

**Minutes of the 169th Quarterly Meeting
of the
Upper Mississippi River Basin Association**

**February 27, 2024
Virtual**

Rick Pohlman called the meeting to order at 9:05 a.m. Participants were as follows:

UMRBA Representatives and Alternates:

Rick Pohlman	Illinois Department of Natural Resources
Loren Wobig	Illinois Department of Natural Resources
Chad Craycraft	Illinois Department of Natural Resources
Tim Hall	Iowa Department of Natural Resources
Jake Hansen	Iowa Department of Agriculture and Land Stewardship
Grant Wilson	Minnesota Department of Natural Resources
Patrick Phenow	Minnesota Department of Transportation (Virtual)
Chris Wieberg	Missouri Department of Natural Resources
Chris Klenklen	Missouri Department of Agriculture
Matt Vitello	Missouri Department of Conservation
Wade Strickland	Wisconsin Department of Natural Resources

Federal UMRBA Liaisons:

Thatch Shepard	U.S. Army Corps of Engineers, MVD (on behalf of Brain Chewning)
Mark Gaikowski	U.S. Geological Survey, Midcontinent Region (Virtual)
Sabrina Chandler	U.S. Fish and Wildlife Service
Richard Vaughn	U.S. Department of Agriculture, Natural Resources Conversation Service

Others in Attendance:

Kirk Hansen	Iowa Department of Natural Resources
John Seitz	Illinois Department of Natural Resources
Brian McCoy	Illinois Department of Transportation
Amy Kendig	Minnesota Department of Natural Resources
Grace Loppnow	Minnesota Department of Natural Resources
Kelly Pennington	Minnesota Department of Natural Resources
Vanessa Perry	Minnesota Department of Natural Resources
Ken Henderson	Missouri Department of Agriculture
John Frederick	Missouri Department of Natural Resources
Brenda Kelly	Wisconsin Department of Natural Resources (Virtual)
Sammi Boyd	Wisconsin Department of Natural Resources (Virtual)
Mike Halsted	Wisconsin Department of Transportation, Harbors, and Waterways (Virtual)
Thatch Shepard	U.S. Army Corps of Engineers, Mississippi Valley Division
Jim Cole	U.S. Army Corps of Engineers, Mississippi Valley Division
LeeAnn Riggs	U.S. Army Corps of Engineers, Mississippi Valley Division

Samantha Thompson	U.S. Army Corps of Engineers, Mississippi Valley Division
Trevor Cyphers	U.S. Army Corps of Engineers, St. Paul District
Angela Deen	U.S. Army Corps of Engineers, St. Paul District
David Potter	U.S. Army Corps of Engineers, St. Paul District
Nathan Wallerstedt	U.S. Army Corps of Engineers, St. Paul District
Kyle Bales	U.S. Army Corps of Engineers, Rock Island District
Rachel Hawes	U.S. Army Corps of Engineers, Rock Island District
Andrew Goodall	U.S. Army Corps of Engineers, Rock Island District
Marshall Plumley	U.S. Army Corps of Engineers, Rock Island District
Davi Michl	U.S. Army Corps of Engineers, Rock Island District
Greg Kohler	U.S. Army Corps of Engineers, St. Louis District
Joan Stemler	U.S. Army Corps of Engineers, St. Louis District
Brian Markert	U.S. Army Corps of Engineers, St. Louis District
Jake Greif	U.S. Environmental Protection Agency, Office of Water
Whitney King	U.S. Environmental Protection Agency, Office of Water
Amy Shields	U.S. Environmental Protection Agency, Region 7
Dane Boring	U.S. Environmental Protection Agency, Region 7
Anthony Civiello	U.S. Environmental Protection Agency, Region 7
David Pratt	U.S. Environmental Protection Agency, Region 7
John Winter	U.S. Fish and Wildlife Service, UMR Refuges
Steve Winter	U.S. Fish and Wildlife Service, UMR Refuges
Matt Mangan	U.S. Fish and Wildlife Service, UMR Refuges
Kraig McPeck	U.S. Fish and Wildlife Service, Illinois-Iowa Field Office
Heidi Keuler	U.S. Fish and Wildlife Service, Illinois-Iowa Field Office
Lauren Larson	U.S. Fish and Wildlife Service, Illinois-Iowa Field Office
Sara Schmuecker	U.S. Fish and Wildlife Service, Illinois-Iowa Field Office
David Dupre	U.S. Geological Survey, Central Midwest Water Science Center
Christopher Churchill	U.S. Geological Survey, Upper Midwest Environmental Sciences Center
Jim Fischer	U.S. Geological Survey, Upper Midwest Environmental Sciences Center
Mike Welvaert	National Oceanic and Atmospheric Administration, NWS
Madeleine Castle	Senator Josh Hawley Office (Missouri)
John Flesher	Associated Press
Lindsay Brice	Audubon
Anshu Singh	Corn Belt Ports
Gary Loss	HNTB
Jill Crafton	Izaak Walton League
Madeline Heim	Mississippi River Ag and Water Desk/Milwaukee Journal Sentinel
Thomas Shepherd	National Waterways Conference
Kim Schneider	<i>Our Mississippi</i>
Doug Blodgett	The Nature Conservancy
Bryan Hopkins	The Nature Conservancy
Randy Smith	The Nature Conservancy
Cheyenne Young	The Nature Conservancy
Jen Armstrong	Waterways Council, Inc.
Paul Rohde	Waterways Council, Inc.
Kirsten Wallace	Upper Mississippi River Basin Association
Brian Stenquist	Upper Mississippi River Basin Association
Mark Ellis	Upper Mississippi River Basin Association

Sam Hund	Upper Mississippi River Basin Association
Natalie Lenzen	Upper Mississippi River Basin Association
Ken Peterson	Upper Mississippi River Basin Association
Lauren Salvato	Upper Mississippi River Basin Association
Andrew Stephenson	Upper Mississippi River Basin Association

Minutes

Chris Wieberg moved and Grant Wilson seconded a motion to approve the draft minutes of the October 24, 2023 UMRBA quarterly meeting as provided in the agenda packet. The motion was approved unanimously.

Executive Director's Report

Kirsten Wallace pointed to the Executive Director's report in the agenda packet for a summary of the Association's work efforts since the October 2023 meeting. Wallace elaborated on the following key events and UMRBA products:

- UMRBA has invested considerable staff resources advocating for UMRBA's priorities in the forthcoming Water Resources Development Act as well as the 2024 and 2025 federal appropriations measures.
- The National Waterways Foundation and Waterways Council released renewed economic profiles of the inland waterways for states that border the rivers. The reports are accessible here: <https://nationalwaterwaysfoundation.org/foundation-studies/economic-impact-by-state>.
- On January 9, 2024, UMRBA published the report titled, *How Clean is the River?* The report finds that water quality between 1989 and 2018 has generally improved, while there are pollutants of concern that have varying trends. The results support UMRBA's current focus on nutrients, chloride, and emerging contaminants as well as unified, Clean Water Act-focused monitoring on the river. the report is available here: <https://umrba.org/howcleanriver>
- UMRBA is partnering with the University of Minnesota Institute on the Environment (IonE) and the National Weather Service as they combine several existing models into downscale hydroclimatic predictions for the Upper Mississippi River basin. As a partner to them, UMRBA convened three facilitated meetings during November 2023 and December 2023 to increase the usability of the hydroclimatic forecasts and identify effective product delivery mechanisms to facilitate usability of hydroclimatic forecasts.

UMRBA Personnel Manual

Wallace reported that the UMRBA Board has established a renewed organizational structure and compensation system for the Association. On behalf of the Association's staff, Wallace expressed gratitude to the Board for better positioning the Association to maintain our strong team of staff and to grow our team. On February 22, 2024, Wallace submitted to the Board a revised draft Personnel Manual capturing the renewed compensation rates as well as the Board's new established processes for annual reviews and adjustments. In response, Wade Strickland moved and Chris Weiberg seconded a motion to amend UMRBA's Personnel Manual in accordance with the annotated version provided to the Board on February 22, 2024 by Wallace. The motion was approved unanimously.

UMRBA Administrative Protocols

Wallace explained that UMRBA has long held informal protocols for accounting of the Association's i) equipment and ii) grants, cooperative agreements and contracts. In the recent process of finalizing a cooperative agreement, USEPA requested formal documentation of the Board's approval of these protocols. In response to Wallace's request, Tim Hall moved and Grant Wilson seconded a motion to accept the proposed administrative protocols related to equipment and grants, cooperative agreements, and contracts as provided to the Board on February 22, 2024 by Kirsten Wallace. The motion was approved unanimously.

UMRBA Financial Report

Wallace pointed to UMRBA's October 2023 through December 2023 financial statements provided on pages B-9 to B-17 of the agenda packet. Chris Wieberg moved and Wade Strickland seconded the motion to accept the Association's budget report and balance sheet as included in the agenda packet. The motion was approved unanimously.

UMRBA Board Chair Rotation

Kirsten Wallace thanked Rick Pohlman for his service as Board Chair over the past year. Chris Wieberg moved and Tim Hall seconded a motion to nominate Grant Wilson to serve as UMRBA Chair, Wade Strickland to serve as UMRBA Vice Chair, and Jason Tidemann to serve as UMRBA Treasurer. The motion for all three nominations carried unanimously by voice vote.

Interbasin Diversion Consultation

Kirsten Wallace explained that the Governors' 1989 Upper Mississippi River Basin Charter sets forth a notification and consultation process for any new or increased water diversion out of the basin that would exceed an average of 5 million gallons per day during any 30-day period. At their February annual meetings, UMRBA members are to report on any qualifying diversion requests. The UMRBA member states reported as follows:

Illinois	—	Rick Pohlman	—	no diversions to report
Iowa	—	Tim Hall	—	no diversions to report
Minnesota	—	Grant Wilson	—	no diversions to report
Missouri	—	Chris Weiberg	—	no diversions to report
Wisconsin	—	Wade Strickland	—	no diversions to report

Pohlman directed Kirsten Wallace to send letters to the Governors reporting the results of the annual diversion consultation.

Upper Mississippi River Basin Hydrologic Outlook

Mike Welvaert provided an outlook for the potential of spring flooding or drought in the Upper Mississippi River and in the watershed in spring 2024. Welvaert announced that NWS North Central River Forecast Center published the spring outlook in a storymap, linked here: <https://storymaps.arcgis.com/stories/746318e235604583934a78c639e19946>. Welvaert highlighted key messages from the outlook.

Navigation Water Level Forecasting in the St. Louis District

Joan Stemler presented an overview of low water conditions and operations in the St. Louis District. In summer 2024, the Mississippi River surpassed 10 daily low water level records at the St. Louis gage and 20 daily low water level records (occurring consecutively) in September. Stemler reported on the St. Louis District's low water operations, particularly in the including related to the approved deviation to hold the Mel Price pool to 0.5 feet above the maximum regulated pool. The extra water storage can be used to provide a pulse of water to free grounded tows, if necessary. The Corps will incorporate these low-water operations into the District's Water Control Manual. Stemler discussed planned actions should low water conditions continue.

Inland Waterway Trust Fund

Jen Armstrong provided an overview of the status and projections of the Inland Waterways Trust Fund (IWTF), which provides a 35 percent cost-share match to the new construction and major rehabilitation of inland waterways projects. Between FY 2014 to 2023, seven lock replacement projects were funding through regular appropriations; 90 percent of the appropriated funding were consumed by four projects, three of which are ongoing today. The Infrastructure Investment and Jobs Act (IIJA) started two new inland waterways construction projects, including L&D 25.

The cumulative authorized costs of the ongoing projects and cost overruns of several projects that were intended to be fully funded in the IIJA is \$3.13 billion. However, cost overruns for several reasons has increased the estimated costs for the projects to \$7.84 billion. Accounting for funds received, the remaining costs to complete the ongoing projects is \$2.61 billion. Armstrong noted that these costs are anticipated to continue to increase. As an example, the current estimated cost of L&D 25 is listed as \$1.5 billion, however that cost will need to be adjusted upward given the Administration's decision not to allow for early contractor involvement and continuing contracts.

Armstrong explained that the \$2.61 billion balance exceeds the capacity of the IWTF's reserves. If the Corps received \$290 million annually for inland navigation construction projects, it would take 9 years to fund the known remaining costs for all ongoing construction projects. Incremental funding and long project implementation timelines increase overall project cost and delays the benefits of the project.

Armstrong put forward that there is no capability for NESP lock modernization projects in FY 2025 that can be supported with what is available in the IWTF given the other inland navigation construction needs. No new starts can be accommodated until some of the ongoing projects are completed. The impact of starting new projects is that the costs for all inland navigation projects be on the order of magnitude of new construction project at Olmstead L&D, which cost over \$3 billion.

Armstrong explained the Waterways Council's request to Congress that the construction cost share for inland waterways projects funded by the IIJA to remain fully federally funded. Waterways Council remains

committed to defending against adverse initiatives, such as user fees or taxes, to resolve the discrepancy between revenues to the IWTF and the cost-share expense demands.

In follow up to a question from Brian Stenquist, Armstrong explained that Corps Headquarters is renewing the inland navigation capital investment strategy. The strategy shall provide a near-term and 10-year implementation schedule with anticipated costs in each year.

Upper Mississippi River Restoration Program

Marshall Plumley said UMRR has received \$55 million in FY 2023 for the first time and anticipates receiving that same appropriation in FY 2024. The program has the potential to expand further following Congress's action in WRDA 2022 that increased its annual authorized appropriation to \$90 million – i.e., \$75 million for HREPs and \$15 million for LTRM. Plumley applauded the partnership for this recognition by Congress.

Plumley reported on several ongoing efforts, including strategic planning, LTRM implementation planning, planning for a UMRR workshop, HREP selection, and topobathy acquisition. Plumley reviewed the ongoing implementation of HREPs in each of the three UMR Corps Districts. Plumley elaborated on the topobathy acquisition; the vision is for a systemic acquisition of critical elevation datasets to allow partners and resource managers to better study the priority science, restoration, and management needs of the UMRS.

Navigation and Ecosystem Sustainability Program

Andrew Goodall provided an update on the progress of NESP in advancing programmatic activities, hosting groundbreaking, and advancing the navigation and ecosystem projects. NESP currently has 18 ongoing projects; 18 projects are ecosystem-related investments and 13 are navigation-related investments. Highlights are as follows:

- *L&D 22 fish passage*: Design for the entire project is scheduled to be completed in April 2024. A construction award is planned to occur before September 2024. Pre-construction monitoring continues that will inform adaptive management goals.
- *L&D 25 1,200-foot chamber*: Design work for L&D 25 is anticipated to be complete in June 2026. Following the decision not to allow for early contractor involvement/continuing contractors, the Corps has recently segmented the design into smaller packages for bulkheads and other advance items. Phase 1 construction contract is scheduled to be completed in 2024. The bulkhead fabrication contract was awarded just yesterday – i.e., February 26, 2024. Goodall confirmed that the certified total project cost for L&D 25 will be released soon.
- *La Grange L&D 1,200-foot chamber*: The design of the addition of a 1,200-foot lock chamber at La Grange L&D is anticipated to be completed in FY 2026. The Corps is scheduled to complete the 35 percent design phase in the 2024 calendar year.

In response to a question from Rick Pohlman, Goodall confirmed that the Corps is prepared with smaller construction packages for the La Grange L&D project for when there are funding opportunities.

Minnesota Invasive Carp Management

Kelly Pennington explained that the migration of invasive carp upstream on the Mississippi River into Minnesota waters is facilitated by high water events, particularly in 2019 and 2023. Data collected from captured invasive carp suggest that the invasive carp were produced downstream. More than 40 tagged fish were tracked moving into Minnesota past open dams during 2023 flooding. Pennington pointed out that, which lock deterrents can help reduce invasive species passage through the lock, invasive carp can still migrate through the lock spillways when the gates are open (and the gates are opened during flooding).

Minnesota DNR has been actively managing invasive carp since the early 2000s through a variety of means. Pennington announced that, in addition to various state and federal funding sources, the Minnesota Lessard-Sams Outdoor Heritage Council allocated \$12 million to a carp barrier on the Mississippi River at L&D 5.

In 2024, Minnesota DNR updated its invasive carp management action plan in light of increased captures of invasive carp (associated with high water events) and new technologies, methods, and knowledge. The Minnesota DNR employed a structured decision making process that was facilitated by USGS and involved technical experts and stakeholders from more than 12 organizations. Minnesota DNR concluded that no one action is sufficient to prevent and manage invasive carp. Pennington described the 2024 action plan's five key elements and the associated actions. The key elements are monitoring to support response actions, prevention and deterrence, response preparation, management and control, and communication, outreach, and coordination.

Rick Pohlman and Wade Strickland expressed appreciation for the briefing and acknowledged similar challenges within their respective states. In response to a question from Strickland about selective deterrents, Grace Loppnow explained that preliminary data indicate that electric barriers have a 90 percent efficacy of deterring invasive carp (without impacting native fish species) and acoustic barriers have a 50 percent efficacy.

In response to a question from Brian Stenquist, Pennington and Loppnow said other invasive species that might warrant interstate, federal-state collaboration are northern snakehead and Prussian carp. In response to a question from Mark Ellis, Loppnow stated that Minnesota DNR is collaborating with USGS to develop a FluEgg model for each Mississippi River pool located in Minnesota. The models should be available by the end of calendar year 2024. In response to a question from Loren Wobig, Loppnow said the University of Minnesota – Duluth is researching the efficacy of carbon dioxide as a deterrent to invasive carp migration. It is not as selective to invasive carp but is still being considered as a deterrent tool.

In response to a question from Jill Crafton, Loppnow explained that Minnesota DNR is focusing this year on modeling potential reproduction areas as a means for informing work decisions (e.g., disrupting spawning), collecting monitoring data, and evaluating the efficacy of deterrent options that are selective to native fish or that optimize flow through spillway gates. Pennington added that Minnesota DNR is coordinating with the Corp for design and engineering expertise on a potential deterrent at L&D 5.

Minnesota Wetlands Status and Trends

Amy Kendig provided contextual information of Minnesota's wetlands loss from 1800 to 1984 (about 50 percent statewide and 18 percent occurring in the Prairie Pothole Region) and wetlands protection regulations in Minnesota. The Minnesota Wetland Conservation Act of 1981 created a "no-net loss"

policy for wetlands. Kendig explained that the quantity and extent of wetlands challenging to assess and track for multiple reasons.

Minnesota DNR created a wetlands status and trends monitoring program that was modeled from USFWS's wetlands monitoring. Since 2006, Minnesota has been monitoring 1,200 – 3,750 one-square mile plots every three years. This sample is extrapolated to estimate statewide status and trends.

Minnesota DNR's monitoring data suggests that the drivers for change in wetlands quantity and extent are occurring because of restoration, filling or drainage, excavation or inundation, beaver activities, landslides, and stream accretion or movement. Indirect factors include subsurface tile drainage (without visual evidence), long term climate change, and lowered ground table levels.

The recent monitoring observed a net gain of 43,389 acres of wetland area between 2006 and 2020. Kendig provided more detail information about the gains and losses per wetland type and sources of the gains or losses. The gains in wetlands area has significantly increased during the latest monitoring cycle- i.e., approximately 25,900 acres from 2015 to 2020.

Kendig concluded that, over a 15-year period, Minnesota gained more wetlands than it lost and wetland losses have generally declined over time. Direct gains increased with more antecedent precipitation. Minnesota DNR is interested in explore the reason for that. Does more precipitation initiate wetland creation or restoration? Does more precipitation make wetland creation or restoration more obvious? Or is there a another or different reason?

Gulf Hypoxia Program

Hypoxia Task Force 2023 Report to Congress

Jake Greif provided an overview of the Mississippi River/Gulf of Mexico Hypoxia Task Force, including its origins, scope, action plans, and goals.

Graif reported that, on November 30, 2023, USEPA transmitted to Congress the most recent report on the River/Gulf of Mexico Hypoxia Task Force. The report is available at the following web link:
https://www.epa.gov/system/files/documents/2023-11/10305_2023-htf-report-to-congress_508.pdf.

Graif welcomed partners to explore the USEPA's web page for the Task Force (<https://www.epa.gov/ms-htf>). Monthly newsletters for the Task Force are available at <https://www.epa.gov/ms-htf/hypoxia-task-force-newsletters>. The web page includes a link to sign up for receiving the newsletters to individual emails.

UMR Sub-Basin Committee Work Plan

Lauren Salvato reported that USEPA approved UMRBA's work plan for supporting the Hypoxia Task Force Upper Mississippi River Sub-Basin Committee, including the following tasks:

- Create an integrated Upper Mississippi River Nutrient Reduction Strategy, compiling separate state nutrient reduction strategies and identifying important interstate actions.

- Develop an Upper Mississippi River Basin Nutrient Reduction Adaptive Management Framework, evaluating implementation of important interstate actions to reduce nutrient pollution in the Upper Mississippi River and incorporating insights into ongoing implementation efforts.
- Create an Upper Mississippi River Interstate Communications Strategy, communicating with stakeholders and other actors in the basin about important interstate actions and to gain their commitment to ongoing implementation efforts.
- Maintain and enhance interstate collaboration by supporting the HTF Sub-Basin Committee, including its various work teams.
- Integrate important interstate actions for reducing nutrient pollution in the Upper Mississippi River with other important interstate actions such as flood mitigation and resilience planning.

Other Business

Future Meeting Schedule

May 2024 in Davenport, Iowa

- UMRBA Quarterly Meeting – May 21
- UMRB Coordinating Committee quarterly meeting – May 22

August 2024 in St. Paul, Minnesota

- UMRBA Quarterly Meeting – August 6
- UMRB Coordinating Committee quarterly meeting – August 7

November 2024 in St. Louis, Missouri

- UMRBA Quarterly Meeting – November 19
- UMRB Coordinating Committee quarterly meeting – November 20

With no further business, the meeting adjourned at 2:25 p.m.