



Upper Mississippi River Restoration Program Coordinating Committee Quarterly Meeting

Agenda with
Background and Supporting Materials

October 14, 2026
Bettendorf, Iowa



Quarterly Meeting
Bettendorf, Iowa

**Upper Mississippi River Restoration
Coordinating Committee**

October 14, 2026

Preliminary Agenda

Time	Topic	Page	Presenter
8:30 a.m.	Call to Order and Introductions		Sabrina Chandler, USFWS, <i>Chair</i>
8:35	Approval of Minutes of August 5, 2026 Meeting	A1-9	
8:40	Welcome and Opening Remarks		Lt. Col. Matthew Fletcher, USACE
8:45	FY 2026 Fiscal Report and FY 2027 Outlook		Marshall Plumley, USACE
9:00	FY 2026 Year-In-Review	B1-12	Marshall Plumley, USACE
	• Programmatic Highlights • Key Accomplishments		LTRM and HREP Managers, USACE and USGS UMRBA
10:15	Break		
10:30	40 TH Anniversary Recognition		UMRR Coordinating Committee
11:15	UMRR 2025-2035 Strategic Plan		Marshall Plumley, USACE
11:40	A Community-Driven Definition of Ecosystem Health for the Mississippi River	C1	Olivia Dorothy, One Mississippi
11:55	Other Business	D1-13	Sabrina Chandler, USFWS
	— Future Meeting Schedule		
12:00 noon	Adjourn		

Upper Mississippi River Restoration Program Quarterly Meetings

Attachment A

UMRR Coordinating Committee Draft Minutes

Page Number	Document Title
A-1 to A-9	Draft Minutes of the August 5, 2026 UMRR Quarterly Meeting

**Draft Minutes of the
Upper Mississippi River Restoration Program
Coordinating Committee**

**August 5, 2026
Quarterly Meeting**

St. Louis, Missouri

Kelly Keefe of the U.S. Army Corps of Engineers called the meeting to order at 8:03 a.m. on August 5, 2026. Other UMRR Coordinating Committee representatives present were Sabrina Chandler (USFWS), Jeff Houser (USGS), Chad Craycraft (Illinois DNR), Kirk Hansen (Iowa 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 20, 2026 Meeting

Chad Craycraft moved and Matt Vitello seconded a motion to approve the draft minutes of the May 20, 2026, meeting. The motion carried unanimously.

Regional Management and Partnership Collaboration

Marshall Plumley reflected on the UMRR partnership's resolve and its collaborative approaches to clarify issues and opportunities and align goals and resources that led to UMRR achieving many successes over the last year. Plumley thanked partners for their continued professionalism, creativity, and compassion.

FY 2026 Work Plan

Plumley reported that, as of August 1, UMRR has obligated nearly \$21 million of its FY 2026 appropriation of \$53 million. Marshall Plumley explained the planned obligations of funds for HREPs and LTRM in the next two months that should allow UMRR to execute 90 percent of its FY 2026 funding by the end of the fiscal year. Specifically, USACE anticipates awarding up to four construction bids in the remainder of the fiscal year. The FY 2026 LTRM notice of funding opportunity has recently been approved that will allow for the transfer of LTRM monies to the state field stations.

Plumley reported no changes to the estimated HREP 10-year implementation schedule.

FY 2027 President's Budget

Plumley reported that the President's Budget for FY 2027 includes \$55.487 million for UMRR project costs with an additional \$4.02 million for Corps staff salaries and expenses, totaling \$59.507 million. The House Energy and Water Appropriations Subcommittee FY 2027 spending bill includes the same program total – i.e., \$59.507 million. The Senate has not yet released its FY 2027 energy and water spending bill. Both chambers have introduced proposals to pass a short-term continuing resolution that would extend into December 2026; however, they differ in approaches and expiration dates. [Note: Subsequent to the meeting, Congress passed a continuing resolution for FY 2027 for all agencies that is set to expire on December 11.]

The FY 2027 President's Budget allocates resources to public involvement, topobathy acquisition, long term resource monitoring, science in support of restoration and management, and design of three habitat projects and construction of 12 habitat projects. Plumley explained that FY 2026 carry over will allow for the continuation of feasibility on other habitat projects and regional program management and partnership efforts.

Pointing to the Administration's new standalone District Salaries and Expenses Account (S&E Account), Plumley said the \$4,020,000 for UMRR salary and overhead expenses is significantly reduced from long run averages of USACE personnel resources allocated to the program. The salary threshold holds presents challenges for the program if it holds.

In response to questions from Olivia Dorothy, Plumley explained that habitat projects will continue to proceed on schedule as supported by FY 2026 carry-over monies. USACE has not yet received guidance for how the "least-of rule" might apply to a program like UMRR if the Senate does not put forward an energy and water spending bill. Plumley said the District is unsure of the flexibility that might be allowable. [Note: Subsequent to the meeting, USACE guidance suggests that the FY 2026 Work Plan will serve as the "least of" amount for UMRR – i.e., \$53 million.]

Strategic Planning

Plumley reported that, in May–July, the UMRR Strategic Planning Leadership Team reviewed comments received on a draft version by the UMRR Communications and Outreach Team, A-Team, and the UMRR Coordinating Committee agencies. The final version of the draft plan, as provided in the agenda packet, will be sent to the USACE editorial team prior to dissemination.

Following the editorial review, next steps include a public review and webinar anticipated to occur in the fall and then a request for the UMRR Coordinating Committee to consider endorsement at its October 2026 quarterly meeting (or a subsequent meeting).

Davi Michl stated a partnership goal of creating an associated operational plan.

Communications and Outreach Team

Rachel Perrine reported that the UMRR Communications and Outreach Team (COT) will reconvene in September. Perrine requested input from the UMRR Coordinating Committee on the direction of the COT.

The Coordinating Committee suggested revisiting the COT Framework and refining the COT's scope and its connection to UMRR programmatic priorities – i.e., UMRR Strategic Plan Strategy 4.1.4.

Kirsten Wallace also listed a few example ideas for projects:

- A) Handouts explaining the roles and responsibilities of USACE and states in implementing UMRR (similar to a handout developed for DOI)
- B) Handout (or other communications product such as Story Map) of the Habitat Needs Assessment II
- C) UMRCC boat survey findings and conclusions

Wallace said the COT could look to other regions for inspiration such as the National Conference on Ecosystem Restoration.

HREP Monitoring and Adaptive Management

Marshall Plumley reminded the UMRR Coordinating Committee of its stated priority to create an HREP Monitoring and Adaptive Management Framework. Plumley elaborated on the origins that led to UMRR authorization provisions related to science and learning, the program work since UMRR's inception that has evolved our knowledge of the river system, and the integration of HREP and LTRM over time that has opened opportunities for learning and new approaches for monitoring and adaptive management of HREPs, individually and cumulatively. Plumley listed challenges to HREP monitoring that would benefit from partner collaboration – e.g., create more consistent approaches to HREP monitoring, develop a central repository for data and reports, connect monitoring objectives to restoration objectives and success criteria.

In response to a prompt for input from Plumley, Liz Scherber acknowledged HREP monitoring and adaptive management as a priority but also recognized the current stress on program partners. Scherber cautioned that the timing might not be ripe now.

Davi Michl reminded that UMRR continues to invest in data infrastructure, reassuring that the capabilities will be in place when the timing is right for this level of partnership engagement.

Chad Craycraft and Kirk Hansen confirmed their positions that HREP monitoring and adaptive management is a high priority. Hansen connected this effort with the ongoing program effort to develop a UMRR Restoration Science Research Framework. Plumley agreed with Hansen's observation and suggested that there be alignment between the Research Framework and the HREP Monitoring and Adaptive Management.

In conclusion, Plumley and UMRBA will follow up with the Coordinating Committee to determine when the timing is ripe and to craft the scope, process, and timeline. The Committee also recognized the connections to the ongoing efforts to develop a UMRR restoration science research framework.

Showcase

Invasive Grass Carp Sampling Gear Efficiency

Kris Maxson presented on the results of a recent project to assess the ability to capture invasive grass carp on the Upper Mississippi River. Grass Carp are historically difficult to capture at low densities, and so the purpose of the LTRM research project is to illuminate whether LTRM monitoring techniques might be useful in detecting Grass Carp in earlier stages of establishment. The research focused on a) evaluating LTRM techniques in areas with abundant and reproducing populations and b) determining which sampling gear type or hydrogeomorphic area are optimum for capturing various life stages of Grass Carp.

In conclusion:

- A) Electrofishing is more efficient at monitoring than gill netting.
- B) Minifykes may boost early detection of reproduction by catching smaller substock individuals compared to electrofishing.

- C) Grass carp appear to thrive in the three study reaches despite the lack of abundant vegetation. The study reaches are the La Grange Pool, Pool 26, and the Open River Reach.
- D) Abundant, shallow lentic backwater habitats common in the La Grange pool compared to the other reaches may explain higher catch rates in that pool.
- E) UMRR LTRM multi-gear and community wide approach and large annual sample sizes allows for informing a wider set of management and scientific perspectives both within and beyond the Upper Mississippi River System.
- F) UMRR can provide considerable information regarding the status of individual species, including trends in their abundance, size structure, and habitat suitability.
- G) Other geographic areas can utilize LTRM Grass Carp monitoring techniques to detect early introduction and expedite the development of methods to fit needs in those areas.

Crains Island HREP

Jason Brown presented on the Crains Island HREP, which is the first HREP located in the Open River Reach. The project involves the restoration of a side channel and depressional wetlands. Brown explained the ecological challenges in the area, the purpose of the project, and the engineering techniques designed to meet the project objectives.

Brown explained the cost savings associated with creative collaboration with the project construction contractor to build the sediment deflection berm. Brown used photographs to illustrate the project features and construction methods associated with the side channel reconnection and depressional wetlands. Brown also elaborated on the contracting strategies that lead to optimal construction schedules and cost savings.

Following some discussion about the significant cost savings in comparison with the government estimate, Marshall Plumley explained that UMRR's robust portfolio of habitat projects allows for transferring funding to other projects that have scopes ready to advance.

Program Reports

Long Term Resource Monitoring, Research, and Other Science

Quarterly Progress Report

Jeff Houser reported that USGS published the following manuscripts in the last quarter:

- 1) Patterns of floodplain forest mortality and recruitment
- 2) Spatial changes in flooding over 83 years in the Upper Mississippi River floodplain and relationships with stream gage-derived proxies
- 3) Life history traits and population dynamics of Freshwater Drum
- 4) Subsurface water storage, topography, and land cover as key modulators of large-scale riverine dissolved silicon dynamics

A detailed list of the accomplishments is provided in the agenda packet.

Houser announced that USGS published a new story map of Upper Mississippi River System Land Cover Change (1989-2020), located here: <https://geonarrative.usgs.gov/uppermississippiriverlandcoverchange/>.

Analysis Team Update

Shawn Giblin reported on the A-Team's July 30 meeting. In addition to routine program updates, the A-Team hosted presentations related to the values of Lake Onalaska, the ability of underwater cameras to monitor fish in winter, the St. Paul District forest conditions and inventory viewer, and stressor identification on the Whitewater River resulting from neonicotinoid insecticides.

USACE Update

Davi Michl described the FY 2026 LTRM Work Plan goals and associated funding. The FY 2026 UMRR allocation to long term resource monitoring is \$13.8 million, which includes \$7 million for base monitoring, \$2.5 million for analysis with base monitoring, and \$4.3 million for science in support of restoration and management. Michl listed the science in support of restoration and management projects, including related to eco-hydrology, generating future hydrology and water temperature projections, landscape adaptation, plants and physical forces, topobathy, chloride, and Pool 13 HREP/HARP learning research.

Michel reported that the FY 2027 UMRR allocation to long term resource monitoring is \$14.8 million, which includes \$7.5 million for base monitoring, \$2.5 million for analysis with base monitoring, and \$4.9 million for science in support of restoration and management.

Michl reported that topobathy collected on the Illinois River in FY 2024 is mostly in the QA/QC process. Topobathy acquisition occurred in Pool 13 in FY 2025 and this contract is complete, with UMESC finalizing post-processing of deliverables to publish these data to the USGS LTRM website in early FY 2027. UMESC is scheduled to acquire additional topobathy in the Pool 11 HREP study area and the remainder of the Open River in FY 2027.

LTRM Funding Agreements

Jim Fisher explained that DOI has altered the processes for accepting funds from USACE and transferring funds to recipients. Fischer provided an overview of the traditional process and timeline for entering into agreements and transferring funds and a comparison to the new DOI requirements.

Fischer reported that, on July 30, OMB approved the notice of funding opportunity that will allow USGS to transfer the FY 2026 LTRM funds to the state agencies. USGS is meeting with each of the field stations to review budgets and prepare grant applications. The DOI Office of the Assistant Secretary for Water and Science is currently reviewing the acceptance of FY 2026 quarter 3 funds from USACE. USGS anticipates that the acceptance of quarter 4 funds will not require review.

Fischer reported that USGS has initiated the FY 2027 process for transferring LTRM funds.

In response to a question from Kirk Hansen, Jim Fischer explained that the new DOI requirements will likely remain consistent in future years. Fischer anticipates more efficiency and predictability as DOI and USGS have now gone through the new processes and better understand the requirements.

Partners expressed appreciation for one another and the commitment to open communications, understandings and patience, and partnership approaches to implementing the new requirements.

LTRM After Action Review

Kirsten Wallace provided a progress report of the UMRR Coordinating Committee's efforts to employ an after-action review of its effort to create a plan for implementing LTRM with \$5.9 million in FY 2026, extending the funds to December 2026 to cover the full monitoring season. The draft report is currently under review by the Coordinating Committee. In the interim, Wallace shared high level observations and conclusions including that the Coordinating Committee was successful in developing a programmatic plan and individual approaches for UMESC and the field stations, balancing UMRR's ability to limit disruptions to staff expertise and the dataset's statistical power. The Committee gained new understandings and appreciation for each agency's unique qualities, capacities, and policies. The process illuminated the partnership's strength and resilience.

LTRM Implementation Planning

Jeff Houser reported that UMRR LTRM is advancing partnership priorities related to the ecological gradients from Pool 14 to Pool 25, floodplain vegetation monitoring, and macroinvertebrates as well as developing a Restoration Science Research Framework.

Following some discussion, the Coordinating Committee agreed to revisit the UMRR LTRM Implementation Plan given the changes in funding and staffing.

Jim Fischer noted that Nate De Jager has been able to provide expertise associated with the forest inundation modeling to improving modeling of mussel habitat.

HREP Planning and Construction

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

- The St. Paul District will hold a ribbon cutting for McGregor Lake HREP Stage 2 on September 22.
- The St. Paul District recently awarded a construction contract for Lower Pool 10 Stage 3, with construction anticipated in 2027
- The Rock Island District will hold a kickoff meeting for the Lower Pool 11 HREP planning in August.
- The St. Louis District awarded a construction contract for Crains Island HREP in early August.
- The St. Louis District anticipates awarding a construction contract for Harlow Island Stage 1 in August.

Other Business

Future Meeting Schedule

- October 2026 to be held in the Quad Cities
 - UMRBA quarterly meeting – October 13

- UMRB Coordinating Committee quarterly meeting – October 14
- February 2027 to be held virtually
 - UMRBA quarterly meeting – February 16
 - UMRB Coordinating Committee quarterly meeting – February 17-18
 - NESB Coordinating Committee quarterly meeting – February 17-18
- May 2027 to be held in the Twin Cities Metropolitan Area
 - UMRBA quarterly meeting – May 18
 - UMRB Coordinating Committee quarterly meeting – May 19
- August 2027 to be held in the St. Louis, MO
 - UMRBA quarterly meeting – August 10
 - UMRB Coordinating Committee quarterly meeting – August 11

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
Chad Craycraft	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
Thatch Shepard	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
Samantha Thompson	U.S. Army Corps of Engineers, MVD
John Henderson	U.S. Army Corps of Engineers, MVP
Dan Reburn	U.S. Army Corps of Engineers, MVP
Marshall Plumley	U.S. Army Corps of Engineers, MVR
Marissa Lack	U.S. Army Corps of Engineers, MVR
Davi Michl	U.S. Army Corps of Engineers, MVR
Rachel Perrine	U.S. Army Corps of Engineers, MVR
Brian Johnson	U.S. Army Corps of Engineers, MVS
Greg Kohler	U.S. Army Corps of Engineers, MVS
Jasen Brown	U.S. Army Corps of Engineers, MVS
Shane Simmons	U.S. Army Corps of Engineers, MVS
Kat McCain	U.S. Army Corps of Engineers, Headquarters
Matt Mangan	U.S. Fish and Wildlife Service, Ecological Services
Kraig McPeck	U.S. Fish and Wildlife Service, Ecological Services
Jeff Houser	U.S. Geological Survey, UMESC
Jim Fischer	U.S. Geological Survey, UMESC
Jennifer Dieck	U.S. Geological Survey, UMESC
Jennie Sauer	U.S. Geological Survey, UMESC
Neil Rude	Minnesota Department of Natural Resources
Nick Schlessler	Minnesota Department of Natural Resources
Robert Voss	Missouri Department of Natural Resources
Sammi Boyd	Wisconsin Department of Natural Resources
Shawn Giblin	Wisconsin Department of Natural Resources
Alicia Vasto	Audubon
Tara Holman	Audubon
Casey Bergthold	Ducks Unlimited
Jill Crafton	Izaak Walton League
Michael Anderson	Lake Pepin Legacy Alliance
Doug Daigle	Louisiana Hypoxia Working Group
Olivia Dorothy	One Mississippi
Christine Favilla	Sierra Club, Three Rivers Project Coordinator
Andrew Stephenson	The Nature Conservancy
Aaron Field	Theodore Roosevelt Conservation Partnership

Kirsten Wallace	Upper Mississippi River Basin Association
Brian Stenquist	Upper Mississippi River Basin Association
Mark Ellis	Upper Mississippi River Basin Association
Natalie Lenzen	Upper Mississippi River Basin Association
Josh Wolf	Upper Mississippi River Basin Association

Upper Mississippi River Restoration Program Quarterly Meetings

Attachment B

Long Term Resource Monitoring and Science

Page Number	Document Title
B-1 to B-2	Base Monitoring FY 2026 Completed Activities (9-15-2026)
B-3 to B-5	Base Monitoring Ongoing and Paused (9-15-2026)
B-6 to B-12	Science in Support of Restoration and Management New and Ongoing Activities (9-15-2026)

Completed Base Milestones as of Sept 15 2026

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Category	FY Funded	Status	Activity	Tracking number	Milestone Description	Target Date	Modified Target Date	Date Completed	Comments	UMESC POC email	Project Lead	Staff
AH	FY26	Status	All Hands and Component Meetings	2026AH1	Description	Target Date	Modified Date	Completed Date	Comments	jrfischer@usgs.gov	jrfischer@usgs.gov	Multiple
AH	FY26	Canceled	2026 All-Hands LTRM Meeting	2026T1	Meeting with all USGS and field stations	Spring 2026			Postponed to FY27 due to travel and budget uncertainties. The FY25 AH meeting was changed to virtual due to travel restrictions.	jrfischer@usgs.gov	jrfischer@usgs.gov	jrfischer@usgs.gov ; bmorris@usgs.gov
AV	FY26	Status	Aquatic Vegetation Status and Trends	2026A	Description	Target Date	Modified Date	Completed Date		dmlarson@usgs.gov	dmlarson@usgs.gov	Multiple
AV	FY26	Completed	Aquatic Vegetation Component	2026A3	Wisconsin DNR annual summary report 2026 combines current year observations from LTRM with previous years' data, for the fish, aquatic vegetation, and water quality components.	30-Sep-2026		11-Jun-2026		dmlarson@usgs.gov	Benjamin.patschull@wisconsin.gov; alicia.carhart@wisconsin.gov; patrick.kelly@wisconsin.gov	Benjamin.patschull@wisconsin.gov; alicia.carhart@wisconsin.gov; patrick.kelly@wisconsin.gov
AV	FY26	Completed	Aquatic Vegetation Component	2026A4	Complete aquatic vegetation sampling for Pools 4, 8, and 13 (SOW Table 1)	31-Aug-2026		10-Aug-2026	Stations are sampling under a reduced minimal framework designed to preserve as much long-term data continuity as possible, focusing on vegetation, summer water quality, and Period 3 fish. All vegetation SRS sampling was completed in Pools 4, 8 and 13 by 10 August, 2026. This is 450 plots per pool.	dmlarson@usgs.gov	eric.lund@state.mn.us; Alicia.Carhart@wisconsin.gov; Iowa TBD	eric.lund@state.mn.us; Alicia.Carhart@wisconsin.gov; Iowa TBD
DM	FY26	Status	Data Management	2026M	Description	Target Date	Modified Date	Completed Date	Comments	bschlifer@usgs.gov	bschlifer@usgs.gov	Multiple
DM	FY26	Completed	Assistance to LTRM staff and partners	2026M3	Assist LTRM Staff with development and review of metadata and databases in conjunction with publishing of reports and manuscripts	30-Sep-2026		30-Sep-2026	Completed metadata and code reviews an Otoliphs paper and some R code for Kristen Bouska	bschlifer@usgs.gov	bschlifer@usgs.gov	bschlifer@usgs.gov
DM	FY26	Completed	Develop a proof-of-concept for modern data-collection methods.	2026M4	Identify requirements to modernize legacy data-collection apps for maintainability and modern mobile workflows.	30-Sep-2026		30-Sep-2026	Created a plan with some test code to see about a new approach to data collection that can be software idependent unlike the current applications and also be able to be run on mobile devices, while being flexible enough to make future updates easier.	bschlifer@usgs.gov	bschlifer@usgs.gov	bschlifer@usgs.gov ; dfedorenko@usgs.gov
ER	FY26	Status	Equipment Refreshment	2026ER	Description	Target Date	Modified Date	Completed Date	Comments	jrfischer@usgs.gov	jrfischer@usgs.gov	Multiple
ER	FY26	Terminated	LTRM Monitoirng Equipment Refreshment	2026ER1	Scheduled replacement of monitoring equipment as modified by annual updates to the equipment life-cycle tracking sheet.	30-Sep-2026			Funding. Not completed due to fund delays and related uncertainties.	jrfischer@usgs.gov	jrfischer@usgs.gov	
FS	FY26	Status	Fisheries Component Status and Trends	2026B	Description	Target Date	Modified Date	Completed Date	Comments	jrfischer@usgs.gov (TBD)	jrfischer@usgs.gov (TBD)	Multiple
FS	FY26	Completed	Fisheries Component	2026B5	IDNR Fisheries Management State Report: Fisheries Monitoring in Pool 13, Upper Mississippi River; Includes Pool 12 Overwintering HREP Adaptive Management Fisheries Response Monitoring	30-Sep-2026		30-Sep-2026		jrfischer@usgs.gov	travis.kueter@dnr.iowa.gov	travis.kueter@dnr.iowa.gov
FS	FY26	Completed	Fisheries Component	2026B8(D)	Database increment: Stratified random day electrofishing samples collected in Pools 9–11	30-Sep-2026		30-Sep-2026		jrfischer@usgs.gov	travis.kueter@dnr.iowa.gov	travis.kueter@dnr.iowa.gov
FS	FY26	Completed	Fisheries Component	2026B9(D)	Database increment: Stratified random day electrofishing samples collected in Pools 16–18	30-Sep-2026		30-Sep-2026		jrfischer@usgs.gov	travis.kueter@dnr.iowa.gov	travis.kueter@dnr.iowa.gov
OR	FY26	Status	Program Communication and Outreach	2026OR	Description	Target Date	Modified Date	Completed Date	Comments	jrfischer@usgs.gov	jrfischer@usgs.gov	Multiple
OR	FY26	Completed	Q4 Contributions to UMRR COT	2026OR4	Participation and contributions to the COT. Outreach events at UMESC and community throughout the year.	30-Sep-2026		30-Sep-2026		bmorris@usgs.gov	bmorris@usgs.gov	jrfischer@usgs.gov ; bmorris@usgs.gov
WQ	FY26	Status	Water Quality Status and Trends	2026D	Description	Target Date	Modified Date	Completed Date	Comments	kjankowski@usgs.gov	kjankowski@usgs.gov	Multiple

WQ	FY26	Completed	Water Quality Component	2026D10	Operational Support to the UMRR LTRM Element. Serve as in-house Field Station for USGS for consultation and support on various LTRM-wide topics	30-Sep-2026		18-Sep-2026		kjankowski@usgs.gov	kjankowski@usgs.gov	john.kalas@wisconsin.gov ; alicia.carhart@wisconsin.gov ; benjamin.patschull@wisconsin.gov
WQ	FY26	Completed	Water Quality Component	2026D3	Complete remaining Quarters of laboratory sample analysis (~12,600 samples per quarter)	30-Sep-2026		30-Sep-2026	All FY26 lab analyses will be complete by Sep 30.	kjankowski@usgs.gov	jmanier@usgs.gov	Robert.Burdis@state.mn.us ; john.kalas@wisconsin.gov ; ashley.johnson@dnr.iowa.gov ; lgitting@inhs.uiuc.edu ; ssawicki@illinois.edu ; kathryn.smith@mdc.mo.gov ; UMESC Lab Manager (Vacant)

Ongoing and Paused Base SOW Milestones as of Sept 15 2026

Category	FY Funded	Status	Activity	Tracking number	Milestone Description	Target Date	Modified Target Date	Date Completed	Comments	UMESC POC email	Project Lead	Staff
AV	FY26	Status	Aquatic Vegetation Status and Trends	2026A	Description	Target Date	Modified Date	Completed Date		dmlarson@usgs.gov	dmlarson@usgs.gov	Multiple
AV	FY26	Ongoing	Aquatic Vegetation Component	2026A5	Pools 4, 8, and 13: Graphical summary and maps of aquatic vegetation's current status and long-term trends.	30-Dec-2026				dmlarson@usgs.gov	eric.lund@state.mn.us ; alicia.carhart@wisconsin.gov ; dave.bierman@dnr.iowa.gov	eric.lund@state.mn.us ; alicia.carhart@wisconsin.gov ; dave.bierman@dnr.iowa.gov
AV	FY26	Ongoing	Aquatic Vegetation Component	2026A6	Herbarium specimens collected, pressed, and preserved at the Bell Museum; ~50 specimens	1-Dec-2026				dmlarson@usgs.gov	eric.lund@state.mn.us ; alicia.carhart@wisconsin.gov ; dave.bierman@dnr.iowa.gov	eric.lund@state.mn.us ; alicia.carhart@wisconsin.gov ; dave.bierman@dnr.iowa.gov
FS	FY26	Status	Fisheries Component Status and Trends	2026B	Description	Target Date	Modified Date	Completed Date	Comments	jrfischer@usgs.gov (TBD)	jrfischer@usgs.gov (TBD)	Multiple
FS	FY26	Ongoing	Fisheries Component	2026B3	Complete 2026 fisheries sampling for Pools 4, 8, 13, 26, the Open River Reach, and La Grange Pool (SOW Table 1)	31-Oct-2026			Funding. Mixed completion. Some stations sampled a reduced or minimal framework designed to preserve as much long-term data continuity as possible, focusing on vegetation, summer water quality, and Period 3 fish.	jrfischer@usgs.gov	steve.delain@state.mn.us	steve.delain@state.mn.us; Benjamin.patschull@wisconsin.gov; travis.kueter@dnr.iowa.gov; Andrew.Glen@mdc.mo.gov; kmaxs87@illinois.edu; soloml@illinois.edu; erichine@illinois.edu; UMESC-TBD
SD	FY26	Status	Spatial Data Component	2026SD	Description	Target Date	Modified Date	Completed Date	Comments	ndejager@usgs.gov ; jdieck@usgs.gov	ndejager@usgs.gov ; jrohwerder@usgs.gov	Multiple
SD	FY26	Ongoing	Geospatial support to the UMRR Partnership	2026SD1	Provide expertise and assistance to other LTRM staff, HREP planners, Project Delivery Teams, River Teams, and other Partners: a. Support to other LTRM Components (Fish, WQ, Vegetation): Rohweder and De Jager b. LCLU data availability, interpretation, analysis: Strassman, Rohweder, De Jager c. Topobathy data availability, interpretation: Hanson and Rohweder d. Aquatic Areas data availability, interpretation, use: Ruhser, Rohweder, De Jager e. Forest Simulation Modelling, HNA-II data use, etc. De Jager f. Unmanned Aircraft System support: Strassman and Murphy	30-Sep-2026			a. b. Peoria pool is disseminated. OR1 and Lockport are in Pl. c. d. Postponed due to budget reallocation e. f. Completed collection of initial training data with GPR over UMESC ponds. Completed collection of data over Brownsville sand repository using both the Skydio X10 and Wingtra Gen II for volumetric calculations. Completed initial draft volumetric calculations.	ndejager@usgs.gov ; jrohwerder@usgs.gov ; astrassman@usgs.gov ; amurphy@usgs.gov ; jhanson@usgs.gov ; jruhser@usgs.gov		ndejager@usgs.gov ; jrohwerder@usgs.gov ; astrassman@usgs.gov ; amurphy@usgs.gov ; jhanson@usgs.gov ; jruhser@usgs.gov
SD	FY26	Ongoing	Apply UAS based ground penetrating radar to assist topobathy data collection	2026SD2	Draft Report: Companion to 2024SD3 GPR-Bathy Dataset. Using ground penetrating radar (GPR), survey locations as identified by the topobathy methods pilot studies to determine the range of ability for GPR produced datasets for bathymetric/geomorphic change studies	30-Sep-2026			Murphy and Strassman have completed training on the Alta-X and GPR unit and have collected test data. Additional work remains to be completed on the GPR mount to the UAS before USGS NUSO will clear it for further flights.	astrassman@usgs.gov ; amurphy@usgs.gov		
SD	FY26	Ongoing	Perform pilot study of material volumetrics using three methods	2026SD3	Draft Report: Companion to 2024SD4 Volumetrics Dataset. Conduct a study on a chosen UMRS island, containing dredge spoils or otherwise of interest, using traditional GNSS terrestrial survey, terrestrial LIDAR, and UAS based photogrammetry with real-time kinematic (RTK) GNSS and/or UAS based ground penetrating radar to create volumetric models.	30-Sep-2026			UAS-based imagery has been collected and processed and provided reasonable estimates of volumes.	astrassman@usgs.gov ; amurphy@usgs.gov		
SD	FY26	Paused	Examining land cover compositional changes across the aquatic-terrestrial-transition zone of the Upper Mississippi River System	2026SD4	Draft Report: Land Cover change across the ATTZ of the UMRS	30-Sep-2026	30-Sep-2027		Postponed due to budget reallocation	ndejager@usgs.gov	ndejager@usgs.gov ; jrohwerder@usgs.gov	ndejager@usgs.gov ; jrohwerder@usgs.gov

SD	FY26	Paused	Changes in the abundance and distribution of core, interior, dominant, and patch forest cover in the UMRS from 1989-2020.	2026SD5	Data Set: forest area-density changes across the UMRS ☐	30-Sep-2026	30-Sep-2027		Postponed due to budget reallocation	ndejager@usgs.gov ; jrohwerder@usgs.gov	rohwerder@usgs.gov	ndejager@usgs.gov ; jrohwerder@usgs.gov
SD	FY26	Paused	Aquatic Areas Level 1 Data for Pools	2026SD6	complete level 1 aquatic areas for pools 5, 5A, 6, 14-25 and Level 2 for pool 19	30-Sep-2026	30-Sep-2027		Postponed due to budget reallocation	strassman@usgs.gov ; ndejager@usgs.gov	jruhser@usgs.gov	jruhser@usgs.gov ; jdieck@usgs.gov
SD	FY26	Ongoing	Draft Report: Evaluating the utility of UAS for LCLU imagery collect	2026SD7	Draft Report: Evaluating the utility of UAS for LCLU imagery collection in 2030	30-Sep-2026			Ongoing	astrassman@usgs.gov ; amurphy@usgs.gov	astrassman@usgs.gov	astrassman@usgs.gov ; amurphy@usgs.gov
WQ	FY26	Status	Water Quality Status and Trends	2026D	Description	Target Date	Modified Date	Completed Date	Comments	kjankowski@usgs.gov	kjankowski@usgs.gov	Multiple
WQ	FY26	Ongoing	Water Quality Component	2026D11	Phytoplankton enumerated and dataset updated	30-Dec-2026				kjankowski@usgs.gov	kjankowski@usgs.gov	kjankowski@usgs.gov
WQ	FY26	Ongoing	Water Quality Component	2026D8	Complete fixed site and SRS sampling for Pools 4, 8, 13, 26, Open River Reach, and La Grange Pool (Table 1, ~4428 sites)	30-Sep-2026			Stations are sampling under a reduced minimal framework designed to preserve as much long-term data continuity as possible, focusing on vegetation, summer water quality, and Period 3 fish.	kjankowski@usgs.gov	kjankowski@usgs.gov	kjankowski@usgs.gov ; Robert.Burdis@state.mn.us ; john.kalas@wisconsin.gov ; ashley.johnson@dnr.iowa.gov ; lgitting@inhs.uiuc.edu ; ssawicki@illinois.edu ; kathryn.smith@mdc.mo.gov
DM	FY25	Status	Data Management	2025M	Description	Target Date	Modified Date	Completed Date	Comments	bschlifer@usgs.gov	bschlifer@usgs.gov	Multiple
DM	FY25	Ongoing	Updating LTRM Web Services (long-term project)	2025M4	Inventory and cleaning up current LTRM web assets, generating an internal report of findings for future LTRM website rework.	1-Sep-2025	30-Sep-2027		Impacted by FY26 funding and rollup of IT staff to DOI	bschlifer@usgs.gov	bschlifer@usgs.gov	bschlifer@usgs.gov ; dfedorenko@usgs.gov ; student (vacant)
DM	FY25	Ongoing	Updating LTRM Web Services (long-term project)	2025M5	Update water quality fixed-site web tools, introduce newer mapping technologies instead of static images and adding in better query and graphing tools.	1-Sep-2025	30-Sep-2027		Impacted by FY26 funding and rollup of IT staff to DOI	bschlifer@usgs.gov	bschlifer@usgs.gov	bschlifer@usgs.gov ; dfedorenko@usgs.gov ; student (vacant)
DM	FY25	Ongoing	Updating LTRM Web Services (long-term project)	2025M6	Updating and modernizing existing LTRM web application tools, cleaning up look and feel of graphs and making the application more mobile friendly.	30-Sep-2025	30-Sep-2027		Impacted by FY26 funding and rollup of IT staff to DOI	bschlifer@usgs.gov	bschlifer@usgs.gov	bschlifer@usgs.gov ; dfedorenko@usgs.gov ; student (vacant)
SD	FY25	Status	Spatial Data Component	2025SD	Description	Target Date	Modified Date	Completed Date	Comments	ndejager@usgs.gov ; jdieck@usgs.gov	ndejager@usgs.gov	Multiple
SD	FY25	Ongoing	Orthorectification of scanned photos. Scanned Photos: https://www.sciencebase.gov/catalog/item/559299a3e4b0b6d21dd67a65	2025SD1	Mosaicking of remaining pools, creation of metadata, and review and dissemination (portions of the 1975, 1989, and 1994 imagery collections)	30-Sep-2025			Work continues on this with data being actively reviewed in IPDS and in the process of dissemination.	jschoen@usgs.gov	jschoen@usgs.gov	astrassman@usgs.gov ; jschoen@usgs.gov
WQ	FY25	Status	WQ	2025D	Description	Target Date	Modified Date	Completed Date	Comments	kjankowski@usgs.gov	kjankowski@usgs.gov	Multiple
WQ	FY25	Paused	Assessment of Phytoplankton Samples collected by the Upper Mississippi River Restoration Program-Long Term Resource Monitoring Water Quality Component	2025D11	Phytoplankton analyses and dataset updated	30-Dec-2025			paused due to FY25 funding shortfall	kjankowski@usgs.gov	kjankowski@usgs.gov	
AV	FY24	Status	Aquatic Vegetation Status and Trends	2024A	Description	Target Date	Modified Date	Completed Date	Comments	dmlarson@usgs.gov	dmlarson@usgs.gov	Multiple
AV	FY24	In Review	Sherman J, St. Clair K, Gray B, Larson DM. Predicting a continuous causal variable given ordinal outcomes and structural zeroes with application to submersed aquatic vegetation biomass. In review at Journal of Agricultural, Biological, and Environmental Statistics since August 2024		Manuscript and data release, leveraged product: Sherman J, St. Clair K, Gray B, Larson DM (in review) Predicting a continuous causal variable given ordinal outcomes and structural zeroes with application to submersed aquatic vegetation biomass. In review at <i>Journal of Agricultural, Biological, and Environmental Statistics</i> since August 2025. IP-149488.		30-Sep-2025		approved for publication as a journal article contingent on addressing the items marked required, prior to returning the manuscript to the journal	dmlarson@usgs.gov	dmlarson@usgs.gov	
SD	FY24	Status	Spatial Data Component	2024SD	Description	Target Date	Modified Date	Completed Date	Comments	jdieck@usgs.gov	amurphy@usgs.gov	Multiple
SD	FY24	Ongoing	Apply UAS based ground penetrating radar to assist topobathy data collection	2024SD2	Data Set: Using ground penetrating radar (GPR), survey locations as identified by the topobathy methods pilot studies to determine the range of ability for GPR produced datasets for bathymetric/geomorphic change studies	30-Sep-2024	30-Sep-2026		Reviewing options to complete this work. It may be delayed due to required approvals to modified UAS with GPR.	astrassman@usgs.gov ; amurphy@usgs.gov		
SD	FY24	Ongoing	Dataset of Applied UAS based ground penetrating radar to assist topobathy data collection	2024SD3	Dataset of Applied UAS based ground penetrating radar to assist topobathy data collection	30-Sep-25	30-Sep-2026		Pending collection of GPR data. Collection date TBD.	amurphy@usgs.gov	amurphy@usgs.gov	astrassman@usgs.gov ; amurphy@usgs.gov
SD	FY24	Ongoing	Perform pilot study of material volumetrics using three methods	2024SD4	Pilot dataset and report of material volumetrics using three methods	30-Sep-25	30-Sep-2026		Reviewing options for collecting these data at the Brownsville sand repo.	amurphy@usgs.gov	amurphy@usgs.gov	astrassman@usgs.gov ; amurphy@usgs.gov

SD	FY24	Ongoing	Perform pilot study of material volumetrics using three methods	2024SD4	Data Set: Conduct a study on a chosen UMRS island, containing dredge spoils or otherwise of interest, using traditional GNSS terrestrial survey, terrestrial LIDAR, and UAS based photogrammetry with real-time kinematic (RTK) GNSS and/or UAS based ground penetrating radar to create volumetric models.	30-Sep-2024	30-Sep-2026		GPR is still in shakedown and not ready for data collection yet. We have 2 of the three proposed collections for the volumetrics.	astrassman@usgs.gov; amurphy@usgs.gov		
SD	FY24	Ongoing	Apply UAS based ground penetrating radar to assist topobathy data collection	2024SD5	Draft Report of Applied UAS based ground penetrating radar to assist topobathy data collection	30-Sep-25	30-Sep-2026		Pending collection of GPR data. Collection date TBD.	amurphy@usgs.gov	amurphy@usgs.gov	astrassman@usgs.gov; amurphy@usgs.gov
FS	FY21	Status	Fisheries Component Status and Trends	2021B	Description	Target Date	Modified Date	Completed Date	Comments	jrfischer@usgs.gov (TBD)	jrfischer@usgs.gov (TBD)	Multiple
FS	FY21	Paused	Manuscript: A synthesis on river floodplain connectivity and lateral fish passage in the Upper Mississippi River		Manuscript: A synthesis on river floodplain connectivity and lateral fish passage in the Upper Mississippi River (2021B11; Journal Promised a finding and set of reviews in the next 6 weeks.; IP-123678)				Impacted by FY25 staffing cuts. Initially deferred in lieu of the IWW nav closure study. UMESC PI now retired.	jrfischer@usgs.gov (TBD)	(Vice Ickes)	
WQ	FY21	Status	Water Quality Status and Trends	2021D	Description	Target Date	Modified Date	Completed Date	Comments	kjankowski@usgs.gov	kjankowski@usgs.gov	Multiple
WQ	FY21	Paused	Assessment of Phytoplankton Samples collected by the Upper Mississippi River Restoration Program-Long Term Resource Monitoring Water Quality Component	2021D12	Final LTRM Completion Report: Assessment of Phytoplankton Samples collected by the Upper Mississippi River Restoration Program-Long Term Resource Monitoring Water Quality Component	30-Dec-2025	Paused		Paused indefinitely due to FY25 funding shortfalls. UMESC Plankton Ecologist (planned/new position) is paused indefinitely due to FY25 funding shortfall and hiring restrictions.	kjankowski@usgs.gov (TBD)	kjankowski@usgs.gov (TBD)	Intended for new UMESC Plankton Ecologist
ST	FY20	Status	Status & Trends Report	2020ST	Description	Target Date	Modified Date	Completed Date	Comments	jhouser@usgs.gov	jhouser@usgs.gov	Multiple
ST	FY20	Paused	Draft S&T Fact Sheets	2020ST4	Draft S&T Fact Sheets		1-Mar-2025		Impacted by FY25 funding, staff losses, and related workload reprioritization	jhouser@usgs.gov	jhouser@usgs.gov	
ST	FY20	Paused	Final S&T3 Fact Sheet	2020ST5	Final S&T3 Fact Sheet		30-Sep-2025		Impacted by FY25 funding, staff losses, and related workload reprioritization	jhouser@usgs.gov	jhouser@usgs.gov	
WQ	FY19	Status	Water Quality Status and Trends	2019D	Description	Target Date	Modified Date	Completed Date	Comments	kjankowski@usgs.gov	kjankowski@usgs.gov	Multiple
WQ	FY19	Paused	Assessment of Phytoplankton Samples collected by the Upper Mississippi River Restoration Program-Long Term Resource Monitoring Water Quality Component	2019D12	Draft LTRM Completion Report: Assessment of Phytoplankton Samples collected by the Upper Mississippi River Restoration Program-Long Term Resource Monitoring Water Quality Component	30-Oct-2024	Paused		Paused indefinitely due to FY25 funding shortfalls. UMESC Plankton Ecologist (planned/new position) is paused indefinitely due to FY25 funding shortfall and hiring restrictions.	kjankowski@usgs.gov (TBD)	kjankowski@usgs.gov (TBD)	Intended for new UMESC Plankton Ecologist

Science Support Milestones New & Ongoing as of September 2026

Status	IP Number	Revised or Final Title & link	A0_Tracking number	Milestone Description	Target Date	Modified Target Date	Date Completed	Comments	A0_UMESC POC email	Project Lead email	Collaborator emails
Ongoing	IP Number	Eco-hydrologic Research (2020-2022)	2021EH	See Below	Multiple	Modified Target	Date Completed	Comments	mvanappledorn@usgs.gov	mvanappledorn@usgs.gov	Multiple
Ongoing			2021EH02	Draft manuscript of UMRS floodplain forest classification	30-Sep-2021	30-Sep-2027		Draft in preparation; delayed due to FY25 and FY26 staff redirect	mvanappledorn@usgs.gov	mvanappledorn@usgs.gov	Van Appledorn, De Jager, Raza
Ongoing	IP Number	Eco-hydrologic Research (2023-2025)	2023EH	See Below	Multiple	Modified Target	Date Completed	Comments	mvanappledorn@usgs.gov	mvanappledorn@usgs.gov	Multiple
Ongoing			2024EH2	Draft manuscript of underplanting growth and survival and relation to groundwater levels, surface flooding, and other environmental variables	30-Sep-2025	30-Sep-2027		delayed due to FY25 staff redirect	mvanappledorn@usgs.gov	mvanappledorn@usgs.gov	
Ongoing			2025EH1	Draft data product of projected floodplain inundation dynamics using downscaled CMIP5 products		30-Sep-2027		Analyses currently underway; delayed due to FY25 and FY26 staff redirect	mvanappledorn@usgs.gov	mvanappledorn@usgs.gov	
Ongoing	IP Number	Eco-hydrologic Research (2026-2029)	2026EH	See Below	Multiple	Modified Target	Date Completed	Comments	mvanappledorn@usgs.gov	mvanappledorn@usgs.gov	Multiple
Ongoing			2026EH0	Draft manuscript of projected floodplain inundation dynamics using downscaled CMIP5 products		30-Sep-2027		Analyses currently underway; delayed due to FY25 and FY26 staff redirect	mvanappledorn@usgs.gov	mvanappledorn@usgs.gov	
New			2026EH1	Draft daily inundation depth CSV files, Pool 11-18	30-Sep-2027				mvanappledorn@usgs.gov	mvanappledorn@usgs.gov	
New			2026EH2	Draft daily inundation depth CSV files, Pool 19-26	31-Dec-2027				mvanappledorn@usgs.gov	mvanappledorn@usgs.gov	
New			2026EH3	Draft daily inundation depth CSV files, Illinois River Pools and Open River	31-Dec-2027				mvanappledorn@usgs.gov	mvanappledorn@usgs.gov	
New			2026EH4	Draft R scripts for generating daily inundation depths	30-Sep-2027				mvanappledorn@usgs.gov	mvanappledorn@usgs.gov	
New			2026EH5	Draft manuscript on floodplain forest successional trajectories	30-Sep-2027				mvanappledorn@usgs.gov	mvanappledorn@usgs.gov	
Ongoing	IP Number	Ecosystem Resilience and Restoration Applications in the Upper Mississippi River System (2025-2027)	2024R	See Below	Multiple	Modified Target	Date Completed	Comments	kbouska@usgs.gov	kbouska@usgs.gov	Multiple
Ongoing		Ecosystem Resilience and Restoration Applications in the Upper Mississippi River	2024R3	Submit draft Research Framework for Linking restoration actions and ecological responses	30-Sep-2024	30-Sep-2026		Re-prioritized due to hiring challenges w/Pool13 HARP and FY25 funding shortfalls. Restarted in Feb 2026 and making progress.	kbouska@usgs.gov	kbouska@usgs.gov	
Completed		Ecosystem Resilience and Restoration Applications in the Upper Mississippi River	2026R1	Updates provided at quarterly UMRR CC meeting and A team meeting	30-Sep-2026		30-Apr-26	Presentation at April A-team mtg.	kbouska@usgs.gov	kbouska@usgs.gov	
Completed		Ecosystem Resilience and Restoration Applications in the Upper Mississippi River	2026R2	Coordination of Pool 13 HARP data collection (see Pool 13 HARP SOW for additional milestones)	30-Sep-2026		30-Sep-26	Spring coordination calls completed and monitoring equipment deployed for 2026.	kbouska@usgs.gov	kbouska@usgs.gov	nbuckley@usgs.gov ; tdubose@usgs.gov ; dmlarson@usgs.gov ; kjankowski@usgs.gov
Completed	IP-181210	Bouska, K. L., L. Solomon, A. Bartels, M. Bowler, S. DeLain, E. Gittinger, T. Kueter, K. Maxson, E. Ratcliff, J. West, J. Lamer, A. Glen, H. Kim and Q. Phelps. 2026. Life history traits and population dynamics of freshwater drum across large river gradients. Transactions of the American Fisheries Society.	2026R3	Publish vital rate manuscripts	30-Sep-2030		7-May-26	Initial manuscript included under vital rates project code. Progress: Two species completed, 4 species with age data ready to analyze, awaiting data for an additional 6 species	kbouska@usgs.gov	kbouska@usgs.gov	
Ongoing	IP-185916	Bouska, K. L. <i>In review. Evaluating dynamic length frequency-based age classification across multiple fish species: Implications for monitoring and management. North American Journal of Fisheries Management.</i>	2026R4	Apply length-frequency based age classification to estimate cohort-specific catch rates for vital rate species	30-Sep-2026		6-Apr-26	Received Bureau approval for publication 4/6/26. Authors work on the ms is complete.	kbouska@usgs.gov	kbouska@usgs.gov	
Ongoing	IP-193966	Bouska, K. L. and R. Erickson. In-review. Hydrology and density-dependence regulate Silver Carp recruitment across two large rivers.	2026R5	Relate cohort-specific catch rates to hydrologic, temperature, and habitat variables	30-Sep-2027		11-Sep-26	In internal review.	kbouska@usgs.gov	kbouska@usgs.gov	
Ongoing	IP Number	Information Needs: IN 1.1 Floodplain Vegetation Change	2025FPV	See Below	Multiple	Modified Target	Date Completed	Comments	ndejager@usgs.gov		Multiple
Ongoing			2025FPV2	Data Analysis: Evaluate existing data sets as candidates for long-term monitoring	30-May-2025	31 Dec. 2026		Delayed due to temporary reductions in personnel in FY25 and change in priorities--expanded the scope of analysis.	mtrumper@usgs.gov	mtrumper@usgs.gov	Trumper, Weiss
Ongoing			2025FPV4	Data Analysis: Evaluating species and age-specific mortality rates in response to the 1993 and 2019 floods.	30-Jul-2025	30 Sept. 2027		Preliminary analysis complete; delayed due to change in priorities.	saweiss@lc.edu	saweiss@lc.edu	Weiss, Guyon, De Jager, Trumper, Van Appledorn
Ongoing			2025FPV5	Draft floodplain vegetation data viewer	30 Dec. 2025	31 Dec. 2026		LTRM flood study data viewer. Initial draft data viewer complete, will be finalized based on working group feedback.	saweiss@lc.edu	saweiss@lc.edu	Weiss et al.
Ongoing	IP Number	Information Needs: IN 1.1 Floodplain Vegetation Change	2026FPV	See Below	Multiple	Modified Target	Date Completed	Comments	ndejager@usgs.gov		Multiple
New		A multi-scale framework for floodplain forest monitoring, research, and modeling in the Upper Mississippi River System	2026FPV2	Draft manuscript: floodplain vegetation monitoring framework	30 Sept. 2026		9/10/2026	Trumper entered into IPDS, intended submission of Enf. Mon. and Assessment	saweiss@lc.edu	saweiss@lc.edu	Weiss, Trumper, De Jager, Van Appledorn, Guyon

New			2026FPV3	Data release: USACE permanent plot forest dataset	30 Sept. 2026	30-Sep-26		In progress; delayed due to change in priorities.	mtrumper@usgs.gov	mtrumper@usgs.gov	Trumper, Meier, Vandermyde, Stoff, Redick
Ongoing	IP Number	Information Needs: IN 1.1 Floodplain Vegetation Change	2027FPV	See Below	Multiple	Modified Target	Date Completed	Comments	ndejager@usgs.gov		Multiple
New			2027FPV1	Draft USACE permanent plot data viewer	31 Dec. 2026				mtrumper@usgs.gov	mtrumper@usgs.gov	Trumper, Meier, Vandermyde, Stoff, Redick
New			2027FPV2	Draft manuscript: Evaluating species and age-specific mortality rates in response to the 1993 and 2019 floods	31 Dec. 2026				saweiss@lc.edu	saweiss@lc.edu	Weiss, Guyon, De Jager, Trumper, Van Appledorn
New	IP Number	River Gradients	2025RG	See Below	Multiple	Modified Target	Date Completed	Comments	jhouser@usgs.gov; jfischer@usgs.gov	lamer@illinois.edu	Multiple
Ongoing			2025RG01	assimilating data sources, synthesizing data, and indentifying data gaps in the reaches between Pool 13 and 26	30-Sep-2025	uncertain		Delayed because of funding changes and staffing issues.	jhouser@usgs.gov; jfischer@usgs.gov	lamer@illinois.edu	Maddi Roberts, Lamer, Houser, Fischer
New	IP Number	Information Need: IN 3.7 Macroinvertebrate Contribution	2022INV	See Below	Multiple	Modified Target	Date Completed	Comments			Multiple
?			2025INV01	Establish monitoring design based on pilot results	30-Sep-2025		Prior to 30 Sept 26	During the first two quarters of FY25, a summary of work and findings to-date will be completed, alternative designs with various levels of effort will be developed, and initial discussions will be held with key partners. The goal will be to develop suggested alternatives for sharing and discussion at the 2025 All-hands meeting. Results, lessons-learned, and alternatives for future monitoring designs will be presented and discussed at the 2025 LTRM All-hands meeting. The goal will be to agree upon the appropriate design and level of effort for out-years.	jrfischer@usgs.gov	Lamer, Pant	UMRR Partnership
Ongoing	IP Number	Future landscape adaptation informed by historical landscape patterns and dynamic conditions scenarios	2024LA	See Below	Multiple	Modified Target	Date Completed	Comments	jdelaney@usgs.gov	jdelaney@usgs.gov	Multiple
Ongoing			2024LA03	Draft Report: Response of reed canarygrass dominance to decadal inundation regimes	30-Sep-2024	31-May-2027		Pending completion of 2025LA01 and currently on hold due to temporary transfer to another project.	jdelaney@usgs.gov	jdelaney@usgs.gov	Delaney, Van Appledorn, De Jager, Bouska, Rohweder
Ongoing		Hoy, E.E. and Cogan, J.E., 2026, UMRR LTRM 2020 LCU Mapping Reed Canarygrass Remap - UMRS Pools 02 - 13: U.S. Geological Survey data release, https://doi.org/10.5066/P1YQT2ZH .	2025LA01	Data Release: Classification of reed canarygrass dominance in wet meadows and wet meadow shrub areas of the Upper Mississippi River Restoration 2020 landcover dataset	30-Sep-2025	30-Sep-2026	9/25/2026	IP-188362, completed BAO review on 9/25/2026. Planned dissemination date is 10/14/2026	jdelaney@usgs.gov	jdelaney@usgs.gov	Erin Hoy, Janis Ruhser, Delaney, Delager
In-review	IP Number	Acquisition and Interpretation of Four-Band Imagery for Production of 2020 UMRS Land Cover/Land Use Data and Pool-Based Orthomosaics	2025LCU	See Below	Multiple	Modified Target	Date Completed	Comments	astrassman@usgs.gov	astrassman@usgs.gov	Multiple
In-review	177574 180152 182704 183954 185160 189089	Imagery is available at: https://doi.org/10.5066/P962VKR4 ; Vector data is available at: https://doi.org/10.5066/P9U46VQP .	2025LCU	Image processing, stereo model development, orthorectification, pool-based mosaicking image interpretation, automation, QA/QC, and serving of 2020 LCU datasets for Pools 14-16, 18-21, and Peoria of the Illinois River.	30-Sep-2025	30-Jun-2026		All aspects complete and posted for Pools 14-16, 18-21 with Peoria pool in FSP/IPDS (IP-189089)	astrassman@usgs.gov		Dieck, Strassman, Hoy, Ruhser
Ongoing	IP Number	Acquisition and Interpretation of Four-Band Imagery for Production of 2020 UMRS Land Cover/Land Use Data and Pool-Based Orthomosaics	2026LCU	See Below	Multiple	Modified Target	Date Completed	Comments	astrassman@usgs.gov	astrassman@usgs.gov	Multiple
Ongoing	IP-Pending for both OR1 and Lockport	Imagery is available at: https://doi.org/10.5066/P962VKR4 ; Vector data is available at: https://doi.org/10.5066/P9U46VQP .	2026LCU Q3	Image processing, stereo model development, orthorectification, pool-based mosaicking image interpretation, automation, QA/QC, and serving of 2020 LCU datasets for the Open River North.	30-Sep-2026			All imagery for the LCU2020 project is processed and provided to mapping team. Photointerpretation (PI) of OR1 and Lockport complete with materials in IPDS. Dissemination expected in Q12027	astrassman@usgs.gov		Dieck, Strassman, Hoy, Ruhser
New	IP Number	Acquisition and Interpretation of Four-Band Imagery for Production of 2020 UMRS Land Cover/Land Use Data and Pool-Based Orthomosaics	2027LCU	See Below	Multiple	Modified Target	Date Completed	Comments	astrassman@usgs.gov	astrassman@usgs.gov	Multiple
New			2027LCU	Image processing, stereo model development, orthorectification, pool-based mosaicking image interpretation, automation, QA/QC, and serving of 2020 LCU datasets for The Lockport - Starved Rock of the Illinois River and project wrap-up.	30-Sep-2027				astrassman@usgs.gov		Dieck, Strassman, Hoy, Ruhser
Ongoing	IP Number	Landscape Pattern Research and Application FY_	2016LP	See Below	Multiple	Modified Target	Date Completed	Comments	ndejager@usgs.gov	ndejager@usgs.gov	Multiple
Complete	IP-183436	Perspectives and Insights Gained from Applying Landscape Ecological Approaches to the Upper Mississippi Riverscape	2016LP3	Draft Manuscript: Review of Landscape Ecology on the UMR	NA	30-Sep-2025	24-Feb-26	Disseminated 8/5/2026. https://pubs.usgs.gov/publication/70279493	ndejager@usgs.gov	Nathan De Jager	
Ongoing	IP Number	Landscape Pattern Research and Application FY22-24	2023LP	See Below	Multiple	Modified Target	Date Completed	Comments	ndejager@usgs.gov	ndejager@usgs.gov	Multiple

Ongoing		Data Analysis: Inundation drivers of decadal changes in RCG dominance in wet meadows	2023LP4	Data Analysis: Detecting decadal changes in RCG dominance in wet meadows	30-Sep-2023	28-Feb-2027		Pending completion of 2025LA01 and this work is currently on hold due to temporary transfer to another project.	idelaney@usgs.gov	John Delaney	Delaney, De Jager, Van Appledorn, Bouska, Rohweder
Ongoing	IP Number	Landscape Pattern Research and Application FY22-24	2024LP	See Below	Multiple	Modified Target	Date Completed	Comments	ndejager@usgs.gov	ndejager@usgs.gov	Multiple
Complete	IP-183133	Attributes of Upper Mississippi River System contiguous forest areas (Pools 3, 7, 9, 10, 11, 12, Open River South, Alton, and La Grange)	2024LP1	Map Set: UMRS Contiguous Forest Areas (Pools 3, 7, 9, 10, 11, 12, OR2, LaG, Alt)	30-Sep-2024	30-Sep-2025	7-Jul-26		ndejager@usgs.gov		jrohwyder@usgs.gov
Complete	IP-181883	Upper Mississippi River Land Cover Change (1989-2020)	2024LP4	Story Map: Land Cover Change (1989-2000-2010-2020)	30-Sep-2024	30-Sep-2025	9-Jul-26	Dissminated 7/9/26: https://www.usgs.gov/tools/upper-mississippi-river-system-land-cover-change-1989-2020-story-map	jrohwyder@usgs.gov	Jason Rohwyder	Rohwyder and De Jager
Ongoing	IP Number	Landscape Pattern Research and Application FY25-27	2025LP	See Below	Multiple	Modified Target	Date Completed	Comments	ndejager@usgs.gov	ndejager@usgs.gov	Multiple
Complete	IP-183133	Attributes of Upper Mississippi River System contiguous forest areas	2025LP1	Map Set: UMRS Contiguous Forest Areas Pools 1, 2, 5, 5a, 6, 17, 22, 24, 25	30-Sep-2025		7-Jul-26	Pools 1, 2, 3, 5, 5A, 6, 7, 9, 10, 11, 12, 17, 19, 22, 24, 25, Open River South, Alton, and La Grange reviewed and currently at Bureau Approval level in IPDS-April 2026	jrohwyder@usgs.gov	Jason Rohwyder	Rohwyder and De Jager
New	IP-183133	Attributes of Upper Mississippi River System contiguous forest areas	2026LP1	Map Set: UMRS Contiguous Forest Areas Pools 14, 15, 16, 18, 20, 21, or1, bra, dre, loc, mar, peo, sta	30-Sep-2026	30 Sept. 2027		This will complete the systemic map set for 2020 data. Delayed b/c of funding changes	jrohwyder@usgs.gov	Jason Rohwyder	Rohwyder and De Jager
New			2026LP2	Map Set: Attributes of 2010-2020 forest loss areas (Pools: 11, 12, 14, 15, 16, 18, 19 20, 21, 24, 25, alt, bra, dre, loc, mar, peo, sta)	30-Sep-2026	30 Sept. 2027		This will complete systemic map set. Work contingent upon completion of 2026EH1, 2026EH2, 2026EH3 Delayed b/c of funding changes	jrohwyder@usgs.gov	Jason Rohwyder	Rohwyder and De Jager
Ongoing	IP Number	Pool 12 Overwintering	2026P13	See Below	Multiple	Modified Target	Date Completed	Comments	keuter	bierman	Multiple
	IP Number	Statistical Evaluations & Analysis Under Base	202x	See Below	Multiple	Modified Target	Date Completed	Comments	dmlarson@usgs.gov	D Larson	Multiple
Ongoing	171791	River re-oligotrophication and hydrologic changes over 20 years contributed to macrophyte community shifts and recovery.	2024SE1	Manuscript, data release, software release	31-Dec-2026		30-Aug-26	Published in Global Change Biology journal (in production as of 9/28/26)	dmlarson@usgs.gov	D Larson	Jones M, Weigel B, Gray B, Ovaskainen O
Ongoing	179899	Why do scuds flourish in some wetlands?	2025SE5	Magazine manuscript	30-Sep-2026		30-Aug-26	Published in Sept 2026 issue of Wildlife Professional magazine	dmlarson@usgs.gov	D Larson	Larson DM, Isaacson C, Anteau MJ, Fitzpatrick M
Ongoing	185416	Pocket Booklet for Long Term Resource Monitoring procedures—Aquatic vegetation monitoring	2026SE1	Pocket Booklet (field guide)	30-Sep-2026		30-Mar-26	Published as USGS Methods Report: https://pubs.usgs.gov/publication/tm2A22	dmlarson@usgs.gov	D Larson	Larson DM, Lund E, Carhart AM, Fopma S, Szura S
Ongoing	185686	Multi-scale spatiotemporal modeling of total suspended solids across the Upper Mississippi River using automated machine learning	2026SE2	Manuscript	30-Sep-2026	30-Sep-2027		Has been submitted to USGS and journal reviews	dmlarson@usgs.gov	D Larson	Rezaei S, Peter BG, Ruhl-whittle LS, Weiss J, Larson DM
Ongoing	n/a	Role of eDNA in early detection and biosecurity for invasive aquatic plants.	2026SE4	Field data collection	30-Sep-2026		25-Sep-26	completed in September 2026; over 300 plant specimens collected	dmlarson@usgs.gov	D Larson	Larson DM, Waterhouse L, Spear S, Gotakar D
Ongoing	n/a	Role of eDNA in early detection and biosecurity for invasive aquatic plants.	2026SE5	Presentations	30-Sep-2026		30-Sep-2026	8 presentations at five venues in FY26	dmlarson@usgs.gov	D Larson	Larson DM, Waterhouse L, Spear S, Gotakar D
Published	183965	Seasonal and spatial variation in chlorophyll a in a large, eutrophic river over three decades.		Manuscript	30-Sep-2026		30-Sep-26	Received USGS Bureau approval for publication on 8 Jul 2026. Has been accepted for publication at the Journal of Freshwater Science	kjankowski@usgs.gov	KJ Jankowski	Kreiling, JH Larson, S Sawicki, and J Murphy
In review	188327	Anthropogenic land use decouples seasonal nutrient regimes and drives stoichiometric variability in rivers.		Manuscript	30-Sep-2026	30-Sep-2027		Manuscript Submitted for USGS review 30-Mar-2026	kjankowski@usgs.gov	KJ Jankowski	
New	IP Number	Augmenting the UMRR fish vital rates project with greater species representation for genetics and otolith microchemistry	2021VR	See Below	Multiple	Modified Target	Date Completed	Comments	kbouska@usgs.gov	kbouska@usgs.gov	Multiple
Ongoing		Augmenting the UMRR fish vital rates project with greater species representation for genetics and otolith microchemistry	2021VR3	Submit draft manuscript (genetics)	31-Dec-2022	31-Dec-26		Initial delays occurred due to needing additional samples and difficulty obtaining lab supplies (COVID). Subsequent delays as post-doc as changed positions. They have told me the manuscript will be finalized in 2026.	kbouska@usgs.gov	Mark Davis, Milton Tan	Jim Lamer, Kristen Bouska
Ongoing	190132	Cucalón, R. V., J. B. Corush, R. A. Hrabik, K. Bouska, J. T. Lamer, M. A. Davis, and M. Tan. In prep. Distribution and hybridization of the Mimic Shiner (Paranotropis volucellus) and Channel Shiner (P. wickliffi) in the Upper Mississippi River System. Ecology and Evolution.	2021VR4	Submit draft manuscript (genetics- mimic/channel)	31-Dec-2022	30-Sep-26	26-May-26	Draft manuscript submitted for USGS peer review 26 May 2026. Review process is ongoing.	kbouska@usgs.gov	Mark Davis, Milton Tan	Jim Lamer, Kristen Bouska
New	IP Number	Dendrochronology: Assessing Forest Development Processes and Pathways in Floodplain Forests along the Upper Mississippi River using Dendrochronology	2023dendro	See Below	Multiple	Modified Target	Date Completed	Comments	mvanappledorn@usgs.gov	mvanappledorn@usgs.gov	Multiple

Published or In review	IP-184370; IP-185891; IP-184235; IP-185891		2023dendro6	Final report writing, edits on manuscript, and completion of all data storage	30-Nov-2024	30-Sep-2026	various. All products are either published, in press, or with the journal after minor revisions. See comments for details.	Delayed due to temporary reductions in personnel at partnering institution; IP-185891 data product is published (www.ncei.noaa.gov/access/paleo-search/study/44679) with multiple DOIs; IP-187427 data product is published (doi:10.25921/5wxw-9h07); IP-184370 manuscript is in press. IP-184235 manuscript is BAO approved and with journal after minor revisions.	mvanappledorn@usgs.gov	Windmuller-Campione & Van Appledorn	Windmuller-Campione & Van Appledorn
Ongoing	IP Number	System-wide phytoplankton	2023Pyyto	See Below	Multiple	Modified Target	Date Completed	Comments	kjankowski@usgs.gov	KJ Jankowski	Multiple
Ongoing			2023Phyto1	System-wide phytoplankton community dataset	30-Sep-2024	31-Dec-2026		In progress now that samples are analyzed	kjankowski@usgs.gov	James Larson and KathiJo Jankowski	Kenna Gierke, James Larson
Ongoing			2023Phyto4	Report: Assessment of FloCam for use on archived and fresh phytoplankton samples for LTRM sampling	30-Mar-2024	30-Sep-2025		This will be combined with 2023Phyto5	jhlaron@usgs.gov	James Larson and KathiJo Jankowski	
Ongoing			2023Phyto5	Draft Manuscript: Comparison of trends captured by microscopy and FlowCam phytoplankton community analysis	30-May-2024	31-Dec-2026		data were published on Sep 15, manuscript should be submitted by Dec 30, 2026	jhlaron@usgs.gov	James Larson and KathiJo Jankowski	Kenna Gierke, Sean Bailey
Ongoing	IP Number	Bathy 2022 science meeting (Jayme)	2024Bathy	See Below	Multiple	Modified Target	Date Completed	Comments	jhanson@usgs.gov	jhanson@usgs.gov	Multiple
Ongoing			2024Bathy1b	Complete RTK surveys of Pool 8 transects that will be used in accuracy assessment.	1-Oct-2025	1-Oct-2026			jhanson@usgs.gov	John Kalas Steph Szura, Jeremy King	Steph Szura, Jeremy King, Jenny Hanson, Angus Vaughan
Ongoing			2024Bathy2	Conduct shallow water hydroacoustic surveys of select Pool 8 transects (2024Bathy1) and previously surveyed side channels (2019).	1-Oct-2024	1-Oct-2026		Few transects were surveyed in Spring of 2024 due minimal spring pulse. About 1/2 of the P8 side channels were surveyed and will continue into FY26.	jhanson@usgs.gov	Jenny Hanson	Angus Vaughan, John Kalas, Steph Szura, Jeremy King
Ongoing			2024Bathy2b	Complete hydroacoustic surveys of Pool 8 transects (2024Bathy1b).	1-Oct-2025	1-Oct-2026			jhanson@usgs.gov	Jenny Hanson	Angus Vaughan, John Kalas, Steph Szura, Jeremy King
Ongoing			2024Bathy3	Establish methods, add transect data to current DB, begin comparing technologies for bed elevation surveys, complete geomorphic change analyses for P8 side channels.	30-Mar-2025	1-Oct-2026		Currently not enough transect data collected due to lack of elevated water levels last spring and fall. The few remaining side channel will be surveyed in 2025.	jhanson@usgs.gov	John Kalas, Jenny Hanson	Angus Vaughan, Steph Szura, Jeremy King
New	IP Number	HARP Lower Pool 13 -- Understanding wind dynamics and contributing factors of water clarity, aquatic vegetation, and native freshwater mussels (FY23 – FY26)	2024HARP	See Below	Multiple	Modified Target	Date Completed	Comments	kbouska@usgs.gov	kbouska@usgs.gov	Multiple
Ongoing	IP-180623; IP-186016	Buckley, N.R., Bouska, K.L., and Johnson, A., 2025, Semi-continuous pressure and water quality sensor data from 5 locations in Lower Pool 13 of the Upper Mississippi River from May - September 2024: U.S. Geological Survey data release, https://doi.org/10.5066/P13BYQEG . Buckley, N.R., Bouska, K.L., and Johnson, A., 2026, Hydrodynamic and water quality time-series data from 6 locations in Lower Pool 13 of the Upper Mississippi River from April – October 2025: U.S. Geological Survey data release, https://doi.org/10.5066/P1XHJC7O .	2024HARP1	Submit manuscript on wind, wave, and turbidity interactions	30-May-2026	30-Nov-2026		2024 dataset published and 2025 dataset awaiting dissemination. Analyses ongoing, manuscript (titled <i>Seasonal behavior of wind-generated waves and sediment resuspension in a large, regulated river</i>) ready for second round of review with co-authors (September 2026). Slight delays due to temporary loss of staff, staff assisting with projects in other branches, along with the prolonged internal review and release of 2025 data.	nbuckley@usgs.gov	Nicole Buckley, Kristen Bouska	Ashley Johnson, Kathi Jo Jankowski, Jesse McNinch, Elizabeth Bruns
Ongoing	IP-180623; IP-186016	Buckley, N.R., Bouska, K.L., and Johnson, A., 2025, Semi-continuous pressure and water quality sensor data from 5 locations in Lower Pool 13 of the Upper Mississippi River from May - September 2024: U.S. Geological Survey data release, https://doi.org/10.5066/P13BYQEG . Buckley, N.R., Bouska, K.L., and Johnson, A., 2026, Hydrodynamic and water quality time-series data from 6 locations in Lower Pool 13 of the Upper Mississippi River from April – October 2025: U.S. Geological Survey data release, https://doi.org/10.5066/P1XHJC7O .	2024HARP2	Submit manuscript on resuspension and upstream delivery to local turbidity	30-Sep-2026	30-Dec-2026		2024 dataset published and 2025 dataset awaiting dissemination. Analyses ongoing, manuscript (titled <i>Unraveling Turbidity Dynamics in Shallow Environments of the Upper Mississippi River Using Generalized Additive Models</i>) in preparation.	nbuckley@usgs.gov	Nicole Buckley, Kristen Bouska	Ashley Johnson, Dave Bierman, Elizabeth Bruns, Kathi Jo Jankowski
Ongoing		Lower Pool 13 HARP	2024HARP3	Submit manuscript on spatial patterns and correspondence among wave dynamics, turbidity, and aquatic vegetation	30-May-2026	30-Sep-2027		aquatic vegetation dataset published (LTRM), FLAME and ADCP dataset in review, analysis on pause until pilot bathymetry and hydraulic model outputs are available in-house	kbouska@usgs.gov	Kristen Bouska, Nicole Buckley	Kathi Jo Jankowski, Seth Fopma, Danelle Larson, Jesse McNinch, Dave Bierman, Luke Loken

Ongoing	IP-181608	T.P. DuBose, J.M. Lipschultz, T.J. Newton, D.M. Larson, and K.L. Bouska. , 2026, Freshwater mussel, aquatic plants, and sediment characteristics associated with a habitat rehabilitation and enhancement project in Navigation Pool 13 of the upper Mississippi River, https://doi.org/10.5066/P14LUKFY	2024HARP4	Submit manuscript on linkages between native freshwater mussel assemblages and substrate stability	30-Sep-2026	30-Dec-2026		dataset published, manuscript drafted, on-target to meet 12/30/26 deadline. Slight delays due to temporary termination of staff and staff redirects.	tdubose@usgs.gov	Traci Dubose, Teresa Newton	
New	IP Number	Aquatic Areas: Understanding, quantifying and forecasting associations among hydrogeomorphology, water chemistry, and the distribution and abundance of biota in the upper Mississippi river under Uncertain Future Conditions	2025AA	See Below	Multiple	Modified Target	Date Completed	Comments	ndejager@usgs.gov	ndejager@usgs.gov	Multiple
Ongoing	IP Number	Habitat mosaics in a large-river floodplain ecosystem: Uncovering physical-biological relationships across multiple taxa.	2026SE3	Manuscript	30-Sep-2026			good progress; nearing submission to USGS review	dmlarson@usgs.gov	D Larson	Hampton J, De Jager N, De Boer J, Larson DM, Kaemink M
New	IP Number	Future Hydro: Generating future hydrology and water temperature projections for the UMRS using hybrid deep learning	2025FH	See Below	Multiple	Modified Target	Date Completed	Comments	jdelaney@usgs.gov	jdelaney@usgs.gov	Multiple
Paused			2025FH03	Data release: Water temperature database submitted to IPDS	30-Sep-2025	31-Mar-2027		Delayed due to temporary reductions in personnel and funding shortfall. USACE has not provided water temperature data for all districts yet.	mtrumper@usgs.gov	jdelaney@usgs.gov	Matthew Trumper; Sawyer, Van Appledorn, Bouska, De Jager, Jankowski, Mueller, Rohweder, Schoenfield, Diaz, Schlifer
Paused			2025FH04	Manuscript: Water temperature historical trends submitted to IPDS	30-Sep-2026	30-Sep-2027		Delayed due to temporary reductions in personnel and funding shortfall. USACE has not provided water temperature data for all districts yet.	mtrumper@usgs.gov	jdelaney@usgs.gov	Matthew Trumper; Sawyer, Van Appledorn, Bouska, De Jager, Jankowski, Mueller, Rohweder, Schoenfield, Diaz, Schlifer
Ongoing			2026FH01	Draft report: UMR basin hydrologic raster set	30-Sep-2026	1-Dec-26		Nearing completion	mtrumper@usgs.gov	jdelaney@usgs.gov	Matthew Trumper; Sawyer, Van Appledorn, Bouska, De Jager, Jankowski, Mueller, Rohweder, Schoenfield, Diaz, Schlifer
Ongoing			2026FH02	Data release: UMR basin hydrologic raster set	30-Sep-2026	1-Dec-26		Nearing completion	jdelaney@usgs.gov	jdelaney@usgs.gov	Matthew Trumper; Sawyer, Van Appledorn, Bouska, De Jager, Jankowski, Mueller, Rohweder, Schoenfield, Diaz, Schlifer
Ongoing			2026FH03	Code release: UMR basin hydrologic raster set	30-Sep-2026	1-Dec-26		Nearing completion	jdelaney@usgs.gov	jdelaney@usgs.gov	Matthew Trumper; Sawyer, Van Appledorn, Bouska, De Jager, Jankowski, Mueller, Rohweder, Schoenfield, Diaz, Schlifer
Ongoing	IP Number	Vital Rates: Investigating vital rate drivers of UMRS fishes to support management and restoration	2019VR	See Below	Multiple	Modified Target	Date Completed	Comments	kbouska@usgs.gov	kbouska@usgs.gov	Multiple
Ongoing	IP-175303; IP-181189; IP-186242	Bouska, K. L., L. Solomon, and J. Lamer. 2025. Upper Mississippi River System Vital Rate Data – Bluegill (<i>Lepomis macrochirus</i>) 2018-2020: U.S. Geological Survey data release. https://doi.org/10.5066/P14QWJF2 ; Bouska, K.L., Solomon, L., and Lamer, J., 2025, Upper Mississippi River System Vital Rate Data - Freshwater Drum (<i>Aplodinotus grunniens</i>) 1992-2020: U.S. Geological Survey data release, https://doi.org/10.5066/P1WU76A6 .; Bouska, K.L., Solomon, L., and Lamer, J., 2026, Upper Mississippi River System Vital Rate Data - Channel Catfish, Largemouth Bass, Orangespotted Sunfish, and Yellow Perch 2018-2020. U.S. Geological Survey data release	2019VR8	Data set complete and submitted to IPDS	30-Sep-2021	30-Sep-2028		Initial age estimates were unreliable. IRBS is re-estimating ages for all species. Ages will be submitted to IPDS one species at a time in the same library on ScienceBase with all species submitted by the modified target date. Age datasets have been submitted for 6 species, and an additional 6 species will be submitted when ready.	kbouska@usgs.gov	Kristen Bouska	Levi Solomon, Jim Lamer
Ongoing	IP Number	Winter Limno: Understanding landscape-scale patterns in winter conditions in the Upper Mississippi River System	2021nn	See Below	Multiple	Modified Target	Date Completed	Comments	kjankowski@usgs.gov	kjankowski@usgs.gov	Multiple
Ongoing		Substantial variation in ice phenology and under ice conditions in backwater lakes of Upper Mississippi River	2021nn	Manuscript evaluating ice phenology and under ice conditions in backwaters	30-Sep-2023	30-Dec-2026		Manuscript in prep	kjankowski@usgs.gov		
New	IP Number	Phytoplankton: Putting LTRM’s long-term phytoplankton archive to work to understand ecosystem transitions and improve methodological approaches	2023Phyto	See Below	Multiple	Modified Target	Date Completed	Comments	kjankowski@usgs.gov	kjankowski@usgs.gov	Multiple
Ongoing			2023Phyto2	Draft Manuscript: Phytoplankton community composition over the past 20 years in the Upper Mississippi River: distribution of harmful taxa and relationships with environmental trends	30-May-2024	30-Sep-2027			kjankowski@usgs.gov	James Larson and KathiJo Jankowski	

Ongoing	IP Number	Phytoplankton: In-depth characterization of phytoplankton communities and toxicity across connectivity gradients along 450 miles of the Upper Mississippi River System	2025PC	See Below	Multiple	Modified Target	Date Completed	Comments	kjankowski@usgs.gov	kjankowski@usgs.gov	Multiple
Ongoing		Data Release	2025PC02	Data release of all phytoplankton community and cyanotoxin datasets	30-Sep-2025	30-Sep-26		All phytoplankton data generated by this project, including FlowCam, microscopy, cyanobacteria and cyanotoxin qPCR, and cyanotoxin data will be published on ScienceBase; partial data release occurred July 14, 2026 and remaining sensor data in BAO review as of July 15)	kjankowski@usgs.gov	lloken@usgs.gov	rkreiling@usgs.gov; kjankowski@usgs.gov; jhlarson@usgs.gov; LTRM Lower Trophic Level Specialist; Sophia Lafond-Hudson; Kenna Gierke; Carrie Givens; Hayley Olds; Leon Katona
Ongoing		Longitudinal, lateral, and temporal patterns in phytoplankton and cyanobacteria across the upper Mississippi River observed via repeated, high-resolution spatial data		Manuscript focused on results of FLAMe 2025PC01	30-Sep-2026			Analysis of spatial survey data collected during 2025PC01	kjankowski@usgs.gov	lloken@usgs.gov	lloken@usgs.gov
Ongoing		Cyanotoxin presence and production potential were widespread in a 600 km stretch of the upper Mississippi River during September, 2024	2025PCxx	Manuscript focused on occurrence and drivers of cyanobacteria and cyanotoxins from Pool 10-24	30-Sep-2026	30-Dec-26		Manuscript submitted July 14, 2026	kjankowski@usgs.gov	kjankowski@usgs.gov	kjankowski@usgs.gov
Ongoing	IP Number	SAV: Submersed plant responses to physical forces of wind, waves, velocity, and shear stress	2025SP0	See Below	Multiple	Modified Target	Date Completed	Comments	dmlarson@usgs.gov		Multiple
Ongoing	IP Number		2025SP01	Collect ACDP data	Spring 2026	Spring 2027		half of sites completed; other half delayed due to equipment failure, staffing shortage	dmlarson@usgs.gov		Jenny Hanson, Angus Vaughan, Julia Cogan
Ongoing	n/a		2025SP02	Collect plant and other habitat data	Summer 2026	Summer 2027		none collected due to severe staffing shortage	dmlarson@usgs.gov		LTRM Aquatic Veg. Component
New	n/a		2025SP03	Collect ACDP data	Fall 2026	Fall 2027		delayed due to severe staffing shortagee	dmlarson@usgs.gov		Jenny Hanson, Angus Vaughan, Julia Cogan
New	IP Number	Using sUAS to monitor and survey regeneration and recruitment in areas of forest canopy loss	2024UASFR0	See Below	Multiple	Modified Target	Date Completed	Comments	astrassman@usgs.gov	astrassman@usgs.gov	Multiple
Ongoing			2024UASFR2	Collection of ⅓ of field imagery	30-Sep-2024	30-Sep-2026	30-Sep-2026	USFWS permits approved 4/24/2026. Flight planning underway. Some imagery received from USACE from 2025. Additional imagery collect by USACE planned on P17/18.	astrassman@usgs.gov	astrassman@usgs.gov	Andrew Meier, Tate Sattler, Marcella Windmuller-Campione, Shelby Weiss, Erin Hoy, Aaron Murphy
Ongoing	IP Number	sUAS to monitor and survey regeneration and recruitment in areas of forest canopy loss	2025UASFR0	See Below	Multiple	Modified Target	Date Completed	Comments	astrassman@usgs.gov		Multiple
Ongoing			2025UASFR1	Processing of FY2024 (NOW FY2026) field imagery	31-Dec-2024	31-Dec-2026		Initial processing underway with ingestion of UAS imagery into ArcPro confirmed. Awaiting delivery of additional imagery from USACE.	astrassman@usgs.gov	Andrew Strassman and Lyle Guyon	Andrew Meier, Tate Sattler, Marcella Windmuller-Campione, Shelby Weiss, Erin Hoy, Aaron Murphy
Ongoing			2025UASFR2	Creation of “desktop” plot data for FY2024 (NOW FY2026) collected imagery	30-Mar-2025	31-Mar-2027		Awaiting final summer 2026 field data before creating desktop plots	astrassman@usgs.gov	Andrew Strassman and Lyle Guyon	Andrew Meier, Tate Sattler, Marcella Windmuller-Campione, Shelby Weiss, Erin Hoy, Aaron Murphy
Ongoing			2025UASFR3	Collection of remaining ⅔ of field imagery	30-Sep-2025	30-Sep-2027		Date cascade from project delay. The team will review against existing data pool this fall and winter and determine needs for additional imagery collection.	astrassman@usgs.gov	Andrew Strassman and Lyle Guyon	Andrew Meier, Tate Sattler, Marcella Windmuller-Campione, Shelby Weiss, Erin Hoy, Aaron Murphy
Ongoing			2025UASFR4	Collection of field plots data	30-Sep-2025	31-Oct-2026		FY2026 field ground data collection is complete and being ingested. The team will review against existing data pool this fall and winter and determine needs for additional field data collection.	astrassman@usgs.gov	Andrew Strassman and Lyle Guyon	Andrew Meier, Tate Sattler, Marcella Windmuller-Campione, Shelby Weiss, Erin Hoy, Aaron Murphy
Ongoing	IP Number	sUAS to monitor and survey regeneration and recruitment in areas of forest canopy loss	2026UASFR0	See Below	Multiple	Modified Target	Date Completed	Comments	astrassman@usgs.gov	astrassman@usgs.gov	Multiple
New			2026UASFR1	Processing of FY2025 (NOW FY2027) field imagery	31-Dec-2025	31-Dec-2026		Date cascade from project delay.	astrassman@usgs.gov	Andrew Strassman and Lyle Guyon	Andrew Meier, Tate Sattler, Marcella Windmuller-Campione, Shelby Weiss, Erin Hoy, Aaron Murphy
New			2026UASFR2	Creation of “desktop” plot data for FY2025 (NOW FY2027) collected imagery	30-Mar-2026	31-Mar-2027		Date cascade from project delay.	astrassman@usgs.gov	Andrew Strassman and Lyle Guyon	Andrew Meier, Tate Sattler, Marcella Windmuller-Campione, Shelby Weiss, Erin Hoy, Aaron Murphy

New			2026UASFR3	Analysis of data	31-Jul-2026	31-Jul-2027		Date cascade from project delay.	astrassman@usgs.gov	Andrew Strassman and Lyle Guyon	Andrew Meier, Tate Sattler, Marcella Windmuller-Campione, Shelby Weiss, Erin Hoy, Aaron Murphy
New			2026UASFR4	Drafting of final report and submission to UMRR LTRM Science Director, Jeff Houser, for review	30-Sep-2026	30-Sep-2027		Date cascade from project delay.	astrassman@usgs.gov	Andrew Strassman and Lyle Guyon	Andrew Meier, Tate Sattler, Marcella Windmuller-Campione, Shelby Weiss, Erin Hoy, Aaron Murphy
New			2026UASFR5	Creation of USGS data release products and entry into USGS FSP/IPDS	30-Sep-2026	30-Sep-2027		Date cascade from project delay.	astrassman@usgs.gov	Andrew Strassman and Lyle Guyon	Andrew Meier, Tate Sattler, Marcella Windmuller-Campione, Shelby Weiss, Erin Hoy, Aaron Murphy
New	IP Number	sUAS to monitor and survey regeneration and recruitment in areas of forest canopy loss	2027UASFR0	See Below	Multiple	Modified Target	Date Completed	Comments	astrassman@usgs.gov		Multiple
New			2027UASFR1	Completion of USGS FSP/IPDS process and final public dissemination	30-Dec-2026	31-Dec-2027		Date cascade from project delay.	astrassman@usgs.gov	Andrew Strassman and Lyle Guyon	Andrew Meier, Tate Sattler, Marcella Windmuller-Campione, Shelby Weiss, Erin Hoy, Aaron Murphy
New			2027UASFR2	Presentation of final results at river-focused conference	30-Sep-2027	30-Sep-2028		Date cascade from project delay.	astrassman@usgs.gov	Andrew Strassman and Lyle Guyon	Andrew Meier, Tate Sattler, Marcella Windmuller-Campione, Shelby Weiss, Erin Hoy, Aaron Murphy
Ongoing	IP Number	Understanding the role of surface-subsurface hydrology and soil characteristics on floodplain vegetation in the Upper Mississippi River System through space and time		See Below	Multiple	Modified Target	Date Completed	Comments	mvanappledorn@usgs.gov		Multiple
completed				Hydrologic model mesh generation	31-Mar-2025	30-Sep-2026	30-Sep-26		mvanappledorn@usgs.gov		
Completed				Terrestrial vegetation sampling and soil collection, year 1: Blackhawk Island MVR	30-Sep-2025	30-Sep-2026	30-Sep-26		mvanappledorn@usgs.gov		
Completed				Terrestrial vegetation sampling and soil collection, year 1: Reds Landing MVS	30-Sep-2025	30-Sep-2026	30-Sep-26		mvanappledorn@usgs.gov		
completed				Terrestrial vegetation sampling and soil collection, year 2: Reno Bottoms MVP	30-Sep-2026		30-Sep-26		mvanappledorn@usgs.gov		
Completed				Terrestrial vegetation sampling and soil collection, year 2: Blackhawk Island MVR	30-Sep-2026		30-Sep-26		mvanappledorn@usgs.gov		
Completed				Terrestrial vegetation sampling and soil collection, year 2: Reds Landing MVS	30-Sep-2026		30-Sep-26		mvanappledorn@usgs.gov		
Ongoing				Hydrologic model validation: Reno Bottoms MVP	31-Oct-2026			Underway with year 1 WSE data	mvanappledorn@usgs.gov		
New				Hydrologic model validation: Blackhawk Island MVR	30-Sep-2027			Need WSE data being collected in 2026 field season	mvanappledorn@usgs.gov		
New				Hydrologic model validation: Reds Landing MVS	30-Sep-2027			Need WSE data being collected in 2026 field season	mvanappledorn@usgs.gov		
New				Stakeholder meeting	30-Sep-2027				mvanappledorn@usgs.gov		
New				Evaluation of UMRS FIM performance	30-Sep-2027				mvanappledorn@usgs.gov		
New				Draft data product	31-Dec-2028				mvanappledorn@usgs.gov		
New				Draft hydrologic model manuscript	31-Dec-2027				mvanappledorn@usgs.gov		
New				Draft veg-soil-hydro manuscript	31-Dec-2028				mvanappledorn@usgs.gov		
New				Draft UMRS FIM manuscript	31-Dec-2028				mvanappledorn@usgs.gov		
New				Final data product	31-Dec-2029				mvanappledorn@usgs.gov		
New				Final hydrologic model manuscript	31-Dec-2028				mvanappledorn@usgs.gov		
New				Final veg-soil-hydro manuscript	31-Dec-2029				mvanappledorn@usgs.gov		
New				Final UMRS FIM manuscript	31-Dec-2029				mvanappledorn@usgs.gov		
Ongoing		Topobathy Pilot Study: Exploring new technology and methods for updating UMRR Topobathy		See Below	Multiple	Modified Target	Date Completed	Comments	jhanson@usgs.gov		Multiple

Upper Mississippi River Restoration Program Quarterly Meetings

Attachment C

Abstract for Ecosystem Objectives Project

Page Number	Document Title
C-1	A Community-Driven Definition of Ecosystem Health for the Mississippi River Abstract

A Community-Driven Definition of Ecosystem Health for the Mississippi River: Building a framework for dialogue around Mississippi River management

Abstract

Habitat degradation on the Upper Mississippi River outpaces habitat rehabilitation, leading to an overall net loss of habitat, despite best efforts ([USACE. 2016. Upper Mississippi River Restoration: 2016 Report to Congress](#)). This imbalance stems from the narrow site-specific focus of the original 1970s UMRR planning. While the UMRR program has been highly successful within its scope, habitat on the Mississippi River is degrading. This fact brings to focus the need to look beyond project footprints and consider ecosystem needs at a larger scale. However, large-scale reach or system goals have never been established. While scientists and land managers have set specific goals within their scopes of work, they do not represent an overarching desired state of the ecosystem. When UMRR was established in the 1980s (and NESP in the 1990s), the general public was very engaged in the establishment of these programs. But public advocacy around the River's ecosystem has waned in recent decades as public sentiment shifted focus towards global issues, like biodiversity loss and climate change. Enhancing dialogue between river managers and scientists and the interested public can have many benefits, including greater resources for projects and new complimentary programs. One Mississippi is working to increase public participation in Mississippi River Management by creating an operational communications process that (1) informs river managers of public values and expectations, and (2) establishes a communications roadmap to increase understanding of the health of the Mississippi River ecosystem. Through literature reviews, workshops, and public value surveys, One Mississippi will identify a minimal set of scientifically justified ecosystem health indicators and their desired states as envisioned by the interested public to help managers communicate resource needs and drive public action.

Upper Mississippi River Restoration Program Quarterly Meetings

Attachment D

Additional Items

Page Number	Document Title
D-1	Future Meeting Schedule
D-2 to D-8	Frequently Used Acronyms (4-29-2022)
D-9 to D-13	UMRR Authorization and Operating Approach (12-23-2024)

Upper Mississippi River Quarterly Meetings

Future Meeting Schedule

February 2027 — Virtual

February 16	UMRBA Quarterly Meeting
February 17	UMRR Coordinating Committee Quarterly Meeting
February 17	NESP Coordinating Committee Quarterly Meeting

May 2027 — Minneapolis-St. Paul Metro

May 18	UMRBA Quarterly Meeting
May 19	UMRR Coordinating Committee Quarterly Meeting
May 19	NESP Coordinating Committee Quarterly Meeting

August 2027 — St. Louis, MO

August 10	UMRBA Quarterly Meeting
August 11	UMRR Coordinating Committee Quarterly Meeting
August 11	NESP 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), Section 8345 of the Water Resources Development Act of 2022 (P.L. 117-263), and Section 1354 of the Water Resources Development Act of 2024 (P.L. 118-272).

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 \$25,000,000 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.