections also identify requirements, special reporting provisions, and sources of more information.

**Table 1: Schedule and Costs of Review**

Product(s) to undergo Review	Review Level	Start Date	End Date	Cost	Complete
<a href="#"><u>Planning Model Review</u></a>	<a href="#"><u>Model Review (see EC 1105-2-412)</u></a>	N/A	N/A	N/A	N/A
<a href="#"><u>Draft Feasibility Report and EA</u></a>	<a href="#"><u>District Quality Control</u></a>	November 2024	December 2024	\$15,000	No
<a href="#"><u>Draft Feasibility Report and EA</u></a>	<a href="#"><u>Agency Technical Review</u></a>	December 2024	January 2025	\$25,000	No
<a href="#"><u>Draft Feasibility Report and EA</u></a>	<a href="#"><u>MSC Policy and Legal Review</u></a>	December 2024	January 2025	n/a	No
<a href="#"><u>Final Feasibility Report and EA</u></a>	<a href="#"><u>Targeted District Quality Control<sup>1</sup></u></a>	May 2025	June 2025	\$10,000	No
<a href="#"><u>Final Feasibility Report and EA</u></a>	<a href="#"><u>Targeted Agency Technical Review<sup>1</sup></u></a>	June 2025	July 2025	\$15,000	No
<a href="#"><u>Final Feasibility Report and EA</u></a>	<a href="#"><u>MSC Policy and Legal Review</u></a>	July 2025	August 2025	n/a	No

<sup>1</sup> The Final Feasibility Report and EA will undergo a targeted DQC and ATR focusing on significant changes to the analysis or TSP based on the results of concurrent review. The scope of this review is scalable.

## a. DISTRICT QUALITY CONTROL

Table 2 identifies the required expertise for the DQC team. The DQC Team members will not be involved in the production of any of the products reviewed.

**Table 2: Required DQC Expertise**

DQC Team Disciplines	Expertise Required
<u>DQC Lead</u>	<i>A senior professional with extensive experience preparing Civil Works decision documents and conducting DQC. The lead will also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc.).</i>
<u>Plan Formulation</u>	<i>A senior water resources planner with experience in riverine aquatic ecosystem restoration consistent with the features / measures evaluated in the UMRR HREP. Fully familiar with USACE ecosystem restoration policies and have demonstrated experience with Cost Effectiveness/ Incremental Cost Analysis (CE/ICA) and the Institute for Water Resources (IWR) Planning Suite. If the reviewer does not have CE/ICA experience, a separate Economics reviewer will be assigned to the DQC Team.</i>
<u>Environmental Resources</u>	<i>A senior biologist with experience working on large river systems and with water resources and aquatic and wetland ecology. Experience in calculating ecosystem benefits and be able to ascertain if the ecological output models were appropriately applied. Possess detailed knowledge of NEPA and other environmental statutes and regulations to confirm compliance with NEPA. This reviewer will also be responsible for evaluating any cultural 4rairie4s work performed for the study if applicable. If the reviewer does not have cultural resources experience, a separate Cultural Resources reviewer will be assigned to the DQC team.</i>
<u>Hydrology and Hydraulic Engineering</u>	<i>The reviewer will be proficient in hydrology and hydrologic engineering with working experience evaluating large river systems. Experience in water resource studies, hydrodynamics, sediment transport and modeling, and GIS is necessary.</i>
<u>Climate Preparedness and Resilience Community of Practice (CoP) Reviewer</u>	<i>The reviewer will be proficient in preparing qualitative assessments of climate change impacts to inland hydrology in accordance with USACE climate change guidance.</i>
<u>Civil Engineering</u>	<i>The reviewer will have experience in civil design of ecosystem restoration features for large river systems. A certified Professional Engineer is suggested.</i>
<u>Cost Engineering</u>	<i>The reviewer will have experience in developing cost estimates for Civil Works ecosystem restoration projects, including development of a Total Project Cost Summary, cost and schedule risk analysis, and associated cost contingencies.</i>
<u>Real Estate</u>	<i>An expert with a thorough understanding of real estate transactions for ecosystem restoration projects, including experience with assessment of LERRD requirements for ecosystem restoration projects.</i>
<u>Office of Counsel</u>	<i>A reviewer able to provide comment on legal sufficiency.</i>
<u>Geotechnical Engineering</u>	<i>The reviewer will have experience in geotechnical engineering in large river systems to include island construction. This review may be performed by a dedicated team member or may be satisfied by a civil reviewer, depending on individual qualifications.</i>
<u>Economics</u>	<i>A senior economist familiar with ecosystem output analyses and concepts, including demonstrated experience with CE/ICA analysis and the IWR Planning Suite.</i>

## b. AGENCY TECHNICAL REVIEW

Table 3 identifies the disciplines and required expertise for this ATR Team (also see Attachment 1 – the ATR Team roster). Each ATR reviewer should be certified by the appropriate CoP and demonstrate certification in Corps of Engineers Reviewer Certification and Access Program (CERCAP) for the requisite area of expertise.

**Table 3: Required ATR Team Expertise**

ATR Team Disciplines	Expertise Required
<u>ATR Lead</u>	<i>The ATR Lead must be assigned from outside the home MSC. A senior professional with extensive experience preparing Civil Works decision documents and conducting ATR. The lead will have the skills to manage a virtual team through an ATR. The lead will also serve as a reviewer for a specific discipline (such as planning).</i>
<u>Plan Formulation</u>	<i>A senior water resources planner with experience in riverine aquatic ecosystem restoration consistent with the features/ measures evaluated in the UMRR HREPs. The reviewer will be fully familiar with USACE ecosystem restoration policies and demonstrated experience with CE/ICA and the IWR Planning Suite. If the Plan Formulation reviewer does not have CE/ICA experience, a separate Economics reviewer will be assigned to the ATR Team.</i>
<u>Environmental Resources</u>	<i>A senior biologist with experience working on large river systems and with water resources and wetland and aquatic ecology. The reviewer will have experience in calculating ecosystem benefits and be able to ascertain if the ecological output models were appropriately applied. Finally, the reviewer will have detailed knowledge of NEPA statutes and regulations to confirm compliance with NEPA.</i>
<u>Hydrology and Hydraulic Engineering</u>	<i>The reviewer will be proficient in hydrology and hydrologic engineering with working experience evaluating large river systems. Experience in water resource studies, hydrodynamics, sediment transport and modeling, and GIS is necessary.</i>
<u>Civil Engineering</u>	<i>The reviewer will have experience in civil design of ecosystem restoration features for large river systems. A certified Professional Engineer is suggested. This review may be performed by a geotechnical reviewer, depending on individual qualifications.</i>
<u>Climate Preparedness and Resilience</u>	<i>A certified ATR reviewer within the Climate Preparedness and Resiliency CoP with experience evaluating climate change impacts to inland hydrology will participate in the ATR.</i>
<u>Cost Engineering</u>	<i>The reviewer will have experience in cost estimating riverine ecosystem restoration features. For projects with a total project cost (TPC) of less than \$10 million, a precertified cost engineer may conduct the Cost Engineering Review and certification instead of the Cost Engineering Directory of Expertise (DX). For projects with a TPC of \$10 million or greater, the Cost Engineering DX will perform the review and provide the cost certification.</i>
<u>Geotechnical Engineering</u>	<i>The reviewer will have experience in geotechnical engineering in large river systems to include island construction. This review may be performed by a dedicated team member or may be satisfied by a civil reviewer, depending on individual qualifications.</i>
<u>Economics</u>	<i>A senior economist familiar with ecosystem output analyses and concepts, including demonstrated experience with Cost Effectiveness/Incremental Cost Analysis (CE/ICA) and the Institute for Water Resources (IWR) Planning Suite.</i>

#### c. MODEL CERTIFICATION OR APPROVAL

**Table 4: Planning Models.** The following models may be used to develop the decision document:

Model Name and Version	Brief Model Description and How It Will Be Used in the Study	Certification / Approval
<u>IWR Planning Suite II (Version 2.0.9)</u>	<i>IWR Planning Suite II was developed by Institute of Water Resources as accounting software to compare habitat benefits among alternatives.</i>	<u>Certified for National Use</u>
<u>One or more approved for use/certified Habitat Suitability Index (HSI) models (e.g., USFWS HEP models) will be used depending on site-specific conditions</u>	<p><i>Habitat Evaluation Procedure (HEP) is a species-habitat approach to impact assessment and habitat quality for selected evaluation species documented with an index, the Habitat Suitability Index (HSI). This value is derived from an evaluation of the ability of key habitat components to compare existing habitat conditions and optimum habitat conditions for the species of interest. There are currently 166 models for invertebrates, fish, amphibians, reptiles, birds, mammals, and communities. Typical HEP models used for HREP projects include white bass, smallmouth buffalo, fox squirrel, gray squirrel, black capped chickadee, bullfrog, mink, dabbling duck, diving duck, and migrating shorebirds through the Northern Plains/Gairie Pothole Region.</i></p> <p><i>For this study, the models that will likely be used are the dabbling duck, diving duck, bluegill, and floodplain forest HEP models.</i></p>	<u>Approved or certified for Regional Use (within geographic limits defined for each model)</u>

**Table 5: Engineering Models.** These models may be used to develop the decision document:

Model Name and Version	Brief Model Description and How It Will Be Used in the Study	Approval Status
<u>HEC-RAS 5.0.7 (River Analysis System)</u>	<i>The Hydrologic Engineering Center's River Analysis System (HEC-RAS) program provides the capability to perform one-dimensional steady and one-dimensional or two-dimensional unsteady flow river hydraulics calculations. The program will be used for steady flow analysis to evaluate the future without- and with-project conditions at project sites. For a particular study the model could be used for unsteady flow analysis or both steady and unsteady flow analysis. Sediment transport simulations can be done if needed.</i>	<u>HHC CoP Preferred Model</u>
<u>Micro-Computer Aided Cost Engineering System (MCACES) MII Version 3.0</u>	<i>MCACES is a cost estimation model. This model will be used to estimates costs for the HREP.</i>	<u>Certified.</u>

#### ATTACHMENT 1: TEAM ROSTERS (REDACTED)

#### ATTACHMENT 2: HREP FACT SHEET