



Upper Mississippi River Basin Association

173rd Quarterly Meeting

February 25, 2025

Virtual

Agenda with
Background and Supporting Materials

Agenda
February 25, 2025

Time	Topic	Page	Presenter
9:00 a.m.	Call to Order and Introductions		Grant Wilson, Minnesota DNR <i>UMRBA Board Chair</i>
9:15	Approval of Minutes of November 19, 2024 Meeting	A1-10	
9:20	Executive Director's Report	B1-19	Kirsten Wallace, UMRBA
9:30	Interbasin Diversion Consultation — Annual Reporting	C1-4	UMRBA Board Members
10:00	Data Centers in Upper Mississippi River Basin — Emerging Data Centers in Upper Mississippi River Basin — State Reports on Activities	D1-14	Jessica Lienhardt, Council of State Governments – Midwest Chapter UMRBA Board Members
10:30	National Water Availability Assessment — Insights Relevant to Upper Mississippi River Basin — Potential for Incorporating Data Centers	E	Jaime Painter, USGS
10:50	Administrative Issues — Election of Officers — Future Meeting Schedule	F1-8	Grant Wilson, Minnesota DNR
11:00 a.m.	Adjourn		

Upper Mississippi River Quarterly Meetings

Attachment A

UMRBA Quarterly Meeting Minutes

Page Number	Document Title
A-1 to A-10	Draft Minutes of the November 19, 2024 UMRBA Quarterly Meeting

**Draft
Minutes of the 172nd Quarterly Meeting
of the
Upper Mississippi River Basin Association**

**November 19, 2024
Edina, Minnesota**

Grant Wilson called the meeting to order at 11:00 a.m. Participants were as follows:

UMRBA Representatives, Alternates, and State Members of the Water Quality Executive Committee:

Rick Pohlman	Illinois Department of Natural Resources
Loren Wobig	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
Glenn Skuta	Minnesota Pollution Control Agency
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
Adrian Stocks	Wisconsin Department of Natural Resources

Federal UMRBA Liaisons:

Brian Chewning	U.S. Army Corps of Engineers, Mississippi Valley Division
JC Nelson	U.S. Geological Survey, Midcontinent Region
Sabrina Chandler	U.S. Fish and Wildlife Service

Others in Attendance:

Dave Glover	Illinois Department of Natural Resources
Matt O'Hara	Illinois Department of Natural Resources
John Seitz	Illinois Department of Natural Resources
Liz Scherber	Minnesota Department of Natural Resources
Nicole Ward	Minnesota Department of Natural Resources
Charmayne Anderson	Minnesota Department of Natural Resources
Samantha Clary	Missouri Department of Conservation
Erin Fanning	Missouri Department of Natural Resources
Stacey Fowler	Missouri Department of Transportation
Vanessa Perry	Wisconsin Department of Natural Resources
Sammi Boyd	Wisconsin Department of Natural Resources
Patrick Kelly	Wisconsin Department of Natural Resources
Chuck Camillo	U.S. Army Corps of Engineers, Mississippi Valley Division
Kelly Keefe	U.S. Army Corps of Engineers, Mississippi Valley Division

LeeAnn Riggs	U.S. Army Corps of Engineers, Mississippi Valley Division
Jim Cole	U.S. Army Corps of Engineers, Mississippi Valley Division
Thatch Shepard	U.S. Army Corps of Engineers, Mississippi Valley Division
Angela Deen	U.S. Army Corps of Engineers, St. Paul District
Nathan Wallerstedt	U.S. Army Corps of Engineers, St. Paul District
John Henderson	U.S. Army Corps of Engineers, St. Paul District
Andrew Goodall	U.S. Army Corps of Engineers, Rock Island District
Scott Whitney	U.S. Army Corps of Engineers, Rock Island District
Leo Keller	U.S. Army Corps of Engineers, Rock Island District
Daniel Smith	U.S. Army Corps of Engineers, St. Paul District, Rock Island District
Lou Dell'Orco	U.S. Army Corps of Engineers, St. Louis District
Greg Kohler	U.S. Army Corps of Engineers, St. Louis District
Brian Markert	U.S. Army Corps of Engineers, St. Louis District
Shawn Sullivan	U.S. Army Corps of Engineers, St. Louis District
Colleen Roberts	U.S. Army Corps of Engineers, Kansas City District
Amy Shields	U.S. Environmental Protection Agency, Region 7
Jared Schmalstieg	U.S. Environmental Protection Agency, Region 7
Matt Mangan	U.S. Fish and Wildlife Service, UMR Refuges
Kraig McPeck	U.S. Fish and Wildlife Service, Illinois-Iowa Field Office
Sara Schmuecker	U.S. Fish and Wildlife Service, Illinois-Iowa Field Office
Lauren Larson	U.S. Fish and Wildlife Service, Illinois-Iowa Field Office
Lori Sprague	U.S. Geological Survey, Water Resources Mission Area
Jon Amberg	U.S. Geological Survey, Upper Midwest Environmental Sciences Center
Jeff Houser	U.S. Geological Survey, Upper Midwest Environmental Sciences Center
Jim Fischer	U.S. Geological Survey, Upper Midwest Environmental Sciences Center
Jennifer Dieck	U.S. Geological Survey, Upper Midwest Environmental Sciences Center
David Dupre	U.S. Geological Survey, Central Midwest Water Science Center
Michael Sertle	American Rivers
Kim Lutz	America's Watershed Initiative
Sierra Schuchard	America's Watershed Initiative
Brent Newman	Audubon
Alicia Vasto	Audubon
Anshu Singh	Corn Belt Ports
Shane Kinne	Coalition to Protect the Missouri River
John O'Donnell	Heartlands Conservancy
Alexander Keilty	Lake Pepin Legacy
Gretchen Sabel	League of Women Voters, Upper Mississippi River (Virtual)
Madeline Heim	Mississippi River Ag and Water Desk
Nancy Guyton	Neighbors of the Mississippi
Christine Favilla	Sierra Club
Bryan Hopkins	The Nature Conservancy
Sarah Gatzke	The Nature Conservancy
Rob Hunt	The Nature Conservancy
Doug Daigle	[No affiliation]
Edward LaBelle	[No affiliation]
Deborah Neustadt	[No affiliation]
Libby Reuter	[No affiliation]
Gary Williams	[No affiliation]

Kirsten Wallace	Upper Mississippi River Basin Association
Brian Stenquist	Upper Mississippi River Basin Association
Mark Ellis	Upper Mississippi River Basin Association
Henry Hansen	Upper Mississippi River Basin Association
Natalie Lenzen	Upper Mississippi River Basin Association
Sadie Neuman	Upper Mississippi River Basin Association
Ken Peterson	Upper Mississippi River Basin Association
Lauren Salvato	Upper Mississippi River Basin Association
Laura Talbert	Upper Mississippi River Basin Association
Josh Wolf	Upper Mississippi River Basin Association

Minutes

Chris Wieberg moved and Tim Hall seconded a motion to approve the draft minutes of the August 6, 2024 UMRBA quarterly meeting as provided in the agenda packet. The motion was approved unanimously.

Board Member Recognition

In announcing their upcoming retirements, Grant Wilson recognized the substantial contributions of Tim Hall and Loren Wobig to the strategic direction, growth, and maturity during their long tenure as Board Members of the Upper Mississippi River Basin Association. Wilson commented on their positive and engaging camaraderie. Kirsten Wallace added her perspective on the immense value that Hall and Wobig contributed to the Association as well as the support they provided to her.

Hall and Wobig remarked on their positive experience serving as a leader and participant on the UMRBA Board, particularly in creating interstate partnerships and collaborations.

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 August 2024 meeting.

Wallace announced that UMRBA has expanded its staff team with the addition of Henry Hansen, Sadie Neuman, Laura Talbert, and Josh Wolf. Wallace introduced the new team members, as follows:

Henry Hansen serves our team as the Ecosystem Program Lead, Sadie Neuman as the Public Participation and Communications Project Specialist, Laura Talbert as the Ecosystem Program Coordinator, and Josh Wolf as the Water Quality Program Coordinator.

Wallace explained that UMRBA is initiating two new partnerships for which UMRBA will enter into financial arrangements. In response to Wallace’s request, the UMRBA Board provided Wallace with the authority to execute the associated agreements, as follows:

- 1) Water Availability Project Cooperative Agreement — Wade Strickland moved and Chris Wieberg seconded the motion to authorize Kirsten Wallace to execute a contract with the University of Minnesota, under which UMRBA will work with the U.S. Geological Survey and University of Minnesota to implement a water availability assessment for the Upper

Mississippi River Basin. The contract is expected to be two years in duration with funding of up to \$420,000 for UMRBA's contributions to the project. The motion passed unanimously.

- 2) Water Resources Database Development Project — Chris Wieberg moved and Wade Strickland seconded the motion to authorize Kirsten Wallace to execute a contract with the Illinois DNR as a subaward recipient to an Exchange Network Grant that the U.S. Environmental Protection Agency awarded to Illinois DNR. The contract is expected to be two years in duration with funding of up to \$240,000 for UMRBA's contributions to the project. The motion passed unanimously.

Wallace pointed to the UMRBA financial statements for July 2024 through September 2024 as provided on pages B-12 to B-20 of the agenda packet. Tim Hall moved and Rick Pohlman seconded the motion to accept the Association's budget report and balance sheet as included in the agenda packet. The motion was approved unanimously.

Water Quality Program

As Chair of the UMRBA Water Quality Executive Committee, Nicole Vidales reported on UMRBA's water quality program in 2023 and its outlook for 2024. Highlights of UMRBA's water quality program include:

- Published the How Clean is the River? Report, which is UMRBA's second comprehensive assessment of water quality conditions along the Upper Mississippi River. UMRBA also employed targeted communications of the water quality trend information.
- Planned for implementation of fixed site sampling under the UMRBA Interstate Water Quality Monitoring Plan, starting in fall 2025.
- In partnership with Illinois DNR, secured a USEPA Exchange Network Grant to build a database management program for UMRBA's water resources data.
- Convened nutrient management leaders who collectively identified and mapped leverage points for accelerating the use of multi-benefit conservation practices.
- Facilitated information exchange, and explored interstate collaboration, on the batch-and-build approach for implementing conservation practices that has been successful in Iowa.
- Participated in the Hypoxia Task Force Coordinating Committee and its communications work group.

Vidales reported that the WQEC has set priorities for UMRBA's water quality program in 2025 as including:

- Continue preparing for, and initiate in fall 2025, the fixed site sampling network under the UMR Interstate Water Quality Monitoring Plan. Example actions include planning split site sampling and developing a risk communication strategy.
- Design a database to house and analyze water quality monitoring data.
- Form a Nutrient Reduction Committee and draft the Upper Mississippi River Nutrient Reduction Strategy Plan.
- Develop a multi-year approach to advancing interstate cooperation related to chloride runoff reduction, implementing the UMRBA Chloride Resolution.

- Develop a multi-year approach to facilitate interstate cooperation of harmful algal bloom mitigation and response on the Upper Mississippi River, including in partnership with public water suppliers – e.g., employ a gap analysis of capacity and tools.

Bryan Hopkins mentioned that The Nature Conservancy is developing a Mississippi River basin-wide water quality monitoring framework. The framework will include a fiscal report, which Hopkins says will illustrate the cost-effectiveness of continuous monitoring programs in comparison to *ad hoc* monitoring events.

Water Availability and Supply Resilience

Missouri River Basin Diversion Proposal

Kirsten Wallace reported that, in early September, North Dakota water supply legislation was introduced in the Senate Energy and Natural Resources Committee Water and Power Subcommittee and the House Natural Resources Committee (S. 4996 and H.R. 9554, respectively). In response, UMRBA submitted a letter to those Committees on October 28, 2024 voicing opposition to the legislation. In the letter, UMRBA respectfully requests that any analysis of out-of-basin water diversions thoroughly evaluate all dimensions of the potential implications to water resource in the Missouri and Mississippi River Basins. Wallace noted that the letter is provided on page C-2 of the agenda packet.

Chris Wieberg reported on the state of Missouri’s concerns with proposals for diverting water out of the Missouri River basin given the potential consequences to water levels in the Missouri River within the state’s jurisdiction as well as the Mississippi River. In part, the concern is related to supporting a reliable navigation system. In a letter to the House Committee on Natural Resources, dated October 21, 2024, the Missouri DNR expresses opposition to the Dakota Water Resources Act of 2024 and requests that the Committee take no action on the proposed amendment. The letter is provided on pages C-3 to C-4 of the agenda packet.

2024 Navigation Channel Report

Lou Dell’Orco provided a report on the Upper Mississippi River System’s channel maintenance and management actions throughout the 2024 navigation season, which was challenged by consistent low water levels. Dell’Orco explained the Corps’ sophistication in its communications and coordination with industry, U.S. Coast Guard, and the National Weather Service as well as its interdistrict optimization of dredges.

Dell’Orco reported that the St. Louis District has successfully maintained the Congressionally-authorized dimensions of the navigation channel. While the District is accelerating maintenance activities given recent increases in water levels from rainfall, it is monitoring potential issues associated with the scheduled cut-off of navigation flow support from the Missouri River in mid-December.

Reflecting on the costs for dredging the river in low water years, Wieberg advised the Corps to consider costs to navigation on the Missouri and Mississippi Rivers when evaluating the management of river flows on the Missouri River. Wieberg also suggested that UMRBA underscore the navigation considerations when putting forward positions on out-of-basin transfers of water.

In response to a question from Chuck Camillo, Dell'Orco explained that there is not a clear trend on the relationships between the regulatory works and dredging operations over the past few years. The ultimate goal for the regulatory works is to facilitate more natural self-scouring riverine functions.

Bryan Hopkins underscored the value of beneficial reuse of dredged material, particularly to advance ecological and habitat goals held by the Upper Mississippi River Basin partnership. In response to a question from Alicia Vasto, Dell'Orco explained the relational contributions of river flows from the Missouri River in comparison with the Upper Mississippi and Illinois Rivers. Wieberg added that, while the proposed diversion of water from the Missouri River to North Dakota is relatively small, the diversion would represent a new precedent of allowing for such diversions and, potentially cumulatively over time, could have significant consequences to the Missouri and Mississippi Rivers. This includes the availability of water for public supply.

UMRBA Water Availability Assessment Partnership Project

Wallace announced that UMRBA and several partner organizations are launching a project that will identify which basin watersheds have greater impacts on river flows that support the nine-foot navigation channel essential to commercial barge traffic on the river.

U.S. Geological Survey is providing \$600,000 to support the project. The University of Minnesota will conduct the hydrologic analysis. UMRBA will facilitate interstate coordination. The states of Illinois, Iowa, Minnesota, Missouri, and Wisconsin will provide technical expertise to the University of Minnesota. U.S. Geological Survey will also provide technical expertise to the states and the University of Minnesota, as they explore how the information can be used to support decision making.

The objectives of this project are to:

- 1) Estimate the existing hydrologic flows from the basin watersheds into the Upper Mississippi River System navigation channel
- 2) Determine the thresholds of discharge in various reaches at which negative impacts may occur to the UMRS navigation channel (including duration and frequency of occurrence)
- 3) Explore how diversions and consumptive uses might affect the hydrologic flows from the basin watersheds into the UMRS navigation channel
- 4) Scope follow-on research goals for assessing the implications of limited water availability analysis for river products and services beyond the UMRS navigation channel – e.g., impacts to drinking water, recreation, and aquatic ecosystem health of the UMRS
- 5) Convene interstate conversations among Illinois, Iowa, Minnesota, Missouri, and Wisconsin technical experts and agency leaders to a) learn the research findings, b) relate the research findings to management and policy decision making, and c) recommend principles and policies for cooperative and effectively managing the water resources of the Upper Mississippi River basin

In a related project, Illinois DNR secured a \$282,000 grant from the U.S. Environmental Protection Agency to build a database infrastructure that will store the water quantity data from Illinois, Iowa, Minnesota,

Missouri, and Wisconsin. The database will allow the data to be readily accessible and available for basin-scale analyses.

Beyond this initial partnership project, UMRBA hopes to expand assessments to examine future climate conditions and the implications of water availability to the river's many different water uses.

Public Engagement in Flow Frequency Studies

Missouri River Lessons Learned and Advice to the UMRS

USACE Process Overview and Insights

Colleen Roberts provided a briefing of the Missouri River flow and stage frequency study, which indicates that the Missouri River will likely experience i) increased flows for less frequent events (with some exceptions below the confluence of the Grand River) and ii) increased flows upstream of Kansas City, Missouri with generally minor changes in flood frequency. The analysis of stage frequency was started in 2023 and is scheduled to be completed in early 2026. Roberts discussed the Corps communications strategies and messages for the flow and stage frequency project, including key messages, stakeholder assessments, communications products and activities.

Roberts shared a summary of lessons learned that might be applicable to the Upper Mississippi River System project to renew flow frequency and surface water profiles, as follows:

- 1) It is important to involve FEMA in developing and delivering messages and participating in meetings.
- 2) It is important to integrate messages among the project partners, Corps Districts and Division leaders, state leaders, and other partner leaders.
- 3) Start communications early with frequent touchpoints with the public, levee districts, and partners.
- 4) Highly technical information should be well coordinated and communicated with the appropriate technical experts.
- 5) Employ a third-party, technical review by state, federal, and university partners.
- 6) The Corps will employ a similar approach to stakeholder communications and public engagement for the surface water profiles as had done for the flow frequency profiles.
- 7) Communication needs to be developed and supported by a larger team with continued assessments of progress and schedule and communications needs.

Wieberg and Tim Hall commended the tremendous amount of community outreach employed by the Corps in partnership with the states for the Lower Missouri River Flood Risk Reduction and Resiliency Study. A particular challenge was communicating about the program in ways that related to the levels of awareness and understanding among stakeholders. It is important to understand how stakeholders will consume the information and what perspectives or other biases might affect the way that information is received and perceived. Establishing and maintaining trust and open dialogue as well as communicating concepts through visualizations have been important to improving stakeholder engagement and consensus building.

In highlighting lower attendance at certain public meeting, Hall asked Roberts for her opinions on how to improve attendance in the meetings and attract broader interest and awareness in the flood frequency study results and flood risk reduction and resilience planning. Roberts cited concerns with overall representation of people attending the meeting versus the people impacted by floods on the Missouri River. Roberts underscored the value of identifying a local advocate to help organize and disseminate information, such as meeting notices. Roberts suggested avoiding planting and harvest seasons, coordinating around community events (e.g., school schedules), and strategically plan for timing that would meet community needs.

In response to a question from Kelly Keefe, Roberts explained that climate analyses are being incorporated in the flow and stage frequency study with general assumptions and then in the site-specific, local spin-off studies.

Loren Wobig pointed out the need for state and federal regulatory agencies to collaborate in their use of flow and stage frequency and projections of changing hydrology.

In response to a question from Brian Stenquist, Roberts said stakeholders' most stated concerns of flow and stage frequency data are the impact to crop and home insurance rates. Stakeholders seem to recognize that flooding on the Missouri River is occurring more frequently, and the concern is whether the study results will affect levee accreditation. Wieberg said Missouri DNR has been proactively engaging with communities where the impacts may be the greatest to develop spin-off studies and move the conversations towards solutions.

Hall mentioned that the renewed flow and stage frequency have helped to align transportation, agriculture, homeland security, and conservation agencies within Iowa. In response, Iowa Department of Homeland Security has met with municipal leaders about flood protection.

Wieberg noted that FEMA incorporation of flow and stage frequency is an ongoing and important question. FEMA has been citing uncertainty in future funding, deflecting question about the agency's decision-making processes with the renewed information. Wieberg reflected on the bigger point of renewing the flow and stage frequency information, and that is to improve knowledge of where water might go during high water events and create a state and national interest in investing in infrastructure improvements and other measures to reduce flood risk and improve community resilience.

Stakeholder Perspective

Shane Kinney shared common perspectives voiced levee districts located in the Lower Missouri River floodplain on the flow and stage frequency study and the flood risk reduction and resiliency study. Kinney expressed alignment with Robert's observations of stakeholder perceptions, interests, and concerns.

Kinney offered the following key factors for obtaining public consent with the flow and stage frequency data and moving forward to the next planning phase: early engagement of the stakeholder community, clear transparency in decision making (particularly related to making assumptions), and integrating trusted individuals on technical review communities. Kinney suggested that stakeholders be asked for input regarding participants on the technical review committees, with the participants then being able to comprehend the data and results, ask questions relevant to the stakeholder communities, and understanding the rationale of decisions. Kinney also underscored the importance of FEMA's involvement

in the study process, but particularly in the community engagement, and of properly conveying the importance and impact of the results and study process to the stakeholder communities.

UMRS Initial Stakeholder Assessment

Kirsten Wallace explained that the UMRBA Board had requested that each state share an initial assessment of stakeholders who might be affected by renewing the flow frequency and surface water profiles on the UMRS. For each stakeholder community, representatives from each state provided a general assessment regarding:

- a) How they use the flow frequency and surface water profiles or how the profiles are used in ways that affect them – e.g., homeowner insurance rates, zoning and development.
- b) Their interest and awareness in the flow frequency study methodology.
- c) Their interest and awareness in the flow frequency study results.
- d) How the results might impact their interest in the methodology.
- e) How does your respective state (or agency) communicate and engage with the stakeholder community.

The state agency representatives spoke about interest and engagement with tribes, levee districts, individual property owners, river-adjacent communities, tourism and recreation providers, emergency managers and responders, transportation planners.

UMRS Study Project Briefing

Scott Whitney described the efforts to renew regulated and unregulated flow frequency curves and hydraulic provides along the mainstem of the Upper Mississippi River System. The existing dataset was published in 2004, using data covering the period of record through 1998. As a means to illustrate the importance of this project, Whitney pointed out that the most significant flooding on the Upper Mississippi River occurred in 2001, 2008, 2011, 2013, 2014, 2028 and 2019. On the Illinois River, five of the 10 highest flood crests have occurred since 1998, including the record crest in 2013.

Whitney provided a briefing on the planned implementation schedule. The Rock Island District the hydrologic management plan (HEMP) is currently undergoing a review by technical experts. Pending the comments received, a revised version based on that feedback will be disseminated to a group of stakeholders for review in February through March.

The total project cost is estimated at \$3.6 million. The Corps allocated \$765 million in FY 2021 through FY 2023. Congress provided a \$1 million appropriation to support the project in FY 2024. That leaves \$1.885 million in remaining project costs. Kirsten Wallace noted that the House and Senate Appropriations Committees have included \$1 million in their energy and water spending bills.

In response to similar questions from Chris Wieberg and Bryan Hopkins, Whitney explained the rationale for limited stakeholder involvement and public outreach. The rationale from the District's perspective is that a) the study is for technical purposes and follow-on planning efforts will be more appropriate forums for public engagement on the implications and potential management strategies, b) the project does not

have the authority or funding to provide additional planning or communications efforts related to implications or potential solutions. Shawn Sullivan pointed to the HEC-RAS model and other inter-District collaborations, and in response to a clarifying question, Whitney agreed that there are general authorities, collaborations with USGS and NWS, and tools (e.g., inundation mapping) that can be employed in ways to transfer the data into meaningful information for people.

In response to a question from Wieberg, Whitney confirmed that the study includes renewing both flow frequency and surface water profiles.

Other Business

Future Meeting Schedule

February 2025 to be held virtually

- UMRBA Quarterly Meeting – February 25
- UMRR Coordinating Committee quarterly meeting – February 26

May 2024 in La Crosse, Wisconsin

- UMRBA Quarterly Meeting – May 20
- UMRR Coordinating Committee quarterly meeting – May 21

August 2024 in Edina, Minnesota

- UMRBA Quarterly Meeting – August 5
- UMRR Coordinating Committee quarterly meeting – August 6

With no further business, the meeting adjourned at 2:54 p.m.

Upper Mississippi River Quarterly Meetings

Attachment B

Executive Director's Report

Page Number	Document Title
B-1 to B-5	Executive Director's Quarterly Report
B-6 to B-7	UMRBA WRDA 2024 Support Letter (12/6/2024)
B-8 to B-9	UMRBA Flood Risk Reduction and Resiliency Study News Release (1/17/2025)
B-10	UMRBA Smart Salting News Release (1/27/2025)
B-11	Treasurer's Quarterly Statement (2/3/2025)
B-12 to B-14	FY 2024 Profit and Loss Statement (2/10/2025)
B-15 to B-17	FY 2025 Profit and Loss Statement (2/10/2025)
B-18 to B-19	Balance Sheet (2/10/2025)



Executive Director's Report February 2025

Advocacy

Water Resources Development Act

On January 4, 2025, President Biden signed into law the Water Resources Development Act of 2025. With the enactment, Congress effectively:

- Authorized the Upper Mississippi River System Flood Risk Reduction and Resiliency Study
- Adjusted of the non-federal cost share of inland waterway construction and major rehabilitation projects to 75 percent Federal/25 percent from the Inland Waterways Trust Fund
- Increased the annual authorized appropriation level for the Upper Mississippi River Restoration Program's long term resource monitoring to \$25 million
- Authorized the Government Accountability Office to explore the challenges for non-federal sponsors to execute cost-share project partnership agreements, specifically because of the requirements of project lifespan and indemnification

UMRBA submitted to Congress a support letter for the legislation dated December 6, 2024 and a news release following the legislation's enactment dated January 17, 2025. The letter and news release are provided on pages B-6 to B-9 of the agenda packet.

FY 2026 Appropriations

UMRBA is actively coordinating with Congress regarding spending priorities for FY 2026. In particular, this includes the Navigation and Ecosystem Sustainability Program, the Upper Mississippi River Restoration Program, renewing the flow frequency and surface water profiles on the Upper Mississippi River System, and the Upper Mississippi River System Flood Risk Reduction and Resiliency Study.

Commercial Navigation

Inland Waterways Users Board

UMRBA staff participated in the December 13, 2024 virtual meeting of the Inland Waterways Users Board (IWUB). The meeting included routine updates of the Inland Waterway Trust Fund, USACE navigation program fiscal status, and ongoing navigation projects that are cost-shared using the Inland Waterway Trust Fund monies. As part of the latter report, the St. Louis District reported on the L&D 25 lock modernization projects.

Waterways Council

The Waterways Council held its Annual Waterways Symposium on November 13-14, 2024 in San Antonio and its Capitol Hill Fly-In on February 4-5, 2025 in Washington, D.C. The agenda included Waterways Council's priorities and accomplishments, political and financial briefings, and updates from the Corps on their national and regional navigation programs.

National Waterways Foundation

Kirsten Wallace serves as a Trustee of the National Waterways Foundation, and participated in its February 4, 2025 meeting in Washington, D.C. In addition to routine business, the Foundation discussed ongoing projects related to workforce development and waterways beneficiaries as well as future research opportunities.

Ecosystem Health

Policy and Programmatic Interagency Coordination

UMRR Coordinating Committee Meeting

The UMRR Coordinating Committee met on November 20, 2024 in Alton, Illinois. The agenda involved programmatic briefings regarding accomplishments and progress related to habitat rehabilitation and enhancement projects (HREPs), long term resource monitoring, and communications. The Corps facilitator for UMRR strategic planning also briefed the Committee on the recent progress and planned work.

NESP Coordinating Committee Meetings

The Navigation and Ecosystem Sustainability Program (NESP) Coordinating Committee met virtually on December 4, 2024. The quarterly meeting focused on routine program reports as well as focused briefings on the development of an ecosystem strategic framework, reach-based planning, and systemic water level management and forest management. In addition to this public-facing session, the Committee also convenes monthly meetings to advance programmatic priorities. Recent discussions have focused on strategic planning and systemic and reach planning.

Programmatic Strategic Planning

Upper Mississippi River Restoration Program

UMRBA continues to participate in a programmatic, interagency team to develop the next strategic plan for UMRR. UMRBA staff is participating in regular meetings of a smaller leadership team to organize the process and overall direction given input from the full interagency team. The UMRR Coordinating Committee employed a facilitated, informal review of the draft strategic plan goals and objectives during its November 20, 2024 quarterly meeting. With the input from this activity, the *ad hoc* strategic planning team met in-person on December 5-6, 2024 in the Quad Cities.

During the December 5-6 meeting, the team reviewed the current draft strategic plan and discussed timelining, resourcing and measuring. The team also reviewed the interrelatedness of the various goals and objectives for redundancy and complementarity.

Communications and Engagement

Communications and Outreach Team

UMRBA staff participated in monthly meetings of the UMRR Communication and Outreach Team's (COT). Topics included employing a photo contest, social media events, and updating UMRR related material at current kiosks/interpretive stations along the UMRS.

Ecological Sustainability and Restoration

Systemic/Reach Planning

UMRBA staff continue to participate in the NESP System Planning Team, which is validating system-wide ecosystem objectives and developing a process to guide four reach planning teams in their more refined development of restoration targets.

On January 23, 2025, the Corps hosted a webinar to brief interested individuals and organizations about how a planning approach will be employed to design a road map for implementing NESP ecosystem projects and adaptive management.

On February 4, 2025, the Corps hosted an in-person workshop in the Quad Cities. The stated purpose was to validate an initial set of ecosystem restoration objectives for the floodplain reaches. This effort is meant to provide consistency in reach planning, opportunities for interagency and interdisciplinary collaboration, and apply a system planning perspective to the reach planning objectives and planning considerations.

Hazardous Spills Emergency Management

Oil Pollution Act (OPA) Planning and Mapping

UMRBA has completed most of the Minnesota statewide Inland Sensitivity Atlas (ISA) update. UMRBA incorporated the updates to the Minnesota data layer into the regional database as well as updates received from the Great Lakes Commission (GLC) for Ohio. UMRBA also added a new regional Jurisdictional Boundaries layer to the ISA.

UMRBA staff participated in monthly Mapping Group meetings on December 2, 2024, and February 3, 2025. Staff also participated in Inland Zone Planning calls on November 21 and December 19, 2024, and January 23 and February 20, 2025.

UMRBA has initiated the development of Tribal Fact Sheets for USEPA to provide basic response information about Tribal Nations within USEPA Region 5. Staff participated in related planning calls on November 25, 2024, January 13, 2025, and February 10, 2025.

UMRBA provided general support for spill response planning in the Upper Mississippi River Sub-area, including by providing reference material for Spill Response Plans for UMR Pools 14, 15, 24, 25, and 26.

UMRBA supported the Minneapolis/St. Paul Sub-area Planning meeting held in Saint Paul, Minnesota, on December 17, 2024.

Staff have been working to compile information about where Mississippi River users interact with the river outside of the areas not specifically managed for recreation or conservation. This new data will be used to enhance understanding of river use and demographics to support future work in public safety, outreach, planning, and conservation.

Upper Mississippi River Hazardous Spills Coordination Group (UMR Spills Group)

The UMR Spills Group held a virtual meeting on December 12, 2024 to review spills-related work in 2024 and the planned activities for the Group in 2025. Illinois Mutual Aid Box Alarm System (MABAS) presented to the Group their history and current capabilities.

UMRBA staff participated in a Red Wing CAER and Wakota CAER joint meeting on January 15, 2025 in Cottage Grove, Minnesota. The CAER groups hosted a presentation regarding Tribal relationship building and outreach for spill response.

Water Quality

UMRBA Water Quality Committees

The UMRBA Water Quality Task Force met virtually on January 22, 2025. The Task Force discussed the Association's new and ongoing programmatic work, state-specific information updates to their implementation of the Clean Water Act, and public participation in UMRBA's water quality program and projects.

USEPA Region 5 Water Quality Managers' Meeting

The USEPA Region 5 Water Quality Managers' Meeting was held December 3-5, 2024 in Chicago, Illinois. The annual meeting allows managers the opportunity to collaborate, share successes and challenges experienced in 2024, and recommend regional-level initiatives. In addition, participants focused their discussions on nutrient monitoring, programmatic efforts, and measures of success.

Chloride Communications

In alignment with the state environmental protection agencies, UMRBA employed a news release regarding smart salting in winter. The news release was issued in conjunction with Winter Salt Week on January 27-31, 2025. An email of the news release is provided on pages B-10 of the agenda packet.

Water Quantity (Flood and Drought Resilience)

UMRS Flow Frequency and Surface Water Profiles

On February 18, 2025, UMRBA staff participated in a briefing convened by the Rock Island District regarding the hydrologic engineering and management plan (HEMP) for the effort to renew UMRs flow frequency and surface water profiles. The primary purpose for this briefing is to prepare states agencies, Congressional offices, and stakeholders to review the HEMP and provide input to the District.

Communications and Partnership Collaboration

Informal Public Use Mapping Project

With financial support from Missouri DNR, UMRBA continues to implement a project to create geospatial information about informal public use of the river. This includes where people fish, hunt, gather other food resources, recreate, and so forth in areas beyond those located in formal public access places or beaches. Staff have designed a database framework and are developing a work plan for the project.

Interstate Council on Water Policy

The Interstate Council on Water Policy (ICWP) convened its Annual Roundtable on January 27-29, 2025 in Washington, D.C. ICWP met individually with the Senate Environment and Public Works Committee and House Transportation and Infrastructure Committee regarding the Water Resources Development Act (WRDA) passed in 2024 and planned for Congressional action in 2026. ICWP also met individually

with NOAA, USGS, and USACE regarding commonly-held priorities for hydrology monitoring, research and analysis, and management strategies.

In conjunction with the Roundtable, the ICWP Board met on January 30 to review its current strategic plan and prepare for an effort to renew the strategic plan in 2025 calendar year.

Mississippi River Watershed Partnership

The America's Watershed Initiative (AWI) and The Nature Conservancy (TNC) convened partners in an effort to design and gather support for a structural arrangement. On December 17, 2025, AWI and TNC convened a webinar to report on a suite of priority goals and actions related to various issue areas – e.g., water quality. These goals and actions were drafted by a subset of individuals and organizations who are involved in water resources planning and management throughout the Mississippi River watershed.

As a next step, AWI and TNC convened a Mississippi River Watershed Partnership Organizational Structure Workshop on January 14, 2025 in St. Louis. Participants were sked to explore possibilities for draft models of landscape scale partnerships, including by considering criteria important for generating funding and illuminating questions as models continue to be explored.

Other Meetings, Events, and Partnership Collaborations

UMRBA staff participated in Upper Mississippi River Basin collaborations through the following forums:

- Lower Minnesota River Watershed District Minnesota River listening session on January 8, 2025
- USGS Integrated Water Science Illinois River Basin Annual Stakeholder Meeting on February 6, 2025

Financial and Administrative Report

UMRBA Financial Report

Attached as page B-11 is UMRBA Treasurer Jason Tidemann's statement regarding his review of UMRBA's financial statement for the period of October 1, 2024 to December 31, 2024.

Attached as pages B-12 to B-19 are UMRBA's 2024 and 2025 budget reports and balance sheet. As of February 10, 2025, ordinary income for FY 2025 totaled \$729,363.22 and expenses totaled \$783,092.05 for net ordinary income of -\$53,728.83. As of this date, UMRBA's cash assets totaled \$146,575.87.



December 6, 2024

The Honorable Sam Graves, Chair
The Honorable Rick Larsen, Ranking Member
U.S. House of Representatives
Transportation and Infrastructure Committee
2165 Rayburn House Office Building
Washington, D.C. 20515-6256

The Honorable Tom Carper, Chair
The Honorable Shelley Moore Capito, Ranking Member
U.S. Senate
Environment and Public Works Committee
410 Dirksen Senate Office Building
Washington, D.C. 20510-6175

Dear Chairs Graves and Carper and Ranking Members Larsen and Moore Capito:

On behalf of the Upper Mississippi River Basin Association (UMRBA), I am pleased to recognize your tremendous leadership throughout the development of the Thomas R. Carper Water Resources Development Act of 2024. We applaud your dedication to collaboration and to sound solutions to our nation's water resources challenges and opportunities. We recognize the tremendous work of all of the Committee members and their staff as well as the staff of the House Transportation and Infrastructure Committee and the Senate Environment and Public Works Committee.

Formed by the Governors of Illinois, Iowa, Minnesota, Missouri, and Wisconsin in 1981, UMRBA represents its member states' common water resource interests and works collaboratively with the federal and state agencies as well as non-governmental organizations and individuals.

The proposed reauthorization of the Water Resources Development Act offers important opportunities to advance the principles of sustainability and multi-use management of the nation's water resources and to support cooperation among the federal government agencies, states governments, and non-governmental interests.

In particular, UMRBA is grateful for your inclusion of the following provisions:

- Authorization of the Upper Mississippi River System Flood Risk and Resiliency Study (Section 1227). This new planning authority will lead to strategic, integrated, and durable approaches to improving flood risk and resilience in the Upper Mississippi River System floodplain, systemically and locally. The authorizing language designs a collaborative leadership approach to evaluating an extensive array of structural and nonstructural measures.
- Adjustment of the non-federal cost share of inland waterway construction and major rehabilitation projects to 75 percent Federal/25 percent from the Inland Waterways Trust Fund (Section 1126). This cost-share change will allow these projects to advance more efficiently and quickly, reducing the overall costs and accelerating the return on investment.
- Increase of the annual authorized appropriation level for the Upper Mississippi River Restoration Program's long term resource monitoring to \$25 million (Section 1354). The increased funding potential allows UMRR the opportunity to conduct systemic monitoring of critically important major resources in the system such as mussels and macroinvertebrate populations, to support needed

Page 2
December 6, 2024

analysis to forecast changes to the river's ecosystem resulting from changing hydrologic conditions, and to develop new tools and models to better understand and manage the ecosystem.

- Authorization of a study by the Government Accountability Office to explore the challenges for non-federal sponsors to execute cost-share project partnership agreements, specifically because of the requirements of project lifespan and indemnification. We believe that a more equitable approach to the Corps' cost-share agreements will improve efficiencies in project delivery, improve partnership relationships, and stimulate the nation's ability to leverage non-federal resources.

UMRBA strongly encourages that the study is implemented immediately and promptly so that the study results are available to Congress the next time it considers reauthorizing the Water Resources Development Act. UMRBA recommends that the Comptroller General of the Government Accountability Office coordinate directly the appropriate legal representation of the states and other candidate non-federal entities who may cost-share sponsor U.S. Army Corps of Engineers' water resource projects.

UMRBA respectfully requests that the Government Accountability Office also address the legal merits associated with the U.S. Army Corps of Engineers adhering to state law by applying for the applicable state permits associated with implementing its water resources programs and projects.

UMRBA also supports the general provisions related to beneficial reuse of dredged material, the harmful algal bloom demonstration program, invasive species monitoring and management, the use of nature-based features to improve flood risk and resiliency.

We applaud your leadership and appreciate your work.

Sincerely,



Kirsten Wallace
Executive Director
Upper Mississippi River Basin Association

cc: Upper Mississippi River Congressional Delegation



NEWS RELEASE

January 17, 2025

Contact: Kirsten Wallace, Executive Director
Upper Mississippi River Basin Association
(651) 224-2880, kwallace@umrba.org

A Big Step Forward – Reducing Flood Risk and Increasing Community Resilience on the Upper Mississippi River

By approving the Water Resources Development Act of 2024 (often referred to as WRDA 2024), Congress has taken a big step forward in reducing flood risk and increasing community resilience on the Upper Mississippi River.

WRDA 2024 authorizes the U.S. Army Corps of Engineers to work in partnership with the Upper Mississippi River States (MN, WI, IA, IL, MO) and their collective organization, the Upper Mississippi River Basin Association, to undertake a flood risk and resiliency study.

“This study to improve flood risk resiliency on the Upper Mississippi River is long overdue,” said Missouri Representative Sam Graves. “It’s been more than 30 years since the Great Flood of 1993, yet we’ve made little progress towards protecting our communities from future floods. This systemic study will put states and local communities in the driver’s seat while leveraging the expertise of the U.S. Army Corps of Engineers to finally do something about it. I want to thank the Upper Mississippi River Basin Association and the member states for their leadership in helping get this study authorized and I look forward to working with them and local stakeholders to better protect our communities from future floods.”

Some of the key provisions in the Upper Mississippi River Flood Risk and Resiliency Study include:

- Describe the existing flood risk conditions of the Upper Mississippi River System
- Develop recommendations to reduce costs and damages associated with flooding and enable people to be more resilient to flood events
- Identify opportunities where improved flood resiliency can also support navigation, environmental sustainability, and environmental restoration goals
- Develop and recommend integrated, comprehensive and systems-based approaches for flood risk reduction and floodplain management to minimize threat to life, health, safety, and property resulting from flooding
- Employ spin-off studies to design local solutions for local flood risk resiliency challenges

In addition, the Upper Mississippi River Flood Risk and Resiliency Study calls for the U.S. Army Corps of Engineers to:

- Coordinate with the Upper Mississippi River States, including collectively through the Upper Mississippi River Basin Association
- Consult with the appropriate federal agencies, levee and drainage districts, units of local government, and the Mississippi River Commission

- Seek and consider input from Upper Mississippi navigation industry, agriculture and conservation organizations, and other interested parties

“Ensuring that all communities are resilient to major flooding will reside in our ability to work together – to create a shared vision for the future and a path forward to get there,” said Kirsten Wallace, Executive Director of the Upper Mississippi River Basin Association.

WRDA 2024 also authorizes:

- An adjustment of the non-federal cost share of inland waterway construction and major rehabilitation projects to 75 percent Federal/25 percent from the Inland Waterways Trust Fund. This cost-share change will allow these projects to advance more efficiently and quickly, reducing the overall costs and accelerating the return on investment.
- An increase in the annual appropriation for the Upper Mississippi River Restoration (UMRR) long term resource monitoring from \$15 million to \$25 million.
- A study by the Government Accountability Office to explore the challenges for non-federal sponsors to execute cost-share project partnership agreements, specifically because of the requirements of project lifespan and indemnification.

WRDA 2024 also includes the general provisions related to beneficial reuse of dredged material, the harmful algal bloom demonstration program, invasive species monitoring and management, the use of nature-based features to improve flood risk and resiliency.

About the Upper Mississippi River Basin Association—The Upper Mississippi River Basin Association (UMRBA) is a five-state interstate organization formed by the Governors of Illinois, Iowa, Minnesota, Missouri, and Wisconsin to coordinate the states’ river-related programs and policies and work with federal agencies that have river responsibilities. The UMRBA is structured as a 501(c) non-profit association, with the Board of Directors composed of Governor-appointed representatives and alternatives. For more information about UMRBA, visit its website at www.umrba.org.

From: Upper Mississippi River Basin Association
Sent: Monday, January 27, 2025 8:56 AM
To: Upper Mississippi River Basin Association
Subject: Winter Salt Awareness Week is Here, UMRBA Urges Local Partners to Curb Salt Use

**Winter Salt Awareness Week is Here,
UMRBA Urges Local Partners to Curb Salt Use**

Over the past three decades, the Upper Mississippi River watershed has become saltier, by an average of 35%, according to the [How Clean is the River? report](#). Salt prematurely ages roads and bridges, degrades freshwater lakes, streams, and drinking water, and harms aquatic life that live in our rivers and streams. A teaspoon of salt permanently pollutes five gallons of water. There are no easy solutions for removing chloride from runoff and wastewater. Our best solution is to address the source by reducing the amount of salts that are applied in the watershed.

The Upper Mississippi River Basin Association (UMRBA) is partnering with organizations across the country to elevate the conversations around winter salt pollution and reduction solutions. Winter Salt Week is scheduled from Monday, January 27th to Friday, January 31st, with daily live streams 12:30 CT. Winter Salt Week will feature speakers Abby Hileman (Izaak Walton League of America), Jess Hua (UW-Madison), Cara Hardesty (Ohio EPA), Ted Diers (New Hampshire Department of Environmental Protection), Bryan Gruidl (City of Bloomington, Minnesota), and Public Works staff from across the country. More information can be found via the following website: <https://wintersaltweek.org/>

This winter you can do your part to help protect the Upper Mississippi River watershed's freshwater resources and make a pledge to follow the "4 S's" this winter: **Shovel, Scatter, Switch, Sweep**:

- **Shovel** (or snow blow) as much snow as possible before spreading salt
- **Scatter** salt so there is space in between the grains (no piles!)
- **Switch** from salt to sand (or a treated de-icer) if the temperature is under 15 degrees Fahrenheit
- **Sweep** up excess salt after the ice has melted

Follow the 4 S's and you will save money, protect our community's infrastructure, AND keep salt out of our waterways!

Contact:
Lauren Salvato, Water Quality Program Leader Upper Mississippi River Basin Association, (651) 224-2880, lsalvato@umrba.org

Natalie Lenzen

From: Tidemann, Jason (DNR) <jason.tidemann@state.mn.us>
Sent: Monday, February 3, 2025 4:24 PM
To: Natalie Lenzen
Subject: RE: UMRBA October 1 - December 31 Treasurer Report

Hello

As Treasurer, I have reviewed the monthly financial statements for the period 10/1/24-12/31/24. Activity reported on the Balance Sheet, Profit/Loss Budget Overview, Check Register, Visa statements and Open Invoices Report provide a reasonable and consistent representation of the monthly financial activity for the referenced period.

Jason Tidemann

From: Natalie Lenzen <nlenzen@umrba.org>
Sent: Monday, February 3, 2025 3:52 PM
To: Tidemann, Jason (DNR) <jason.tidemann@state.mn.us>
Subject: UMRBA October 1 - December 31 Treasurer Report

This message may be from an external email source.

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Jason –

I would like to request your statement of review of our October 2024 through December 2024 financials for the Treasurer's report in the February 25, 2025 UMRBA Board meeting packet.

Please let me know if you have any questions or need any further information.

Thank you,
Natalie

Natalie Lenzen
Operations Manager | Upper Mississippi River Basin Association (UMRBA)
7900 West 78th Street, Suite 380, Edina, MN 55439
651-224-2880 (*main office*) | 763-349-2049 (*direct*)
Find us online at www.umrba.org or [Facebook](#)

Upper Mississippi River Basin Association

FY 2024 Profit & Loss Budget Overview

July 2023 - June 2024

	TOTAL		
	ACTUAL	BUDGET	OVER BUDGET
Revenue			
4000 State Dues			
Illinois Dues	67,000.00	67,000.00	0.00
Iowa Dues	67,000.00	67,000.00	0.00
Minnesota Dues	67,000.00	67,000.00	0.00
Missouri Dues	67,000.00	67,000.00	0.00
Wisconsin Dues	67,000.00	67,000.00	0.00
WQ Assessment	108,000.00	108,000.00	0.00
Total 4000 State Dues	443,000.00	443,000.00	0.00
4100 Contracts and Grants			
Interstate WQ Pilot	17,934.71	10,000.00	7,934.71
Miss River Partnership (AWI)	11,000.00	12,000.00	-1,000.00
U.S. FWS	7,958.51	8,000.00	-41.49
UMN CIROH	10,000.00	12,000.00	-2,000.00
USACE (NESP)	77,283.40	100,000.00	-22,716.60
USACE (UMRR)	149,963.88	139,790.00	10,173.88
USEPA (HTF)	7,674.01	5,000.00	2,674.01
USEPA (OPA)	280,128.39	270,000.00	10,128.39
USEPA (OWOW)	38,231.64	40,000.00	-1,768.36
USGS Nature-Based Solutions	40,274.59	47,000.00	-6,725.41
Total 4100 Contracts and Grants	640,449.13	643,790.00	-3,340.87
4200 Interest Income			
Short Term Interest			
Short Term (CD)	18,008.95	19,100.00	-1,091.05
Short Term (Checking)	4,707.45	6,000.00	-1,292.55
Short Term (Savings)		0.00	0.00
Short Term (Sweep)	2,537.73	2,500.00	37.73
Total Short Term Interest	25,254.13	27,600.00	-2,345.87
Total 4200 Interest Income	25,254.13	27,600.00	-2,345.87
4300 Other Income			
Meeting Meals Income	80.00		80.00
Miscellaneous Income	60.00		60.00
Workshop Meals Income	2,492.43		2,492.43
Total 4300 Other Income	2,632.43		2,632.43
Total Revenue	\$1,111,335.69	\$1,114,390.00	\$ -3,054.31
GROSS PROFIT	\$1,111,335.69	\$1,114,390.00	\$ -3,054.31
Expenditures			
5000 Depreciation			
Depreciation OPA	2,747.21		2,747.21
Depreciation UMRBA	6,059.55		6,059.55
Total 5000 Depreciation	8,806.76		8,806.76
5001 Payroll Expenses			

Upper Mississippi River Basin Association

FY 2024 Profit & Loss Budget Overview

July 2023 - June 2024

	TOTAL		
	ACTUAL	BUDGET	OVER BUDGET
Accrued Vacation	14,148.60		14,148.60
Accrued Vacation FICA	1,082.38		1,082.38
Benefits	1,065.37		1,065.37
ICHRA	867.58		867.58
Salary	757,316.76	751,862.30	5,454.46
SocSec Company	286.23		286.23
Taxes	58,806.29	57,517.46	1,288.83
SUTA (Minnesota UC)	-2.21	375.93	-378.14
Workforce Enhancement Fee	-2.21	375.93	-378.14
Total Taxes	58,801.87	58,269.32	532.55
Total 5001 Payroll Expenses	833,568.79	810,131.62	23,437.17
5002 Benefits Administration	1,958.00	1,000.00	958.00
5100 Space Rental			
Office Rental	52,667.38	55,000.00	-2,332.62
Total 5100 Space Rental	52,667.38	55,000.00	-2,332.62
5101 Legal and Financial			
Bank Charges		40.00	-40.00
Insurance	3,936.35	6,200.00	-2,263.65
Legal and Tax Services	3,085.00	4,000.00	-915.00
Total 5101 Legal and Financial	7,021.35	10,240.00	-3,218.65
5102 Telephone/Communications	13,221.21	13,000.00	221.21
5103 Communications/Publications	81,120.00	75,000.00	6,120.00
5104 Equipment			
Equipment (Maint./Rental)	1,750.61	1,150.00	600.61
Equipment (Purchase)	1,127.75	1,000.00	127.75
Total 5104 Equipment	2,878.36	2,150.00	728.36
5105 Supplies	2,020.19	2,000.00	20.19
5106 Postage	118.13	200.00	-81.87
5107 Other Services	15,355.00	15,000.00	355.00
5108 Relocation Expenses	0.00		0.00
5200 Meeting Expenses	31,159.62	35,000.00	-3,840.38
5201 Travel	38,413.12	40,000.00	-1,586.88
5202 State Travel Reimbursement			
Illinois	2,149.84	5,000.00	-2,850.16
Iowa	563.44	5,000.00	-4,436.56
Minnesota	352.80	5,000.00	-4,647.20
Missouri	1,000.08	5,000.00	-3,999.92
State WQ Travel	494.39	3,500.00	-3,005.61
Wisconsin		5,000.00	-5,000.00
Total 5202 State Travel Reimbursement	4,560.55	28,500.00	-23,939.45
5300 OPA Expenses			
Equipment (Maint./Rental) OPA	0.00	4,000.00	-4,000.00

Upper Mississippi River Basin Association

FY 2024 Profit & Loss Budget Overview

July 2023 - June 2024

	TOTAL		
	ACTUAL	BUDGET	OVER BUDGET
Equipment OPA	0.00	600.00	-600.00
Other OPA		50.00	-50.00
Travel OPA	2,170.15	2,000.00	170.15
Total 5300 OPA Expenses	2,170.15	6,650.00	-4,479.85
5301 USGS Nature-Based Solutions			
Other Contractual Services	28,789.50	30,000.00	-1,210.50
UMRBA Contractual Services		0.00	0.00
Total 5301 USGS Nature-Based Solutions	28,789.50	30,000.00	-1,210.50
5302 USEPA NRS Workshops			
Communications	9,000.00	9,500.00	-500.00
Meeting Expenses	4,518.26	4,500.00	18.26
Supplies		200.00	-200.00
Travel	163.71	200.00	-36.29
Travel Assistance	6,841.38	7,000.00	-158.62
Total 5302 USEPA NRS Workshops	20,523.35	21,400.00	-876.65
5304 USEPA Gulf Hypoxia			
Contractual		300.00	-300.00
Other Gulf Hypoxia		100.00	-100.00
Supplies		100.00	-100.00
Travel	783.47	1,000.00	-216.53
Total 5304 USEPA Gulf Hypoxia	783.47	1,500.00	-716.53
5305 USACE NESP			
Other NESP	14,100.00		14,100.00
Travel	3,172.34		3,172.34
Total 5305 USACE NESP	17,272.34		17,272.34
5999 Miscellaneous Expense	0.00		0.00
Total Expenditures	\$1,162,407.27	\$1,146,771.62	\$15,635.65
NET OPERATING REVENUE	\$ -51,071.58	\$ -32,381.62	\$ -18,689.96
NET REVENUE	\$ -51,071.58	\$ -32,381.62	\$ -18,689.96

Upper Mississippi River Basin Association

FY 2025 Profit & Loss Budget Overview

July 2024 - June 2025

		TOTAL	
	ACTUAL	BUDGET	OVER BUDGET
Revenue			
4000 State Dues			
Illinois Dues	67,000.00	67,000.00	0.00
Iowa Dues	67,000.00	67,000.00	0.00
Minnesota Dues	67,000.00	67,000.00	0.00
Missouri Dues	67,000.00	67,000.00	0.00
Wisconsin Dues	67,000.00	67,000.00	0.00
WQ Assessment	108,000.00	108,000.00	0.00
Total 4000 State Dues	443,000.00	443,000.00	0.00
4100 Contracts and Grants			
Interstate WQ Pilot	8,601.88	7,000.00	1,601.88
Miss River Partnership (AWI)	1,000.00		1,000.00
UMN CIROH		165,000.00	-165,000.00
USACE (NESP)	105,064.73	200,000.00	-94,935.27
USACE (UMRR)	19,730.15	113,000.00	-93,269.85
USEPA (HTF)	61,765.82	133,000.00	-71,234.18
USEPA (OPA)	75,214.77	250,000.00	-174,785.23
USEPA (OWOW)	1,846.78		1,846.78
USGS Nature-Based Solutions	6,719.92		6,719.92
Total 4100 Contracts and Grants	279,944.05	868,000.00	-588,055.95
4200 Interest Income			
Short Term Interest			
Short Term (CD)	3,079.92	17,900.00	-14,820.08
Short Term (Checking)	2,441.14	6,000.00	-3,558.86
Short Term (Sweep)	69.11	6,100.00	-6,030.89
Total Short Term Interest	5,590.17	30,000.00	-24,409.83
Total 4200 Interest Income	5,590.17	30,000.00	-24,409.83
4300 Other Income			
Meeting Meals Income	780.00		780.00
Miscellaneous Income	49.00		49.00
Total 4300 Other Income	829.00		829.00
Total Revenue	\$729,363.22	\$1,341,000.00	\$ -611,636.78
GROSS PROFIT	\$729,363.22	\$1,341,000.00	\$ -611,636.78
Expenditures			
5001 Payroll Expenses			
Benefits	-6,545.71		-6,545.71
ICHRA	4,289.08		4,289.08
Salary	545,389.61	920,285.21	-374,895.60
SocSec Company	-1,758.61		-1,758.61
Taxes	44,225.18	71,322.10	-27,096.92
Total 5001 Payroll Expenses	585,599.55	991,607.31	-406,007.76
5002 Benefits Administration	1,414.00	1,308.00	106.00

Upper Mississippi River Basin Association

FY 2025 Profit & Loss Budget Overview

July 2024 - June 2025

	TOTAL		
	ACTUAL	BUDGET	OVER BUDGET
5100 Space Rental			
Office Rental	44,188.76	68,520.48	-24,331.72
Total 5100 Space Rental	44,188.76	68,520.48	-24,331.72
5101 Legal and Financial			
Bank Charges	31.50	25.00	6.50
Insurance	6,234.50	6,200.00	34.50
Legal and Tax Services	10,000.00	12,000.00	-2,000.00
Total 5101 Legal and Financial	16,266.00	18,225.00	-1,959.00
5102 Telephone/Communications	8,405.26	10,200.00	-1,794.74
5103 Communications/Publications	50,283.00	40,000.00	10,283.00
5104 Equipment			
Equipment (Maint./Rental)	2,635.25	2,350.00	285.25
Equipment (Purchase)		3,000.00	-3,000.00
Total 5104 Equipment	2,635.25	5,350.00	-2,714.75
5105 Supplies	4,860.91	1,500.00	3,360.91
5106 Postage	73.00	100.00	-27.00
5107 Other Services	7,262.30	15,000.00	-7,737.70
5108 Relocation Expenses	2,850.40		2,850.40
5200 Meeting Expenses	7,045.42	35,000.00	-27,954.58
5201 Travel	25,494.28	40,000.00	-14,505.72
5202 State Travel Reimbursement			
Illinois	3,666.03	5,000.00	-1,333.97
Iowa	444.02	5,000.00	-4,555.98
Minnesota		5,000.00	-5,000.00
Missouri	1,005.12	5,000.00	-3,994.88
State WQ Travel		3,500.00	-3,500.00
Wisconsin		5,000.00	-5,000.00
Total 5202 State Travel Reimbursement	5,115.17	28,500.00	-23,384.83
5300 OPA Expenses			
Equipment (Maint./Rental) OPA	575.00	1,500.00	-925.00
Equipment OPA		500.00	-500.00
Travel OPA	241.04	1,000.00	-758.96
Total 5300 OPA Expenses	816.04	3,000.00	-2,183.96
5301 USGS Nature-Based Solutions			
Other Contractual Services	1,210.50		1,210.50
Total 5301 USGS Nature-Based Solutions	1,210.50		1,210.50
5304 USEPA Gulf Hypoxia			
Contractual		10,000.00	-10,000.00
Other Gulf Hypoxia		2,000.00	-2,000.00
Supplies		1,500.00	-1,500.00
Travel		1,500.00	-1,500.00
Total 5304 USEPA Gulf Hypoxia		15,000.00	-15,000.00

Upper Mississippi River Basin Association

FY 2025 Profit & Loss Budget Overview

July 2024 - June 2025

	TOTAL		
	ACTUAL	BUDGET	OVER BUDGET
5305 USACE NESP			
Other NESP	16,350.00	20,000.00	-3,650.00
Travel	3,097.20	5,000.00	-1,902.80
Total 5305 USACE NESP	19,447.20	25,000.00	-5,552.80
5306 CIROH UMRS			
Contractual		45,000.00	-45,000.00
Other CIROH		3,500.00	-3,500.00
Supplies		1,500.00	-1,500.00
Total 5306 CIROH UMRS		50,000.00	-50,000.00
5999 Miscellaneous Expense	125.01		125.01
Total Expenditures	\$783,092.05	\$1,348,310.79	\$ -565,218.74
NET OPERATING REVENUE	\$ -53,728.83	\$ -7,310.79	\$ -46,418.04
NET REVENUE	\$ -53,728.83	\$ -7,310.79	\$ -46,418.04

Upper Mississippi River Basin Association

Balance Sheet

As of February 10, 2025

	TOTAL
ASSETS	
Current Assets	
Bank Accounts	
Checking HT 2732	146,575.87
Investment	
CD_1 LPL	50,370.28
CD_2 HT	51,784.85
CD_2 LPL	50,345.20
CD_5 LPL	100,726.03
LPL Cash Account	2,250.89
LPL ETF(exchange-traded funds)	129,197.07
Total Investment	384,674.32
Total Bank Accounts	\$531,250.19
Accounts Receivable	
Contract/grants	0.00
Invoiced/Billable	62,892.18
Total Contract/grants	62,892.18
Total Accounts Receivable	\$62,892.18
Other Current Assets	
Prepaid Expense	8.00
Office Rental Prepaid Expense	8,244.10
Total Prepaid Expense	8,252.10
Total Other Current Assets	\$8,252.10
Total Current Assets	\$602,394.47
Fixed Assets	
604(b) Equipment	568.95
Accum. Deprec. 604(b)	-568.95
Accum. Deprec. OPA	-25,751.36
Accum. Deprec. STC	-2,989.68
Accum. Deprec. UMRBA	-37,292.83
Accum. Deprec. WQ	-1,290.00
OPA Equipment	32,921.68
STC Equipment	4,332.67
UMRBA Equipment	101,887.85
WQ Equipment	1,290.47
Total Fixed Assets	\$73,108.80
TOTAL ASSETS	\$675,503.27

Upper Mississippi River Basin Association

Balance Sheet

As of February 10, 2025

	TOTAL
LIABILITIES AND EQUITY	
Liabilities	
Current Liabilities	
Credit Cards	
Visa Chase 5294	773.88
Total Credit Cards	\$773.88
Other Current Liabilities	
Deferred MO DoC (WLM) Revenue	4,206.05
Office Expense Liabilities	0.00
Travel Expense	1,619.60
Total Office Expense Liabilities	1,619.60
Payroll Liabilities	-695.34
Accrued Vacation	65,805.15
Accrued Vacation FICA	5,034.09
Federal Withholding	189.00
Medicare	
Medicare Company	39.17
Medicare Employee	39.17
Total Medicare	78.34
Minnesota Withholding	-1,113.17
MN Income Tax	1,206.17
MN Unemployment Taxes	813.22
Social Security	
SocSec Company	167.50
SocSec Employee	167.50
Total Social Security	335.00
SUTA (Minnesota UC)	325.51
Workforce Enhancement Fee	334.97
Total Payroll Liabilities	72,312.94
Total Other Current Liabilities	\$78,138.59
Total Current Liabilities	\$78,912.47
Total Liabilities	\$78,912.47
Equity	
Opening Bal Equity	2,886.58
Retained Earnings	647,433.05
Net Revenue	-53,728.83
Total Equity	\$596,590.80
TOTAL LIABILITIES AND EQUITY	\$675,503.27

Upper Mississippi River Quarterly Meetings

Attachment C

Interbasin Diversion Consultation

Page Number	Document Title
C-1 to C-4	UMR Basin Charter (10-2-1989)

THE UPPER MISSISSIPPI RIVER BASIN CHARTER

PRINCIPLES FOR THE MANAGEMENT OF UPPER MISSISSIPPI RIVER BASIN WATER RESOURCES AND NOTIFICATION AND CONSULTATION PROCESS GUIDELINES

FINDINGS

The Governors of the signatory Upper Mississippi River Basin States jointly find and declare that:

The water resources of the Upper Mississippi River Basin are precious natural resources. The Basin's water uses include municipal, industrial, and agricultural water supply; navigation; hydroelectric power and energy production; recreation; mining; and the maintenance of fish and wildlife habitat. The Basin States have a duty to protect, conserve, develop, and manage the water resources of the Basin.

The water resources of the Upper Mississippi River Basin comprise a valuable regional and national resource. The Upper Mississippi river system is a multi-purpose system with two Congressional mandates; it is managed both for commercial navigation and as a national wildlife refuge. The States in partnership with the federal government of the United States share a continuing and abiding responsibility to maintain and enhance all aspects of this multipurpose system. Without careful and prudent management, future diversions of the water resources of the Upper Mississippi River Basin may have significant adverse impacts on the environment, economy, and welfare of the region.

Management of the water resources of the Upper Mississippi River Basin is subject to the jurisdiction, rights, and responsibilities of each Basin State. Effective management of the water resources of the Basin requires the Basin States to exercise their jurisdiction, rights, and responsibilities in the interest of all of the people of the region through a continuing spirit of comity and mutual cooperation.

A preferred means to achieve effective management of the water resources of the Upper Mississippi River Basin is through the joint pursuit of unified and cooperative principles and policies mutually agreed upon and adhered to by the States of the Upper Mississippi River Basin.

PURPOSE

The purposes of this charter are to conserve the levels and flows of the water resources; to protect the environmental ecosystem; to secure present development; to provide a foundation for future investment and development; and to assure all significant benefits and impacts are considered before a decision is made.

**PRINCIPLES FOR THE MANAGEMENT
OF THE UPPER MISSISSIPPI RIVER BASIN WATER RESOURCES**

In order to achieve the purposes of this Charter, the Governors of the signatory Upper Mississippi River Basin States agree, subject to the laws of each state, that:

**Principle I
Integrity of the Upper Mississippi River Basin**

The water resources of the Upper Mississippi River Basin shall be managed for the wise use, benefit, and enjoyment of all citizens of the Basin. The planning and management of the water resources of the Upper Mississippi River Basin shall recognize that the water resources of the Upper Mississippi River Basin transcend political boundaries within the Basin and should be conserved and provided for beneficial uses including navigation, recreation, municipal and industrial water supply, irrigation, hydroelectric power and energy production, water quality, mining, maintenance of fish and wildlife habitat, aquatic ecosystem, and other instream and withdrawal uses.

**Principle II
Notification and Consultation**

The signatory states agree that it is the intent of the states that interbasin diversion of water resources will not be supported if individually or cumulatively they would have significant adverse impact on instream flows, in-basin uses, and the basin ecosystem.

Any state having knowledge of a proposal for a new or increased diversion of water which will exceed 5 million gallons per day average in any 30 day period from the waters of the Upper Mississippi River Basin to another basin shall notify and offer to consult with all signatory states in order to allow all signatory states to express their concerns, identify their interests, develop where possible mutually acceptable agreements, or take such other actions as they may find appropriate.

**Principle III
Cooperation Among States**

The Governors agree to pursue such additional agreements as may be necessary to promote greater cooperation with respect to any new or increased interbasin diversions of Mississippi River Basin waters.

**Principle IV
Reservation of States Rights**

The signatory States mutually recognize the rights and standings of each other to represent and protect the rights of their respective jurisdictions. Each State reserves and retains all rights and authority to seek, in any state, federal, or other appropriate court or forum, adjudication or protection of their respective rights.

NOTIFICATION AND CONSULTATION PROCESS GUIDELINES

1) State Appointments

- Each signatory state shall designate a contact person for the state's involvement in the notification and consultation process.
- The Upper Mississippi River Basin Association shall compile and maintain a mailing list.

2) Notification

- Notice shall be given to all signatory states of an anticipated diversion which exceeds 5 million gallons per day average in any 30 day period.
- The notice shall include at a minimum:
 - a) name, location, and sending and receiving waterbodies or basins
 - b) list of applicable permits
 - c) purpose of water use
 - d) method of measurement
 - e) request for comments

3) Comments/Objections

Comments or objections from the signatory states:

- a) shall be submitted by the Governor or his representative within 45 days
- b) should be based on hydrologic, economic, or environmental concerns
- c) may include a request for a consultation meeting

4) Consultation

- The originating state shall schedule and conduct a consultation meeting when a letter of objection has been received and a consultation meeting requested.
- The originating state shall provide a minimum 30 day notice of the meeting to the Governors or their representatives.
- The originating state shall be responsible for preparation of the agenda, chairing of the meeting, and preparation of notes of the meeting.
- The consultation meeting shall include opportunities for description of the proposed diversion, presentation of basin states positions, and discussion.

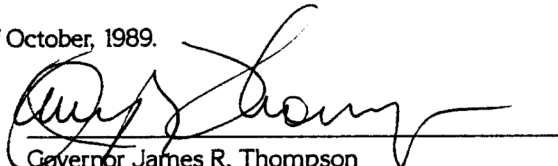
5) Decision

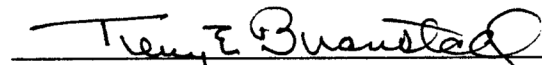
- If no objections are received, the originating state shall make its decision on the proposed withdrawal and inform the signatory states.
- If objections are received, whether or not a consultation meeting is convened, the originating state shall:
 - a) distribute to signatory states a summary of the consultation discussion and comments and a draft response to the diversion request.
 - b) allow 30 days for comments from the signatory states.
 - c) consider comments received.
 - d) distribute the final disposition of the diversion request to all signatory states within 15 days after the final decision has been made.

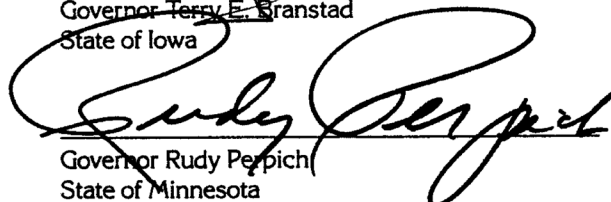
6) Annual Review

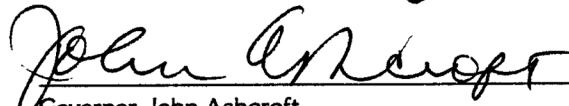
At each annual meeting of the Upper Mississippi River Basin Association each state shall report on its involvement with diversion requests.

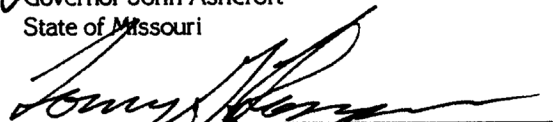
Signed at Milwaukee, Wisconsin this 2nd day of October, 1989.


Governor James R. Thompson
State of Illinois


Governor Terry E. Branstad
State of Iowa


Governor Rudy Perpich
State of Minnesota


Governor John Ashcroft
State of Missouri


Governor Tommy Thompson
State of Wisconsin

Upper Mississippi River Quarterly Meetings

Attachment D

Council of State Governments-Midwest Webinar on Data Centers Expected Growth and Potential Impacts on Water Use and Management

Page Number Reference Title

Hyperlink <https://csgmidwest.org/event/data-centers-the-midwest-and-impacts-on-water-webinar/>

Joint Legislative Audit and Review Commission Report on Data Centers in Virginia

Page Number Document Title

D-1 to D-10 Summary

D-11 to D-13 Recommendations

Hyperlink Full Report:
<https://jlarc.virginia.gov/landing-2024-data-centers-in-virginia.asp>

Summary: Data Centers in Virginia

WHAT WE FOUND

Data centers provide positive economic benefits to Virginia's economy, mostly during their initial construction

Data centers provide positive benefits to Virginia's economy mostly because of the industry's substantial capital investment. The primary benefit comes from the initial construction of data centers. Most construction spending likely remains in the state economy because much of it goes to Virginia-based businesses providing construction materials and services.

Data centers employ fewer employees than some other industries, but data center jobs tend to be high paying. Several data center representatives indicated that a typical 250,000-square-foot data center may have approximately 50 full-time workers, about half of which are contract workers. Data center construction supports a substantially larger number of workers. Construction of an individual data center building usually takes about 12 to 18 months, and data center representatives indicated that, at the height of construction, approximately 1,500 workers are on site from various construction-related industries.

Overall, the data center industry is estimated to contribute 74,000 jobs, \$5.5 billion in labor income, and \$9.1 billion in GDP to Virginia's economy annually. Most of these economic benefits derive from the construction phase rather than data centers' ongoing operations. The economic benefits from the industry are concentrated in Northern Virginia, where most data centers are located, but other regions of the state also benefit because data centers are also located there, or they are home to businesses that provide materials for data center construction.

Data centers can generate substantial local tax revenues for localities that have them

Localities with data centers can collect substantial tax revenues from the industry, primarily from business personal property and real property (real estate) taxes. The amount of local data center revenue depends on several factors, such as the size of their data center market and local tax rates. Some localities have greatly reduced their business personal property tax rates for computer equipment to try to attract data centers, but this also reduces the revenue they can collect from the industry. For the

WHY WE DID THIS STUDY

In 2023, the Joint Legislative Audit and Review Commission directed staff to review the impacts of the data center industry in Virginia.

ABOUT DATA CENTERS

Data centers are specialized facilities that manage, process, and share large amounts of data. They enable the digital services that people rely on daily, including websites, electronic applications, and cloud-based platforms, such as email and media streaming. Northern Virginia is the largest data center market in the world, constituting 13 percent of all reported data center operational capacity globally and 25 percent of capacity in the Americas. Multiple factors have contributed to Northern Virginia's market prominence, including a strong fiber network, supply of reliable cheap energy, available land, proximity to major national customers, and the creation of a state data center tax incentive. The data center industry is growing rapidly in Virginia, both in established markets and newer ones. Significant new market growth is expected in counties outside of Northern Virginia and along the I-95 corridor to Central Virginia.

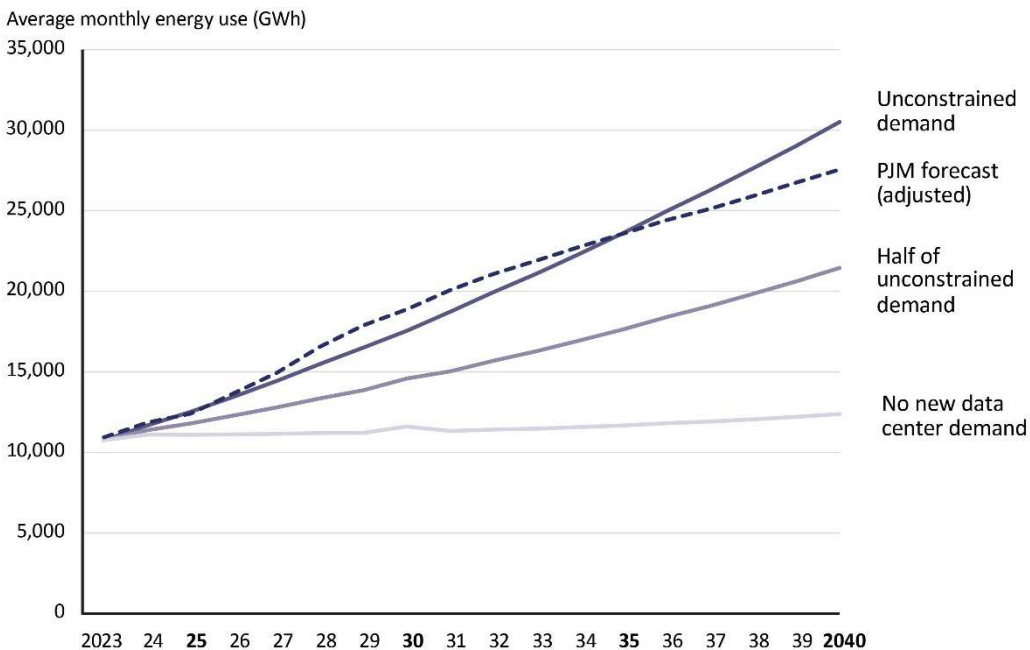
five localities with relatively mature data center markets, data center revenue ranged from less than 1 percent to 31 percent of total local revenue.

Localities in economically distressed areas of the state could benefit from data centers through increased local tax revenue, but these localities could have difficulty attracting the industry. Access to power and large, flat areas of land are key requirements for data centers, but are not available in some distressed areas, particularly in Southwest Virginia. Many distressed localities are also in rural areas that are away from data center customers and population centers, which makes it harder for them to attract the industry. However, these localities may be able to compete for data centers running certain artificial intelligence (AI) workloads, such as training. These localities could potentially become more attractive to the industry if they are able to proactively develop industrial sites suitable to data centers.

Data center industry is forecast to drive immense increase in energy demand

Modern data centers consume substantially more energy than other types of commercial or industrial operations. Consequently, the data center industry boom in Virginia has substantially driven up energy demand in the state, and demand is forecast to continue growing for the foreseeable future. The state's energy demand was essentially flat from 2006 to 2020 because, even though population increased, it was offset by energy efficiency improvements. However, an independent forecast commissioned by JLARC shows that unconstrained demand for power in Virginia would double within the next 10 years, with the data center industry being the main driver. JLARC's independent forecast largely matches the most recent forecast by PJM, which is the regional organization that coordinates generation and transmission operations for Virginia and several other eastern and midwestern states.

Data center demand would drive immense increase in energy needs in Virginia, based on JLARC’s independent forecast and other forecasts

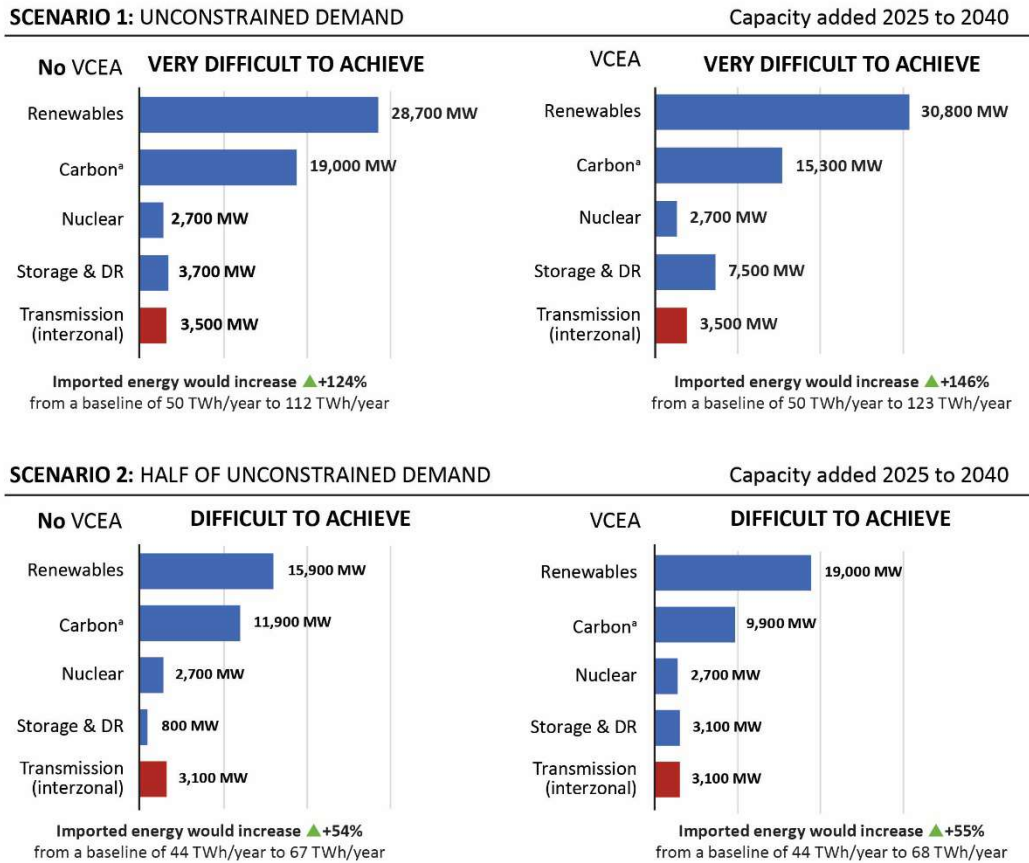


SOURCE: JLARC staff consultant analysis.
 NOTE: A detailed note is provided for this figure in Chapter 3.

Building enough infrastructure for unconstrained data center demand will be very difficult and meeting half that demand is still difficult

An independent model of the energy grid commissioned by JLARC staff found that a substantial amount of new power generation and transmission infrastructure will be needed in Virginia to meet unconstrained energy demand or even half of unconstrained demand. Building enough infrastructure to meet unconstrained energy demand will be very difficult to achieve, with or without meeting the Virginia Clean Economy Act (VCEA) requirements (Scenario 1, figure). New solar facilities, wind generation, natural gas plants, and increased transmission capacity would all be required to meet unconstrained demand, and the number of projects needed would be very difficult to achieve. For example, new solar facilities would have to be added at twice the annual rate they were added in 2024, and the amount of new wind generation needed would exceed the potential capabilities of all offshore wind sites that have so far been secured for future development. Large natural gas plants would also need to be added at an equal or faster rate than the busiest build period for these facilities (2012 to 2018), depending on VCEA compliance.

Estimated generation mix needed to meet demand scenarios, with and without meeting VCEA requirements



SOURCE: E3 grid modeling analysis.

NOTE: A detailed note is provided for this figure in Chapter 3.

^a Carbon includes natural gas, coal, and oil. Biomass facilities are counted as renewable resources, per the VCEA.

However, starting in 2045, E3's grid model assumes natural gas plants would be converted to hydrogen fuel in each scenario when VCEA requirements are met.

Building enough infrastructure to meet half of unconstrained energy demand would also be difficult (Scenario 2 above). If VCEA requirements were not considered, the biggest challenge would be building new natural gas plants. New gas would need to be added at the rate of about one large 1,500 MW plant every two years for 15 consecutive years, equal to the busiest period of the last decade (2012 to 2018). If it is assumed that VCEA requirements would be met, the biggest challenges would be building enough wind, battery storage, and natural gas peaker plants. Wind generation needs would be the same as the unconstrained demand scenario. The amount of new battery storage would be several times the small amount currently in place in Virginia and a significant number of new natural gas peaker plants would have to be constructed. Both Scenarios 1 and 2 would rely on energy from as yet unproven nuclear technologies.

The state could encourage or require data centers to take actions to help address their energy impacts by promoting development of renewable energy generation, participating in demand response programs, and managing energy efficiency. However, these actions would have only a marginal impact on decreasing data center energy demand.

Existing electric utility requirements and processes help limit risks associated with system capacity and reliability

Data centers' projected energy demand increases have raised concerns about whether enough infrastructure can be built to keep pace. Currently, PJM attempts to protect regional grid reliability by requiring utilities to secure sufficient generation capacity plus a reserve margin, and the state requires utilities to develop plans that describe how generation capacity needs will be met. However, individual electric utility planning does not guarantee that the generation resources needed for the whole PJM region will be built because regional generation is not centrally planned. This is less of a concern with transmission because PJM and utility transmission owners centrally identify the impact large loads are expected to have, and how those loads can be brought on safely without causing transmission reliability problems.

If utilities are unable to build enough new infrastructure to keep pace with demand, one of the main ways they can protect grid reliability is by delaying the addition of new large load customers until there is adequate generation and transmission capacity. Utilities appear to be able to delay large load additions for transmission-related concerns, but it is less clear if they are allowed to delay adding new load because of generation concerns.

Data centers are currently paying their full cost of service, but growing energy demand is likely to increase other customers' costs

JLARC staff commissioned an independent study of electric utility cost recoveries under current rate structures to see if the data center industry is paying its share of current costs. The study found that current rates appropriately allocate costs to the customers responsible for incurring them, including data center customers.

However, data centers' increased energy demand will likely increase system costs for all customers, including non-data center customers, for several reasons. A large amount of new generation and transmission will need to be built that would not otherwise be built, creating fixed costs that utilities will need to recover. It will be difficult to supply enough energy to keep pace with growing data center demand, so energy prices are likely to increase for all customers. Finally, if utilities are more reliant on importing power, they may not always be able to secure lower-cost power and will be more susceptible to spikes in energy market prices. A typical residential customer of Dominion Energy could experience generation- and transmission-related costs increasing by an estimated \$14 to \$37 monthly in constant (or real) dollars by 2040 (independent of inflation). Establishing a separate data center customer class, changing cost allocations,

and adjusting utility rates more frequently could help insulate non-data center customers from statewide cost increases.

Data centers create additional financial risks to electric utilities and their customers

The data center industry presents additional financial risks to electric utilities and their customers because of the sheer size of the industry's energy demand. One risk is that utilities will build more generation and transmission infrastructure than is needed if forecast demand does not materialize, or several large data centers close. This could strand utilities with infrastructure costs that would have to be recouped from their existing customer base. Another risk is particular to electric co-ops, which are not-for-profit companies that are owned by their member customers. If a data center customer delayed, disputed, or failed to pay an energy generation bill and the co-op was unable to recoup these costs from the customer, they would ultimately have to be paid by all other co-op members. A large enough bill could potentially result in a co-op defaulting and going bankrupt.

Another risk relates to data center participation in the state's retail choice program, which allows data centers and other large load customers to purchase generation through third parties rather than through their incumbent electric utility. This also has the potential to shift generation costs to other customers if enough data centers "leave" their incumbent utility for retail choice.

Data center backup generators emit pollutants, but their use is minimal, and existing regulations largely curb adverse impacts

To ensure constant operations in the event of a power outage, nearly all data centers maintain diesel generators on-site for backup power. Diesel generators emit several harmful air pollutants, such as nitrogen oxides, carbon monoxide, and particulate matter. To limit potential emissions from backup generators, the Virginia Department of Environmental Quality (DEQ) permits limit when they can be run, how long they can be run, and the maximum annual emissions each permitted site is allowed. Nearly all current data centers use "Tier 2" diesel generators, which DEQ allows to run only in emergencies or as part of routine maintenance testing.

Data center generators are run mostly only for maintenance, and most data center operators interviewed by JLARC staff reported experiencing zero to two minor outages per site in the last two years, with nearly all outages being only a few hours long. Consequently, data centers' diesel generators are a relatively small contributor to regional air pollution—in Northern Virginia, they make up less than 4 percent of regional emissions of nitrogen oxides and 0.1 percent or less of carbon monoxide and particulate matter emissions. While they make up only a small part of regional emissions, DEQ is conducting further study to ensure no harmful impacts occur locally. If the study detects any local air quality impacts, DEQ has the authority to increase protections as needed.

Data center water use is currently sustainable, but use is growing and could be better managed

Data centers require industrial-scale cooling, which is sometimes dependent on water, to manage the heat generated by their computing equipment. Most data centers use about the same amount of water or less as an average large office building, although a few require substantially more, and some require less than a typical household. The amount of water a data center uses depends on its size, computing density, and type of cooling system.

Most data centers receive their water from local water utilities, which make withdrawals from Virginia's water sources (rivers, groundwater). DEQ regulates water withdrawals, including requiring permits for large-scale withdrawals, to protect future water availability and environmental sustainability. However, while DEQ is responsible for ensuring water sustainability, there is less oversight over how available water should be shared across various uses in a locality. Virginia as a whole is relatively water rich, but water is more limited for some localities that do not have access to large amounts of surface water and are in groundwater management areas.

Localities have allowed data centers to be built near neighborhoods, but some localities are taking steps to minimize residential impacts

The industrial scale of data centers makes them largely incompatible with residential uses. One-third of data centers are currently located near residential areas, and industry trends make future residential impacts more likely.

Inadequate local planning and zoning have allowed some data centers to be located near residential areas, which sometimes causes impacts on those residents. In some cases, this occurred because local zoning ordinances did not consider data centers to be an industrial use. In addition, some localities have zoned industrial areas next to residential areas, even though land use principles state that industrial uses and residential uses should not be zoned next to each other. Local elected officials have also granted data centers exceptions that led to adverse residential impacts, such as approving rezonings that would allow data centers next to sensitive locations.

In response to increased residential opposition, some localities have taken steps to minimize the residential impacts of data centers. The three Virginia localities with the largest data center markets have taken or are considering changes to zoning ordinances to better manage future data center development, and several localities considering their first data center projects are proactively implementing planning and zoning changes to promote appropriate industry development. The effectiveness of local efforts to minimize residential impacts ultimately depends on the decisions of local elected officials when considering more restrictive zoning ordinances or individual special permit or rezoning requests.

Data center noise near residential areas presents unique challenges, and some localities are unsure about their authority to address it

The constant nature of data center noise has sometimes been a problem when data centers are located near residential areas. Data centers emit low-frequency noise that is not loud enough to damage nearby residents' hearing and rarely loud enough to violate noise ordinances. However, some nearby residents report that the constant noise generated by some data centers affects their well-being. Although noise has been a problem for some data centers, a large majority of data centers do not generate noise complaints because of their location or design.

Localities traditionally use noise ordinances to address noise concerns, but those typically target excessively loud noise from short-term sources, such as parties and barking dogs, and carry a low maximum civil penalty of \$500. Noise restrictions for data centers could be more effective if included in zoning ordinances instead, but some localities were uncertain whether they have the authority to establish these restrictions in such ordinances. Zoning ordinances that establish maximum allowable sound levels for both new and existing data centers would allow localities to better account for the low-frequency noise data centers emit, prescribe a better process for measuring potential noise violations, and impose more effective penalties for addressing any violations.

Some data center companies are conducting sound modeling studies *before* building data centers, but not all Virginia localities currently require this, and some were unsure whether they had the authority to do so.

Changes to the state's data center sales tax exemption could address some policy concerns related to the industry

Since 2010, Virginia has offered an exemption to the state's retail sales and use tax to attract large-scale data centers. The exemption allows data centers and their tenants to purchase computers and other equipment, such as servers, network infrastructure, cooling equipment, and generators, without paying sales tax. Because data centers are capital intensive, the exemption is valuable to the industry (providing \$928 million in tax savings in FY23), and about 90 percent of the industry uses the exemption. Data center companies report the exemption is an important factor when deciding where to locate and expand, and most of the other states that Virginia competes with for new data center developments have similar exemptions.

Because the data center exemption is a valuable incentive and used by most of the industry, it could be used to incentivize data centers to take actions to address many of the issues discussed throughout this report. There are a range of changes that could be made to the exemption, depending on the General Assembly's policy objectives.

Extend the exemption to maintain industry growth — If the General Assembly wishes to maintain data center industry growth in Virginia and the associated economic and local tax revenue benefits, it could extend the exemption. The exemption is scheduled to expire in 2035, and data center representatives unanimously reported

that expiration of the exemption would negatively affect the state's ability to attract new data centers and keep existing ones. Data center companies typically consider the cost of ownership over a 15- to 20-year period when making location decisions, so to influence future site selection decisions, an extension would need to be in place well before 2035.

Allow the exemption to expire to reduce industry growth and associated energy impacts — If the General Assembly wishes to slow the data center industry's growth in Virginia because it determines that energy impacts, including increasing costs to residential and other customers, outweigh the industry's economic benefits, it could allow the exemption to expire in 2035. While the General Assembly could allow the exemption to expire only in certain regions, like Northern Virginia, that approach would be less effective in reducing overall growth in energy demand because significant growth is occurring in several counties outside of Northern Virginia and is expected to continue.

Change the exemption to balance industry growth and energy impacts — Rather than choosing between economic benefits or reduced energy impacts, the exemption could be changed to try to balance these competing impacts. The General Assembly could allow the full exemption to expire in 2035 (or end it before then) and apply a partial sales tax exemption until 2050. A partial exemption would also better align the economic benefits the state receives with the value of the exemption. Most economic benefits occur during construction, and switching to a partial exemption in 2035 would reduce the value of the exemption in later years when the economic impacts of current and planned data centers could be expected to slow. A partial exemption could also generate more tax revenue for the state.

Use the exemption to address other policy concerns related to the data center industry — If the General Assembly extends the exemption, even as a partial exemption, there are several additional options the General Assembly could implement to address concerns in specific policy areas. The exemption could be modified to address energy, natural resource, historic resource, and residential impacts.

WHAT WE RECOMMEND

This report includes multiple policy options for the General Assembly to consider depending on its policy goals for the data center industry in Virginia. The report also includes several recommendations. The following recommendations include only those highlighted in the report summary. The complete list of recommendations and options is available on page xi.

Legislative action

- Clarify that electric utilities have the authority to delay, but not deny, service to customers when the addition of customer load cannot be supported;

- Direct Dominion Energy to develop a plan for addressing the risk of infrastructure costs being stranded with existing customers, and file that plan with the State Corporation Commission;
- Expressly authorize local governments to require and consider water use estimates for proposed data center developments;
- Expressly authorize local governments to require sound modeling studies for proposed data center developments; and
- Expressly authorize local governments to establish and enforce maximum allowable sound levels for operational data center facilities using alternative low frequency metrics and zoning ordinances.

Executive action

- The Virginia Economic Development Partnership should clarify that grants under the Virginia Business Ready Sites Program can be used for potential data center sites.

Recommendations and Policy Options: Data Centers in Virginia

JLARC staff typically make recommendations to address findings during reviews. Staff also sometimes propose policy options rather than recommendations. The three most common reasons staff propose policy options rather than recommendations are: (1) the action proposed is a policy judgment best made by the General Assembly or other elected officials, (2) the evidence indicates that addressing a report finding is not necessarily required, but doing so could be beneficial, or (3) there are multiple ways in which a report finding could be addressed and there is insufficient evidence of a single best way to address the finding.

Recommendations

RECOMMENDATION 1

The Virginia Economic Development Partnership should clarify in site characterization and development guidelines that potential data center sites are eligible for grants under the Virginia Business Ready Sites Program. (Chapter 2)

RECOMMENDATION 2

The General Assembly may wish to consider amending the Code of Virginia to clarify that electric utilities have the authority to delay, but not deny, service to customers when the addition of customer load cannot be supported by the transmission system or available generation capacity. (Chapter 3)

RECOMMENDATION 3

The General Assembly may wish to consider amending the Code of Virginia to expand the Accelerated Renewable Buyers program, which allows large customers of energy utilities to claim credit for purchases of solar and wind *energy* to offset certain utility charges, to also allow customers to claim partial credit for purchases of *capacity* from battery energy storage systems based on the current PJM electric load carrying capacity rating. (Chapter 3)

RECOMMENDATION 4

The General Assembly may wish to consider amending the Code of Virginia to require that utilities establish a demand response program for large data center customers and to require that these customers participate in the program. (Chapter 3)

RECOMMENDATION 5

The General Assembly may wish to consider amending the Code of Virginia to direct Dominion Energy to develop a plan for addressing the risk of generation and transmission infrastructure costs being stranded with existing customers and file that plan with the State Corporation Commission as part of its biennial rate review filing or as a separate filing. (Chapter 4)

RECOMMENDATION 6

The General Assembly may wish to consider amending the Code of Virginia to expressly authorize local governments to (i) require proposed data center developments to submit water use estimates and (ii) consider water use when making rezoning and special use permit decisions related to data center development. (Chapter 5)

RECOMMENDATION 7

The General Assembly may wish to consider amending the Code of Virginia to expressly authorize local governments to require sound modeling studies for data center development projects prior to project approval. (Chapter 6)

RECOMMENDATION 8

The General Assembly may wish to consider amending the Code of Virginia to expressly authorize local governments to establish and enforce maximum allowable sound levels for data center facilities, including (i) using alternative low frequency noise metrics and (ii) setting noise rules and enforcement mechanisms in their zoning ordinances, separate from existing noise ordinances. (Chapter 6)

Policy Options to Consider

POLICY OPTION 1

The General Assembly could consider amending the Code of Virginia to require that, as a condition of receiving the sales tax exemption, data center companies meet and certify to an energy management standard, such as the International Organization for Standardization's 50001 standard for energy management. (Chapter 3)

POLICY OPTION 2

The General Assembly could consider amending the Code of Virginia to allow electric cooperatives to create for-profit subsidiary companies that could fulfill their legal obligation to provide energy services (retail sales) to customers with load capacity of over 90 MW. (Chapter 4)

POLICY OPTION 3

The General Assembly could consider amending the Code of Virginia to require that electric utilities establish caps on participation in retail choice that protect ratepayers from undue costs, and that such caps be approved by the State Corporation Commission through a formal case process. (Chapter 4)

POLICY OPTION 4

The General Assembly could amend the Code of Virginia to require that, as a condition of receiving the data center sales and use tax exemption, all new data center developments in the Northern Virginia Ozone Nonattainment Area use only Tier 4 generators, Tier 2 generators with selective catalytic reduction systems, or generators with equivalent or lower emission rates. (Chapter 5)

POLICY OPTION 5

The General Assembly could amend the Code of Virginia to require that, as a condition of receiving the sales and use tax exemption, data center companies meet and certify to an environmental management standard, such as the International Organization for Standardization's 14001 standard for Environmental Management Systems. (Chapter 5)

POLICY OPTION 6

The General Assembly could amend the Code of Virginia to require that, as a condition for receiving the sales and use tax exemption, data center companies conduct a Phase I historic resource study of a proposed development site, as well as a viewshed analysis when a proposed site is located within a certain distance of a registered historic site, and report the study findings to the appropriate locality prior to development. (Chapter 5)

POLICY OPTION 7

The General Assembly could amend the Code of Virginia to require that, as a condition for receiving the sales and use tax exemption, data center companies conduct a sound modeling study prior to the development of a proposed data center that is to be located within a certain distance of a residential development or area zoned for residential development and provide the study findings to the appropriate locality. (Chapter 6)

POLICY OPTION 8

The General Assembly could amend the Code of Virginia to extend the expiration date for the state's sales and use tax exemption for data centers from 2035 to 2050. (Chapter 7)

POLICY OPTION 9

The General Assembly could allow the sales and use tax exemption for data centers to expire in 2035. (Chapter 7)

POLICY OPTION 10

The General Assembly could amend the Code of Virginia to extend a partial sales and use tax exemption for data centers from 2035 to 2050. (Chapter 7)

Upper Mississippi River Quarterly Meetings

Attachment E

USGS National Water Availability Assessment January 2025

Page Number	Reference Title
Hyperlink	Report: https://pubs.usgs.gov/publication/pp1894
Hyperlink	Interactive Website of Data Results: https://water.usgs.gov/vizlab/water-availability/
Hyperlink	Recorded Briefing: https://www.usgs.gov/media/videos/national-water-availability-assessment-release

Upper Mississippi River Quarterly Meetings

Attachment F

Additional Items

Page Number	Document Title
F-1	Future Meeting Schedule
F-2 to F-8	Frequently Used Acronyms (4-29-2022)

Upper Mississippi River Quarterly Meetings

Future Meeting Schedule

May 2025 — La Crosse, Wisconsin

May 20	UMRBA Quarterly Meeting
May 21	UMRR Coordinating Committee Quarterly Meeting

August 2025 — Minneapolis-St. Paul Metro

August 5	UMRBA Quarterly Meeting
August 6	UMRR Coordinating Committee Quarterly Meeting

Acronyms Frequently Used on the Upper Mississippi River System

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

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

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

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

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

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

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