

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

**May 16, 2018
Quarterly Meeting**

**Hampton Inn Gateway Arch
St. Louis, Missouri**

Tim Yager of the U.S. Fish and Wildlife Service called the meeting to order at 8:00 a.m. on May 16, 2018. Other UMRR Coordinating Committee representatives present were Brian Chewning (USACE), Mark Gaikowski (USGS), Dan Stephenson (IL DNR), Randy Schultz (IA DNR), Megan Moore (MN DNR), Matt Vitello (MO DoC), Jim Fischer (WI DNR), and Ken Westlake (USEPA) via phone. A complete list of attendees follows these minutes.

Minutes of the February 7, 2018 Meeting

Megan Moore requested that, in the third paragraph of page A-10, the minutes be amended to reflect her perspective that a 10-15 project timeframe for WLM may enjoy greater support than a 50-year window instead of one-year as currently written.

Jim Fischer moved and Moore seconded a motion to approve the draft minutes of the February 7, 2018 UMRR Coordinating Committee meeting as amended. The motion carried unanimously.

Regional Management and Partnership Collaboration

Program Management

Marshall Plumley said he is working diligently to get up to speed in his new role as the UMRR Program Manager. As a first step, Plumley plans to meet in-person with UMRR's implementing partners. He attended the A-Team's April 25, 2017 meeting. During the week of May 7, 2018, Plumley met with UMESC staff regarding the FY 2018 science proposals and future research goals and with USFWS Refuge staff regarding its perspectives for habitat restoration and on various programmatic issues. Plumley anticipates meeting with the states and field stations over the next few months as well as with other non-traditional candidate project sponsors. For example, the City of Quincy has expressed interest in sponsoring a UMRR habitat restoration project that would address habitat degradation in Quincy Bay.

FY 2018 Fiscal Update

Plumley reported that, on March 23, 2018, Congress passed the FY 2018 Consolidated Appropriations Act that includes \$33.17 million for UMRR. This is the program's full annual authorized funding level. UMRR's FY 2018 internal allocations are as follows:

- Regional Administration and Programmatic Efforts — \$1,110,000
- Regional Science and Monitoring — \$9,325,000
 - Long term resource monitoring — \$4,725,000
 - Regional science in support of restoration — \$3,175,000
 - Regional science staff support — \$150,000

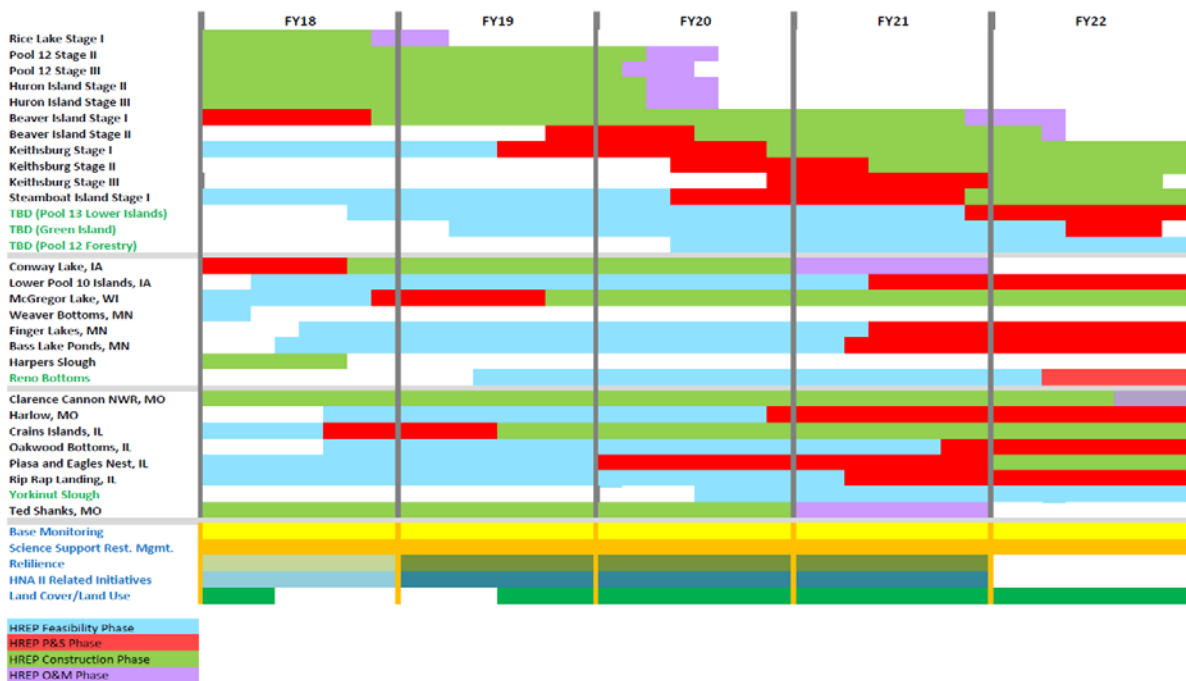
- Habitat project evaluations — \$975,000
- Habitat Needs Assessment II — \$300,000
- Habitat Restoration — \$22,735,000
 - Model certification — \$100,000
 - MVP — \$4,922,000
 - MVR — \$11,747,000
 - MVS — \$5,966,500

Marshall explained that the Districts shifted FY 2018 HREP allocations in order to take advantage of restoration opportunities. Depending on FY 2019 appropriations those funds may be repaid. Plumley illustrated the program’s planned implementation schedule through FY 2022, including five new potential habitat projects (shown in green text) that are pending the UMRR Coordinating Committee’s endorsement. [Note:

These projects were ultimately approved later in this UMRR Coordinating Committee.]

In addition, Plumley reported that the Beaver Island construction award in FY 2018 will be increased from \$6 million to between \$9 million and \$15 million. A \$2.5 million construction contract was awarded for Clarence Cannon in early May 2018. In addition, the St. Paul District has modified plans for Conway Lake that will allow for it to advance to construction in the last quarter of FY 2018. McGregor Lake will be delayed to FY 2019. Plumley said these advancements will require adjustments in the anticipated schedule below. Plumley stressed the importance of balancing the flow of projects in all implementation phases and in each UMRS District.

In response to a question from Jim Fischer, Plumley said the decision to delay to the McGregor Lake project resulted from competing visions for restoration among the project delivery team members. Shahin Khazrajafari explained that more time was required than initially anticipated to reach consensus on project objectives.



In response to a question from Brian Chewning, Plumley reported that the Corps is evaluating certification of two HREP planning models for UMRR. These include 1) an updated AHAG model and 2) UMRS fish community model. Plumley assured that the pending certification of these models will not affect progress on projects currently in planning. He plans to employ a partnership discussion in the next year regarding other modeling needs.

FY 2019 President's Budget

Plumley reported that, on February 12, 2018, President Trump released his FY 2019 budget proposal that includes \$33.17 million for UMRR. The House Appropriations Committee Energy and Water Subcommittee passed a FY 2019 energy and water spending measure on May 5, 2018 with \$33.17 million for UMRR. The Senate has not yet taken action on an FY 2019 energy and water spending measure. FY 2019 funding allocations at a \$33.17 million planning scenario would be as follows:

- Regional Administration and Programmatic Efforts — \$1,100,000
- Regional Science and Monitoring — \$9,320,000
- Habitat Restoration — \$22,750,000
 - MVP — \$7,995,000
 - MVR — \$8,120,000
 - MVS — \$6,635,000

Communications

Marshall Plumley reported that District communications staff are developing an external communications plan for UMRR. The plan provides strategic direction for UMRR's external communication utilizing the partnership network. This includes the development of key messages, identifying targeted audiences, and outlining roles and responsibilities among partners. The staff plan to convene a conference call with the UMRR Communications Team in early June 2018 to seek initial input on the draft plan. [Note: Subsequent to the meeting, this call was held on June 7, 2018.]

Plumley said he anticipates that the Corps' communications staff will present a draft plan to the UMRR Coordinating Committee at its August 15, 2018 quarterly meeting for the Committee's initial feedback. In response to a request from Plumley, Jim Fischer, Ken Westlake and Gretchen Benjamin volunteered to join the UMRR Communications Team.

Kirsten Mickelsen recalled that the UMRR Coordinating Committee recommended the development of an external communications plan in the Operational Plan for Goal 3 of the 2015-2025 UMRR Strategic Plan. While acknowledging the value of engaging the interested public, Mickelsen recognized that the intent of Goal 3 was to be much more strategic in integrating and leveraging resources and knowledge with other programs, projects, and individuals that influence the condition of the Upper Mississippi River. She asked if the external communications plan can be expanded to include all of Goal 3's strategies.

Karen Hagerty said the external communications plan currently involves the development of targeted communications and messaging with customizable tools, including handouts and a potential river trail. Hagerty said the Strategic Plan's strategies regarding leveraging resources with others still needs work.

Randy Schultz noted that there remains substantial unallocated FY 2018 funds for public outreach and asked if Plumley anticipates spending money on implementing any external communications objectives. Plumley said the remainder of this fiscal year will mostly involve the development of an external communications plan. His hope is that the draft external communications plan will trigger conversation regarding the partnership's desired strategies.

Outreach Activities

Jennie Sauer mentioned that the Institute for Journalism and Natural Resources is providing a paid internship experience in June 2018 for 18 freelance journalists from around the country to explore the UMRS. On June 20, 2018, USFWS will host the journalists on a boat tour of Pool 8 to discuss a wide-range of river issues, including agriculture, navigation, science, and habitat rehabilitation. USGS, UMRBA, and other river partners are working with the Institute's staff to assist in their planning effort.

Plumley reported that District staff hosted a public meeting for Steamboat Island HREP and had very positive feedback. Approximately 100 people attended and participated in a Facebook live event. This forum proved to be an effective approach for engaging the public. Congressional staff were also in attendance. Plumley said the partnership did a remarkable job including the interested public in project decision making.

Jim Fischer reminded that Wisconsin DNR has undergone a major realignment, integrating the agency's Mississippi River and Great Lakes Working Groups into the Office of Great Waters. This has resulted in more direct contact with agency leadership located in the central office, placing Mississippi River issues on the forefront. Fischer added that the Office of Great Waters is planning an August 2018 management team meeting, which will provide a great opportunity to educate central office staff of the UMRR and its Coordinating Committee as well as LTRM and habitat projects located within Wisconsin waters.

UMRR Showcase Presentations

Comparison of LTEF and LTRM monitoring

Ben Lubinski provided background information about the long term survey and assessment of Large River Fishes in Illinois (LTEF) and how the monitoring data can be directly compared to LTRM as an added tool for researchers and managers in decision making. LTEF was started in 1957 and expanded in 2010 to include reaches on the Illinois, Mississippi, Ohio, and Wabash Rivers. LTEF uses the UMRR LTRM electrofishing procedures, allowing the data to be comparable across programs and is focused in reaches that LTRM does not sample – i.e., Pools 16, 19, 20, and 25 as well as portions of the open river on the Mississippi River and all of the Illinois Waterway except the La Grange reach.

Assessing trends in the fisheries data from 2010-2017, Lubinski explained that the following conclusions:

- LTEF and LTRM are directly comparable and can be integrated to leverage resources and knowledge
- Fish community structure appears to be different in select reaches
- Some research shows similar trends in various fish communities while others show conflicting trends
- LTEF and LTRM are valuable in that they document rare and unique species

In response to a question from Karen Hagerty, Lubinski said the Illinois Natural History Survey publishes a report of findings of the LTEF analyses in collaboration with its partnering organizations. This includes all ancillary data such as temperature and connectivity. In response a question from Jennie Sauer, Lubinski explained that legal issues preclude the publication of LTEF data online. The data is available upon request.

Crains Island

Kip Runyon described the Crains Island HREP to restore floodplain forests and backwater habitats. The 553-acre forested site is part of the Middle Mississippi River National Wildlife Refuge and is located adjacent to the Bois Brule levee, which protects about 26,000 acres of agricultural land. Runyon explained

that the site is challenged by degraded side channel habitat and connectivity, limited wetland and forest diversity, and fragmented habitat. Goals for the UMRR habitat project are to increase the forested area protected from coarse sediments (i.e., increase fine sediment deposition), increase recreational opportunities, restore floodplain forest, and create habitat for threatened and endangered species.

Runyon explained that Crains Island's tentatively selected plan (TSP) includes restoration of 66 acres of backwater habitat, 61 acres of forest, 192 acres of floodplain forest habitat, 21 acres of wetland, and 151 acres of average annual habitat units. Pending MVD's approval of the project's TSP, the St. Louis District anticipates working on the project design in FYs 2018 and 2019 and initiating construction in FY 2019. In response to a question from Brian Chewning, estimated costs of construction are \$36 million but could be reduced by designing features to allow the river to naturally scour.

Habitat Restoration

District Reports

St. Paul District

Shahin Khazrajafari said a McGregor Lake partnership meeting is scheduled for May 17, 2018 to finalize the TSP. The District anticipates awarding a construction contract for McGregor Lake in the second or third quarter of FY 2019. MVP initiated planning on Bass Lake Ponds located on the Minnesota River and is scheduled to start planning on Lower Pool 10 in late 2018. The District also anticipates initiating fact sheet development for Reno Bottoms pending the UMRR Coordinating Committee's approval. Khazrajafari reported that the St. Paul District completed the O&M manual for Harpers Slough and is planning a dedication for the project this summer. A construction contract award is likely for Conway Lake in FY 2018.

In response to a question from Megan Moore, Khazrajafari said he will follow-up at a future meeting regarding the future of Lake Winneshiek and Weaver Bottoms. These projects are currently indicated as delayed on the UMRR FY 2018 second quarter execution report.

Rock Island District

Marshall Plumley reported that the Rock Island District is scheduled to meet with MVD next week regarding Keithsburg Division habitat project and anticipates releasing plans for public review shortly after. MVR is continuing planning work on Steamboat Island and hopes to have a TSP completed in early 2020. The District anticipates initiating fact sheet development for a new project in Pool 13 pending the UMRR Coordinating Committee's approval. Plumley reported that design work for Beaver Island Stage I is complete. A construction contract award for this stage is likely to occur in August 2018. High water this year is delaying construction of Pool 12 Overwintering. The project is the first to have a robust UMRR adaptive management strategy. The District's anticipates that its other ongoing construction project, Rice Lake, will be complete in September 2018.

St. Louis District

Jasen Brown said MVS is still exploring opportunities to advance Rip Rap Landing within the existing policy sideboards. The District is scheduled to host a public meeting to seek input on Piasa and Eagles Nest Islands TSP in late May 2018. The District is also seeking final approval from MVD of the Crains Island feasibility study and recently completed the Batchtown mussel survey. Brown reported that the St. Louis District is nearing completion on Ted Shanks, recently awarding \$1.26 million for a pump station.

Tim Yager said he recently visited Clarence Cannon and observed that the contractor is doing excellent work.

Project Selection Process and Approach

Next Generation of Projects

Plumley reconfirmed plans to employ a partnership-based process with the goal of selecting the next generation of UMRR habitat projects by the end of FY 2019. Plumley acknowledged that, since its inception, UMRR has employed a partnership-based approach to evaluating and sequencing habitat project opportunities. However, that process has evolved as UMRR has gained more experience in implementing projects and knowledge about the river ecosystem.

Plumley explained that UMRR's Habitat Rehabilitation and Enhancement Project (HREP) Planning and Sequencing Framework was established in 2003 to create a more systemic, comprehensive, structured decision-making approach to project selection that was transparent and accessible to project partners and stakeholders. It was later codified within the 2013 Joint Charter of UMRR's advisory committees.

Plumley explained that the Planning and Sequencing Framework was last employed in 2006-2007 and yielded 18 projects. The approach was designed to consider project opportunities through a systemic, habitat needs-based evaluation, focusing investment on projects' abilities to restore degraded ecosystem functions and processes while also addressing important local habitat needs of native fish and wildlife. State and federal interagency and interdisciplinary teams (i.e., District Ecological Teams) are tasked with defining restoration opportunities to advance ecological goals and objectives. These teams are essentially the District-based river teams. A System Ecological Team (SET) then recommends a system-wide sequence of candidate habitat projects based on their ability to improve the river's ecological health and resilience. [Note: In 2010, UMRR, in a joint effort with the Navigation and Ecosystem Sustainability Program, finalized a second evaluation to better understand the river's ecological conditions and restoration needs. In this process, partners adopted a vision statement and goal for the entire Upper Mississippi River ecosystem as well as five system-wide ecological objectives. During this planning process, UMRR reevaluated its habitat project priorities and added four new projects to its previous list of 18 projects.]

In preparation for initiating the next process for project selection, Plumley would like to consult with the UMRR Coordinating Committee regarding who is involved and whether modifications are needed to the HREP Sequencing Framework. For example, UMRR has substantially expanded its knowledge of systemic-level ecological health and resilience. How should that information be utilized throughout the project selection process? Plumley offered a series of other questions for the UMRR Coordinating Committee's consideration, including:

- Is the SET still relevant? If so, what are its purposes, functions, and composition? If not, who would perform the functions outlined in the HREP Sequencing Framework?
- A stated goal of the Sequencing Framework is to "ensure that habitat projects address UMRS ecological needs at pool to system scales and integrate with the HNA." Should this be updated to reflect UMRR's new vision statement of "a healthier and more resilient UMRS ecosystem..."
- How should the indicators of ecological health and resilience play into project selection – i.e., to demonstrate that the projects selected would contribute to advancing UMRR's vision?
- What is the right amount and type of guidance to provide to the DETs – e.g., format of proposals, ranking parameters and criteria?
- Should the administrative factors be outlined? And, when should they be considered? Administrative factors might include available funding, construction capability, geographic distribution, and project sponsorship.

Plumley proposed a partnership workshop this fall or early winter to organize the project selection process and discuss any new policies or procedures, including how various partners will contribute and/or be engaged.

In response to a question from Megan Moore, Plumley explained that the list of habitat projects being proposed today did not formally proceed under the HREP Sequencing Framework. However, many of the interagency concepts were applied. The District teams facilitated the interagency development and evaluation of project ideas and make formal recommendations for the UMRR Coordinating Committee's consideration. The SET has not been convened since 2006-2007.

Kirsten Mickelsen thanked Plumley for his presentation and said it was helpful to review the HREP Sequencing Framework. Mickelsen observed that very few of the individuals involved in the 2005-2007 project selection process remain with the program today in similar capacities. Therefore, the Framework will be a new experience to many individuals. She suggested providing the partnership with a detailed overview of the Framework and how it will be applied this next round, including roles and responsibilities as well as any new processes and procedures. For example, nonprofit organizations have raised questions about how they might be involved and when.

Gretchen Benjamin acknowledged the tremendous knowledge, experience, and capacity gained over the last decade and called for UMRR to think in new ways about how habitat restoration projects are organized and where priorities are placed. Benjamin said that, while the data cannot provide all the answers, it should lend a base of knowledge to inform priorities and weigh options. Neal Jackson agreed, and said data should be used to inform values. Hagerty articulated that the challenge will remain as to availability of sponsors even if the science directs partners to areas largely dominated by privately-owned land.

In response to a question from Jackson, Plumley recalled that the 2008-2009 UMRR/NESP/Illinois River Basin Restoration joint reach planning effort worked very hard to create the appropriate balance between subjective and objective criteria for evaluating project priorities. Information and tools gained since then (particularly ecological resilience conceptual frameworks and HNA II) should ease that balancing act.

Jim Fischer expressed optimism regarding the future direction of project selection. Fischer expressed support for a partnership workshop but recognized that the UMRR Coordinating Committee may be best suited to deliberate about the proper application of the HREP Sequencing Framework. He proposed that the UMRR Coordinating Committee hold a conference call this summer to review the existing Sequencing Framework and consider any necessary modifications. This would help to make a fall/early winter workshop more productive. Plumley agreed with Fischer's recommendation for a conference call and suggested that the District-based river team chairs be involved given their direct roles and responsibilities.

In addition, Fischer advised that UMRR define future conditions in a way that makes the most sense for the program. He noted that project selection will remain subjective without more a more specific understanding of what it is UMRR is working toward achieving. A desired future condition should reconcile various agency missions and goals for the UMRS ecosystem. Tim Yager echoed Fischer's call for a desired future condition, noting that the tremendous value of having more detailed habitat plans for the UMRS.

In response to a question from Brian Chewning, Plumley said the existing schedule is to complete the project selection process by the end of FY 2019. Plumley acknowledged that all three UMRS Districts will need a new suite of projects within five years.

Consideration of Habitat Projects for Fact Sheet Development

Marshall Plumley explained that the District-based river teams were tasked with developing a few new project ideas for fact sheet development. The resulting project recommendations are listed on page B-1 of the agenda packet. More descriptive information about the project proposals was provided to the UMRR Coordinating Committee in advance of today's meeting. Plumley provided a brief overview of each project, which include:

- *St. Paul District*
 - Reno Bottoms, starting in FY 2019
- *Rock Island District*
 - Pool 13 Lower Islands, starting in fourth quarter of FY 2018
 - Green Island, starting in FY 2019
 - Pool 12 Forestry, starting in FY 2020
 - Oquawka Islands Lower Pool 18
 - Snyder Slough
- *St. Louis District*
 - Yorkinut Slough, starting in FY 2020

In response to a question from Tim Yager, Megan Moore moved and Randy Schultz seconded a motion to endorse Reno Bottoms, Pool 13 Lower Islands, Green Island, Pool 12 Forestry and Yorkinut Slough projects. The motion was approved unanimously. Jim Fischer added a point of record that MVD has approved a fact sheet for an HREP at Snyder Slough and Wisconsin DNR and USFWS have expressed support in advancing that project earlier in the sequence if needed.

Habitat Needs Assessment II (HNA II)

Sara Schmuecker explained that the HNA II will result in two products: a system assessment and an indicators evaluation. Schmuecker reported that the first of two HNA II reports, the "Information Summary Report – Existing State of the System," is undergoing formal USGS review prior to its publication. This report provides foundational information for determining habitat needs that will be described in the second HNA II report, "Information to Management – System Assessment." In January and February 2018, the District river teams employed a rapid assessment facilitation to determine whether certain geographical areas per each indicator were "far from" (red), "near to" (yellow), or "at the desired condition" (green). Following the assessment, the rankings expanded to orange and light green to allow for more differentiation. Since February, the HNA II tri-chairs have been developing the system assessment report to describe the findings of the facilitated exercises. Schmuecker showed examples of the resulting rankings and spider diagrams.

Schmuecker said the anticipated development schedule is as follows:

- June 18 – 29 – District river teams and A-Team review the draft system assessment report
- July 2 – 13 – Tri-chairs incorporate any revisions to the draft report
- July 16 – Aug. 10 – UMRR Coordinating Committee review the draft report
- Aug. 10 – 31 (approx.) – Tri-chairs incorporate comments and finalize report
- October 31 – UMRR Coordinating Committee considers endorsement of the draft report

Matt Vitello requested that the HNA II tri-chairs consult with the HNA II Steering Committee on the draft system assessment report. [Subsequent to the meeting, the HNA II tri-chairs requested the Steering Committee's review from June 4 to 13, 2018.]

Long Term Resource Monitoring and Science

Jeff Houser reported that LTRM's accomplishments in the second quarter of 2018 include:

- The publication of two manuscripts:
 - Developing a shared understanding of the Upper Mississippi River: the foundation of an ecological resilience assessment
 - Effects of air temperature and discharge on Upper Mississippi River summer water temperatures
- The publication of three completion reports:
 - Small scale spatial patterns of freshwater mussels in the Upper Mississippi River
 - Estimation of vital rates to assess the relative health of mussel resources in the Upper Mississippi River System
 - Summary of Rotifera in Lake Pepin Upper Mississippi River, 2012-2015

Houser explained that UMESC's water quality lab has participated in USGS's Standard Reference Sample Project since 2002 earning excellent scores. The Mississippi River Research Consortium held its 50th annual meeting on April 25-27, 2018 in La Crosse. The meeting included 10 LTRM-affiliated presentations and five posters.

Jim Fischer expressed sincere appreciation to UMESC staff for continuously providing high quality water quality lab results. Fischer emphasized the incredible value of having solid data to make scientific observations. He suggested using the library of manuscripts and completion reports to inform the HNA II project discussion and development of the next generation of habitat projects.

2018 Science Proposals/A-Team Report

Jeff Houser recalled that, at the January 16-18, 2018 UMRR LTRM science meeting, participants developed ideas for scientific research and analysis that would inform restoration and management of the UMRS. Participants were organized into six working groups to explore three themes. Houser provided an overview of the themes and working groups as listed below. He said that, as a result, UMRR's program submitted 16 research and analysis projects for FY 2018 funding.

Themes:

1. Understanding changes in hydrogeomorphology and their implications for the future condition of the UMRS
2. Understanding relationships between hydrogeomorphic conditions and the distribution and abundance of biota
3. Understanding the physical, chemical, and biological processes behind the observed spatial and temporal patterns in LTRM data

Working groups:

1. Geomorphic change in the UMRS
2. Interactions among water quality, aquatic vegetation, and wildlife
3. Native freshwater mussels in the UMRS – Identification of associations among critical biological processes and hydrogeomorphology
4. Understanding relationships among floodplain hydrogeomorphic patterns, vegetation and soil processes, and nutrient cycling
5. Woody debris in the UMRS: Quantity, distribution, and role in the hydrogeomorphic and ecology
6. Understanding critical biological rates for select fishes on the UMRS and how they vary across hydrogeomorphic, climatic, and biological gradients

Matt Vitello reported that the A-Team met on April 25, 2018 and agreed to recommend a subset of these proposals for the LTRM management team’s consideration. The A-Team used a ranking score to evaluate the proposals. The ranking score was shown to need improvement, and the A-Team will discuss modifications to it at a future meeting. The A-Team meeting also included an informative briefing from Marshall Plumley of HREPs. The A-Team is scheduled to meet via webinar on August 2, 2018.

Vitello reflected that the research proposals are all very strong and reflect Jeff Houser’s tremendous leadership and thorough preparation.

Hagerty reported that the LTRM management team met to consider the A-Team’s recommendations and ultimately agreed to fund 11 proposals with the \$1.987 million in available FY 2018. Hagerty explained that the FY 2018 UMRR budget allocation for LTRM includes \$5.75 million for base monitoring and \$2.15 million for other science-related efforts. The actual cost for base monitoring is estimated at \$5.6 million in FY 2018, allowing for \$149,330 to fund aerial camera testing, other FY 2017 work plan needs, the Corps’ work on resilience-related efforts, and the Corps participation in the science meeting.

Hagerty briefly reviewed the recommended science proposals as follows:

| Cost | Proposal | Lead(s) |
|-------------|---|--|
| \$166,623 | Conceptual Model and Hierarchical Classification of Hydrogeomorphic Settings in the UMRS | Faith Fitzpatrick (USGS) |
| \$271,852 | Develop a better understanding of geomorphic changes through repeated measurement of bed elevation and overlay of land cover data | Jim Rogala (USGS) |
| \$68,800 | Water exchange change in UMRS channels and backwaters, 1980 to Present | Jon Hendrickson (USACE) |
| \$96,628 | Understanding constraints on submersed vegetation distribution in the UMRS: the role of water level fluctuations and clarity | John Kalas (WIDNR) |
| \$193,233 | Effectiveness of Long Term Resource Monitoring vegetation data to quantify waterfowl habitat quality | Jacob Straub (UWSP), Rachael Shultz (UWSP), Stephen Winter (USFWS) |
| \$24,205 | Intrinsic and extrinsic regulation of water clarity over a 950-km longitudinal gradient of the UMRS | Deanne Drake (WDNR) |

| Cost | Proposal | Lead(s) |
|-------------|---|---|
| \$358,271 | Systemic analysis of hydrogeomorphic influences on native freshwater mussels | Teresa Newton and Patricia Ries (UMESC) |
| \$127,279 | Using dendrochronology to understand historical forest growth, stand development and gap dynamics | Ben Vandermyde (USACE) |
| \$295,379 | Forest canopy gap dynamics: quantifying forest gaps and understanding gap-level forest regeneration | Andy Meier (USACE) |
| \$302,451 | Investigating vital rate drivers of UMRS fishes to support management and restoration: vital rates | Andy Bartels (WDNR), Kristen Bouska (UMESC), Quinton Phelps (WVU) |
| \$82,314 | Investigating vital rate drivers of UMRS fishes to support management and restoration: Microchemistry | Andy Bartels (WDNR), Kristen Bouska (UMESC), Quinton Phelps (WVU) |

The UMRR Coordinating Committee expressed sincere gratitude to Jeff Houser for his work on making the 2018 UMRR science proposal process efficient, effective, and thorough. In response to a question from Tim Yager, Jim Fischer moved and Dan Stephenson seconded a motion to endorse the funding of the 11 recommended science proposals. The motion was unanimously approved.

Other Business

Future Meetings

The upcoming quarterly meetings are as follows:

- **August 2018 — La Crosse**
 - UMRBA quarterly meeting — August 14
 - **UMRR Coordinating Committee quarterly meeting — August 15**
- **October 2018 — Bloomington, Minnesota**
 - UMRBA quarterly meeting — October 30
 - **UMRR Coordinating Committee quarterly meeting — October 31**
- **February 2019 — Dubuque**
 - UMRBA quarterly meeting — February 26
 - **UMRR Coordinating Committee quarterly meeting — February 27**

With no further business, the meeting adjourned at 11:47 a.m.

**UMRR Coordinating Committee Attendance List
May 16, 2018**

UMRR Coordinating Committee Members

| | |
|----------------|---|
| Brian Chewning | U.S. Army Corps of Engineers, MVD |
| Tim Yager | U.S. Fish and Wildlife Service, UMR Refuges [On behalf of Sabrina Chandler] |
| Mark Gaikowski | U.S. Geological Survey, UMESC |
| Dan Stephenson | Illinois Department of Natural Resources |
| Randy Shultz | Iowa Department of Natural Resources |
| Megan Moore | Minnesota Department of Natural Resources |
| Matt Vitello | Missouri Department of Conservation |
| Jim Fischer | Wisconsin Department of Natural Resources |
| Steve Hefner | Natural Resources Conservation Service [On behalf of Marty Adkins] |
| Ken Westlake | U.S. Environmental Protection Agency, Region 5 [On the phone] |

Others In Attendance

| | |
|---------------------|--|
| Jim Cole | U.S. Army Corps of Engineers, MVD |
| Thatch Shepard | U.S. Army Corps of Engineers, MVD |
| Gab Harris | U.S. Army Corps of Engineers, MVD |
| Shahin Khazrajafari | U.S. Army Corps of Engineers, MVP |
| Andy Barnes | U.S. Army Corps of Engineers, MVR |
| Jody Creswell | U.S. Army Corps of Engineers, MVR |
| Karen Hagerty | U.S. Army Corps of Engineers, MVR |
| Julie Millhollin | U.S. Army Corps of Engineers, MVR |
| Marshall Plumley | U.S. Army Corps of Engineers, MVR |
| Jasen Brown | U.S. Army Corps of Engineers, MVS |
| Brian Johnson | U.S. Army Corps of Engineers, MVS |
| Kip Runyon | U.S. Army Corps of Engineers, MVS |
| Matt Mangan | U.S. Fish and Wildlife Service, UMR Refuges |
| Sara Schmuecker | U.S. Fish and Wildlife Service, RIFO [On the phone] |
| Neal Jackson | U.S. Fish and Wildlife Service, UMRCC |
| Scott Morlock | U.S. Geological Survey, Midwest Region |
| Paul Rydlund | U.S. Geological Survey, Central Midwest Water Science Center |
| Jeff Houser | U.S. Geological Survey, UMESC |
| Jennie Sauer | U.S. Geological Survey, UMESC |
| Nate De Jager | U.S. Geological Survey, UMESC [On the phone] |
| Ben Lubinski | Illinois Natural History Survey |
| Karen Rouse | Missouri Department of Natural Resources |
| Joe Bartletti | Prairie Engineers |
| Nancy Guyton | Neighbors of the Mississippi River |
| Mike Klingner | Quincy Bay Area Restoration and Enhancement Association |
| Gretchen Benjamin | The Nature Conservancy |
| Kirsten Mickelsen | Upper Mississippi River Basin Association |
| Mark Ellis | Upper Mississippi River Basin Association |
| Josh Ney | Upper Mississippi River Basin Association |