

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

**May 20, 2020
Quarterly Meeting**

Virtual Meeting

Sabrina Chandler of the U.S. Fish and Wildlife Service called the meeting to order at 8:05 a.m. on May 20, 2020. UMRR Coordinating Committee representatives present on the virtual meeting were Brian Chewning (USACE), Mark Gaikowski (USGS), Randy Schultz (IA DNR), Dave Glover (IL DNR), Megan Moore (MN DNR), Matt Vitello (MO DoC), Jim Fischer (WI DNR), Verlon Barnes (NRCS), and Ken Westlake (USEPA). A complete list of attendees follows these minutes.

Minutes of the February 26, 2020 Meeting

Megan Moore noted the incorrect spelling of “recreational” on page A-3 of draft minutes included in the agenda packet. Ken Westlake moved and Megan Moore seconded a motion to approve the draft minutes of the February 26, 2020 UMRR Coordinating Committee meeting as corrected. The motion carried unanimously.

Regional Management and Partnership Collaboration

Marshall Plumley expressed appreciation for the partnership’s flexibility, creativity, and willingness to make the program work during difficult circumstances due to COVID-19. He is tremendously impressed with how the partnership is functioning given that we are unable to meet in-person and are mostly working remotely in our home offices. Plumley noted that HREP PDTs are engaging in new ways to advance projects, LTRM is navigating data collection needs amidst various agency restrictions, and the UMRR Coordinating Committee is meeting virtually.

FY 2020 Budget Outlook

Plumley reported that UMRR obligated over \$12 million of its FY 20 funds as of May 18, 2020, with a construction contract recently awarded for Crains Island. Significant upcoming expenditures include science proposals, forest inventory and timber stand improvement in MVR, and Bass Ponds and McGregor HREPs in MVP. According to Plumley, UMRR is in a healthy position to execute funds this year. It is anticipated that UMRR will reach a comparable execution to previous years.

Plumley said the President’s FY 2021 budget recommendation for UMRR is \$33,170,000. The final FY 2021 UMRR appropriation is unknown. At a \$33.17 million funding scenario, internal allocations are anticipated to be as follows:

- Regional Administration and Program Efforts – \$1,250,000
- Regional Science and Monitoring – \$10,400,000
 - Long term resource monitoring – \$5,000,000
 - Regional science in support of restoration – \$3,800,000
 - Regional science staff support – \$200,000
 - Habitat project evaluations – \$1,125,000
 - HNA II/regional project sequencing – \$275,000

- Habitat Restoration – \$21,520,000
 - Rock Island District – \$7,020,000
 - St. Louis District – \$7,125,000
 - St. Paul District – \$7,275,000
 - Model certification – \$100,000

In response to a question from Jim Fischer, Plumley said UMRR and the Everglades are the only two programs exclusively focused on ecological restoration that are receiving FY 2020 construction general funds in the Corps' environmental business line. This makes it even more important that the program executes its funds effectively. Plumley recalled that there were some delays on projects due to high water in 2019, but that the upward trajectory of acres restored speaks well of the program and its execution.

UMRR Ten-Year Plan

Plumley said no changes were made to UMRR's 10-year outlook since the February 26, 2020 UMRR Coordinating Committee quarterly meeting. He noted the Steamboat Island HREP may be accelerated due to completion of the feasibility report ahead of schedule.

ProjectWise

Plumley said the Corps' ProjectWise software will be used for the Pool 13 HREP as a pilot effort to test the program's functionality for various agencies. ProjectWise may be used for the communications pilot following a successful implementation with the Pool 13 project.

COVID-19-Related Challenges

Plumley said some adjustments were made to LTRM monitoring in response to COVID-19 policies at state and federal agencies. He expressed appreciation to USGS, field station, and Corps staff for engaging in conversations and making quick and effective decisions on how to continue operations across five states and federal agencies. Plumley acknowledged Mark Gaikowski, Jeff Houser, Jennie Sauer, and KathiJo Jankowski for helping to organize discussions.

Report to Congress

Plumley said the UMRR Coordinating Committee, District Program Managers, and LTRM managers have a virtual meeting scheduled for June 3, 2020 to discuss development of the 2022 Report to Congress. Plumley introduced Jill Bathke, from MVP, who will help work on the report on behalf of the Corps. Initial discussions will be structured around potential implementation recommendations to partner agencies, Congress, and the Administration. Bathke said she is currently working in the Corps' planning branch and previously worked in the regulatory branch for a number of years and expressed enthusiasm in joining this effort.

Statements of UMRS Significance

Plumley reported that the UMRR Coordinating Committee convened a call on March 24, 2020 to discuss revisions to the statements of UMRS significance and a draft UMRR storyline. He said it is important to boil down the information about the important characteristics of the UMRS into a compelling story. The revised statements are organized into categories the partnership has classified as important, including natural resources, culture, recreation, navigation, partnership, and economy. The document also identifies a set of concerns for the river and threats to areas of significance that may be important for articulating in the 2022 Report to Congress. Plumley said the draft storyline provides

context around the initial authorization of UMRR and will be provided for review in the coming months. Also discussed was the creation of a UMRR motto to succinctly convey the purpose and goal of the program. Mottos proposed for consideration include, but are not limited to, “building resilience through restoration,” “restoring a healthy, resilient river ecosystem,” and “restoration today for a resilient tomorrow.” Andrew Stephenson said the storyline will also help to convey how UMRR is achieving its goals to a variety of audiences.

2015-2025 Strategic and Operational Plan Review

Plumley explained that, as an initial step for reviewing the 2015-2025 UMRR Strategic and Operational Plan, Kirsten Wallace provided an overview of the plan’s development on an April 24, 2020 webinar. He said the historical perspective and context were very helpful for individuals who were not involved in the program at that time. Wallace’s review highlighted a number of issues that remain to be addressed. Through a survey following the webinar, the UMRR Coordinating Committee compiled its assessment of UMRR’s progress since 2015 and of any necessary adjustments or reprioritization of programmatic activities.

The UMRR Coordinating Committee convened a day and a half virtual meeting on May 6-7, 2020. The purpose was to review and discuss the survey results. Meeting attendees observed considerable progress achieved during the last five years regarding objectives set in Goals 1, 2, and 4 – i.e., habitat restoration, knowledge, and partnership. However, there was acknowledgement of ongoing challenges in making progress related to Goal 3 – i.e., communication. In particular, the Committee acknowledged the achievements related to HREP selection, ecological resilience, HNA II indicators, LTRM/HREP integration, and transparency offered among the implementing partners in decision making. Areas for improvement included adaptive management, understanding restoration effects on indicators and resilience, conducting outreach, and meaningfully communicating restoration and science knowledge in relevant and timely ways.

Plumley said the UMRR Coordinating Committee requested that the survey be distributed more broadly among program partners to get a more comprehensive perspective. Jim Fischer expressed appreciation to everyone who participated in the initial Strategic Plan review meeting and said the discussion was valuable. It demonstrated that UMRR has accomplished a lot in the last five years. According to Fischer, the partnership is in a stronger place than when the Plan was developed.

Fischer recalled that an intentional decision was made during development of the Strategic Plan to promote integration across the two program elements – i.e., HREP and LTRM. He was impressed with the improvement made so far and is looking forward to continued improvement. Megan Moore also expressed appreciation for undertaking the Strategic Plan review and said it will help improve the program overall as we are in a strong place now to address the other elements that need attention. Neal Jackson expressed appreciation to Plumley for his comments regarding the importance of outreach and suggested engaging with residents along the river.

Lower Illinois River Communications Pilot Project

Plumley said Rachel Perrine and Jill Bathke will be assisting with UMRR’s communication work. Perrine said she has worked for the Corps for 14 years and started her career working on post-construction monitoring of water quality, but has since spent time in regulatory, engineering, and planning for the last five years.

Andrew Stephenson said the Lower Illinois River *ad hoc* communications team reviewed an initial draft framework strategy in October 2019. A revised version based on the initial input will be sent to the group soon for second review. Stephenson described how the effort relates to Goal 3 of the 2015-2025 UMRR Strategic Plan: “engage and collaborate with other organizations and individuals to help

accomplish the UMRR vision.” The UMRR Coordinating Committee has called for investment in external communications to help advance UMRR’s vision by targeting engagement with individuals or organizations that can positively or negatively influence that vision and focusing on the top primary drivers affecting the ecosystem.

Stephenson recalled that, at a February 27, 2019 meeting, the UMRR Coordinating Committee and Communications Team agreed to develop a communications strategy focusing on total suspended solids (TSS) in the HNA-II Lower Illinois Reach. The following problem statement guiding the pilot project connects conditions in the watershed to the river:

Land use changes in the Illinois River basin have led to increased sediment in the river, resulting in severely degraded environmental conditions along the main stem of the Illinois River by increasing TSS and filling backwater areas, side channels, and channel border areas. TSS concentrations within the Lower Illinois River reduce the ability of the system to support growth of native aquatic vegetation and other food and habitat resources for fish and waterfowl species as well as continuing to degrade backwater and off-channel habitat. TSS concentrations will not improve without actions taken within the watershed or tributaries outside the scope of UMRR.

Stephenson said the problem statement connects conditions in the watershed to the UMRS. The goal of the pilot is to engage with individuals and organizations working in the watershed to address external stressors. Draft messages are being developed, but will need to be tailored to target audiences. Next steps include:

- Involve potential actors in the watershed to review the draft strategy
- Better understand actions being implemented now to reduce sediment and nutrient inputs to the Illinois River.
- Solicit input on draft messages from the UMRR partnership.
- Establish metrics to evaluate success.
- Develop a timeline to guide partners’ implementation of outreach actions.

Megan Moore expressed appreciation for the *ad hoc* team’s effort and said this could serve as a foundational piece to scale up to the broader UMRS. Moore asked who would implement the plan. Stephenson said the framework suggests that UMRR partners that are already working in the watershed would help to carry out the engagement strategy. In addition, UMRR could provide presentations about HREPs to state-level NRCS groups as a way to help connect in-river work to efforts in the watershed. Chandler said, and Moore agreed, that this effort was a good step forward to advance UMRR’s communications objectives.

External Communications

UMRR partners reported on the following communication and outreach activities since the February 26, 2020 UMRR Coordinating Committee meeting:

- Lauren Salvato said that, on April 3, 2020, she was a plenary speaker for the Wisconsin Lakes and Rivers Convention. The theme of the plenary was resilience of the UMRS and she provided information about UMRR’s LTRM and HREP elements. Jim Fischer said it was the first year the conference expanded from lakes to include rivers and that it was useful for those working on local waterbodies to understand what is happening on the Upper Mississippi River.
- Fischer said he presented at the Red Cedar River Conference on March 12, 2020 and discussed the history, successes, and future direction of UMRR.

- Kat McCain said she will participate in a virtual outreach activity on June 23, 2020 for the Mighty Mississippi River exhibit as part of the Missouri History Museum’s river conservation series. She will discuss UMRR’s role in the recovery of ecosystems that have been degraded, damaged, or destroyed.
- Mark Gaikowski said USGS and USACE participated in MRCTI’s March 3-5, 2020 capital meeting and discussed issues relevant to UMRR and the river. It was an opportunity to connect with mayors, federal agencies, and congressional staff to highlight the program.
- Plumley said the Steamboat Island HREP feasibility report is out for public review. It is one of the first examples of conducting a virtual public presentation and review for an HREP. The presentation was distributed on social media and has received over 100 views.
- Sabrina Chandler said Gail Carmody visited Port Louisa Refuge in the Savanna District. Carmody serves on the National Wildlife Refuge Association (NWRA) Board, which advocates for the refuges at the Congressional level and engages with the public about refuge activities. Discussion focused on the benefits of UMRR, particularly with respect to HREPs. Carmody was involved in UMRR in the 1980s and appreciated seeing the program’s progress since her early involvement.

UMRR Showcase Presentations

Harlow Island

Jasen Brown provided an overview of the Harlow Island HREP. He expressed appreciation to the USFWS as a partner on the project. The property was acquired in 2007 and covers over 1,200 acres in the Middle Mississippi River National Wildlife Refuge (NWR), located approximately 35 miles downstream of St. Louis. The project will be 100 percent federally funded, and would be the first UMRR implemented on the open river. The fact sheet for the Harlow Island was approved in June 2015, the feasibility report was approved in February 2019, and next steps include designing plans and specs and issuing a contract award.

Current problems at Harlow Island include limited topographic diversity, degraded side channel structure and connectivity, habitat fragmentation, and loss of forest community diversity. Forest stands consist of 15-year old cottonwood trees primarily and have no mast producing trees and the soil is not well-suited for growing the desired vegetation. Project objectives include restoring topographic diversity, increasing connected aquatic backwater habitat, increasing acreage protected from coarse sediment deposition, and restoring floodplain forest communities. At the feasibility-level of design, the project will include reforestation and establish topographic diversity through ridges and swales and partially restore a backwater by limiting upstream connectivity in the current side channel. The project would achieve most of these outcomes by building a sediment deflection berm to divert sediment and high velocities away from the protected area behind the berm. This would allow for fine sediment deposition and the building of complex soils capable of supporting wetlands species in swales and hard mast trees on ridges. HEC-RAS 2D modeling shows how the deflection berm would direct flows and promote fine sediment deposition using a passive design that harnesses the rivers existing energy, eliminating the need for pump stations or water control structures.

A draft set of plans and specs is complete and refinements from a value engineering workshop included ridge and swale constructability and a focus on designs based on what nature is already providing. An initial contract will cover 60-70 percent of the work and the total estimated project cost is \$8 million to \$10 million. Plans and specs are expected to be reviewed by July 2020 and a construction award is anticipated for September 2020 to have construction completed by FY 25, dependent on funding availability.

In response to a question from Andrew Stephenson, Brown said natural indicators and sponsor input drove initial design. Extensive modeling with a supercomputer that was used for Piasa and Eagles Nest HREP was not used for this project. Jim Fischer said it is good to see projects designed that use the energy of the river rather than expensive pumps, ultimately reducing O&M costs. In response to a question from Fischer, Brown said the project is designed so that a 10-year flood event will overtop the berm and a two-year event will hold water in the backwater, allowing for low velocity fine sediment deposition. Sabrina Chandler said she is enthusiastic about the projects in the open river that allow for using nature's energy and incorporating more natural systems. The reduced O&M costs are an added benefit.

Projected Climate Change Impacts and Vulnerabilities in the Upper Mississippi River Basin

John Delaney, USGS-UMESC, provided an overview of projected climate change impacts and vulnerability in the Upper Mississippi River Basin. The Midwest has experienced increases in temperature and precipitation, baseflow, and extreme precipitation and flooding over the 20th century. Climate change projections show further increases in temperature, precipitation, and shifts in seasonality, such as greater precipitation and baseflow earlier in the spring. Delaney discussed the results of recent modeling of changes to temperature and precipitation in the Upper Mississippi River basin sub-watersheds, namely Mississippi Headwaters, Upper Mississippi-Iowa-Skunk-Wapsipincon, and Lower Illinois. The modeling utilized two future climate change scenarios, Representative Concentration Pathways (RCP) 4.5 that assumes moderate investment in green energy and policy changes and RCP 8.5 that assumes no investment to green energy or policy changes. Thirty climate models were incorporated to account for uncertainty in any individual model. Collectively, the modeling results suggest that the Upper Mississippi River basin will experience more precipitation earlier in the spring, especially in the Lower Illinois River, and potentially drier summers in Iowa. Temperature increases in winter and late summer/early fall are also projected for the basin.

USFWS Region 3 conducted a vulnerability assessment for the Refuge lands in the Upper Mississippi River Basin. The vulnerability assessment incorporated measures of exposure, sensitivity, and adaptive capacity of focal resources (i.e., species, habitats) and used climate and hydrology data from the Hydrologic and Water Quality System (HAWQS). HAWQS is a browser-based tool that includes landcover, land use and has the ability to run the Soil and Water Assessment Tool with cloud processing and regionally calibrated models. USGS and USFWS staff met to select preferred indicators for temperature, precipitation, and hydrology. Five indicators were selected for each category as follows:

<u>Temperature</u>	<u>Precipitation</u>	<u>Hydrology</u>
- Annual Mean Temperature	- Annual Precipitation	- Number of High Flow Months
- Warm Days	- Consecutive Wet Days	- Sediment Load
- Growing Season Start	- Maximum 5-Day Rainfall	- Spring Flow
- Fall Temperature	- Wetter Springs	- Runoff
- Freezing Temp Reversals	- Drier Summers	- Total Nitrogen Load

All indicators are calculated as a percent change from the baseline to the future period.

Exposure indicators and sensitivity were combined to represent potential impact. Adaptive capacity is greater in more diverse areas and is represented by a suite of metrics, including topographic diversity, percent cultivated land cover, and projected increase in developed land cover. The assessment provides each metric to 2050. Potential impact and adaptive capacity were mapped. High vulnerability areas identified were Southwest Minnesota, Iowa, and the Illinois River. Chautauqua NWR and Emiquon NWR ranked second and sixth, respectively, of seventy-two USFWS Refuge properties in terms of vulnerability. Some limitations to the model are that hydrology estimates are based only on temperature and precipitation, the metrics/weights are tailored for USFWS purposes, and it is calibrated regionally

and not locally. Next steps include creating an online interactive vulnerability map and developing refuge-specific and regionally-based adaptation strategies.

Mark Gaikowski said that, although this work was not conducted as part of UMRR, the findings are directly relevant to the program and are of interest to the partners. As USGS stands up a new climate adaptation science center (CASC), there will be opportunities to expand the assessment to examine ecological restoration and science needs as well as societal impacts. Climate change will be affecting us in the future and this collaborative work is important to consider. Sabrina Chandler agreed that the work has broad applicability to UMRR. Kirsten Wallace commended Delaney on the work and noted how it relates to Goal 3 of the Strategic Plan. In response to questions from Megan Moore, Delaney said the data is still preliminary but would be shareable following completion of the necessary review. Gaikowski said USGS will make the slides shareable and send the PowerPoint to the UMRR Coordinating Committee. Matt Vitello suggested having a future discussion on incorporating the Midwest CASC into planning and communications. Jeff Houser said one of the recommended science proposals concerned a vulnerability assessment with respect to vegetation on the river. Jennie Sauer noted potential connections to the UMRBA-USACE Section 729 planning effort as well.

Long Term Resource Monitoring and Science

FY 2020 2nd Quarter Report

Jeff Houser said accomplishments of the second quarter of FY 20 include publication of the following manuscripts:

- Conceptualizing alternate regimes in a large floodplain-river ecosystem: water clarity, invasive fish, and floodplain vegetation
- Quantifying and mapping inundation regimes within a large river-floodplain ecosystem for ecological and management applications

Status and Trends 3rd Edition

Houser reported that the LTRM Status and Trends Report chapter authors met virtually on April 1, 2020 to discuss initial results and figures and to finalize details on formatting and layout. The authors also met May 8, 2020 to discuss presentation and discussion of the results. Draft chapters are scheduled to be distributed to chapter leads in early June 2020. Much of the focus to date has been on chapters two and four that contain new analytical changes. The vegetation chapter is outlined, but requires information from chapters two and four before it can be completed. The report is anticipated to be completed in time to contribute substantially to the 2022 UMRR Report to Congress.

Houser said that, in response to COVID-19, a series of conference calls were held with field station staff to coordinate LTRM data collection activities to allow for social distancing and comply with various state and federal agency policies. Water quality sampling was the first LTRM data collection effort to be affected. UMRR Coordinating Committee members were notified of relevant decisions as they were finalized. Fixed site sampling was suspended on April 6 and April 20, 2020. Due to differing state policies, Iowa and Missouri were the only states able to sample for spring water quality SRS data collection. SRS fisheries and vegetation sampling protocols are being reviewed for June 2020 sampling activities. LTRM component leads are engaging in ongoing calls as policies continue to change rapidly. Additional projects that may be impacted by COVID-19 restrictions include the fisheries vital rates project, zooplankton project, large woody debris, field testing of ScanLog, and vegetation, fisheries, and water quality sampling for the Illinois Waterway Closure monitoring.

Karen Hagerty acknowledged the importance of completing vegetation sampling on the Illinois Waterway this year to capture the effects of reduced navigation traffic. Hagerty suggested contacting UMRCC vegetation experts or USACE employees who may not be under travel restrictions to complete that field work. Jim Fischer said Wisconsin DNR is working on a phased plan for returning to work that is consistent with the Governor's Badger Bounce Back Plan. In draft form, the first phase includes any work that can be done by a single person. The second phase may include work that could be done in a boat while maintaining physical separation or safe distancing. The decision will be made in consultation with the Wisconsin Department of Health Services. Fischer expressed appreciation to Gaikowski and USGS staff that made it possible for Wisconsin field station crews to access the field station shed at UMESC and said Wisconsin DNR staff are preparing nets and gear for use.

Mark Gaikowski said he is anticipating the release of the USGS plans for returning to standard operations, which will be used to formulate a plan for transitioning UMESC staff to onsite work at the facility. Ultimately, UMESC's plan will be reviewed by the Regional Director. Gaikowski said more vehicle requests are being made and approved recently. USGS has some approved procedures regarding close quarters operations of multiple individuals in a boat or car and can share those procedures with other agencies. Jennie Sauer said continued discussion is needed with all agencies regarding PPE, multiple people in boats, and both COVID-19 and typical safety considerations. Megan Moore said Minnesota DNR is also working on a phased approach to safe working operations and expressed appreciation to Gaikowski for his willingness to share plans as they may help inform Minnesota's field station work. Jim Fischer agreed. In response to a comment from Gaikowski, Houser said Brian Ickes was engaging in conversations with the fish component staff regarding appropriate safety considerations when sampling with nets.

USACE LTRM Report

Karen Hagerty said UMRR's FY 20 LTRM allocation under full funding includes \$6.3 million – i.e., \$5 million for base monitoring and \$1.3 million for analysis under base. An additional \$2.5 million is available for science in support of restoration and management. These funds will cover previously approved proposals that include monitoring during the Illinois Waterway closure, development of wind fetch products, moving LTRM spatial data to web mapping services, continuing ecohydrology work for two years, and reintroducing chloride monitoring for three years (2020-2023) to allow comparisons to historic data and establish change over time. Remaining funding available for science proposals developed at the science meeting in January 2020 increased from \$1.9 million to \$2 million due to additional carryover. Eight proposals have been recommended for funding totaling \$1,985,855.

FY 2020 Science Proposals

Houser explained that the recommended proposals are products of the January 14-16, 2020 UMRR Science Meeting. Working groups developed proposal ideas during virtual pre-meetings and during the in-person meeting that were then further refined after the meeting. Initial proposal drafts were requested by February 28, 2020 for light technical and funding reviews. Final proposals were submitted to the A-Team on March 23, 2020. A-Team representatives held a meeting on April 7 with proposal PIs to ask questions and clarify any issues. On April 22, 2020, the A-Team met to discuss and compile agency rankings based on criteria developed in previous years and further refined this year. On April 27, 2020, the UMRR LTRM Management Team met with the A-Team chair to discuss final recommendations with rankings from USGS and USACE. The UMRR Coordinating Committee received all 13 science proposals that were ranked in advance of the quarterly meeting. Houser provided a brief overview of the proposals developed under each working group. The UMRR LTRM Management Team recommended the following eight proposals for endorsement by the UMRR Coordinating Committee:

Side channels

- Understanding physical and ecological differences among side channels of the Upper Mississippi River System

Vegetation and wildlife

- Refining our Upper Mississippi River's ecosystem states framework

Hydrologic and geomorphic changes

- Mapping Potential Sensitivity to Hydrogeomorphic Change in the UMRS Riverscape and Development of Supporting GIS Database and Query Tool
- Improving our understanding of historic, contemporary, and future UMRS hydrology by improving workflows, reducing redundancies, and setting a blueprint for modelling potential future hydrology

Water quality and eutrophication

- Understanding landscape-scale patterns in winter conditions in the Upper Mississippi River System

Floodplain ecology

- Forest response to multiple large-scale inundation events

UMRS fish community dynamics

- Augmenting the UMRR fish vital rates project with greater species representation for genetics and otolith microchemistry
- Functional UMRS fish community responses and their environmental associations in the face of a changing river: hydrologic variability, biological invasions, and habitat rehabilitation

Olivia Dorothy asked if the floodplain forest proposal considered flood conveyance capacity in floodplain forest projects or if any proposal might help clarify interactions between the floodplain forests, groundwater recharge, and impacts on flood conveyance. Houser said the current proposal is not considering conveyance, but rather how forest mortality is distributed in response to flooding. Houser agreed that the effects of floodplain forest projects on conveyance capacity would be good to research.

A-Team Report

Nick Schlessler reported that the A-Team met via webinar on April 22, 2020. Topics discussed were an update on LTRM Land cover/Land use aerial imagery collection from Kevin Hop, concern about decreases in abundance of mayflies and potential monitoring needs, the impact of COVID-19 on agency policies and work anticipated for the 2020 field/work season, and a summary of how high water in 2019 had impacted projects and the UMR system in general. Schlessler said the main focus of this meeting was the ranking of the UMRR science proposals. In response to concerns over the 2018-2019 ranking procedure related to addressing ties and the presence of PIs during ranking discussions, the A-Team refined the ranking method this year. The new approach included a revised scoring sheet attached to proposal recommendations, corresponding excel workbook to help with the collection of scores and to reduce data entry concerns, and holding a separate meeting to provide feedback to PIs before the final ranking. In general, the refined ranking methods were considered an improvement and the ranking by the A-Team largely matched the ultimate ranking when combined with USGS and USACE rankings. The A-Team unanimously approved the science proposal rankings. However, concerns were expressed by Wisconsin DNR and the USFWS regarding the ability of vegetation-related projects to compete for funding due to their non-uniform distribution in the UMR. This and other challenges will be discussed further at the A-Team's upcoming summer meeting. Schlessler said the A-Team is committed to continually improve the science proposal ranking process.

Megan Moore said she heard positive feedback from participants regarding the new ranking process and appreciated allowing PIs to adjust proposals in response to feedback and questions prior to the final ranking. Moore echoed the concerns regarding funding vegetation component proposals and noted that vegetation was deemed important enough to be called out in the 2010-2014 strategic plan. She added

that, although a project under each focal area was funded this year, that may not be the case in future years. Schlessner said more discussion is needed to determine how to better assess any regional project considerations and that, under reduced funding, it would be difficult to fund a project under each focal area. Houser said three of four vegetation proposals were recommended for funding in 2019 and that multiple years of science proposal funding should be considered to determine if a problem exists. He noted that three or four projects were at the top of every agency's list this year. Schlessner agreed that recommendations were largely similar before and after combining USGS, USACE, and A-Team rankings. Jim Fischer said he appreciated the changes in the scoring and evaluation process and encouraged the A-Team to review the ranking process to ensure that science funding continues to support and address the most critical knowledge gaps. Karen Hagerty and Fischer expressed appreciation to Nick Schlessner for revising the ranking spreadsheet and said it was a tremendous asset to the process.

Science Proposal Endorsement

Hagerty requested the UMRR Coordinating Committee's endorsement of all eight science proposals and said they all have strong support in the partnership and add to our knowledge and understanding of the river. Jim Fischer moved and Randy Schultz seconded a motion to endorse the proposals as recommended by the A-Team and UMRR LTRM Management Team. The motion carried unanimously.

FWWG/RRF Project Recommendation

Marshall Plumley recalled that the UMRR Coordinating Committee endorsed 16 new HREP fact sheets at the February 26, 2020 quarterly meeting and that the FWWG/RRF reported that one additional fact sheet was still in development at that time. Stephen Winter said the Pool 8 Poolwide Forest Restoration HREP had a different timeline than the other fact sheets advanced by the RRF as it was developed to replace a previous draft fact sheet. The fact sheet is primarily forestry work over a large area of Pool 8 and may include timber stand improvement, plantings, and topographic diversity with dredge material. Sabrina Chandler noted that pages D1-11 of the agenda packet include the fact sheet. Plumley reported that the FWWG developed the fact sheet and the RRF formally endorsed the project proposal at its May 14, 2020 meeting. Megan Moore moved and Jim Fischer seconded a motion to endorse the Pool 8 Poolwide Forest Restoration HREP. The motion carried unanimously.

Habitat Restoration

District Reports

Angela Deen said MVP's planning priorities include Reno Bottoms and Lower Pool 10. The Lower Pool 10 TSP is anticipated to be selected in August 2020. The District's design priorities include McGregor Lake and Bass Ponds. The revised design for McGregor Lake will consider constructing floodplain forest at varying elevations to avoid high water concerns. Construction contracts are anticipated to be awarded this year for McGregor Lake and Bass Ponds. Construction on Conway Lake is scheduled to begin in May 2020.

Plans to evaluate repairs to Harpers Slough were delayed due to COVID-19 and that damage to a third island will be included in the letter report. MVP is working with project sponsors to condense and prepare four fact sheets for submission to MVD. Deen said McGregor Lake provides a good example of beneficially using dredged material. The project utilized 70,000 cubic yards of material from the navigation channel. Using the sand from that area was critical to alleviating channel management constraints in the reach. Using the material also reduces HREP costs.

In response to a question from Andrew Stephenson, Deen said damages at two of five Harlow Island's islands were found in the original assessment and that one of its other three islands also shows signs of

damage. MVP is planning for a repair bid in spring at the earliest. Contingencies would be added to account for other possibilities.

Julie Millhollin reported that MVR's planning priorities include Steamboat Island, Lower Pool 13, and Green Island. Due to COVID-19 restrictions, planning activities were conducted virtually, including a public presentation for Steamboat Island, a site visit for Green Island, and a mini-charette that is planned for Lower Pool 13 in June 2020. Design work for Keithsburg Division Stage II is 65 percent complete and a Corps technical review is scheduled for June 2020. Redesign of features delayed progress, but a contract is anticipated for early next year. Construction was completed on Pool 12 Stage II rock structure, tree planting and timber stand improvement are out for bid, and the contract for Stage III is being closed out. Work on Keithsburg Division Stage I is paused until July due to detection of an eagle nest. Construction activities continue at Huron Island Stages II and III, but COVID-19 travel restrictions may cause delays. Contactors are dredging at Beaver Island. MVR is working with project sponsors to finalize six fact sheets before submission to MVD.

Brian Markert said MVS is working with the U.S. Forest Service to finalize the feasibility report for Oakwood Bottoms and anticipates submitting the report in September 2020 to MVD. A planning charette for Yorkinut Slough was held virtually and a draft report was produced that will inform the feasibility study. Planning for West Alton Islands may begin this year or early FY 21, pending resources. Design is anticipated to be complete for Piasa and Eagles Nest and Harlow Island in July 2020 and contract awards are possible in the fall pending funding availability. Contractor remobilization to Crains Island was delayed due to heightened hydrograph. Water control structures at Clarence Cannon Refuge are being turned over to the sponsor as they are completed. Contractors have COVID-19 safety precautions in place and are able to continue work. Warranty work for a pump station at Ted Shanks is underway. MVS is finalizing six fact sheets for submission to MVD with some currently undergoing final sponsor review. Markert explained that new water control structure designs at Clarence Cannon are easier to operate and maintain than traditional stop logs and should enhance the USFWS's ability to manage water. The new pump station designs have four pumps which deliver the necessary gallons per minute, but have a greater ability to function long-term, than large single pumps.

Ken Westlake said that all scoping requests and environmental assessments for projects in the NEPA process in Illinois, Minnesota, and Wisconsin should be sent to him at USEPA in Chicago while those in Iowa and Missouri should be sent to Joshua Tapp in Kansas City.

Marshall Plumley said he was impressed with the Yorkinut Slough team's ability to conduct a productive virtual planning charette, both from his experience participating in some of the meetings and the positive comments he heard from others. Sabrina Chandler agreed and said the six to eight sessions over two to three weeks was a tremendous effort and showed that a lot of thought was put into pre-planning to ensure success. Chandler said she was skeptical that a virtual meeting would work well given the difficulty of in-person charettes. However, she was amazed by the active participation and diversity of tools used to make the meeting the most successful virtual meeting she has participated in. Plumley said he received positive feedback regarding the virtual site visit held for Green Island and thanked Iowa DNR staff for their work and information gathering required to make that a success. He said both meetings are examples of how the program has adapted to the current circumstances and that a webinar to reflect on lessons learned and to share useful tools for preparing and conducting similar meetings would be beneficial to the program. Chandler noted the value of in-person meeting, but said it is critical to move projects forward and would be good to learn from the recent success so they could be repeated.

HREP Selection Process: Insights and Improvements

Marshall Plumley said the UMRR Program Planning Team (UMRR Coordinating Committee, the District River Team Chairs, District Program Managers) convened a meeting on May 6, 2020 with

USGS and NGO partners to discuss insights and improvements to the recent HREP selection process and guidance documents. District River Team chairs provided summaries of and reflections on their respective processes and provided feedback on questions regarding the guidance documents. Plumley said the feedback indicated some confusion over the composition of the Program Planning Team (PPT), concern about restricting river teams to a specific number of fact sheets, and that the guidance to use a structured decision-making process was too rigid. Additional discussion is needed to determine how to better utilize the Science Support Team (SST) in future iterations. In the Process, Goals, and Responsibilities guidance document, the need for additional descriptions for each river team was identified and a suggestion was made to add the governance structure of the teams to help non-traditional sponsors or those unfamiliar with the river team processes. Regarding the Selection Process Diagram, Plumley said additional time would be allowed for teams to do their work and that the short timeline did not aid in outreach to non-traditional sponsors.

Plumley said some recommendations for improving future efforts included:

- Limit fact sheets to four pages with option for additional information as an appendix
- Develop relationships with non-traditional sponsors before next HREP selection process
- Provide clear ecological and non-ecological criteria for ranking process, but allow for other criteria prioritized by river teams to be incorporated
- Promote deeper understanding of HNA-II indicators
- Determine ways to better utilize the Science Support Team
- Better align timing of fact sheet development with regular work and field work

In response to a comment from Matt Mangan, Plumley said the three-to-five fact sheet limitation was somewhat arbitrarily established based on an estimation as to how many projects might be completed in the five-year planning horizon. Angela Deen recalled that limiting fact sheets was also intended to ensure that projects remain relevant as older approved fact sheets may not be relevant to the current needs of the program. Sabrina Chandler concurred and said the desire to avoid stagnant projects was an important consideration for creating a limit. Andrew Stephenson said the timeframe was also limiting because teams were developing their respective processes and then implementing them within the timeframe. Plumley agreed and said there are efficiencies to gain in future iterations. Megan Moore said it was helpful to have the after-action review of the HREP selection process to document lessons learned. Jim Fischer said pushing toward a more data-informed selection process should be accompanied by more uniformity among the river team processes and that promoting increased interaction among the river teams would be beneficial.

In response to a question from Chandler, Plumley said the HREP selection process guidance documents will be revised to include the recommendations and be provided for review at the August 12, 2020 UMRR Coordinating Committee meeting. Finalized guidance documents will be incorporated into the review of the 2013 UMRR Advisory Group Charter in October 2020. Plumley explained that the charter defines the roles and responsibilities for implementing the program, including the UMRR Coordinating Committee, Analysis Team (A-Team), and HREP Planning and Sequencing Framework Teams and contains documents on the past HREP selection process. Opening the Charter provides an opportunity to consider other potential updates to the roles and responsibilities of the Advisory Groups. Karen Hagerty said the Charter is available on the UMRR website under key documents. In response to a question from Chandler, Stephenson said a meeting would be scheduled to discuss the role of the Science Support Team prior to the August 12, 2020 quarterly meeting. In response to a question from Plumley, Fischer said it is important to codify changes to the program and help the partnership retain documents that display those changes.

Other Business

Kirsten Wallace said that, in light of uncertainty around COVID-19, the UMRBA Board determined the August 11, 2020 UMRBA quarterly meeting would be held remotely. She said an in-person meeting might be possible for those able to travel, but that the states would prefer the UMRBA meeting to be held virtually as well. Jennie Sauer said UMESC is not currently open, but could speak with Mark Gaikowski about the necessary timeline to open for the meeting. Sabrina Chandler said it would be best to follow the recommendation of the UMRBA Board in this case and hold the meeting virtually. Megan Moore, Jim Fischer, and Randy Schultz expressed support for the decision.

Upcoming quarterly meetings are as follows:

- **August 2020 – Remote**
 - UMRBA quarterly meeting – August 11
 - **UMRBA Coordinating Committee quarterly meeting – August 12**
- **October 2020 – St. Paul**
 - UMRBA quarterly meeting – October 27
 - **UMRBA Coordinating Committee quarterly meeting – October 28**
- **February 2021 – TBD: Dubuque, Quad Cities, or Muscatine**
 - UMRBA quarterly meeting – February 23
 - **UMRBA Coordinating Committee quarterly meeting – February 24**

UMRR Coordinating Committee Virtual Attendance List

May 20, 2020

UMRR Coordinating Committee Members

Brian Chewning	U.S. Army Corps of Engineers, MVD
Sabrina Chandler	U.S. Fish and Wildlife Service, UMR Refuges
Mark Gaikowski	U.S. Geological Survey, UMESC
Dave Glover	Illinois Department of Natural Resources
Randy Schultz	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
Verlon Barnes	Natural Resources Conservation Service
Ken Westlake	U.S. Environmental Protection Agency, Region 5

Others In Attendance

Thatch Shephard	U.S. Army Corps of Engineers, MVD
Jim Cole	U.S. Army Corps of Engineers, MVD
Ben Robinson	U.S. Army Corps of Engineers, MVD
Angela Deen	U.S. Army Corps of Engineers, MVP
Jill Bathke	U.S. Army Corps of Engineers, MVP
Jon Hendrickson	U.S. Army Corps of Engineers, MVP
Chris Erickson	U.S. Army Corps of Engineers, MVP
Clayton Tallman	U.S. Army Corps of Engineers, MVP
Jonathan Sobiech	U.S. Army Corps of Engineers, MVP
Marshall Plumley	U.S. Army Corps of Engineers, MVR
Andy Barnes	U.S. Army Corps of Engineers, MVR
Kim Thomas	U.S. Army Corps of Engineers, MVR
Karen Hagerty	U.S. Army Corps of Engineers, MVR
Jodi Creswell	U.S. Army Corps of Engineers, MVR
Nate Richards	U.S. Army Corps of Engineers, MVR
Erica Stephens	U.S. Army Corps of Engineers, MVR
Kara Mitvalsky	U.S. Army Corps of Engineers, MVR
Julie Millhollin	U.S. Army Corps of Engineers, MVR
Rachel Perrine	U.S. Army Corps of Engineers, MVR
Anthony Heddelsten	U.S. Army Corps of Engineers, MVR
John Menard	U.S. Army Corps of Engineers, MVR
Rachel Hawes	U.S. Army Corps of Engineers, MVR
Roger Perk	U.S. Army Corps of Engineers, MVR
Brian Markert	U.S. Army Corps of Engineers, MVS
Brandon Schneider	U.S. Army Corps of Engineers, MVS
Jasen Brown	U.S. Army Corps of Engineers, MVS
Katy Smith	U.S. Army Corps of Engineers, MVS
Kat McCain	U.S. Army Corps of Engineers, MVS
Brian Johnson	U.S. Army Corps of Engineers, MVS
Rachel Steiger	U.S. Army Corps of Engineers, MVS
Lane Richter	U.S. Army Corps of Engineers, MVS
Rachel Steiger	U.S. Army Corps of Engineers, MVS
Kraig McPeck	U.S. Fish and Wildlife Service, IIFO
Sara Schmuecker	U.S. Fish and Wildlife Service, IIFO
Tyler Porter	U.S. Fish and Wildlife Service, IIFO

Matt Mangan	U.S. Fish and Wildlife Service, IIFO
Tim Yager	U.S. Fish and Wildlife Service, UMR Refuges
Stephen Winter	U.S. Fish and Wildlife Service, UMR Refuges
Neal Jackson	U.S. Fish and Wildlife Service, UMRCC
Jeff Houser	U.S. Geological Survey, UMESC
Jennie Sauer	U.S. Geological Survey, UMESC
KathiJo Jankowski	U.S. Geological Survey, UMESC
Danelle Larson	U.S. Geological Survey, UMESC
Molly Van Appledorn	U.S. Geological Survey, UMESC
Benjamin Finley	U.S. Geological Survey, UMESC
Jennifer Dieck	U.S. Geological Survey, UMESC
Kristen Bouska	U.S. Geological Survey, UMESC
John Delaney	U.S. Geological Survey, UMESC
Jayne Strange	U.S. Geological Survey, UMESC
Sandra Morrison	U.S. Geological Survey, GLSC
Jason Daniels	U.S. Environmental Protection Agency, Region 7
Chad Craycraft	Illinois Department of Natural Resources
Kirk Hansen	Iowa Department of Natural Resources
Nick Schlessler	Minnesota Department of Natural Resources
Chris Wieberg	Missouri Department of Natural Resources
Coreen Fallat	Wisconsin Department of Agriculture, Trade and Consumer Protection
Mike Halsted	Wisconsin Department of Transportation
Doug Blodgett	The Nature Conservancy
Olivia Dorothy	American Rivers
Marian Muste	University of Iowa
Rick Stoff	Stoff Communications
Paul Rohde	Waterways Council, Inc.
Angela Love	Wood
Tom Boland	Wood
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