Upper Mississippi River Restoration

Upper Mississippi River Restoration Program Coordinating Committee Quarterly Meeting

Agenda with Background and Supporting Materials

November 19, 2025
Virtual

Upper Mississippi River Restoration

Quarterly Meeting
Virtual

Agenda
November 19, 2025

Time	Topic	Page	Presenter
8:00 a.m.	Call to Order and Introductions		Sabrina Chandler, *USFWS, Chair*
8:10	Approval of Minutes of August 6, 2025 Meeting	A1-7	
8:20	Regional Management and Partnership Collaboration		Marshall Plumley, *USACE*
	— Fiscal Report	B1-4	
	— Outlook for FY 2026		
	— Planning for Low Funding Scenarios		
	— USACE Management of UMRR Habitat Rehabilitation and Enhancement Projects		District HREP Managers
	— States Management of UMRR Long Term Resource Monitoring Field Stations		UMRR Coordinating Committee State Members
	— Federal Administration of UMRR Long Term Resource Monitoring		Davi Michl, *USACE* and Jeff Houser, *USGS*
9:40	Break		
10:00	UMRR Communications		Laura Talbert, *UMRBA*
	— Department of Interior Participation in UMRR	C1-2	
	— UMRR Long Term Resource Monitoring	C3-4	
	— Hydrology Snapshot Summary	C5-6	
	— UMRR Capacity Summary	C7-14	

Agenda, continued

Time	Topic	Page	Presenter
10:20	HREP Showcase: Capoli and Harpers Slough HREPs Vegetation Response		Andy Meier, *USACE*
10:50	Other Business — Future Meeting Schedule	D1-13	Sabrina Chandler, *USFWS, Chair*
11:00 a.m.	Adjourn		

Upper Mississippi River Restoration Program Quarterly Meetings

Attachment A

UMRR Coordinating Committee Draft Minutes

Draft Minutes of the
Upper Mississippi River Restoration Program
Coordinating Committee

August 6, 2025
Quarterly Meeting

Virtual

Kelly Keefe of the U.S. Army Corps of Engineers called the meeting to order at 8:00 a.m. on August 6, 2025. Other UMRR Coordinating Committee representatives present were Sabrina Chandler (USFWS), Jon Amberg (USGS), Kirk Hansen (Iowa DNR), Dave Glover (Illinois DNR), Liz Scherber (Minnesota DNR), Matt Vitello (Missouri DoC), and Vanessa Perry (Wisconsin DNR). A complete list of attendees follows these minutes.

Minutes of the May 21, 2025, Meeting

Vanessa Perry moved and Matt Vitello seconded a motion to approve the draft minutes of the May 21, 2025, meeting. The motion carried unanimously.

Regional Management and Partnership Collaboration

Fiscal Report

On March 15, 2025, Congress passed a full-year continuing resolution authority (CRA) funding federal agencies through the remainder of FY 2025. The CRA limited the Corps' FY 2025 construction general budget to $1.8 billion. Additionally, Congress completely delegated to the Administration the allocations of those funds among programs and projects. The Upper Mississippi River Restoration (UMRR) program receives its funding through the Corps' construction general account. On May 15, the Administration published the FY 2025 spending allocations, allocating $13.516,395 to UMRR. Prior to the enactment of the FY 2025 full year CRA, the Corps was operating under a series of FY 25 continuing resolutions (CR) that were based on the inclusion of $55 million for UMRR in the FY 2025 President's budget and House and Senate FY 2025 appropriations measures. In response to this change in funding, there has been a large decrease in funding for HREPs. The program is prioritizing maintaining existing construction contracts.

The FY 2026 President's Budget included $52 million for UMRR, and the House Appropriations Energy and Water Subcommittee's draft FY 2026 appropriations bill concurred with this amount. The Senate is still deliberating their appropriations bill.

UMRR has continued to execute the highest priority work utilizing prior year carry in funding and limited exhausted all the available FY 2025 funding. It is assumed that FY 26 will begin with a CR, and that the Program will carryover very limited funds, leaving no ability to carry-over funds at the beginning of the next Fiscal Year. Funding at the beginning of FY 2026 will likely be limited until a full require Congress passing a full year appropriations measure is passed, and/or some sort of instruction to implement the program with sufficient resources. Marshall Plumley noted that an additional challenge facing the program is the uncertainty in resources available for DOI and states through their respective means.

Regional Program Initiatives

The UMRR Communications and Outreach Team (COT) has suspended its work due to lack of funding. Plumley hopes that the group will restart its efforts by the end of the year in anticipation of FY 2026. The effort to pull together a HREP Monitoring Taskforce has been paused as has the effort to update the Environmental Design Handbook.

10 Year Outlook

Given the program's funding situation, the timeline for completing construction, design, and feasibility work of UMRR HREPs is pushed back by roughly twelve months for each project. The existing contract for the Harlow Island HREP was terminated to allow other work to move forward. Plumley noted that the program might be able to complete some HREPs in 2026. Plumley anticipates new feasibility studies will be initiated in all three districts in FY 2026.

In response to a question from Andrew Stephenson, Plumley reported that Rock Island District will need to shift funding among its HREPs to allow for certain construction contracts to be completed.

Strategic Planning

Plumley reported that the *ad hoc* Strategic Planning Leadership Team has decided to proceed with a process to solicit partnership review of the draft strategic plan. The next step is to seek review by the COT and Analysis Team (A-Team) followed by the participants of the strategic planning process and the Coordinating Committee. A public review will then follow. Plumley highlighted the strategic plan as an important resource given the personnel changes in the program.

Showcases

Macroinvertebrate Component of LTRM

Manisha Pant presented on the macroinvertebrate component of UMRR long term resource monitoring. LTRM sampled macroinvertebrates in Pools 4, 8, 13, and 26 from 1992 to 2005 and in the Open Reach from 1992 to 2001 In 2023, UMRR reinstated the macroinvertebrate component in all LTRM study reaches.

Through this sampling, LTRM recently identified the first recorded polychaetes in the Midwestern US. The 2025 sampling also found a higher density of macroinvertebrates and a higher species richness in the upper pools than the lower. All data will be available at the end of summer 2026.

In response to a question from Kelly Keefe, Pant explained that substrate was collected from all reaches and will be analyzed along with the samples. In response to a question from Olivia Dorothy, Pant stated that the native range of the polychaetes macroinvertebrate is unknown, but that it is typically found in marine environments. Dorothy underscored the value of macroinvertebrate monitoring to understanding management impacts on the river. Davi Michl shared that these findings are from a pilot study; the UMRR Coordinating Committee, by approving the recent LTRM Implementation Plan, prioritized the reinstatement of the macroinvertebrate component. Because of unanticipated funding constraints in FY 2025, UMRR is now pausing analysis of the sampling results to a time when funding allows.

Water Level Management in Lower Pool 13 Phase II

Clayton Corken presented water level management recommendations from the Lower Pool 13 Phase II HREP. Risk from drawdowns was analyzed at each river mile. The resulting recommendation was to draw down by one foot at lower river miles a minimum of once every five years for a minimum of thirty days to maintain habitat benefits. The implementation options for this recommendation are updating the water control manual or requesting a deviation from the Corps Division.

Corken referenced policy that Kirsten Wallace called out for further discussion. Wallace pointed to the Water Resources Development Act (WRDA) 2022 authorizing that the Corps implement water level management in its operations and maintenance of the 9-foot navigation channel. Wallace asked the Coordinating Committee to consider the appropriate timing to request that the Division revise its interpretation of its authorities to employ water level management. Sabrina Chandler concurred, pointing out that Pool 13 was intentionally selected because of the feasibility for implementing water level management. Chandler suggested that, If the Corps determines that water level management cannot be conducted in Pool 13 because of authority limitations, then the partnership could infer that the Corps would be reluctant to implement water level management elsewhere.

Olivia Dorothy suggested a supplemental Environmental Impact Statement to capture water level management as mitigation for navigation on the Upper Mississippi River.

Marshall Plumley noted that, when the fact sheet was developed for Pool 13, WRDA had not yet authorized water level management and the Navigation and Ecosystem Sustainability Program (NESP) was not yet funded. Pool 13 was chosen as the location based on a feasibility study conducted in the 1990s. Given that NESP is now funded, Plumley suggested that NESP may offer a simpler authority for implementing water level management at a pool scale.

In response to a question from Andrew Stephenson, Corken stated that there are likely places along the river that would benefit from a more incremental water level management approach.

Program Reports

Long Term Resource Monitoring, Research, and Other Science

Davi Michl reported that LTRM has been focused on maintaining base monitoring in FY 2025. The final field season for the Pool 13 HREP Associated Research Project (HARP) has concluded. The topobathy data acquisition is wrapping up, and preliminary results from Pools 4 and 8 are being processed. Jennifer Sauer congratulated the program on the topobathy pilot.

Quarterly Progress Report

Jeff Houser reported that the accomplishments of the third quarter of FY 2025 include the publication of the following eight manuscripts that were supported by UMRR funding and the partnership infrastructure:

1) Expansion of aquatic and marsh area into once forested and agricultural areas reflects changing hydrological conditions along the Upper Mississippi and Illinois Rivers (1980 – 2020)

2) Characterizing the niche of *Phalaris arundinacea* (reed canarygrass) in floodplain forest understories of the Upper Mississippi River
3) First record of the euryhaline polychaete *Laonome xeprovala* (Sabellidae) from the U.S. Midwest
4) Data release: Upper Mississippi River System changes in floodplain inundation from 1940 to 2022
5) Too much and not enough data: Challenges and solutions for generating information in freshwater research and monitoring [*LTRM was cited in this paper as an example of a successful program*]
6) Long term resource monitoring (LTRM) electrofishing techniques: An addendum to the methods outlined in Ratcliff et al. (2014)
7) Bluegill otolith processing: Standard Operating Procedures
8) Analysis of temporal trends and accumulation potential of cyclin volatile methyl siloxanes in a temperate freshwater lake ecosystem

A report summarizing the process and results of LTRM implementation planning has been drafted and sent to the planning team. The report will be distributed once it is finalized.

Anyone looking to be added to the publication email distribution list should email Jeff Houser.

A-Team Report

Shawn Giblin, Chair of the A-Team, presented content from the group's July 31 meeting. The next A-Team meeting will be held virtually in mid-October.

In response to a question from Kelly Keefe on the Pool 13 HREP-associated research project (HARP), Jeff Houser explained that the UMRR Coordinating Committee and the UMRR partnership more broadly extensively discuss and deliberate the LTRM priorities, projects, and annual work plans. The partnership found the Pool 13 HREP to be a valuable HARP opportunity for several reasons. Given the continuity of meeting participants, that background information is not always included in quarterly meeting presentations. Houser offered to brief Keefe on that background context as well as the Pool 13 HREP HARP.

HREP Planning and Construction

John Henderson, Jessie Dunton, and Shane Simmons reported on the progress in implementing UMRR HREPs, including the following milestones:

- The St. Paul District has completed McGregor Lake HREP Stage I and is wrapping up Stage II.
- The St. Paul District expects a Tentatively Selected Plan for the Bankline Stabilization HREP in early 2026.
- The Rock Island District remobilized a team to work on the design of the Steamboat Island Stage III HREP.
- The St. Louis District expects to complete pump station construction for Clarence Cannon HREP in the next fiscal year.
- The St. Louis District River Resources Action Team fall 2025 partner river trip will be a one-day event on August 13.

In response to a question from Kelly Keefe, Simmons stated that the St. Louis District work with the construction contractor to terminate the Harlow Island HREP contract early. Simmons confirmed that the District plans to reissue a solicitation of bids to advance construction of the project when funds become available.

Communications and Outreach

Programmatic Brochures

Laura Talbert presented two new brochures for the purposes of: 1) explaining the roles and responsibilities performed by the Department of Interior in UMRR, including both USGS's and USFWS's roles and responsibilities and 2) explaining the value of the UMRR long term resource monitoring. The primary audience for these brochures is the Administration and Congress and have already been used by UMRBA in its engagements with new political appointees in DOI, USGS, and USFWS.

In response to a question from Vanessa Perry, Talbert explained that UMRBA would appreciate any feedback on the brochures. UMRBA received comments from one partner on a first draft that it is considering for revision. UMRBA will send a request to the Coordinating Committee for endorsement this fall to vote on at the November 19 quarterly meeting.

Cell Phone Data Pilot

Matt Vitello shared pilot data collected by the Upper Mississippi River Conservation Committee (UMRCC) in partnership with the Missouri Department of Conservation. The pilot tracked cell phone location data to determine visits to Pools 4, 13, and 26. The locations were restricted to solely the pools, not the surrounding areas. The raw data can be found on the UMRCC website.

Other Business

Future Meeting Schedule

- November 2025 in St. Louis, Missouri
  - UMRBA quarterly meeting – November 18
  - UMRR Coordinating Committee quarterly meeting – November 19
- February 2026 to be held virtually
  - UMRBA quarterly meeting – February 24
  - UMRR Coordinating Committee quarterly meeting – February 25
- May 2026 to be held in Minneapolis, Minnesota
  - UMRBA quarterly meeting – May 18
  - UMRR Coordinating Committee quarterly meeting – May 19

Attendance List

UMRR Coordinating Committee Members

Kelly Keefe	U.S. Army Corps of Engineers, MVD
Sabrina Chandler	U.S. Fish and Wildlife Service, UMR Refuges
Jon Amberg	U.S. Geological Survey, UMESC
Dave Glover	Illinois Department of Natural Resources
Kirk Hansen	Iowa Department of Natural Resources
Liz Scherber	Minnesota Department of Natural Resources
Matt Vitello	Missouri Department of Conservation
Vanessa Perry	Wisconsin Department of Natural Resources

Others In Attendance

Brian Chewning	U.S. Army Corps of Engineers, MVD
Jim Cole	U.S. Army Corps of Engineers, MVD
LeeAnn Riggs	U.S. Army Corps of Engineers, MVD
Thatch Shepard	U.S. Army Corps of Engineers, MVD
Kacie Grupa	U.S. Army Corps of Engineers, MVP
John Henderson	U.S. Army Corps of Engineers, MVP
Samantha Thompson	U.S. Army Corps of Engineers, MVP
Nathan Wallerstedt	U.S. Army Corps of Engineers, MVP
Clayton Corken	U.S. Army Corps of Engineers, MVR
Jessie Dunton	U.S. Army Corps of Engineers, MVR
Davi Michl	U.S. Army Corps of Engineers, MVR
Marshall Plumley	U.S. Army Corps of Engineers, MVR
Jasen Brown	U.S. Army Corps of Engineers, MVS
Greg Kohler	U.S. Army Corps of Engineers, MVS
Shane Simmons	U.S. Army Corps of Engineers, MVS
Ryan Swearingin	U.S. Army Corps of Engineers, MVS
Lauren Larson	U.S. Fish and Wildlife Service, Ecological Services
Kraig McPeek	U.S. Fish and Wildlife Service, Ecological Services
Sara Schmuecker	U.S. Fish and Wildlife Service, Ecological Services
Jalynn Horacek	U.S. Fish and Wildlife Service
Andy Casper	U.S. Geological Survey, UMESC
Chris Churchill	U.S. Geological Survey, UMESC
Jeff Houser	U.S. Geological Survey, UMESC
Jim Fischer	U.S. Geological Survey, UMESC
JC Nelson	U.S. Geological Survey, UMESC
John Seitz	Illinois Department of Natural Resources
Manisha Pant	Illinois Natural History Survey
Ryan Hupfeld	Iowa Department of Natural Resources
Neil Rude	Minnesota Department of Natural Resources
Sam Clary	Missouri Department of Conservation
Dru Buntin	Missouri Department of Natural Resources
Erin Fanning	Missouri Department of Natural Resources
Sammi Boyd	Wisconsin Department of Natural Resources
Shawn Giblin	Wisconsin Department of Natural Resources
Patrick Kelly	Wisconsin Department of Natural Resources

Olivia Dorothy	One Mississippi
Lindsay Brice	Audubon
Brent Newman	Audubon
Alicia Vasto	Audubon
Fritz Funk	Izaak Walton League
Barry Draskowski	Izaak Walton League
Marc Schultz	Lake Onalaska Protection District
Jennifer Sauer	National Experienced Workforce
Christine Favilla	Sierra Club
Andrew Stephenson	The Nature Conservancy
Kirsten Wallace	Upper Mississippi River Basin Association
Brian Stenquist	Upper Mississippi River Basin Association
Mark Ellis	Upper Mississippi River Basin Association
Sam Hund	Upper Mississippi River Basin Association
Natalie Lenzen	Upper Mississippi River Basin Association
Sadie Neuman	Upper Mississippi River Basin Association
Laura Talbert	Upper Mississippi River Basin Association
Josh Wolf	Upper Mississippi River Basin Association

Upper Mississippi River Restoration Program Quarterly Meetings

Attachment B

Regional Management and Partnership Collaboration

UMRR Quarterly Budget Report: St. Paul District

FY2025 Q4; Report Date: Tue Nov 04 2025

Habitat Projects

Project Name	Cost Estimates			FY2025 Financials			
	Non-Federal	Federal	Total	Carry In	Allocation	Funds Available	Actual Obligations
Lower Pool 10 Island and Backwater Complex, IA	-	$32,428,000	$32,428,000	$17,737	$253,682	$271,419	$424,331
Lower Pool 4, Big Lake, WI	-	$44,679,000	$44,679,000	$6,263	$210,333	$216,596	$214,305
Lower Pool 4, Robinson Lake, MN	-	$20,000,000	$20,000,000	$57,739	$311,793	$369,531	$359,077
McGregor Lake, WI	-	$20,336,695	$20,336,695	$3,530	$161,828	$165,358	$168,010
Project to be determined	-	-	-	-	$144,075	$144,075	$148,697
Reno Bottoms, MN	-	$38,965,000	$38,965,000	$115,687	$207,371	$323,058	$210,776
Total	-	$156,408,695	$156,408,695	$200,955	$1,289,082	$1,490,037	$1,525,196

Habitat Rehabilitation

Subcategory	FY2025 Financials			
	Carry In	Allocation	Funds Available	Obligations
District Program Management	-	-	-	$529,344
Total	-	-	-	$529,344

Regional Program Administration

Subcategory	FY2025 Financials			
	Carry In	Allocation	Funds Available	Obligations
Habitat Eval/Monitoring	$74,617	$862,746	$937,364	$109,008
Total	$74,617	$862,746	$937,364	$109,008

	Carry In	Allocation	Funds Available	Actual Obligations
St. Paul Total	$275,573	$2,151,828	$2,427,400	$2,163,548

UMRR Quarterly Budget Report: Rock Island District

FY2025 Q4; Report Date: Tue Nov 04 2025

Habitat Projects

Project Name	Cost Estimates			FY2025 Financials			
	Non-Federal	Federal	Total	Carry In	Allocation	Funds Available	Actual Obligations
Beaver Island, IA	-	$25,288,000	$25,288,000	$22,090	-	$22,090	$22,090
Green Island, IA	-	$36,579,000	$36,579,000	$41,552	$6,853	$48,405	$18,281
Keithsburg Division, IL	-	$29,643,000	$29,643,000	$44,135	$380,739	$424,874	-$105,294
Lower Pool 11, WI	-	$20,000,000	$20,000,000	$36,261	$348,147	$384,409	$384,245
Lower Pool 13 Phase II, IA	-	$20,000,000	$20,000,000	$119,578	$115,424	$235,003	$235,369
Lower Pool 13, IA	-	$26,083,000	$26,083,000	$26,722	$282,199	$308,921	$308,483
Pool 12 (Forestry), IL	-	$35,737,000	$35,737,000	$76,107	-	$76,107	$73,805
Pool 18 Forestry, IA	-	$20,000,000	$20,000,000	$60,230	$208,597	$268,827	$261,619
Quincy Bay, IL	-	$42,588,000	$42,588,000	$33,424	$223,752	$257,176	$249,616
Steamboat Island, IA	-	$41,977,000	$41,977,000	$14,986	$322,760	$337,746	$394,302
Total	-	$297,895,000	$297,895,000	$475,086	$1,888,471	$2,363,557	$1,842,516

Habitat Rehabilitation

Subcategory	FY2025 Financials			
	Carry In	Allocation	Funds Available	Obligations
District Program Management	-	-	-	$409,361
Total	-	-	-	$409,361

Regional Program Administration

Subcategory	FY2025 Financials			
	Carry In	Allocation	Funds Available	Obligations
Adaptive Management	-	$141,806	$141,806	$139,325
Habitat Eval/Monitoring	$22,560	$517,187	$539,747	$122,172
Model Certification/Regional HREP	-	$40,509	$40,509	$40,509
Public Outreach	-	$65,027	$65,027	$64,949
Regional Program Management	$227,315	$1,001,929	$1,229,245	$1,285,324
Regional Project Sequencing	-	$2,937	$2,937	$2,937
Total	$249,876	$1,769,395	$2,019,271	$1,655,216

Regional Science and Monitoring

Subcategory	FY2025 Financials			
	Carry In	Allocation	Funds Available	Obligations
Long Term Resource Monitoring	-	$4,756,090	$4,756,090	$5,078,393
Science in Support of Restoration/Management	$11,609	$146,852	$158,461	-$235,438
Total	$11,609	$4,902,942	$4,914,551	$4,842,955

	Carry In	Allocation	Funds Available	Actual Obligations
Rock Island Total	$736,571	$8,560,809	$9,297,379	$8,750,048

UMRR Quarterly Budget Report: St. Louis District

FY2025 Q4; Report Date: Tue Nov 04 2025

Habitat Projects

Project Name	Cost Estimates			FY2025 Financials			
	Non-Federal	Federal	Total	Carry In	Allocation	Funds Available	Actual Obligations
Clarence Cannon, NWR, MO	-	$29,800,000	$29,800,000	-	$76,984	$76,984	$76,047
Crains Island, IL	-	$36,562,000	$36,562,000	-	$133,488	$133,488	$133,261
Gilead Slough, IL	-	$20,000,000	$20,000,000	$13,273	$202,974	$216,247	$323,680
Harlow Island, MO	-	$37,971,000	$37,971,000	-	$390,690	$390,690	-$2,182,571
Meredosia Island, IL	-	$29,000,000	$29,000,000	-	$29,490	$29,490	$29,490
Oakwood Bottoms, IL	-	$34,200,000	$34,200,000	-	$997	$997	$997
Piasa - Eagle's Nest Islands, IL	-	$26,746,000	$26,746,000	-	$574,159	$574,159	$1,124,510
Red's Landing Wetlands, IL	-	$16,573,680	$16,573,680	-	$200,946	$200,946	$291,927
West Alton Missouri Islands, MO	-	$14,500,000	$14,500,000	-	$17,004	$17,004	$19,802
Yorkinut Slough, IL	-	$31,000,000	$31,000,000	$10,488	$450,776	$461,264	$604,912
Total	-	$276,352,680	$276,352,680	$23,762	$2,077,508	$2,101,269	$422,055

Habitat Rehabilitation

Subcategory	FY2025 Financials			
	Carry In	Allocation	Funds Available	Obligations
District Program Management	-	-	-	$741,474
Total	-	-	-	$741,474

Regional Program Administration

Subcategory	FY2025 Financials			
	Carry In	Allocation	Funds Available	Obligations
Habitat Eval/Monitoring	$130,030	$726,251	$856,281	$309,024
Total	$130,030	$726,251	$856,281	$309,024

	Carry In	Allocation	Funds Available	Actual Obligations
St. Louis Total	$153,792	$2,803,758	$2,957,550	$1,472,553

Upper Mississippi River Restoration Program
Quarterly Meetings

Attachment C

UMRR Communications

U.S. Fish and Wildlife Service in the Upper Mississippi River Restoration Program

The Upper Mississippi River Restoration program (UMRR) operates through a truly unique and remarkable partnership.

The National Wildlife Refuge System and National Fish Hatchery System across the UMRS.

The **U.S. Fish and Wildlife Service** (USFWS) makes substantial investments in UMRR by supporting the **planning, design, and monitoring of UMRR's Habitat Rehabilitation and Enhancement Projects** (HREPs) through the National Wildlife Refuge System, fisheries resource offices, and ecological services field offices.

How Does the USFWS Support UMRR?

- Holds responsibility for **operation, maintenance, repair, rehabilitation, and replacement** (OMRR&R) **for habitat projects located on USFWS lands**.
- Assists with the **planning and design of habitat projects**. From 2016-2022, UMRR restored over 15,000 acres of habitat.
- Participates in pre- and post-**project monitoring** on sponsored projects.
- Provides **expertise in river ecology** and **prioritizing restoration investments**.
- Improves the experience of the Upper Mississippi River Refuge's **3.7 million annual visitors.**

The UMRR program's **interagency partnership ensures the program's success** in achieving a healthier and more resilient system that sustains the river's multiple uses.

The partnership enables the UMRR program to manage resources provided by Congress in the most efficient and effective way possible.

U.S. Geological Survey in the Upper Mississippi River Restoration Program

The Upper Mississippi River Restoration program (UMRR) operates through a truly unique and remarkable partnership.

The **U.S. Geological Survey** (USGS), through its Upper Midwest Environmental Sciences Center, provides scientific expertise and administration for **implementing UMRR's Long Term Resource Monitoring (LTRM)**.

The data collected **over 35 years** has produced many insights that would be otherwise unobtainable.

How Does the USGS Support UMRR?

- **Provides a scientific basis for restoration practitioners** to assess the river ecosystem's habitat needs and optimize project investments
- Creates **new tools to better understand the ecosystem, informing decision makers**
- Collaborates with partner agencies to **identify information needs**
- Executes research, data analysis, and management, modeling, and decision support
- Produces scientific reports, including a **thorough assessment of the ecological resilience of the river,** identifying key indicators of ecosystem structure and function critical to understanding, restoring, and managing the river and watershed
- Enables the program to understand and address the most pressing issues the UMRS is facing

Recent advancements in knowledge supported by USGS are outlined in the following scientific publications:

2022 Ecological Status and Trends of the Upper Mississippi and Illinois Rivers

2018 UMRR Habitat Needs Assessment II

Long Term Resource Monitoring
of the Upper Mississippi River System

Upper Mississippi River Restoration

The Upper Mississippi River System is changing for a variety of reasons, mostly because of **changing hydrology** and **invasive species**. Changing hydrology affects habitat quality and food sources for fish and wildlife.

We know these changes are occurring because of the **Long Term Resource Monitoring** (LTRM) in the Upper Mississippi River Restoration Program. The data collected for 35 years at six field stations has **produced many insights that would be otherwise unobtainable.**

The six field stations collect data on **water quality, forests, aquatic vegetation, fish,** and other variables to measure the river's health. The six study reaches have different habitats, threats, and conditions.

Lake City Field Station
Monitored by the state of Minnesota. This station's findings illuminate how investing in nutrient reduction leads to a healthier ecosystem.

La Crosse Field Station
Monitored by the state of Wisconsin. Findings from this field station show the value of UMRR's habitat projects, particularly island and backwater restoration.

Bellevue Field Station
Monitored by the state of Iowa. This station found that the Maquoketa River, which flows into Pool 13, contributes the most sediment out of the tributaries studied. This has led to a decline in aquatic plant diversity and abundance.

Havana Field Station
Monitored by the state of Illinois. The establishment of invasive carp in the La Grange Reach has led to a decrease in recreationally valued native fish populations at this field station .

Great Rivers Field Station
Monitored by the state of Illinois. Water levels at Pool 26 have been managed to expand the areas where native emergent plants can grow. The plants then help to limit sediment movement and enhance water clarity.

Open River Field Station
Monitored by the state of Missouri. In contrast to the Havana field station, recreationally valued native fish populations are stable in the Open River Reach despite the presence of invasive carp.

Long Term Resource Monitoring
of the Upper Mississippi River System

Upper Mississippi River Restoration

For 35 years, UMRR's Long Term Resource Monitoring (LTRM) captures trends in nutrient concentrations, plant community changes, forest loss across the system, and the impacts from invasive carp expansion to the abundance and diversity of native fishes.

LTRM informs our understanding of the river's ecology and focuses investments for the greatest benefit of the river and the public .

What Does LTRM Tell Us?

- There is **more water in the river more of the time**. High flows are lasting longer and occurring more frequently throughout the system. This is important because water flow is the primary driver affecting the quality and quantity of habitat.
- **Floodplain forest loss has occurred in nearly all study areas** except south of the locked portion of the river. The forests may be responding to changes like increased flood inundation and invasive species.
- In most of the river system, **water in main channel has become clearer** and **aquatic plants have become more abundant,** improving habitat for some fish and wildlife. Increased water clarity in the river allows sunlight to reach deeper into the water and promotes plant growth. These plants slow water flow and anchor the sediment, which further improves water clarity and triggers more plant growth.
- **Concentration of nutrients, notably nitrogen and phosphorus, remain high,** exceeding U.S. Environmental Protection Agency benchmarks. However, total phosphorus concentrations have declined in many of the studied reach areas.
- **The river continues to support diverse and abundant fishes.** Recreational fishes have increased in parts of the system. However, there have been substantial declines in forage fish, an important food source for larger fishes and animals, throughout the river network. Invasive carps have substantially affected the river ecosystem where they have become common.

How Does LTRM Benefit People Along the River?

In the 1980s, there was a massive collapse of vegetation on the Upper Mississippi River that increased sedimentation of the navigation channel, negatively impacting the river's ability to support navigation. The collapse was likely caused by poor water quality. Monitoring vegetation, sediment and water quality is important to maintaining reliable transportation of commerce.

UMRR long term monitoring of nutrients provides the agricultural community with long term information about trends, informing the success of past investments in nutrient management and informing decisions about future investments in conservation practices.

The Upper Mississippi River System is a treasured ecosystem abundant with fish and wildlife and a multi-billion-dollar economic engine. It plays a major role in local, regional, state, and national economies. LTRM works towards a healthier and more resilient ecosystem that supports these systems.

This information is available in greater detail in the following scientific publications:

2022 Ecological Status and Trends of the Upper Mississippi and Illinois Rivers

2018 UMRR Habitat Needs Assessment II

Upper Mississippi River Restoration
Leading · Innovating · Partnering

Upper Mississippi and Illinois Rivers Experienced Significant Increase in Flow

Hydrology relates to the amount, distribution, and movement of water in a watershed. The hydrology of the Upper Mississippi and Illinois Rivers is characterized by high levels of flow during the spring and early summer, largely due to melting snow and rainfall. The fall and winter see lower levels of discharge.

Hydrology is a critical driver for riverine processes like **sedimentation** and **nutrient cycling**. Water flow is also one of the most important factors in **determining habitat quality and quantity.**

80 Years of Monitoring Show Widespread Increases in Amount of Water Flowing in UMRS

The 2022 Ecological Status and Trends of the Upper Mississippi and Illinois Rivers report discovered that there is greater flow of water in the Upper Mississippi River System (UMRS) from 1940 to 2019. All of the hydrologic indicators measured had significantly increasing trends over 80 years. The report found that **flood events are lasting longer and occurring more frequently** throughout the system. The month of maximum mean water flow is shifting, from April towards May and June.

Dive into the Data	Winona, MN	Keokuk, IA	St. Louis, MO	Valley City, IL
Annual Maximum Discharge	No change	↑	No change	↑
Annual Mean Discharge	↑	↑	↑	↑
Annual Minimum Discharge	↑	↑	↑	↑
Duration of High Flows	No change	↑	↑	↑

Above is a summary of the long-term trends in hydrology observed from 80 years of monitoring as reported in the Ecological Status and Trends of the Upper Mississippi and Illinois Rivers.

What Does Changing Flow Mean for the Upper Mississippi River System?

Upper Mississippi River Restoration
Leading · Innovating · Partnering

More Water, More of the Time

Water flow is a critical driver of river and floodplain functions. Changes in flow can affect everything from how sediment is transported and deposited, populations of invasive species, water quality, and the amount and distribution of habitats. In some cases, links between river flow and floodplain functions are well studied, but in other cases, there is much to learn.

The report authors did not analyze what is driving increases in river flow. Previous studies have identified watershed land use, changing weather, and their combined effect as potential factors. Land use can affect how water moves through the basin to river channels.

For example, water moves off pavement and into the river system quicker than it runs off natural surfaces, increasing flows. Changes in precipitation and temperature drive the amount of water, its form (snow versus rain), and when and where it is delivered in the basin - all of which ultimately affect flow.

SEDIMENT

High water flows can cause erosion, leading to more sediment in the river. The high level of flow then changes where that sediment is deposited downstream, where it can start to build up.

INVASIVE CARP

Periods of high discharge boost the invasive carp population as the carp follow the flood pulse and enter shallow waters of the floodplain to find food.

WATER QUALITY

An increase in flow leads to shifts in nutrient availability, cycling, and transport in the river system. In addition, high flows can increase nutrient runoff from the surrounding lands into the river.

FLOODPLAIN FOREST

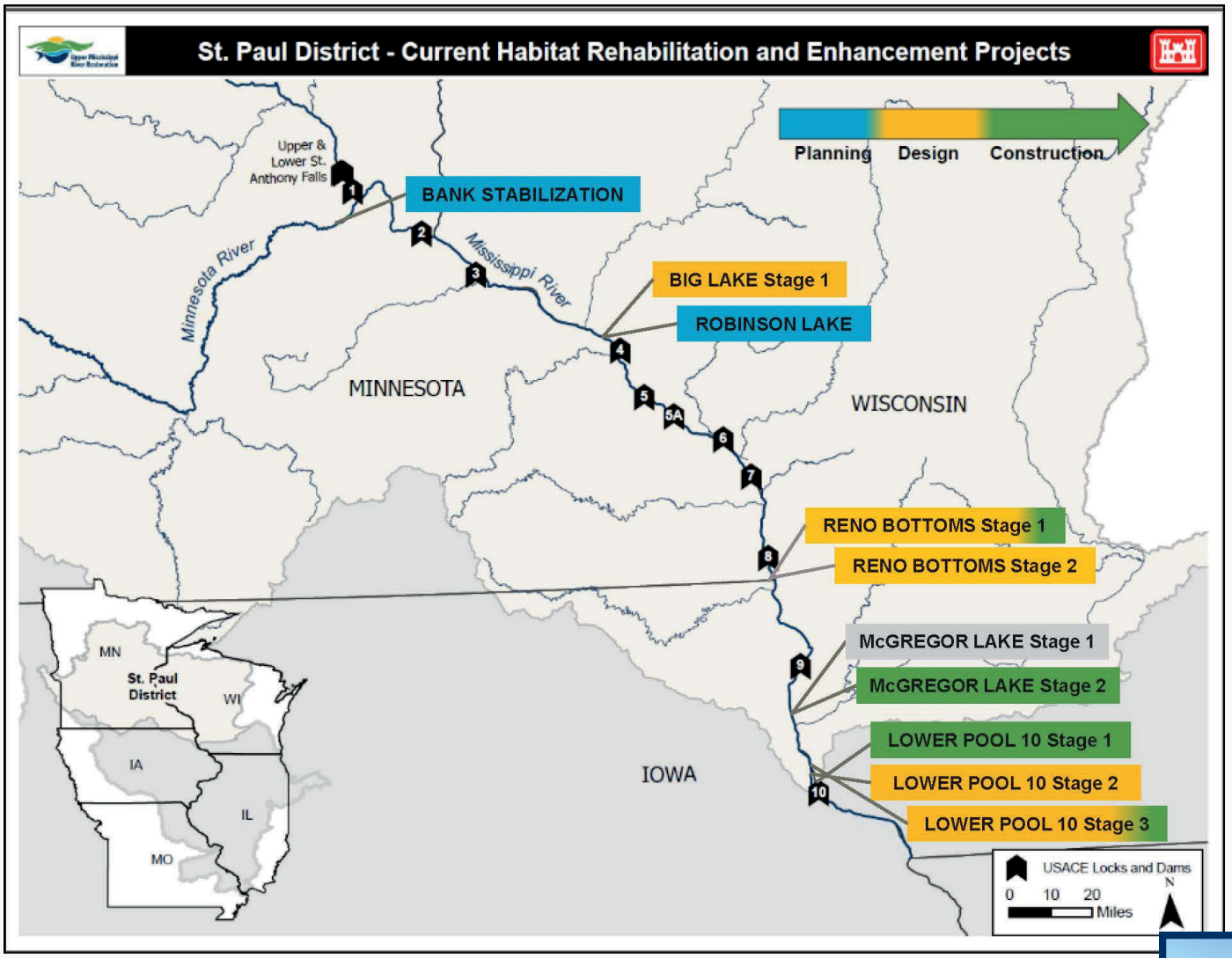
More water in the system leads to longer periods of submergence, which can increase the mortality of floodplain forests that provide habitat for fish and wildlife and opportunities for hunting and birdwatching.

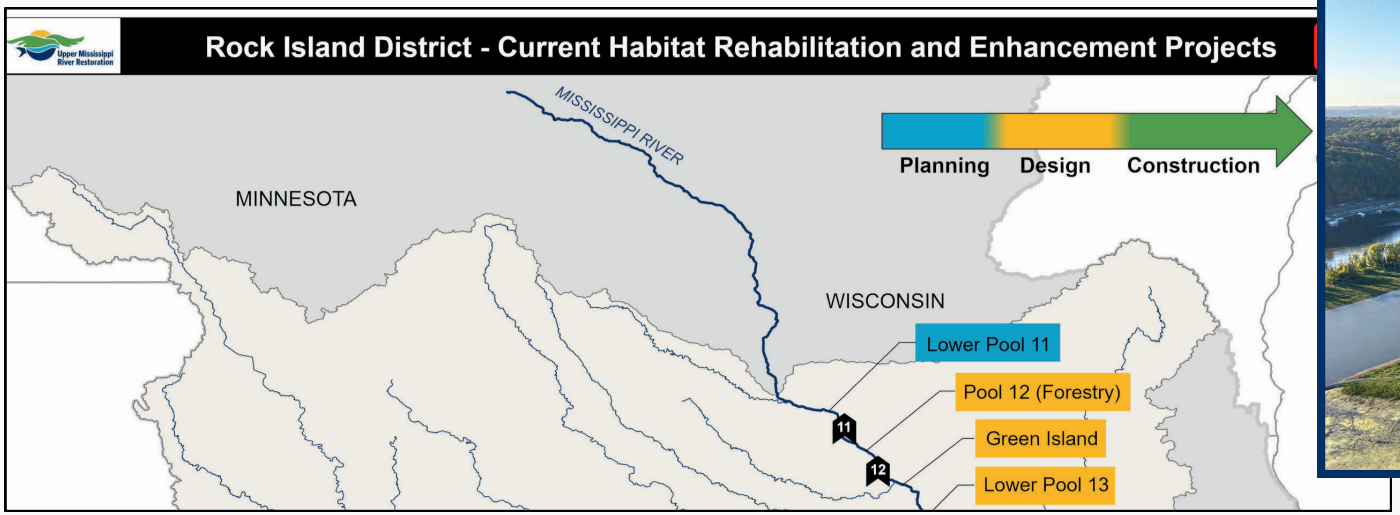
This information is available in greater detail in the Ecological Status and Trends of the Upper Mississippi and Illinois Rivers report.

Upper Mississippi River Restoration Program

Implementation Snapshot 2024 - 2026

Upper Mississippi River Restoration

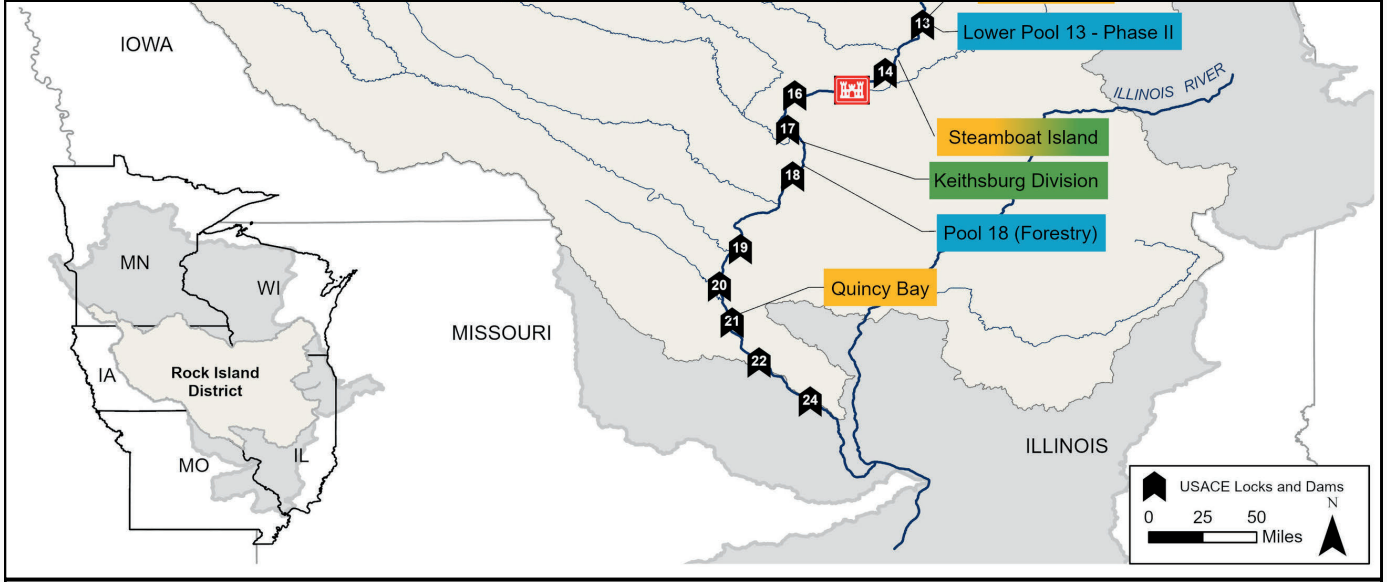


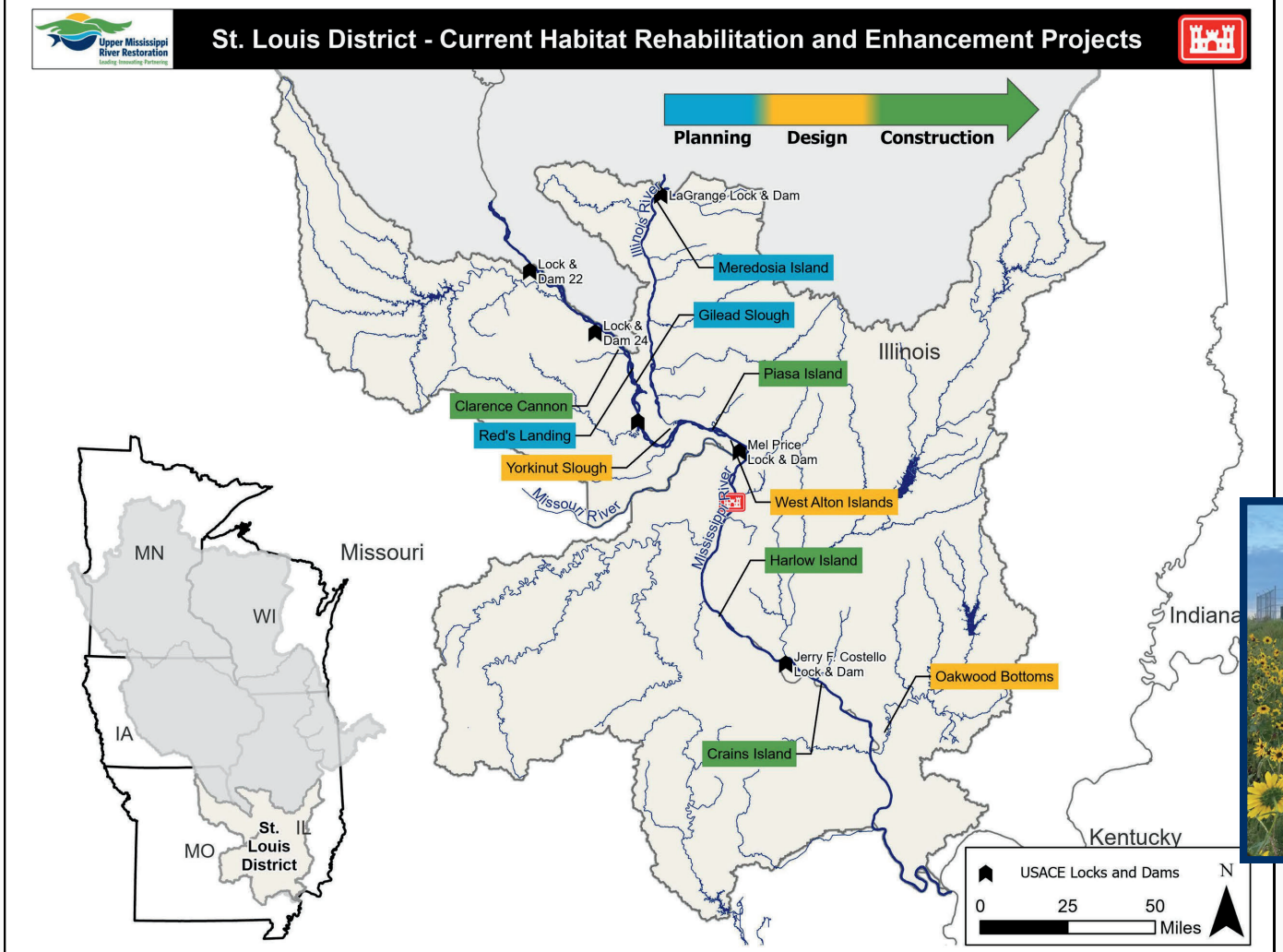


Project Status, December 2024

- Bank Stabilization (MN-2)
- Big Lake (MN-1, WI-3)
- Robinson Lake (MN-1, WI-3)
- Reno Bottoms (MN-1, IA-2, WI-3)
- McGregor Lake (IA-2, WI-3)
- Lower Pool 10 (IA-2, WI-3)
- Lower Pool 11 (IA-2, WI-3)
- Pool 12 Forestry (IA-1, IA-2, WI-3, IL-16)
- Green Island (IA-1, IL-16)
- Lower Pool 13 (IA-1, IL-17)

Lower Pool 10 HREP (IA-2, WI-3)





- Beaver Island (IA-1, IL-17)
- Steamboat Island (IA-1, IL-17)
- Keithsburg Division (IA-1, IL-15)
- Pool 18 Forestry (IA-1, IL-15)
- Quincy Bay (MO-6, IL-15)
- Clarence Cannon (MO-6, IL-15)
- Red's Landing (MO-6, IL-15)
- Gilead Slough (MO-6, IL-15)
- Yorkinut Slough (MO-3, IL-15)
- Piasa Islands (MO-3, IL-15)
- West Alton Islands (MO-3, MO-1, IL-15)
- Harlow Island (MO-8, IL-12)
- Crains Island (MO-8, IL-12)
- Oakwood Bottoms (MO-8, IL-12)

Pump station at Clarence Cannon HREP (MO-6, IL-15)

Restoring Complexes of Habitat: Portfolio of Projects in 2024 - 2026

Successful Implementation in FY 2024

- Completed construction of Beaver Island in Iowa
- Finished design of Harlow Island in Missouri
- Completed feasibility plans for
- Lower Pool 4 (Big Lake) Stage I in Minnesota
- Yorkinut Slough in Missouri
- Continued construction of 8 projects, design of 7 projects, and planning of 10 projects

Ongoing Work in FY 2025

- Initiate construction of
  - Lower Pool 10 Islands in Iowa
  - Reno Bottoms in Minnesota and Iowa
  - Yorkinut Slough in Illinois
- Finish design of
  - Lower Pool 13 in Iowa
  - Swan Lake flood damage rehabilitation in Illinois
- Complete feasibility plans for Lower Pool 13 Phase II in Iowa
- Initiate design (and complete feasibility) of
  - Green Island in Iowa
  - Pool 12 Forestry in Illinois
  - Quincy Bay in Illinois
  - West Alton Islands in Missouri
- Continue construction of 7 projects, design of 4 projects, and planning of 5 projects

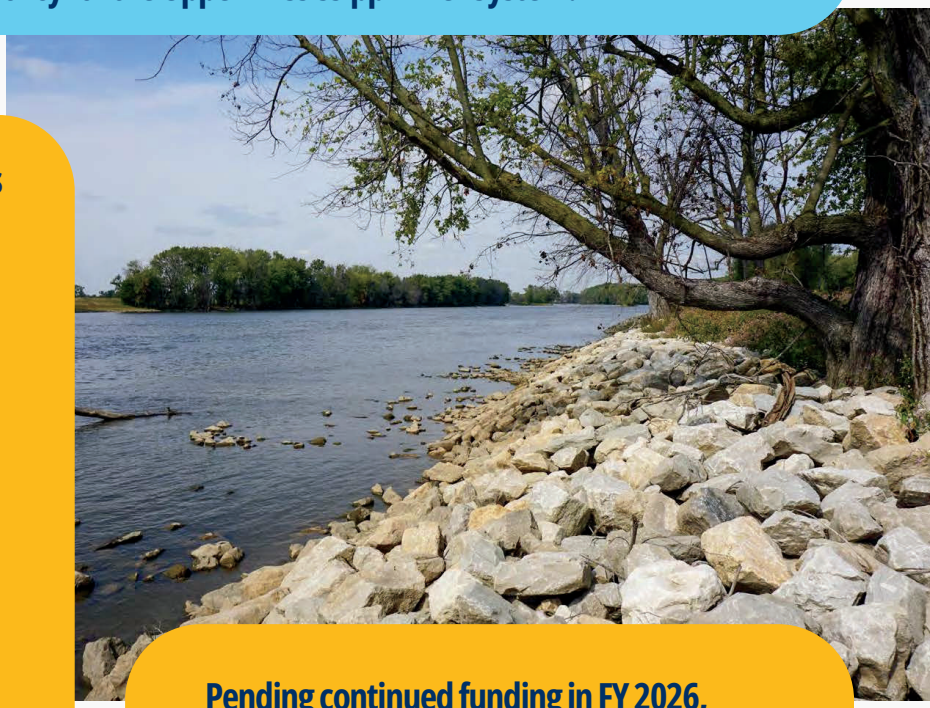
Planned Implementation for FY 2026

- Complete construction of McGregor Lake in Wisconsin
- Initiate construction of
  - Lower Pool 13 in Iowa
  - Swan Lake flood damage rehabilitation in Illinois
  - Oakwood Bottoms in Illinois
- Finish design of
  - Lower Pool 4 (Big Lake) Stage I in Minnesota
  - Quincy Bay in Illinois
- Initiate design (and complete feasibility) of
  - Robinson Lake in Minnesota
  - Gleads Slough in Illinois
  - Reds Landing in Illinois
- Completed feasibility plans for Lower Pool 13 Phase II in Iowa
- Ongoing construction of 9 projects, design of 3 projects, and planning of 7 projects

McGregor Lake HREP (IA-2, WI-3)

Long Term Resource Monitoring 2024 - 2026

UMRR combines environmental long term resource monitoring (LTRM), research, systemic data acquisition, and modeling to provide a solid scientific foundation upon which many agencies base management actions and policy for the Upper Mississippi River System.



Scientists collaborated with land managers to select the following research priorities, which are being advanced with FY 2024 and 2025 funding:

- Understand geomorphic change within the Upper Mississippi River System
- Evaluate the changing ecological conditions from Pool 14 to Pool 25, determining the merits of installing an additional long term monitoring station within that stretch of the river
- Establish baseline conditions of lower trophic levels in the Upper Mississippi River System – i.e., the abundance, distribution, and status of phytoplankton and zooplankton
- Develop a quantitative understanding of how floodplain vegetation has changed across the Upper Mississippi River System

Pending continued funding in FY 2026, plans for investment in monitoring and research include:

- Implement the long term monitoring of water quality, vegetation, and fisheries through a network of six state-operated field stations
- Integrate scientific research specific to the Lower Pool 13 habitat rehabilitation and enhancement project
- Publish renewed land cover/land use for the entire Upper Mississippi River System
- Publish renewed topobathy in the southern portion of Pool 13 and the southern portion of unimpounded reach of the Upper Mississippi River and the entire Illinois River

Conway Lake HREP (IA-2, WI-3)

Long Term Resource Monitoring

UMRR's monitoring and science efforts have produced the **most extensive fisheries dataset for a great river in the world,** built the **largest aquatic vegetation dataset in the world**, and tracked spatially and temporally dynamic water quality changes **over nearly three decades of monitoring.**

LTRM captures the **impacts from invasive carp expansion** to the **abundance and diversity of native fishes**, trends in **nutrient concentrations**, **plant community changes** and recovery in portions of the river system, and **forest loss** across the system.

LTRM also provides important insights and tools that aid habitat restoration. As the only large river with extensive long term monitoring of its ecosystem, greater **understanding of this system helps to inform river management throughout the nation and across the world.**

Water quality, vegetation, and fisheries are monitored annually through a **network of six state-operated field stations**, which are located on the Upper Mississippi River in Pool 4 (Lake City, Minnesota), Pool 8 (La Crosse, Wisconsin), Pool 13 (Bellevue, Iowa), Pool 26 (Alton, Illinois), and the Open River reach (Cape Girardeau, Missouri), as well as the La Grange Pool of the Illinois River (Havana, Illinois).

Partnership Efforts 2024 - 2026

In FY 2024, the UMRR partnership initiated the strategic planning process for the **2025-2035 Strategic Plan**. The Corps, implementing partners, interested Tribal governments, and the public work collaboratively to continue to implement action to achieve the goals and objectives of the UMRR Strategic Plan to help **drive the Upper Mississippi River System toward a healthier and more resilient state that supports the river's multiple uses**.

2025 - 2035 Strategic Plan Goals:

- Improve the understanding of the structure and function of the Upper Mississippi River for better management.
- Restore at least 60,000 acres of habitat within the river ecosystem.
- Support efficient, effective, and innovative habitat restoration through strengthened collaboration between restoration practitioners and scientists.
- Foster strong relationships among UMRR partners and stakeholders.

US Army Corps of Engineers ®

Upper Mississippi River Restoration

U.S. ARMY CORPS OF ENGINEERS ROCK ISLAND, ST. PAUL, AND ST. LOUIS DISTRICTS
U.S. Army Corps of Engineers, Rock Island District | P.O. Box 2004 | Clock Tower Building | Rock Island, Illinois 61204-2004
UMRR Website: www.mvr.usace.army.mil/Missions/Environmental-Protection-and-Restoration/Upper-Mississippi-River-Restoration

Upper Mississippi River Restoration Program
Quarterly Meetings

Attachment D

Additional Items

Upper Mississippi River
Quarterly Meetings

Future Meeting Schedule

February 2026 — Virtual

February 24	UMRBA Quarterly Meeting
February 25	UMRR Coordinating Committee Quarterly Meeting

May 2026 — Minneapolis St. Paul

May 19	UMRBA Quarterly Meeting
May 20	UMRR Coordinating Committee Quarterly Meeting

Acronyms Frequently Used on the Upper Mississippi River System

AAR	After Action Report
A&E	Architecture and Engineering
ACRCC	Asian Carp Regional Coordinating Committee
AFB	Alternative Formulation Briefing
AHAG	Aquatic Habitat Appraisal Guide
AHRI	American Heritage Rivers Initiative
AIS	Aquatic Invasive Species
ALC	American Lands Conservancy
ALDU	Aquatic Life Designated Use(s)
AM	Adaptive Management
ANS	Aquatic Nuisance Species
AP	Advisory Panel
APE	Additional Program Element
ARRA	American Recovery and Reinvestment Act
ASA(CW)	Assistant Secretary of the Army for Civil Works
A-Team	Analysis Team
ATR	Agency Technical Review
AWI	America's Watershed Initiative
AWO	American Waterways Operators
AWQMN	Ambient Water Quality Monitoring Network
BA	Biological Assessment
BATIC	Build America Transportation Investment Center
BCOES	Bid-ability, Constructability, Operability, Environmental, Sustainability
BCR	Benefit-Cost Ratio
BMPs	Best Management Practices
BO	Biological Opinion
CAP	Continuing Authorities Program
CAWS	Chicago Area Waterways System
CCC	Commodity Credit Corporation
CCP	Comprehensive Conservation Plan
CEICA	Cost Effectiveness Incremental Cost Analysis
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CFS	Cubic Feet Per Second
CG	Construction General
CIA	Computerized Inventory and Analysis
CMMP	Channel Maintenance Management Plan
COE	Corps of Engineers
COPT	Captain of the Port
CPUE	Catch Per Unit Effort
CRA	Continuing Resolution Authority
CREP	Conservation Reserve Enhancement Program
CRP	Conservation Reserve Program

CSP	Conservation Security Program
CUA	Cooperative Use Agreement
CWA	Clean Water Act
CY	Cubic Yards
DALS	Department of Agriculture and Land Stewardship
DED	Department of Economic Development
DEM	Digital Elevation Model
DET	District Ecological Team
DEWS	Drought Early Warning System
DMMP	Dredged Material Management Plan
DNR	Department of Natural Resources
DO	Dissolved Oxygen
DOA	Department of Agriculture
DOC	Department of Conservation
DOER	Dredging Operations and Environmental Research
DOT	Department of Transportation
DPR	Definite Project Report
DQC	District Quality Control/Quality Assurance
DSS	Decision Support System
EA	Environmental Assessment
ECC	Economics Coordinating Committee
EEC	Essential Ecosystem Characteristic
EIS	Environmental Impact Statement
EMAP	Environmental Monitoring and Assessment Program
EMAP-GRE	Environmental Monitoring and Assessment Program-Great Rivers Ecosystem
EMP	Environmental Management Program [Note: Former name of Upper Mississippi River Restoration Program.]
EMP-CC	Environmental Management Program Coordinating Committee
EO	Executive Order
EPA	Environmental Protection Agency
EPM	Environmental Pool Management
EPR	External Peer Review
EQIP	Environmental Quality Incentives Program
ER	Engineering Regulation
ERDC	Engineering Research & Development Center
ESA	Endangered Species Act
EWMN	Early Warning Monitoring Network
EWP	Emergency Watershed Protection Program
FACA	Federal Advisory Committee Act
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FDR	Flood Damage Reduction
FFS	Flow Frequency Study
FMG	Forest Management Geodatabase
FONSI	Finding of No Significant Impact
FRM	Flood Risk Management

FRST	Floodplain Restoration System Team
FSA	Farm Services Agency
FTE	Full Time Equivalent
FWCA	Fish & Wildlife Coordination Act
FWIC	Fish and Wildlife Interagency Committee
FWS	Fish and Wildlife Service
FWWG	Fish and Wildlife Work Group
FY	Fiscal Year
GAO	Government Accountability Office
GEIS	Generic Environmental Impact Statement
GI	General Investigations
GIS	Geographic Information System
GLC	Governors Liaison Committee
GLC	Great Lakes Commission
GLMRIS	Great Lakes and Mississippi River Interbasin Study
GPS	Global Positioning System
GREAT	Great River Environmental Action Team
GRP	Geographic Response Plan
H&H	Hydrology and Hydraulics
HAB	Harmful Algal Bloom
HEC-EFM	Hydrologic Engineering Center Ecosystems Function Model
HEC-RAS	Hydrologic Engineering Center River Analysis System
HEL	Highly Erodible Land
HEP	Habitat Evaluation Procedure
HNA	Habitat Needs Assessment
HPSF	HREP Planning and Sequencing Framework
HQUSACE	Headquarters, USACE
H.R.	House of Representatives
HREP	Habitat Rehabilitation and Enhancement Project
HSI	Habitat Suitability Index
HU	Habitat Unit
HUC	Hydrologic Unit Code
IBA	Important Bird Area
IBI	Index of Biological (Biotic) Integrity
IC	Incident Commander
ICS	Incident Command System
ICWP	Interstate Council on Water Policy
IDIQ	Indefinite Delivery/Indefinite Quantity
IEPR	Independent External Peer Review
IGE	Independent Government Estimate
IIA	Implementation Issues Assessment
IIFO	Illinois-Iowa Field Office (formerly RIFO - Rock Island Field Office)
ILP	Integrated License Process
IMTS	Inland Marine Transportation System
IPR	In-Progress Review
IRCC	Illinois River Coordinating Council

IRPT	Inland Rivers, Ports & Terminals
IRTC	Implementation Report to Congress
IRWG	Illinois River Work Group
ISA	Inland Sensitivity Atlas
IWR	Institute for Water Resources
IWRM	Integrated Water Resources Management
IWS	Integrated Water Science
IWTF	Inland Waterways Trust Fund
IWUB	Inland Waterways Users Board
IWW	Illinois Waterway
L&D	Lock(s) and Dam
LC/LU	Land Cover/Land Use
LDB	Left Descending Bank
LERRD	Lands, Easements, Rights-of-Way, Relocation of Utilities or Other Existing Structures, and Disposal Areas
LiDAR	Light Detection and Ranging
LMR	Lower Mississippi River
LMRCC	Lower Mississippi River Conservation Committee
LOI	Letter of Intent
LTRM	Long Term Resource Monitoring
M-35	Marine Highway 35
MAFC	Mid-America Freight Coalition
MARAD	U.S. Maritime Administration
MARC 2000	Midwest Area River Coalition 2000
MCAT	Mussel Community Assessment Tool
MICRA	Mississippi Interstate Cooperative Resource Association
MDM	Major subordinate command Decision Milestone
MIPR	Military Interdepartmental Purchase Request
MMR	Middle Mississippi River
MMRP	Middle Mississippi River Partnership
MNRG	Midwest Natural Resources Group
MOA	Memorandum of Agreement
MoRAST	Missouri River Association of States and Tribes
MOU	Memorandum of Understanding
MRAPS	Missouri River Authorized Purposes Study
MRBI	Mississippi River Basin (Healthy Watersheds) Initiative
MRC	Mississippi River Commission
MRCC	Mississippi River Connections Collaborative
MRCTI	Mississippi River Cities and Towns Initiative
MRRC	Mississippi River Research Consortium
MR&T	Mississippi River and Tributaries (project)
MSP	Minimum Sustainable Program
MVD	Mississippi Valley Division
MVP	St. Paul District
MVR	Rock Island District
MVS	St. Louis District

NAS	National Academies of Science
NAWQA	National Water Quality Assessment
NCP	National Contingency Plan
NIDIS	National Integrated Drought Information System (NOAA)
NEBA	Net Environmental Benefit Analysis
NECC	Navigation Environmental Coordination Committee
NED	National Economic Development
NEPA	National Environmental Policy Act
NESP	Navigation and Ecosystem Sustainability Program
NETS	Navigation Economic Technologies Program
NGO	Non-Governmental Organization
NGRREC	National Great Rivers Research and Education Center
NGWOS	Next Generation Water Observing System
NICC	Navigation Interests Coordinating Committee
NPDES	National Pollution Discharge Elimination System
NPS	Non-Point Source
NPS	National Park Service
NRC	National Research Council
NRCS	Natural Resources Conservation Service
NRDAR	Natural Resources Damage Assessment and Restoration
NRT	National Response Team
NSIP	National Streamflow Information Program
NWI	National Wetlands Inventory
NWR	National Wildlife Refuge
O&M	Operation and Maintenance
OHWM	Ordinary High Water Mark
OMB	Office of Management and Budget
OMRR&R	Operation, Maintenance, Repair, Rehabilitation, and Replacement
OPA	Oil Pollution Act of 1990
ORSANCO	Ohio River Valley Water Sanitation Commission
OSC	On-Scene Coordinator
OSE	Other Social Effects
OSIT	On Site Inspection Team
P3	Public-Private Partnerships
PA	Programmatic Agreement
PAS	Planning Assistance to States
P&G	Principles and Guidelines
P&R	Principles and Requirements
P&S	Plans and Specifications
P&S	Principles and Standards
PCA	Pollution Control Agency
PCA	Project Cooperation Agreement
PCX	Planning Center of Expertise
PDT	Project Delivery Team
PED	Preconstruction Engineering and Design
PgMP	Program Management Plan

PILT	Payments In Lieu of Taxes
PIR	Project Implementation Report
PL	Public Law
PMP	Project Management Plan
PORT	Public Outreach Team
PPA	Project Partnership Agreement
PPT	Program Planning Team
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
RCP	Regional Contingency Plan
RCPP	Regional Conservation Partnership Program
RDB	Right Descending Bank
RED	Regional Economic Development
RIFO	Rock Island Field Office (now IIFO - Illinois-Iowa Field Office)
RM	River Mile
RP	Responsible Party
RPEDN	Regional Planning and Environment Division North
RPT	Reach Planning Team
RRAT	River Resources Action Team
RRCT	River Resources Coordinating Team
RRF	River Resources Forum
RRT	Regional Response Team
RST	Regional Support Team
RTC	Report to Congress
S.	Senate
SAV	Submersed Aquatic Vegetation
SDWA	Safe Drinking Water Act
SEMA	State Emergency Management Agency
SET	System Ecological Team
SMART	Specific, Measurable, Attainable, Risk Informed, Timely
SONS	Spill of National Significance
SOW	Scope of Work
SRF	State Revolving Fund
SWCD	Soil and Water Conservation District
T&E	Threatened and Endangered
TEUs	twenty-foot equivalent units
TIGER	Transportation Investment Generating Economic Recovery
TLP	Traditional License Process
TMDL	Total Maximum Daily Load
TNC	The Nature Conservancy
TSP	Tentatively selected plan
TSS	Total Suspended Solids
TVA	Tennessee Valley Authority
TWG	Technical Work Group
UMESC	Upper Midwest Environmental Sciences Center

UMIMRA	Upper Mississippi, Illinois, and Missouri Rivers Association
UMR	Upper Mississippi River
UMRBA	Upper Mississippi River Basin Association
UMRBC	Upper Mississippi River Basin Commission
UMRCC	Upper Mississippi River Conservation Committee
UMRCP	Upper Mississippi River Comprehensive Plan
UMR-IWW	Upper Mississippi River-Illinois Waterway
UMRNWFR	Upper Mississippi River National Wildlife and Fish Refuge
UMRR	Upper Mississippi River Restoration Program [Note: Formerly known as Environmental Management Program.]
UMRR CC	Upper Mississippi River Restoration Program Coordinating Committee
UMRS	Upper Mississippi River System
UMWA	Upper Mississippi Waterway Association
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VTC	Video Teleconference
WCI	Waterways Council, Inc.
WES	Waterways Experiment Station (replaced by ERDC)
WHAG	Wildlife Habitat Appraisal Guide
WHIP	Wildlife Habitat Incentives Program
WIIN	Water Infrastructure Improvements for the Nation Act
WLM	Water Level Management
WLMTF	Water Level Management Task Force
WQ	Water Quality
WQEC	Water Quality Executive Committee
WQTF	Water Quality Task Force
WQS	Water Quality Standard
WRDA	Water Resources Development Act
WRP	Wetlands Reserve Program
WRRDA	Water Resources Reform and Development Act

Upper Mississippi River Restoration Program Authorization

Section 1103 of the Water Resources Development Act of 1986 (P.L. 99-662) as amended by
Section 405 of the Water Resources Development Act of 1990 (P.L. 101-640),
Section 107 of the Water Resources Development Act of 1992 (P.L. 102-580),
Section 509 of the Water Resources Development Act of 1999 (P.L. 106-53),
Section 2 of the Water Resources Development Technical Corrections of 1999 (P.L. 106-109),
Section 3177 of the Water Resources Development Act of 2007 (P.L. 110-114),
Section 307 of the Water Resources Development Act of 2020 (P.L. 116-260), and
Section 8345 of the Water Resources Development Act of 2022 (P.L. 117-263).

Additional Cost Sharing Provisions

Section 906(e) of the Water Resources Development Act of 1986 (P.L. 99-662) as amended by
Section 221 of the Water Resources Development Act of 1999 (P.L. 106-53).

SEC. 1103. UPPER MISSISSIPPI RIVER PLAN.

(a)(1) This section may be cited as the "Upper Mississippi River Management Act of 1986".

(2) To ensure the coordinated development and enhancement of the Upper Mississippi River system, it is hereby declared to be the intent of Congress to recognize that system as a nationally significant ecosystem and a nationally significant commercial navigation system. Congress further recognizes that the system provides a diversity of opportunities and experiences. The system shall be administered and regulated in recognition of its several purposes.

(b) For purposes of this section --

(1) the terms "Upper Mississippi River system" and "system" mean those river reaches having commercial navigation channels on the Mississippi River main stem north of Cairo, Illinois; the Minnesota River, Minnesota; Black River, Wisconsin; Saint Croix River, Minnesota and Wisconsin; Illinois River and Waterway, Illinois; and Kaskaskia River, Illinois;

(2) the term "Master Plan" means the comprehensive master plan for the management of the Upper Mississippi River system, dated January 1, 1982, prepared by the Upper Mississippi River Basin Commission and submitted to Congress pursuant to Public Law 95-502;

(3) the term "GREAT I, GREAT II, and GRRM studies" means the studies entitled "GREAT Environmental Action Team--GREAT I--A Study of the Upper Mississippi River", dated September 1980, "GREAT River Environmental Action Team--GREAT II--A Study of the Upper Mississippi River", dated December 1980, and "GREAT River Resource Management Study", dated September 1982; and

(4) the term "Upper Mississippi River Basin Association" means an association of the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, formed for the purposes of cooperative effort and united assistance in the comprehensive planning for the use, protection, growth, and development of the Upper Mississippi River System.

(c)(1) Congress hereby approves the Master Plan as a guide for future water policy on the Upper Mississippi River system. Such approval shall not constitute authorization of any recommendation contained in the Master Plan.

(2) Section 101 of Public Law 95-502 is amended by striking out the last two sentences of subsection (b), striking out subsection (i), striking out the final sentence of subsection (j), and redesignating subsection "(j)" as subsection "(i)".

(d)(1) The consent of the Congress is hereby given to the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, or any two or more of such States, to enter into negotiations for agreements, not in conflict with any law of the United States, for cooperative effort and mutual assistance in the comprehensive planning for the use, protection, growth, and development of the Upper Mississippi River system, and to establish such agencies, joint or otherwise, or designate an existing multi-State entity, as they may deem desirable for making effective such

agreements. To the extent required by Article I, section 10 of the Constitution, such agreements shall become final only after ratification by an Act of Congress.

(2) The Secretary is authorized to enter into cooperative agreements with the Upper Mississippi River Basin Association or any other agency established under paragraph (1) of this subsection to promote and facilitate active State government participation in the river system management, development, and protection.

(3) For the purpose of ensuring the coordinated planning and implementation of programs authorized in subsections (e) and (h)(2) of this section, the Secretary shall enter into an interagency agreement with the Secretary of the Interior to provide for the direct participation of, and transfer of funds to, the Fish and Wildlife Service and any other agency or bureau of the Department of the Interior for the planning, design, implementation, and evaluation of such programs.

(4) The Upper Mississippi River Basin Association or any other agency established under paragraph (1) of this subsection is hereby designated by Congress as the caretaker of the master plan. Any changes to the master plan recommended by the Secretary shall be submitted to such association or agency for review. Such association or agency may make such comments with respect to such recommendations and offer other recommended changes to the master plan as such association or agency deems appropriate and shall transmit such comments and other recommended changes to the Secretary. The Secretary shall transmit such recommendations along with the comments and other recommended changes of such association or agency to the Congress for approval within 90 days of the receipt of such comments or recommended changes.

(e) Program Authority

(1) Authority

(A) In general. The Secretary, in consultation with the Secretary of the Interior and the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, may undertake, as identified in the master plan

(i) a program for the planning, construction, and evaluation of measures for fish and wildlife habitat rehabilitation and enhancement; and

(ii) implementation of a long-term resource monitoring, computerized data inventory and analysis, and applied research program, including research on water quality issues affecting the Mississippi River (including elevated nutrient levels) and the development of remediation strategies.

(B) Advisory committee. In carrying out subparagraph (A)(i), the Secretary shall establish an independent technical advisory committee to review projects, monitoring plans, and habitat and natural resource needs assessments.

(2) REPORTS. — Not later than December 31, 2004, and not later than December 31 of every sixth year thereafter, the Secretary, in consultation with the Secretary of the Interior and the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, shall submit to Congress a report that —

(A) contains an evaluation of the programs described in paragraph (1);

(B) describes the accomplishments of each of the programs;

(C) provides updates of a systemic habitat needs assessment; and

(D) identifies any needed adjustments in the authorization of the programs.

(3) For purposes of carrying out paragraph (1)(A)(i) of this subsection, there is authorized to be appropriated to the Secretary $75,000,000 for fiscal year 1999 and each fiscal year thereafter.

(4) For purposes of carrying out paragraph (1)(A)(ii) of this subsection, there is authorized to be appropriated to the Secretary $15,000,000 for fiscal year 1999 and each fiscal year thereafter.

(5) Authorization of appropriations.—There is authorized to be appropriated to carry out paragraph (1)(B) $350,000 for each of fiscal years 1999 through 2009.

(6) Transfer of amounts.—For fiscal year 1999 and each fiscal year thereafter, the Secretary, in consultation with the Secretary of the Interior and the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, may transfer not to exceed 20 percent of the amounts appropriated to carry out clause (i) or (ii) of paragraph (1)(A) to the amounts appropriated to carry out the other of those clauses.

(7)(A) Notwithstanding the provisions of subsection (a)(2) of this section, the costs of each project carried out pursuant to paragraph (1)(A)(i) of this subsection shall be allocated between the Secretary and the appropriate non-Federal sponsor in accordance with the provisions of section 906(e) of this Act; except that the costs of operation and maintenance of projects located on Federal lands or lands owned or operated by a State or local government shall be borne by the Federal, State, or local agency that is responsible for management activities for fish and wildlife on such lands and, in the case of any project requiring non-Federal cost sharing, the non-Federal share of the cost of the project shall be 35 percent.

(B) Notwithstanding the provisions of subsection (a)(2) of this section, the cost of implementing the activities authorized by paragraph (1)(A)(ii) of this subsection shall be allocated in accordance with the provisions of section 906 of this Act, as if such activity was required to mitigate losses to fish and wildlife.

(8) None of the funds appropriated pursuant to any authorization contained in this subsection shall be considered to be chargeable to navigation.

(f) (1) The Secretary, in consultation with any agency established under subsection (d)(1) of this section, is authorized to implement a program of recreational projects for the system substantially in accordance with the recommendations of the GREAT I, GREAT II, and GRRM studies and the master plan reports. In addition, the Secretary, in consultation with any such agency, shall, at Federal expense, conduct an assessment of the economic benefits generated by recreational activities in the system. The cost of each such project shall be allocated between the Secretary and the appropriate non-Federal sponsor in accordance with title I of this Act.

(2) For purposes of carrying out the program of recreational projects authorized in paragraph (1) of this subsection, there is authorized to be appropriated to the Secretary not to exceed $500,000 per fiscal year for each of the first 15 fiscal years beginning after the effective date of this section.

(g) The Secretary shall, in his budget request, identify those measures developed by the Secretary, in consultation with the Secretary of Transportation and any agency established under subsection (d)(1) of this section, to be undertaken to increase the capacity of specific locks throughout the system by employing nonstructural measures and making minor structural improvements.

(h)(1) The Secretary, in consultation with any agency established under subsection (d)(1) of this section, shall monitor traffic movements on the system for the purpose of verifying lock capacity, updating traffic projections, and refining the economic evaluation so as to verify the need for future capacity expansion of the system.

(2) Determination.

(A) In general. The Secretary in consultation with the Secretary of the Interior and the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, shall determine the need for river rehabilitation and environmental enhancement and protection based on the condition of the environment, project developments, and projected environmental impacts from implementing any proposals resulting from recommendations made under subsection (g) and paragraph (1) of this subsection.

(B) Requirements. The Secretary shall

(i) complete the ongoing habitat needs assessment conducted under this paragraph not later than September 30, 2000; and

(ii) include in each report under subsection (e)(2) the most recent habitat needs assessment conducted under this paragraph.

(3) There is authorized to be appropriated to the Secretary such sums as may be necessary to carry out this subsection.

(i) (1) The Secretary shall, as he determines feasible, dispose of dredged material from the system pursuant to the recommendations of the GREAT I, GREAT II, and GRRM studies.

(2) The Secretary shall establish and request appropriate Federal funding for a program to facilitate productive uses of dredged material. The Secretary shall work with the States which have, within their boundaries, any part of the system to identify potential users of dredged material.

(j) The Secretary is authorized to provide for the engineering, design, and construction of a second lock at locks and dam 26, Mississippi River, Alton, Illinois and Missouri, at a total cost of $220,000,000, with a first Federal cost of $220,000,000. Such second lock shall be constructed at or in the vicinity of the location of the replacement lock authorized by section 102 of Public Law 95-502. Section 102 of this Act shall apply to the project authorized by this subsection.

SEC. 906(e). COST SHARING.

(e) In those cases when the Secretary, as part of any report to Congress, recommends activities to enhance fish and wildlife resources, the first costs of such enhancement shall be a Federal cost when--

(1) such enhancement provides benefits that are determined to be national, including benefits to species that are identified by the National Marine Fisheries Service as of national economic importance, species that are subject to treaties or international convention to which the United States is a party, and anadromous fish;

(2) such enhancement is designed to benefit species that have been listed as threatened or endangered by the Secretary of the Interior under the terms of the Endangered Species Act, as amended (16 U.S.C. 1531, et seq.), or

(3) such activities are located on lands managed as a national wildlife refuge.

When benefits of enhancement do not qualify under the preceding sentence, 25 percent of such first costs of enhancement shall be provided by non-Federal interests under a schedule of reimbursement determined by the Secretary. Not more than 80 percent of the non-Federal share of such first costs may be satisfied through in-kind contributions, including facilities, supplies, and services that are necessary to carry out the enhancement project. The non-Federal share of operation, maintenance, and rehabilitation of activities to enhance fish and wildlife resources shall be 25 percent.

EMP OPERATING APPROACH

2006 marks the 20th anniversary of the Environmental Management Program (EMP). During that time, the Program pioneered many new ideas to help deliver efficient and effective natural resource programs to the Upper Mississippi River System (UMRS). These included the creation of an effective partnership of five states, five federal agencies, and numerous NGOs; a network of six field stations monitoring the natural resources of the UMRS; and the administrative structure to encourage river managers to use both new and proven environmental restoration techniques.

EMP has a history of identifying and dealing with both natural resource and administrative challenges. The next several years represent new opportunities and challenges as Congress considers authorization of the Navigation and Environmental Sustainability Program (NESP), possible integration or merger of EMP with NESP, and changing standards for program management and execution.

We will continue to learn from both the history of EMP and experience of other programs. Charting a course for EMP over the next several years is important to the continued success of the Program. EMP will focus on the key elements of partnership, regional administration and coordination, LTRMP, and HREPs.

The fundamental focus of EMP will not change, however the way we deliver our services must change and adapt. This will include:

- further refinements in regional coordination and management,
- refinement of program goals and objectives,
- increased public outreach efforts,
- development and use of tools such as the regional HREP database and HREP Handbook,
- exploring new delivery mechanisms for contracting,
- continued refinement of the interface between LTRMP and the HREP program components, and
- scientific and management application of LTRMP information and data.

The focus of these efforts must benefit the resources of the UMRS through efficient and effective management.