

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

**March 1, 2023
Quarterly Meeting**

Virtual

Thatch Shephard (on behalf of Brian Chewning) of the U.S. Army Corps of Engineers called the meeting to order at 8:01 a.m. on March 1, 2023. UMRR Coordinating Committee representatives in attendance were Mary Stefanski (USFWS) (on behalf of Sabrina Chandler), Mark Gaikowski (USGS), Chad Craycraft (IL DNR), Randy Schultz (IA DNR), Megan Moore (MN DNR), Matt Vitello (MO DoC), Jim Fischer (WI DNR), Rich Vaughn (NRCS), and Travis Black (MARAD). A complete list of attendees follows these minutes.

UMRR Coordinating Committee Membership

Thatch Shephard welcomed Dr. Vanessa Perry as Minnesota's new UMRR Coordinating Committee member. UMRR Coordinating Committee members and partners thanked Megan Moore for contributing many years to the UMRR program as an LTRM field station lead as well as Minnesota's representative to the Coordinating Committee. Her expertise, dedication to the UMRS ecosystem, and commitment to partnership has contributed significantly to the success of UMRR. Moore expressed appreciation for her time with the program and the partnership and highlighted the meaningful work.

Minutes of the November 16, 2022 Meeting

Randy Schultz moved and Jim Fischer seconded a motion to approve the draft minutes of the November 16, 2022 UMRR Coordinating Committee meeting as written. The motion carried unanimously.

Regional Management and Partnership Collaboration

FY 2023 Fiscal Update

Marshall Plumley reported that the FY 23 Consolidated Appropriations Act, enacted on December 29, 2022, appropriated \$55 million to UMRR. UMRR has obligated over \$27 million, or 49 percent, of its \$55 million FY 23 funds, as of March 1, 2023. In addition to additional several project awards, UMRR recently awarded a support services contract to UMRBA, marking a continuation of an over three-decades long relationship. Plumley remarked that UMRR was well prepared to invest the additional \$22 million in appropriations above its \$33 million appropriation in recent years. The program's obligation through the first half of this fiscal year constitutes nearly the entire program in previous years. Plumley expressed appreciation to all partners involved in implementing the UMRR program.

The FY 23 plan of work for UMRR at \$55 million is as follows:

- Regional Administration and Program Efforts – \$1,550,000
 - Regional management – \$1,280,000
 - Program database – \$100,000
 - Program Support Contract – \$120,000
 - Public Outreach – \$50,000

- Regional Science and Monitoring – \$15,450,000
 - Long term resource monitoring – \$5,500,000
 - Regional science in support of restoration – \$8,350,000
 - Regional science staff support – \$200,000
 - Habitat evaluation (split across three districts) – \$1,275,000
 - Report to Congress – \$125,000
- Habitat Restoration – \$38,000,000
 - Rock Island District – \$11,148,000
 - St. Louis District – \$13,502,000
 - St. Paul District – \$13,250,000
 - Model certification – \$100,000

FY 2024 Budget Outlook

Plumley reported that the President’s FY 24 budget is anticipated to be released on March 9, 2023. [Note: The President’s FY 24 budget released on March 9, 2023 includes \$55 million for UMRR.]

WRDA 2022

Plumley reported that the enactment of WRDA 2022 on December 15, 2022 increased the annual authorized appropriation for UMRR to \$90 million, with \$75 million for HREP and \$15 million for LTRM. This increase reflects the excellent work of program partners and support from Congress. In response to a suggestion from Kirsten Wallace, the Coordinating Committee called upon itself to develop implementation scenarios at various potential appropriation levels. Plumley welcomed the conversation, while noting the Corps’ restrictions on providing certain information prior to the Administration’s budget release. Jim Fischer said scenario planning would be helpful as partner agencies plan their capacity to provide their respective roles through UMRR under its increased authorization as well as other river-related programs such as the Navigation and Ecosystem Sustainability Program (NESP). Shephard said the Corps has received record budgets in recent years and will have to consider capability across all programs and projects. Wallace encouraged the UMRR Coordinating Committee to coordinate with the NESP Coordinating Committee as much as possible and appropriate in order to more effectively and efficiently advance the region’s strategic ecological goals.

Recalling previous discussions of UMRR and NESP’s collaborations, Fischer encouraged UMRR and NESP to coordinate their approaches to develop their respective ecosystem restoration plans. Kraig McPeck expressed agreement, acknowledging the importance of making the most effective use of people’s time as the most valuable resource to the program.

UMRR Ten-Year Plan

Plumley said the UMRR 10-year plan illustrates the implementation schedules for 24 projects, now including Clarence Cannon, Gilead Slough, and Reds Landing all in the St. Louis District. The schedule will continue to be refined as more details and specificity on projects becomes available. Plumley said this planning tool is useful for developing work plans among UMRR’s partner agencies.

Environmental Justice

Plumley recalled that the UMRR Coordinating Committee had an informal conversation about environmental justice in May 2022, prompting the Corps to brief the Committee about USACE

environmental justice policy at its August 2022 quarterly meeting, including anticipated new guidance. In response, the UMRR Coordinating Committee called upon UMRR to integrate environmental justice into the planning, design, and construction of habitat projects. In November 2022, the Coordinating Committee established an environmental justice *ad hoc* committee. Plumley reported that the *ad hoc* committee met on January 25, 2023 for the purposes of sharing agency perspectives on approaches, best practices, methods, and tools related to environmental justice. The *ad hoc* committee discussed how UMRR currently approaches environmental justice through habitat rehabilitation and enhancement projects. Participants included agency personnel specializing in diversity, equity, and inclusion with limited prior experience with UMRR. Marshall Plumley shared his observations from the January 25 meeting relating to the following themes:

- Policy and guidance vary but EJ values are evident
- Access(ability)
- Recruitment
- Trust
- Connections
- Sense of place
- Respect & dignity
- Quality of life
- Compensation
- Climate Change/EJ Intersection
- Participation is a promise
- Regional community engagement
- Being part of the community is the best way to make conservation work
- Natural resource values are changing
- Proactive instead of just avoidance

Plumley noted that, while all agencies value environmental justice, the range of policy and guidance across the partnership varies considerably. Plumley said USACE will provide a summary of the meeting to the UMRR Coordinating Committee and other meeting participants.

The UMRR Coordinating Committee has requested a subsequent meeting to reflect on the January 25 meeting and to consider how to incorporate environmental justice criteria at the outset of the next HREP selection process.

Plumley added that NGO partners, such as The Nature Conservancy, have expressed an interest and willingness to contribute to these conversations. In response to a comment from Thatch Shepard, Plumley reflected on Kat McCain’s previous involvement with UMRR and suggested that she could add value to this discussion. Plumley pointed to some screening tools with environmental justice criteria that could be incorporated at the outset of the next HREP identification and selection process. Vanessa Perry expressed appreciation for these conversations and her eagerness to participate, acknowledging the importance of building relationships with communities and sharing the potential benefits of projects to them.

Strategic Plan Review

Plumley reported that, on February 21, 2023 via email, Andrew Stephenson submitted a review request to the UMRR Coordinating Committee members of the draft the UMRR 2015-2025 Strategic Plan Review Report. The report includes important partner insights and will inform priorities for UMRR in the near term as well as in the next strategic plan. Comments are requested by March 20, 2023. Following the review, the UMRR Coordinating Committee will be asked to discuss the report in-depth and prioritize actions over the next two years.

Implementation Issues Assessment

Plumley reported that the UMRR Coordinating Committee finalized its analysis on a suite of implementation issues. UMRBA submitted the final issue papers to the Committee on November 11, 2022. Prior to that, on September 21, 2023, UMRBA staff disseminated a survey to Committee members asking for their

suggestions for advancing or resolving various options associated with each paper. The UMRR Coordinating Committee will evaluate these “future actions” in conjunction with the 2015-2025 UMRR Strategic Plan review meeting in late March or April 2023 as mentioned above. Plumley is consulting with the Mississippi Valley Division regarding the Corps’ responses to the survey.

2022 Report to Congress

Plumley reported that USACE Headquarters is reviewing the draft 2022 UMRR Report to Congress prior to transmitting it to Congress. UMRR Coordinating Committee members received a draft version in November 2022 following which additional letters of support were received and incorporated into the report. Plumley expressed appreciation to all partners who provided a letter of support.

The Corps is drafting a press release and a four-page flyer that will be sent to the UMRR Communications and Outreach Team (COT) for review in the near future. Recalling the success of the coordinated press release related to the publication of the UMRR long term ecological status and trends report, Fischer asked if a similar effort would be employed for the 2022 Report to Congress. Plumley said the Coordinating Committee could elect to coordinate on the initial report release and employ communications pulses around the embedded case studies.

UMRR HREP Workshop

Plumley said workshops are being planned for both HREP and LTRM elements in winter 2023 or spring 2024. The last HREP workshop was held in 2019 and brought together all HREP practitioners as well as field station staff to share information.

HREP Selection Process

Plumley said the 10-year implementation plan provides insights on the timeline for initiating planning on new projects under the consistent funding. The plan may need to be adjusted under lower or higher funding scenarios. The UMRR Coordinating Committee has established a recurring schedule for implementing HREP selection processes every five years with the next effort scheduled to be completed in 2025. Planning for the 2024 cycle may begin this year.

Plumley recognized that the NESP Coordinating Committee has also identified a need for project selection in the near term. A joint project selection process was employed in 2010 and may be considered. Stephenson noted that field crews may have opportunities to track restoration needs this summer for the anticipated selection process. Plumley said there have been discussions regarding tools that can be used and made more widely available for tracking restoration needs. Fischer recalled that various data collection platforms are now available for UMRR and NESP and said it would be useful to identify efficiencies and improved approaches across them. Plumley agreed and welcomed discussion on streamlining across platforms.

UMRR Strategic Planning

Plumley said UMRR’s next strategic planning process is scheduled to occur in FY 2024. Scoping that effort will begin later this year.

Communications

Status and Trends Flyers

Andrew Stephenson provided an update on the development of five flyers related to findings of the Ecological Status and Trends of the Upper Mississippi and Illinois Rivers Report. The development of the flyers includes multiple reviews by report authors, the A-Team, and COT. Flyers are complete that describe the condition and trends of the UMRS fisheries, floodplain forests, and sedimentation. The water quality flyer is in final design and the aquatic vegetation flyer is under review by the A-Team and COT.

In the near term, UMRBA plans to share the completed flyers will be shared with Congressional offices during planned visits on March 2-3, 2023 and with the Upper Mississippi River Conservation Committee during its March 20-24, 2023 meeting. A coordinated release of these flyers is being planned; a survey was distributed to the COT soliciting feedback on draft objectives, strategies, messages, and audiences for the release. Initial feedback from the UMRR Coordinating Committee calls UMRR partner agency staff and leadership to serve as the primary audience. The Committee suggests that distribution should include email and in-person events such as open houses, groundbreaking/ribbon cutting events, quarterly meetings, Hill visits, and various regional and national meetings. Fischer thanked Stephenson for leading the development of the flyers, noting that Wisconsin DNR will use them in outreach activities. Houser agreed, noting the flyers are well done and expressed appreciation for how closely Stephenson has worked with report authors to develop them.

COT Update

Marshall Plumley provided an update on the UMRR Communications and Outreach Team (COT), which continues to meet monthly. The COT is reviewing the remaining two status and trends flyers. Plumley expressed appreciation to Stephenson and UMRBA staff for developing the flyers and coordinating the review process across the whole partnership. Stephenson expressed appreciation to program partners for their engagement in developing the flyers.

This spring, the COT will focus on reviewing the draft press release and flyer for the 2022 UMRR Report to Congress. As specific messages are developed, the team will consider other engagement opportunities as well. Sabrina Chandler presented to the COT on initial plans to celebrate the 100th anniversary of the UMR National Wildlife and Fish Refuge in 2024. Plumley said the COT may be able to assist UMRR as it develops strategies for engaging disadvantaged communities.

External Communications and Outreach

Communication and outreach activities in the second quarter of FY 2023 include the following:

- UMRBA staff will be meeting with congressional offices March 2-3, 2023 to discuss ecosystem restoration on the river, including UMRR and NESP.
- The Upper Mississippi River National Wildlife and Fish Refuge is planning the 100th anniversary to occur in 2024 and will share information as it is available.
- The Lower Mississippi River Subbasin Committee is hosting a webinar on Tuesday, March 7, 2023 regarding the lower Mississippi river restoration feasibility study. Angie Rogers and Michael Trone will present.
- USFWS will be commemorating the Endangered Species Act's 50th anniversary in 2023.

- On March 1-3, 2023, Mark Gaikowski is scheduled to attend the MRCTI Capital Meeting and to meet with several Congressional offices. Gaikowski plans to speak to UMRR's science and monitoring efforts in support of ecosystem restoration on the Upper Mississippi River System.
- USGS hosted a virtual Mississippi River Science Forum on February 15-16, 2023. There were 31 presenters from 27 organizations including the Prairie Island Indian Community President Johnny Johnson, Department of Interior Assistant Secretary for Water and Science Tanya Trujillo, and USGS Director Dave Applegate. There were more than 200 attendees on both days. Jeff Houser and Sara Schmuecker presented on the state of science and data gaps in the UMRS, including using the HNA II and Resilience efforts. The presentation highlighted the value of the UMRR to the Mississippi River.

Thatch Shepard suggested considering how outreach efforts could be coordinated with existing Earth Day events. Vanessa Perry said she will work with Minnesota's internal team to relay future communications and outreach efforts.

UMRR Showcase Presentations

Lower Pool 13 HREP

Julie Millhollin, USACE, presented on the Lower Pool 13 HREP. USFWS is the project sponsor. After the initial site visit in 2019, the PDT rescoped the project into multiple phases with phase I focused on the southwest corner of the pool and submerged aquatic vegetation (SAV) and phase II of the project focused on water level management and emergent aquatic vegetation. The area of phase I is an important stopover site for migrating waterfowl including canvasbacks. LTRM data shows an overall increase of SAV in Pool 13 since 1998, but a decreasing trend since 2006. Poor water clarity caused by upstream suspended sediment load and resuspension of bottom sediments, due to wind driven wave action, negatively affects aquatic vegetation. The pattern of increased flooding has resulted in reduced recruitment of native tree species and an increase in prevalence of invasive species. The objectives of phase I are to restore and enhance submerged aquatic vegetation and habitat and floodplain forest diversity and habitat. The existing flow velocity conditions highlight potential locations of features to reduce wind impacts. The project will increase diving duck habitat by 1992 acres and forest habitat by 535 acres at an estimated cost of \$38.8 million. Round mounds, chevrons, and submerged islands downstream of a breached island will reduce waves and allow SAV to re-establish. Forest plots will use dredge material to build up three islands in the channel. Once a cultural survey of forest plots is completed, the report will be finalized, and the project will move into design. Planning for phase II is beginning.

UMRS Topobathy Acquisition

Jayme Strange, USGS UMESC, provided an update on the UMRS Topobathy acquisition. Topobathy is the combination of lidar and bathymetry datasets. LiDAR is used to categorize spatial topography of the floodplain and lidar point clouds have been used to identify gaps in floodplain forests. LiDAR was last flown in 2008 through 2011. Bathymetry quantifies water depth and is critical for aquatic habitat rehabilitation for overwintering habitat, mussel habitat, and modeling flow velocities. Topobathy data is used for river ecosystems and hydraulic and hydrological modeling of the watershed and multiple iterations can detect changes over time. Topobathy underpins many LTRM science products and activities including models related to flood inundation, forest succession, sediment suspension, wind and wave action, and HEC-RAS. The current topobathy data spatial extent is bluff to bluff of the UMRS and temporally extends from 1989 to 2011. Weak points of the current topobathy data include combining multiple datasets, datum transformation troubles, LiDAR breaklines, and interpolation. A working group of USGS and USACE experts are developing cost and effort estimates for the acquisition plan to align with Sciencebase and other data storage areas and expect the project to take five to six years. Data

acquisition will be supported by both UMRR and NESP. The team is evaluating data quality at the 3DEP or Q2 levels. Other efforts are underway to acquire Lidar Q2 data nationally. The team will look to leverage a variety of information streams currently available including E-hydro surveys for dredge purposes as well as the experts at the USACE Center of Expertise for Photogrammetric Mapping. Strange said that technology improvements warrant exploring multiple options for acquisition and will require ground truthing. Stephenson said the USGS Next Generation Water Observing System (NGWOS) is conducting surveys in the Illinois River Basin to better understand groundwater movement and storage. Matt Vitello said Missouri has an effort to update state data by 2027 that could be leveraged as part of this update. In response to a question from Stephenson, Strange said new technology may be able to better assess the shallow terrestrial-to-aquatic transition areas but deeper areas would require hydroacoustics. USGS is able to get better data at shallower areas than ever before and can now go to depths of one meter. Matt Mangan added that St. Louis District collected Lidar in winter 2020 to 2021. Karen Hagerty said the acquisition may start this fiscal year.

Habitat Restoration

Angela Deen reported that MVP's planning priorities include Big Lake – Pool 4, Reno Bottoms, and Robison Lake. A kick-off meeting for Robinson Lake was held in January and a public meeting is anticipated to occur in May. Eight alternatives, including one no action alternative, were identified for Big Lake – Pool 4 and a TSP will be developed this spring. The Reno Bottoms feasibility report was approved, and the project will transition to plans and specs with a kick-off value engineering study. The other design priority for MVP is Lower Pool 10, which will use an AE firm for design and engineering during construction. Increased appropriations for UMRR allowed two contract options to be awarded on McGregor Lake HREP. The project has used 500,000 cubic yards of granular material and is a beneficial use success story. O&M manuals were completed for Harpers Slough, Bass Ponds, and Conway Lake HREPs. MVP initiated a performance evaluation report for the Trempealeau HREP where harmful algal blooms have been problematic. In response to a question from Andrew Stephenson, Deen said the District is working to complete 14 storymaps this year. Deen suggested having the storymap leads present at the May 23, 2023 UMRR quarterly meeting. Deen said that last year the team focused on developing storymaps for older projects, but that this year's focus was on active projects. She added that the District is also updating webpages to include storymaps, project fact sheets, and FAQs, for improved awareness and access to current information for the public.

Julie Millhollin reported that MVR's planning priorities include Lower Pool 13 Phases I and II, Green Island, Pool 12 Forestry, and Quincy Bay. A public meeting for Lower Pool 13 Phase I was held in November and the team is working to finalize the feasibility report. The Quincy Bay and Pool 12 Forestry PDTs are finalizing costs estimates and beginning HEP modeling. The Green Island PDT is preparing for a TSP meeting in April 2023. Steamboat Island stage II is in design and has completed 65 percent review. MVR has four projects in construction, Beaver Island, Steamboat Island Stage I, Keithsburg Division Stages I and II, and Huron Island Stage III. The Beaver Island contractor is on site and the Steamboat Stage I contractor is scheduled to start tree clearing in early March. The Keithsburg Stage I contractor has demobilized from the site while assessing potential eagle nest activity. Construction at Huron Island is complete and ERDC is surveying vegetation and will conduct additional plantings this summer and assessment in September 2023. Lessons learned from this project will be applied to future projects. In response to a comment from Stephenson regarding a consistent aesthetic across District HREP progress maps, Thatch Shephard requested Plumley address that for the May 23, 2023 UMRR quarterly meeting.

MVS's planning priorities include West Alton Islands and Yorkinut Slough. Feasibility planning continues at both projects. A TSP was completed for Yorkinut Slough in February and Division quality control review is underway. MVS's design priorities include Harlow Island, Oakwood Bottoms and Crains Island. Harlow Island Stage II was initiated with a focus on earthwork and backwater. Oakwood Bottoms has three plans and specs packages nearly complete including a pump station, well pumps, and

water control/earthwork that could be ready to advertise soon. Crains Island Stage II plans and specs are entering review. MVS has three projects in construction: Crains Island Stage I, Piasa and Eagles Nest Stage II, and Clarence Cannons. Construction at Crains Island Stage I is mostly complete with some remaining warranty work on a drainage channel that had sediment slide. A contract was awarded for Piasa and Eagles Nest Stage II for side channel excavation and island construction. The material from the excavation is expected to be used for island construction. At Clarence Cannon, earthwork on a berm setback continues. Other MVS activities include drafting new fact sheets and a flood damage assessment on Swan Lake HREP. In response to questions from Mark Ellis, Brian Markert said that at Piasa and Eagles Nest that there was an existing side channel with good flow and depth diversity, but that a shift in water volume between it and the main channel brought rapid accumulation of sediment that raised concerns the side channel may close off. Markert added that no side channels will be created at Clarence Cannon, but that there are historic meanders in the project area that may provide some depth diversity.

Long Term Resource Monitoring and Science

FY 2023 1st Quarter Report

Jeff Houser reported that accomplishments of the first quarter of FY 23 include publication of the following manuscripts:

- *Understanding ecological response to physical characteristics in side channels of a large floodplain-river ecosystem*
- *Flood regimes alter the role of landform and topographic constraint on functional diversity of floodplain forests*
- *Survival and Growth of Four Floodplain Forest Species in an Upper Mississippi River Underplanting*
- *New Records of Spotted Bass, *Micropterus punctulatus*, within the Mississippi River Basin, Illinois*

In response to a question from Andrew Stephenson, Houser said that an LTRM all-hands meeting is scheduled for April 11-13, 2023 in Muscatine.

USACE LTRM Report

Karen Hagerty said UMRR's LTRM FY 23 budget allocation is \$7 million (\$5.5 million for base monitoring and \$1.5 million for analysis under base) with an additional \$6.85 million available for "science in support of restoration and management."

Hagerty said high priority funding items for science in support of restoration (as presented to the UMRR Coordinating Committee at its November 16, 2022 quarterly meeting) total \$1,283,150 and include:

- LTRM balance: \$302,060
- Ecohydrology: \$469,970
- LC processing (last year): \$335,240
- Proposal adjustments: \$45,610
- Macroinvertebrate contaminants: \$77,480

Hagerty requested the UMRR Coordinating Committee endorse funding three additional items as follows:

- Establishing an herbarium: \$22,010
- Future landscape modeling: \$600,140
- Equipment (FS, UMESC): \$659,270

Chad Craycraft moved and Matt Vitello seconded a motion to endorse the three additional items totaling \$1,281,420. In response to a question from Fischer, Houser explained that UMESC and the field stations have an equipment refreshment cycle that helps plan purchases of boats, motors, computers, and this year the UMESC water quality lab equipment. Houser added that, although not reflected in the current request amount, field stations were asked to provide equipment needs over the next few years to be addressed with the increased program funding. In response to a question from Nick Schlessler, Houser said the current equipment costs include some items that would have been funded in out-years as well as some equipment that broke unexpectedly. Fischer expressed support for equipment needs and the herbarium but requested additional information on the future landscape modeling including the principal investigator (PI). Houser said that item would help support John Delaney's work for three years. Delaney has worked with Molly Van Appledorn to pull three separate models together to develop a classification model for expected future changes on the floodplain and with Danelle Larson on mapping the vulnerability of SAV and where it is expected to change. Fischer expressed his confidence in Delaney's work and the critical nature of the research considering climate change and noted he has no objections. Vanessa Perry requested that budgets be included in the scopes of work that are presented to the Coordinating Committee for consideration. The motion passed unanimously.

Hagerty presented additional items that will be presented to the UMRR Coordinating Committee for its consideration in May 2023, including advancing the following four priority FY 22 science proposals totaling \$1,550,000:

- Scoping and vetting new technology and methods for use in future hydrographic and topographic surveys
- Avian associations with management in the UMRS: filling knowledge gaps for habitat management
- Filling in the gaps with FLAMe: Spatial patterns in water quality and cyanobacteria across connectivity gradients and flow regimes in the Lower Impounded Reach of the UMR
- Substrate stability as an indicator of abiotic habitat for the UMR benthic community

Hagerty said remaining FY 23 science in support funds will be used support updated topobathy in conjunction with NESP. Hagerty said she will request endorsement of these items at a future meeting when budgets are finalized.

A-Team Report

Scott Gritters said the A-Team's February 3, 2023 meeting focused on the following items:

- Updates to the A-Team Corner and the Corps webpages regarding LTRM information
- Chair rotation
- A-Team's role in HREP/LTRM integration
- UMRR program updates – e.g., environmental justice and LTRM implementation planning
- Identifying areas for conservation and restoration of submerged aquatic vegetation
- 2022 UMRR LTRM status and trends report flyers
- Illinois River Biological Field Station

Gritters said the A-Team discussions on HREP and LTRM integration highlighted that the subject is challenging due to agency differences and because not all HREPs are the same and they are not all built solely on data available. Gritters put forth the importance that PDTs are aware of the information

available. The A-Team can be available to respond to any information needs. Gritters encouraged the A-Team to continue to be a forum for discussions on this topic.

Danelle Larson presented new efforts to create accurate, predictive model of ecosystem states to define an SAV-state, unvegetated-state, vulnerable, and those with restoration potential. Average depth, suspended solids, substrate, and distance to nearest SAV are the main drivers to predict vegetation. Next steps are to create an online, interactive tool for researchers and managers to learn, discuss, and apply adaptive management.

Gritters expressed appreciation for the UMRR status and trends flyers and the review process, noting the many potential use for the flyers.

Gritters expressed appreciation to many for their involvement in the A-Team during his tenure as Chair, including Hagerty, Houser, Jennie Sauer, Plumley, Stephenson, LTRM component PIs, and A-Team representatives. Gritters said UMRR should be extremely proud of the science it is producing, and the people involved.

The next A-Team meeting is scheduled for April 19, 2023, in La Crosse, in conjunction with the Mississippi River Research Consortium. The meeting will be the first in-person A-Team meeting in a few years. Matt O'Hara, Illinois DNR, will assume the chair position. Hagerty, Houser, Stephenson, Megan Moore and others expressed appreciation for Gritter's leadership of the A-Team, noting the special focus on people in the program that he brought.

LTRM Implementation Planning

Jeff Houser and Max Post Van der Burg provided a briefing on the LTRM implementation planning process. Houser reported that, over the past several months, the *ad hoc* LTRM implementation planning team has drafted objective statements and identified and prioritized information needs. Post Van der Burg explained a structured decision-making process based around the qualitative value of information (QVoI) was employed to evaluate and compare information needs. The team developed a scoring matrix considering the relevance of information needs to both ecosystem understanding and assessment as well as management and restoration along with the depth of current knowledge, cost, opportunity to learn, urgency, and unique capacity of LTRM to address the information need. The team developed an optimization spreadsheet and algorithm to evaluate the efficacy of different funding strategies—e.g., annual, three-year, or five-year funding blocks.

Houser said the team will meet on March 2, 2023 to review the optimization results and conduct a participatory modeling exercise to determine if the assumptions incorporated into the algorithm adequately reflect the group's opinions. The team is planning to report its recommendations for information needs to the UMRR Coordinating Committee at its May 24, 2023 quarterly meeting. Following the Committee's endorsement of information needs, the *ad hoc* team plans to develop in-depth work plan proposals and associated costs. Vanessa Perry and Thatch Shephard expressed support for that tiered approach to endorsement. Marshall Plumley expressed appreciation for the group's work and noted that 25 years ago we could not have imagined the work we are doing now and this group is being asked to consider the information we will need to do work 20 years from now.

Other Business

Thatch Shephard reported the Mississippi River Commission will conduct its annual spring high-water inspection trip on the Mississippi River, March 27- 31, 2023.

Jim Fischer reported that Dr. Patrick Kelly was hired as the new Wisconsin Field Station Team Leader. Wisconsin has not had someone in this position since Terry Dukerschein in 2010. Having a dedicated

field station team leader again will help to build on success of efforts in the past. UMRR Coordinating Committee members welcomed Dr. Kelly.

Jim Fischer shared that Kraig Hoff, a Wisconsin DNR field operations specialist passed away on February 14, 2023 after a 19-year battle with brain cancer. As an avid outdoorsman, Hoff loved hunting, fishing, golfing and many other outdoor activities. He dedicated his career to working at the LTRM field station.

Upcoming quarterly meetings are as follows:

- May 2023 – St. Paul
 - UMRBA quarterly meeting – May 23
 - UMRR Coordinating Committee quarterly meeting – May 24

- August 2023 – La Crosse
 - UMRBA quarterly meeting – August 8
 - UMRR Coordinating Committee quarterly meeting – August 9

- October 2023 – St. Louis
 - UMRBA quarterly meeting – October 24
 - UMRR Coordinating Committee quarterly meeting – October 25

With no further business, Randy Schultz moved, and Jim Fischer seconded a motion to adjourn the meeting. The motion carried unanimously, and the meeting adjourned at 2:32 p.m.

**UMRR Coordinating Committee Attendance List
March 1, 2022**

[Note: this includes in-person and virtual attendees]

UMRR Coordinating Committee Members

Mark Gaikowski	U.S. Geological Survey, UMESC
Chad Craycraft	Illinois Department of Natural Resources
Randy Schultz	Iowa Department of Natural Resources
Vanessa Perry	Minnesota Department of Natural Resources
Matt Vitello	Missouri Department of Conservation
Jim Fischer	Wisconsin Department of Natural Resources
Rich Vaughn	Natural Resources Conservation Service

Others In Attendance

Jim Cole	U.S. Army Corps of Engineers, MVD
Thatch Shepard	U.S. Army Corps of Engineers, MVD
Leann Riggs	U.S. Army Corps of Engineers, MVD
Samantha Thompson	U.S. Army Corps of Engineers, MVD
Angela Deen	U.S. Army Corps of Engineers, MVP
Marshall Plumley	U.S. Army Corps of Engineers, MVR
Karen Hagerty	U.S. Army Corps of Engineers, MVR
Leo Keller	U.S. Army Corps of Engineers, MVR
Julie Millhollin	U.S. Army Corps of Engineers, MVR
Davi Michl	U.S. Army Corps of Engineers, MVR
Marisa Lack	U.S. Army Corps of Engineers, MVR
Brian Markert	U.S. Army Corps of Engineers, MVS
Jessie Dunton	U.S. Army Corps of Engineers
Whitney King	U.S. Environmental Protection Agency
Katie Flahive	U.S. Environmental Protection Agency
Elisabeth Lang	U.S. Environmental Protection Agency
Kraig McPeck	U.S. Fish and Wildlife Service, IIFO
Sara Schmuecker	U.S. Fish and Wildlife Service, IIFO
Lauren Larson	U.S. Fish and Wildlife Service, IIFO
Matt Mangan	U.S. Fish and Wildlife Service, IIFO
Mary Stefanski	U.S. Fish and Wildlife Service, UMR Refuges
Stephanie Edeler	U.S. Fish and Wildlife Service, UMR Refuges
Greg Conover	U.S. Fish and Wildlife Service
Jeff Houser	U.S. Geological Survey, UMESC
Jayne Strange	U.S. Geological Survey, UMESC
Jennifer Dieck	U.S. Geological Survey, UMESC
Kristen Bouska	U.S. Geological Survey, UMESC
Danelle Larson	U.S. Geological Survey, UMESC
Max Post van der Burg	U.S. Geological Survey
Travis Black	U.S. Maritime Administration
Dave Glover	Illinois Department of Natural Resources
Brain McCoy	Illinois Department of Transportation
BJ Murray	Illinois Department of Transportation
Scott Gritters	Iowa Department of Natural Resources
Kirk Hansen	Iowa Department of Natural Resources
Megan Moore	Minnesota Department of Natural Resources
Kevin Stauffer	Minnesota Department of Natural Resources
Neil Rude	Minnesota Department of Natural Resources
Nick Schlessler	Minnesota Department of Natural Resources
Jordan Weeks	Wisconsin Department of Natural Resources

Patrick Kelly	Wisconsin Department of Natural Resources
Kim Lutz	America's Watershed Initiative
Lindsay Brice	Audubon
Brent Newman	Audubon
Doug Daigle	Lower Mississippi River Sub-basin Committee
Rick Stoff	Stoff Communications
Bryan Hopkins	The Nature Conservancy
Kirsten Wallace	Upper Mississippi River Basin Association
Andrew Stephenson	Upper Mississippi River Basin Association
Mark Ellis	Upper Mississippi River Basin Association
Lauren Salvato	Upper Mississippi River Basin Association
Natalie Lenzen	Upper Mississippi River Basin Association
Erin Spry	Upper Mississippi River Basin Association