

**Minutes of the 165th Quarterly Meeting
of the
Upper Mississippi River Basin Association**

**February 28, 2023
Virtual Conference Meeting**

Tim Hall called the meeting to order at 9:00 a.m. Participants were as follows:

UMRBA Representatives and Alternates:

Rick Pohlman	Illinois Department of Natural Resources
Chad Craycraft	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
Dana Vanderbosch	Minnesota Pollution Control Agency
Patrick Phenow	Minnesota Department of Transportation
Erin Fanning	Missouri Department of Natural Resources
Chris Klenklen	Missouri Department of Agriculture
Matt Vitello	Missouri Department of Conservation
Cheryl Ball	Missouri Department of Transportation
Jim Fischer	Wisconsin Department of Natural Resources

Federal UMRBA Liaisons:

Brian Chewning	U.S. Army Corps of Engineers, Mississippi Valley Division
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Others in Attendance:

Brian McCoy	Illinois Department of Transportation
BJ Murray	Illinois Department of Transportation
Kirk Hansen	Iowa Department of Natural Resources
Randy Schultz	Iowa Department of Natural Resources
Caleb Whitehouse	Iowa Department of Transportation
Samuel Sturtz	Iowa Department of Transportation
Kevin Stauffer	Minnesota Department of Natural Resources
Megan Moore	Minnesota Department of Natural Resources
Neil Rude	Minnesota Department of Natural Resources
Nick Schlessler	Minnesota Department of Natural Resources
Vanessa Perry	Minnesota Department of Natural Resources
Ken Henderson	Missouri Department of Agriculture
Aaron Goddard	Missouri Department of Natural Resources
Bob Bacon	Missouri Department of Natural Resources
Elizabeth Kirby	Missouri Department of Natural Resources
Zachary Becker	Missouri Department of Natural Resources

Stacey Fowler	Missouri Department of Transportation
Dan Baumann	Wisconsin Department of Natural Resources
Patrick Kelly	Wisconsin Department of Natural Resources
Doug Daigle	U.S. Army Corps of Engineers, Lower Mississippi River Sub-basin Committee
LeeAnn Riggs	U.S. Army Corps of Engineers, Mississippi Valley Division
Richie McComas	U.S. Army Corps of Engineers, Mississippi Valley Division
Thatch Shepard	U.S. Army Corps of Engineers, Mississippi Valley Division
James Briggs	U.S. Army Corps of Engineers, New Orleans District
Breann Popkin	U.S. Army Corps of Engineers, Rock Island District
Jodi Cresswell	U.S. Army Corps of Engineers, Rock Island District
Marshall Plumley	U.S. Army Corps of Engineers, Rock Island District
Rachel Hawes	U.S. Army Corps of Engineers, Rock Island District
Greg Kohler	U.S. Army Corps of Engineers, St. Louis District
Jasen Brown	U.S. Army Corps of Engineers, St. Louis District
Joan Stemler	U.S. Army Corps of Engineers, St. Louis District
Lance Engle	U.S. Army Corps of Engineers, St. Louis District
Shawn Sullivan	U.S. Army Corps of Engineers, St. Louis District
Kevin Wilson	U.S. Army Corps of Engineers, St. Paul District
Kimberly Warshaw	U.S. Army Corps of Engineers, St. Paul District
Samantha Thompson	U.S. Army Corps of Engineers, St. Paul District
Karen Hagerty	U.S. Army Corps of Engineers, UMRR LTRM
Jim Cole	U.S. Army Corps of Engineers, Vicksburg District
Travis Black	U.S. Department of Transportation, Inland Waterways Gateway Office
Elisabeth Lang	U.S. Environmental Protection Agency
Katie Flahive	U.S. Environmental Protection Agency
Whitney King	U.S. Environmental Protection Agency
Zachary Liebowitz	U.S. Environmental Protection Agency, Region 7
Matt Mangan	U.S. Fish and Wildlife Service, Illinois Ecological Services
Kraig McPeck	U.S. Fish and Wildlife Service, Illinois-Iowa Ecological Services
Sara Schmuecker	U.S. Fish and Wildlife Service, Illinois-Iowa Field Office
Lauren Larson	U.S. Fish and Wildlife Service, Illinois-Iowa Field Office
Greg Conover	U.S. Fish and Wildlife Service, MICRA
Mary Stefanski	U.S. Fish and Wildlife Service, UMR National Wildlife and Fish Refuge
Neal Jackson	U.S. Fish and Wildlife Service, UMRCC
JC Nelson	U.S. Geological Survey, Midcontinent Region
Kim Lutz	America's Watershed Initiative
Anshu Singh	Corn Belt Ports
Jill Crafton	Izaak Walton League of Minnesota
Fritz Funk	Lake Onalaska Protection and Rehabilitation District
Brent Newman	National Audubon Society
Michael Welvaert	National Weather Service
Steve Buan	National Weather Service
Bryan Hopkins	The Nature Conservancy
Bryan Piazza	The Nature Conservancy
Randy Smith	The Nature Conservancy
Ashley Peters	University of Minnesota
Melissa Kenney	University of Minnesota
Kirsten Wallace	Upper Mississippi River Basin Association

Mark Ellis	Upper Mississippi River Basin Association
Natalie Lenzen	Upper Mississippi River Basin Association
Lauren Salvato	Upper Mississippi River Basin Association
Andrew Stephenson	Upper Mississippi River Basin Association
Erin Spry	Upper Mississippi River Basin Association

Minutes

Rick Pohlman moved and Jim Fischer seconded a motion to approve the draft minutes of the November 15, 2022 UMRBA quarterly meeting as provided in the agenda packet. The motion was approved unanimously.

Executive Director's Report

Kirsten Wallace pointed to the Executive Director's report in the agenda packet for a summary of the Association's work efforts since the November 2022 meeting.

Wallace showcased the Upper Mississippi River Restoration program's new communications flyers describing the state of the Upper Mississippi River ecosystem. Thanks to the Upper Mississippi River Restoration program, through USGS's administration on long term resource monitoring, we now have the most robust knowledge of any large riverine ecosystem in the world. That was underscored in a scientific report published in 2022 of the ecological status and trends, of which USGS's Jeff Houser has presented before the Board twice. Wallace noted that the UMRR partnership has wanted to make that information available and accessible to decision makers and partners and the public. Wallace applauded the UMRR team, including UMRBA staff Andrew Stephenson and Erin Spry, for their work in developing the series of flyers that communicate the most important observations about the river's ecological health and how long term monitoring can inform how the river's ecological resources can be sustained and restored. There will be five brochures – with a focus on floodplain forests, fisheries, sediment, water quality, aquatic vegetation.

Wallace announced that, on March 2, 2023, UMRBA and Waterways Council will co-host a bicameral, non-partisan briefing among Congressional staff for the purposes of informing new members about NESP and getting all staff to coalesce around a FY 2024 appropriation request of \$120 million for NESP. UMRBA will provide a general overview of the program purpose and history, dual purpose authorization, the FY 2023 planned program, and the FY 2024 appropriation request. Waterways Council and The Nature Conservancy provided specific information about the navigation and ecosystem investments, respectively.

Wallace thanked USGS for hosting the February 15-16, 2023 Mississippi River Forum, which illuminated questions about the scope of current information available, what gaps in knowledge exist, and what science could be done to address those gaps. A report to congress on the results of the Forum will be published by USGS.

Tim Hall pointed to UMRBA's October 2022 to January 2022 financial statements provided on pages B-6 to B-11 of the agenda packet. Grant Wilson moved and Rick Pohlman seconded a motion to approve the Association's budget report and balance sheet as included in the agenda packet. The motion carried unanimously. Wallace mentioned that the UMRBA Board has reviewed the Association's biennial audit covering FYs 2021 and 2022.

Wallace thanked the UMRBA Board for renewing UMRBA's Personnel Manual, which adds new policies that will help UMRBA be competitive for retaining existing employees and attracting new employees. Tim Hall acknowledged Wallace and Natalie Lenzen, UMRBA's Operations Manager, for their assistance to the Board in drafting and evaluating recommendations for the Board's consideration. In response to a prompt from Hall, Pohlman moved and Jim Fischer seconded a motion to adopt the new UMRBA Personnel Manual effective March 1, 2023. The motion passed unanimously.

Wallace presented an update of various income and expenditure assumptions related to UMRBA's FY 2023 budget. In response, Loren Wobig moved and Grant Wilson amended UMRBA's budget that now estimates total income of \$876,057.60 and total expenditure of \$935,532.50 resulting in an anticipated net loss of \$59,474.90. The motion carried unanimously with no comments.

Wallace recalled that, at its November 15, 2022 quarterly meeting, the UMRBA Board authorized her to enter into a cooperative contract with USGS of up to \$200,000 to receive financial compensation for UMRBA's involvement in the Navigation and Ecosystem Sustainability Program (NESP). Wallace explained that the Corps will now transfer the funds directly to UMRBA. In follow up and in response to a prompt from Hall, Fischer moved and Pohlman seconded a motion to amend the authorization from USGS to the Corps. The motion passed unanimously.

Interbasin Diversion Consultation

Annual Reporting

Kirsten Wallace explained that the five states are party to the 1989 Upper Mississippi River Basin Charter, which sets forth a notification and consultation process for any new or increased water diversion out of the basin that will exceed an average of five million gallons per day during any 30-day period. The Charter requires the signatory states to report on their involvement in qualifying diversion requests at UMRBA's annual meeting. The states reported as follows:

Illinois, Rick Pohlman	— no qualifying diversion requests
Iowa, Tim Hall	— no qualifying diversion requests
Minnesota, Grant Wilson	— no qualifying diversion requests
Missouri, Erin Fanning	— no qualifying diversion requests
Wisconsin, Jim Fischer	— no qualifying diversion requests

Water Availability Cumulative Impact Assessment

Wallace reminded that the Governor's representatives directed UMRBA to convene state experts to assess the Charter's current provisions and identify any recommended revisions to the Charter to ensure that it advances the Charter's stated principles. In 2022, the *ad hoc* group implemented several scenarios for the purposes of better understanding 1) how their unique approaches and authorities to regulating water use may influence implementation of the Charter and 2) evaluate important contextual questions around the Charter's provisions. Each state developed and implemented a proposal for a diversion originating within their state, and then reviewed scenarios that the other states had identified. That led to many recommendations. Wallace explained that the Board's top priorities are to i) renew the Charter text reflecting the states' current value of water resources, ii) develop communications related to

UMRBA's efforts to review the UMR Basin Charter, and iii) develop a water availability cumulative impact assessment.

Wallace explained that the goal of the cumulative impact assessment is to assess vulnerabilities in water availability in the Upper Mississippi River Basin (UMRB) that support multiple water users and uses. The purpose is to inform the Upper Mississippi River states' evaluation of potential out-of-basin water diversions. The cumulative impact assessment will explore questions relating to the known and estimated impacts to water availability through the UMRB resulting from any current and potential future out-of-basin water diversions and consumptive uses. As a first step, the *ad hoc* group is working collaborative to align their water data categories and develop a database to organize the data.

Navigation Channel Management

USACE Beneficial Use Implementation Guidance Update

Richie McComas of USACE Mississippi Valley Division provided updates to Section 125 of WRDA 2020. Section 125 renews the Congressional commitment to beneficial reuse of dredged material by:

- a) Establishing a national policy to maximize the beneficial use of material obtained from Corps projects, requiring the Corps to calculate the economic and environmental benefits of the beneficial use of dredged material when calculating the Federal Standard
- b) Increasing the number of beneficial use of dredged material demonstration projects to 35 projects
- c) Directing the Corps to develop five-year regional dredged material management plans
- d) Emphasizing greater coordination among the Corps' dredging contracts

McComas reported that USACE Headquarters issued implementation guidance for Section 125(a) on November 7, 2022. McComas anticipates that updating regional dredged material management plans (DMMPs) will be more effective and easier to implement.

McComas explained that the new beneficial use policy allows the Corps to transition from calculating the federal standard based on a specific event to the full lifecycle of sediment management. McComas detailed the costs and benefits that comprise the federal standard, including the direct and incidental costs of dredging and dredged material transportation to a placement site and the placement along with estimated value of economic, environmental, and social benefits.

To facilitate quicker updates to the 20-year DMMPs, a beneficial use decision document integration (BUDDI) can be attached as an addendum to a DMMP updating the federal standard, adding new beneficial use sites, and identifying other means for adding capacity of placement sites.

The Corps has established a goal of reusing 70 percent of dredged material by 2030, and believes that reaching that goal will depend upon collaboration and partnerships. In response to a question from Tim Hall, McComas clarified the current rate of beneficial use is between 30 percent and 40 percent. Kirk Hansen asked how the cost share above the federal standard is calculated and whether projects costing above the federal standard require a non-federal sponsor. McComas believed it required a non-federal sponsor and would respond to the UMRBA Board with more detailed information about cost-sharing.

In response to a question from Jill Crafton, McComas explained that the Corps tests dredged material for water quality contaminants prior to reuse application and records the results in associated documentation.

McComas reported that the Corps intends to reevaluate all DMMPs to update them with the new policy. Breann Popkin clarified that part of the regional, five-year DMMP (5-year DMMP) is to outline the existing federal standard sites and then identify the additional beneficial reuse opportunities.

OSIT Recommendations

Jodi Creswell, as its co-Chair, conveyed the recommendations of the of the Rock Island District River Resources Coordinating Team (RRCT) channel maintenance policy and strategy, communications, and efforts to reduce sediment delivery to the Upper Mississippi River from its tributaries. Creswell pointed to pages D-22 to D-24 of the meeting agenda packet for the RRCT's February 13, 2023 letter to the Rock Island District Commander Col. Jesse Curry. The letter includes nine recommendations for resolving implementation barriers, sharing electronic documents, developing a charter for the On-Site Inspection Team (OSIT), and supporting state efforts to reduce sediment input from tributaries. The RRCT is evaluating which recommendations can be advanced in the near term. Jim Fischer thanked the RRCT for its work to develop the suite of recommendations, especially in light of the changes to the river. Kraig McPeck expressed appreciation for the ongoing discussion that is occurring through the RRCT.

Emerging Contaminants Monitoring

Popkin explained the various laws and regulations that govern dredge material through its lifecycle, concluding that USACE has been identified as the responsible party when dredged material has elevated contaminants. Based on historic boring data, the sands of the UMR lack the capacity to accumulate contaminants as readily as other areas. However, emerging contaminants are not yet understood and may behave differently. Because of the unknown properties of emerging contaminants, the Corps is taking a risk-based approach to manage dredged materials at this time.

Lauren Salvato provided a general overview of UMRBA's effort to develop an emerging contaminant monitoring plan for the UMRS. PFAS is a suite of synthetic, long-lasting chemicals with widespread use since the 1940s that can bioaccumulate in organisms. Most current PFAS monitoring data is obtained from surface water samples and lacks a comprehensive scope. PFAS is present throughout multiple media (e.g., sediment, water, fish tissue), but it is unknown how PFAS moves through the system. Some states have developed their own PFAS standards while others wait for USEPA guidance.

The Unregulated Contaminants Monitoring Rule (UCMR) has provided some PFAS data in community drinking water sources. Other data sources in the Upper Mississippi River include a 2019 Wisconsin DNR study of PFOS present in fish tissue and Minnesota PCA's monitoring on PFOS concentrations in sediment and macroinvertebrates as part of the 3M lawsuit on PFAS. The Wisconsin DNR study compared concentration of PFOS in water in nanograms per liter to concentration of PFOS in fish tissue in nanograms per gram.

Salvato said UMRBA is seeking funding to support its Interstate Water Quality Monitoring Program, which involves probabilistic and fixed site sampling to support the states' ability to determine whether Clean Water Act goals are being met related to four major designated uses (aquatic life, drinking water, fish consumption, recreation). The monitoring would allow for characterizing the river's condition, addressing information gaps, aid in public health and environmental justice, and improving down river conditions.

Salvato provided the following resources for additional information:

- Minnesota Department of Health PFAS testing of community water sources:
<https://mdh.maps.arcgis.com/apps/MapSeries/index.html?appid=63515695237f425ea7120d1aac1fd09a>
- Illinois EPA PFAS dashboard:
<https://illinoisepa.maps.arcgis.com/apps/dashboards/d304b513b53941c4bc1be2c2730e75cf>
- Missouri DNR PFAS viewer:
<https://modnr.maps.arcgis.com/apps/webappviewer/index.html?id=386c71927569476ebd2d0e6910424d17>
- Wisconsin DNR PFAS reports: <https://dnr.wisconsin.gov/topic/PFAS/SWFish.html>
- Iowa DNR PFAS sampling:
<https://experience.arcgis.com/experience/b04e0e828a974e6e8962e47895ebb520>

In response to a question from Megan Moore, Salvato confirmed that PFOS monitoring was not included in the CWA Reaches 0-3 pilot that occurred in 2016. Jill Crafton asked for a portal to submit fish tissue data from a local watershed district board. Salvato suggested submitting the information to the WQX portal. Salvato explained that UMRBA is planning to create a centralized UMR database in the near future but it is not available yet.

Resilience Planning

Iowa Drought Plan

Tim Hall explained that, during a 2021 drought meeting hosted by the Iowa State Emergency Operations Center, Iowa DNR, the Iowa climatologist's office, and the Iowa Department of Homeland Security (HSEMD) called for a statewide drought plan that would answer two questions: i) what information is needed and when is that information needed and ii) what actions are needed and when are those actions needed? Iowa established a core drought team with members from HSEMD, DNR, IDALS, National Drought Mitigation Center (NDMC), and the USDA Climate Hub located in Ames, Iowa. And, Iowa established a science and data team to ensure the plan is data-driven. Hall reported that the new Iowa Drought Plan is complete with the Directors of Iowa DNR, HSEMD, and the Iowa Secretary of Agriculture all providing their formal endorsement. The Plan is available the Iowa DNR website at https://www2.illinois.gov/dnr/WaterResources/Documents/SWPTF_Report_Dec2022.pdf.

The Iowa Drought Plan sections the state into five drought regions based on similarities in geology and hydrology and classifies drought as normal, watch, warning, and emergency. Drought triggers are determined for each drought region separately. Three of four individual "triggers" must be met in order to declare drought in any of the four classifications; the trigger categories are streamflow, USDM drought designation, precipitation, and standardized precipitation index. Internal and external communication systems are enacted following a declaration of a drought classification.

The Iowa Drought Plan is intended to serve as a catalyst for county or local planning. Iowa anticipates updating the Drought Plan following the scheduled five-year updates to the State Hazard Mitigation Plan.

Plans to update the Iowa Drought Information System include establishing a statewide soil moisture network and a web-based portal to support the drought information system.

Crafton suggested efforts to encourage farmers of larger agricultural systems to hold more water. She also suggested modeling the Practical Farmers of Iowa's regenerative agriculture work. Hall responded that the Drought Plan is part of a larger effort to understand water flow through drain tile systems.

In response to a question from Dan Baumann, Hall explained that Iowa does declare a drought emergency as a means to receive federal funding for response efforts. The purpose for the declarations in the Iowa Drought Plan is to convey information to local authorities in their response efforts. Iowa intends to integrate those efforts collaboratively rather than have one supersede the other.

Illinois Water Plan

Loren Wobig presented the 2022 Illinois State Water Plan update, which represents opportunities to improve water related programs and policies, educate, protect water quality and supply, better address water-related social and environmental injustices, better engage with concerned citizens and organizations, implement measurable water related actions, and ensure that the water resources of the state are available to all people in Illinois. This new plan includes social and environmental justice considerations and involves dynamic data, is accessible to the public, and considers climate change impacts. The Plan highlights 13 critical issues and 147 recommendations for resolving, improving, or advancing those issues. Wobig pointed out that 33 percent of the 147 recommendations relate to climate change.

The Illinois State Water Plan Task Force is pursuing an executive order or joint resolution to establish credibility of the Plan. The Task Force will continue to meet and measure the results of the updated Plan. The Task Force is also launching an Integrated Water Information Center (IWIC): a central library for all water information in the state. The library will include groundwater and well data to flood damage assessment information. Wobig offered the following web link for partners to track the Task Force's efforts: <https://www2.illinois.gov/dnr/WaterResources/Pages/StateWaterPlanTaskForce.aspx>. Legislation is needed to formally recognize the State Water Plan Task Force and support it through funding.

Bryan Hopkins expressed appreciation to the state of Illinois for updating the statewide Water Plan and expressed The Nature Conservancy's interest to engage in efforts related to the integrated watershed portion of the Plan. Hopkins noted that The Nature Conservancy is also re-evaluating its water policy. In response to a question from Hopkins, Wobig explained that the levee database will support information about levee height, levee issues, pump station maintenance, regulatory needs, and funding.

2023 UMRS Flood and Drought Forecast

Mike Welvaert explained that, as of February 21, 2023, soil moisture conditions are dry across Minnesota and Iowa. Conditions were wetter earlier in the winter season, but most of the region has returned to "near normal" conditions.

Welvaert reported that current flood risks are high for areas with deeper snowpack. Frost depths are generally a foot or less in Minnesota, Wisconsin, and Iowa. This should allow for infiltration of melt water into soil and will reduce flooding risk. The outlook for temperatures in the region within the next month are projected to be below normal whereas precipitation looks to be above normal. The National Central

River Forecast Center (NCRFC) flood outlook has assigned an above normal flood risk for the Minnesota River and the Upper Mississippi River mainstem, where there is potential for moderate to major level flooding. Spring temperatures and precipitation will drive the melt rate and timing, affecting the potential and severity for flooding.

Water Levels to Support Navigation in Middle Mississippi River (Open River)

Joan Stemler presented an overview of low water conditions and operations in the St. Louis District. In October 2022, the Mississippi River surpassed the 10 daily-low records at the St. Louis gage. The fall 2022 extended river forecast for the Middle Mississippi River predicted extremely low stages from spring. Multiple dredges were working to prepare the 9-foot navigation channel and the Corps used extra storage at Lake Shelbyville and Carlyle Lake to raise river levels. Stemler credited the use of storage to reduce the impact of “ice bite” or water level decrease at ice formation.

Megan Moore asked if there was any concern for floodplain forests while water was held high. Stemler explained that high water held at reservoirs is maintained at a level that does not affect the floodplain forests. The Corps consults biologists to inform water management decisions.

Multi-Benefit Conservation Practices

Outcomes from November 2022 Workshop

Lauren Salvato explained UMRBA members states are working collaboratively through the UMRBA Water Quality Executive Committee and Hypoxia Task Force federal-state partnerships. In recent years, the UMRBA Water Quality Executive Committee has had focused conversations for states to learn from one another in their state nutrient reduction strategies as well as to work collectively to accelerate nutrient reduction efforts. As part of that larger conversation, UMRBA is convening leading experts and organizations to discuss opportunities and challenges associated multi-benefic conservation practices on agricultural lands.

Salvato reported that UMRBA hosted a workshop in November 2022 for the purposes of improving shared knowledge of conservation techniques, strengthening regional collaboration, and identifying collaborative solutions for accelerating the adoption of conservation practices. The workshop included panel presentations and facilitated discussions related to finance, research, and communications. Salvato provided an overview of the many resulting recommendations raised during the facilitated discussions, and said UMRBA will soon publish a summary of presentations and recommendations.

Another workshop is being planned for October 2023. Salvato thanked the workshop planning committee, which included state natural resource and agricultural agencies and USEPA.

Navigation and Ecosystem Sustainability Program and Upper Mississippi River Restoration Program

Navigation and Ecosystem Sustainability Program (NESP)

Andrew Goodall reported that the first NESP Coordinating Committee meeting is scheduled for April 5, 2023. A charter for the NESP Coordinating Committee Charter remains in development, and partner funding agreements are under review. The Rock Island District submitted a proposal for convening the Advisory Panel to MVD, and it will be considered by the USACE vertical team. NEPA compliance

evaluation and Endangered Species Act coordination remain ongoing. Goodall reported on the status of ecosystem restoration projects: construction for one project will begin this summer, construction contracts will be awarded for six projects, and planning will continue on two projects. In response to a question from Kirsten Wallace, Goodall confirmed that UMRBA's comments regarding the Advisory Panel were incorporated into the proposal submitted to MVD.

JC Nelson said that, during the recent Mississippi River Science Forum, it was clear that there are a many unmet data and research needs in the river system. In response to a question from Nelson, Goodall explained that NESP's monitoring and adaptive management efforts in FY 2023 will depend upon funding. In response to a question from Stephenson, Rachel Hawes reported that development on the NESP Systemic Forest Stewardship Plan is delayed.

Bryan Hopkins stated that The Nature Conservancy is a strong supporter of NESP, but has serious concerns about the program's current lack of transparency. Hopkins emphasized a need for systemic restoration planning, expressing concern that the quick project selection cycle minimized partner engagement and removed the ability to focus on large scale issues. Goodall expressed appreciation for TNC's support for NESP. Goodall underscored that NESP is maturing and anticipates that NESP will foster collaborative, systemic restoration planning in the future. Goodall stated that he hopes partner engagement will be fostered through the NESP Coordinating Committee quarterly meetings going forward.

Financial Update / Program Efforts

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

Plumley said Headquarters is still reviewing the draft 2022 UMRR Report to Congress. The UMRR Coordinating Committee is reviewing of progress in implementing the 2015-2025 UMRR Strategic and Operational Plan and evaluating and prioritizing actions for advancing remaining priorities through 2025. Plumley applauded the success of in communicating the third UMRR ecological status and trends analysis. UMRR is drafting concise flyers to a) increase accessibility to the long term monitoring dataset and b) improve knowledge of the ecosystem to key decision makers, partners, and interested public.

Plumley explained that the UMRR Coordinating Committee tasked an *ad hoc* group to identify and prioritize information needs that can be advanced through UMRR long term resource monitoring and science. The group has identified 29 specific information needs in four categories: hydrogeomorphic change, floodplain ecology, aquatic ecology, and restoration applications.

UMRR will soon initiate scoping for planning future HREPs, with the goal of identifying a suite of potential projects by 2025. UMRR is also planning to host a workshop among habitat project practitioners and resource experts in winter 2023 or 2024.

State Priorities

Kirk Hansen underscored the value of the Upper Mississippi River's partnership among states, federal agencies, and nongovernmental partners. Hansen encouraged partners to lean into the foundational building blocks of NESP: strategic planning, communications, adaptive management, and partnership.

At this stage of NESP implementation, there is a need to reduce redundancies with UMRR and instead leverage capacities. Hansen hopes that formalizing partner roles through the NESP Coordinating Committee, including through the development of a charter, will strengthen the opportunities through NESP. Hansen stated UMRBA priority for implementing Section 8004(a) of NESP's authorization – i.e., integrated ecological sustainability in the 9-foot navigation channel management. Hansen stated that UMRBA and its member states remain committed to advancing the multi-purpose management of the Upper Mississippi River.

Nongovernmental Program Initiatives

Mississippi River Basin Monitoring System

Bryan Piazza introduced The Nature Conservancy's (TNC's) proposal for a comprehensive monitoring system for the Mississippi River Basin. The purpose for the monitoring system is to inform management that will improve water quality, make the river more flood resilient, and create a healthier Gulf of Mexico. TNC has found that the current monitoring system in the Mississippi River Basin is inadequate to determine the levels of risk and the effects of actions to mitigate those risks. Although monitoring efforts exist, these efforts are truncated geographically and are challenged by inconsistent monitoring. Therefore, TNC is recommending the establishment of a fully federally funded sentinel monitoring system across the Mississippi River basin. Three critical levels are identified to achieve the goal: align funding, recruit champions and advisors, and target places and solutions.

TNC is fostering a coalition of over 50 active members to design the program and to advocate for funding. The coalition has named four priorities (i.e., water quality and hypoxia, flood risk management and resilience, navigation and safety, and ecosystems and habitat quality) and three objectives:

- Obtain consistent and comparable information on loads and trends in streamflow, water quality, and sediment
- Provide real-time information needed to guide decisions on flood risk management and resilience
- Develop a data interface for transparent and timely data availability.

TNC's technical design group is recommending a publicly accessible data interface for the sentinel monitoring system. The proposed "sentinel system" will require \$23.4 million annually whereas the current system costs \$20 million annually.

Mississippi River Basin Framework for Improving Ecosystem Health

Eileen McLellan said the Environmental Defense Fund (EDF) convened group of experts from federal agencies, universities, and river organizations met to develop a plan for promoting ecosystem health on the Mississippi — Atchafalaya River Basin. The workshop group concluded that ecological health is dependent more on the "function" than the "form" of the ecosystem. EDF developed a series of pathways for ecosystem health improvement, incorporating strategies for decreasing ecosystem stressors, increasing ecosystem function, and increasing ecosystem resilience. EDF is proposing several ecosystem health indicators that collectively indicate the ability of an ecosystem to provide a service. As an example, indicators of reduced stressors could include length of tile drainage and channel sinuosity. EDF hopes to encourage ecosystem managers to think of ecosystem functions rather than forms, to

expand water quality and species monitoring to test leading indicators of change, and to better communicate how things that managers can control affect ecosystem health.

Mississippi River Partnership Initiative

Kim Lutz shared the America's Watershed Initiative's collaborative work to develop a basin-wide organizational structure to improve water quality, mitigate the impacts of climate change, improve inland transportation, and engage social justice communities. The purpose is to improve efficiency and effectiveness of federal spending, improve data and its utilization to inform decision making, and encourage integrated, multi-purpose management of the basin's water resource management. AWI has developed a work plan that involves assessing existing Federal programs and funding, identifying gaps in governance, and building relationships with states and multi-state alliances. AWI plans to use that assessment to develop action plans and funding priorities. The group is currently engaging federal agencies to gather support and information.

In response to a question from Lauren Salvato, Lutz acknowledged the many unique partnerships, authorities, and water resources within each of the Mississippi River sub watersheds. AWI's proposal would provide the forum for the thoughtful conversations needed for integrated management.

Wallace asked whether Piazza, McLennen, or Lutz had a specific request for UMRBA at this time. In response, Piazza requested UMRBA's continued leadership as an example of a well functioning organizational structure. McLellan requested further information on success stories across the Upper Mississippi River Basin. Lutz requested that the UMRBA board to share questions and concerns about AWI's proposal.

Administrative Issues

Kirsten Wallace announced that the Corps released its FY 2023 workplan that included \$18.379 million for the ecosystem element of NESP. This is in addition to the \$49 million appropriation for NESP.

Election of Officers

Kirsten Wallace expressed gratitude to Tim Hall for his second chair rotation. Wallace explained that Minnesota was scheduled to serve as Chair in 2023, but has requested to swap terms with Illinois given that Minnesota recently transitioned its primary membership. On behalf of Illinois, Rick Pohlman agreed to serve in the Chair capacity in 2023 with Minnesota serving in 2024.

In response to a prompt from Tim Hall, Grant Wilson moved and Erin Fanning seconded a motion to elect Rick Pohlman as Chair of the UMRBA Board in 2023. The motion was unanimously approved.

Rick Pohlman moved and Jim Fischer seconded a motion to appoint Grant Wilson as Vice Chair of the UMRBA Board. The motion was unanimously approved.

Rick Pohlman moved and Rick Pohlman seconded a motion to elect Jason Tidemann as Treasurer. The motions unanimously approved.

Future Meeting Schedule

May 2023 – St. Paul, Minnesota

- UMRBA Quarterly Meeting – May 23
- UMRB Coordinating Committee quarterly meeting – May 24

August 2023 – La Crosse, Wisconsin

- UMRBA Quarterly Meeting – August 8
- UMRB Coordinating Committee quarterly meeting – August 9

October 2023 – St. Louis, Missouri

- UMRBA Quarterly Meeting – October 24
- UMRB Coordinating Committee quarterly meeting – October 25

With no further business, the meeting adjourned at 2:50 p.m.