Minutes of the
Upper Mississippi River Restoration Program
Coordinating Committee

February 24, 2021
Quarterly Meeting

Virtual Meeting

Brian Chewning of the U.S. Army Corps of Engineers called the meeting to order at 8:00 a.m. on February 24, 2021. UMRR Coordinating Committee representatives on the virtual meeting were Sabrina Chandler (USFWS), 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 October 28, 2020 Meeting

Randy Schultz moved and Megan Moore seconded a motion to approve the draft minutes of the October 28, 2020 UMRR Coordinating Committee meeting as written. The motion carried unanimously.

Regional Management and Partnership Collaboration

Marshall Plumley said this meeting marks one year of meeting virtually. He expressed appreciation for the partnerships' efforts on the many activities underway, including preparation for the 2022 UMRR Report to Congress.

FY 2021 Fiscal Update

Plumley noted the financial reports from the three districts are included in the meeting agenda packet on pages B-1 to B-3. UMRR has obligated over $11.2 million, or 33.8 percent, of its $33.17 million FY 21 funds to-date. Plumley said the FY 21 work plan is a little ahead of schedule because of LTRM advance funding but shows good progress on allocating and implementing the program.

Plumley outlined UMRR's FY 21 internal allocations are as follows:

- Regional Administration and Program Efforts – $1,250,000
  - Regional management – $1,000,000
  - Program database – $100,000
  - Program support contract – $100,000
  - Public outreach – $50,000
- Regional Science and Monitoring – $10,400,000
  - Long term resource monitoring – $5,000,000
  - Regional science in support of restoration – $3,800,000
  - Integration & Adaptive Management – $200,000
  - Habitat project evaluations – $1,125,000
  - Report to Congress – $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

FY 2022 Budget Outlook

Plumley said the President's FY 22 budget has not yet been released but is anticipated to be released in March or April. He said it is not atypical for the release of the President's budget to be delayed in a year with a change in the Administration.

National Perspective

Plumley said that, including UMRR, the Corps of Engineer's FY 21 appropriations and workplan consisted of approximately $502 million for construction of twelve ecosystem restoration programs and projects across the nation. Since its inception, UMRR has completed 56 projects and restored 106,000 acres. From FY 12 – FY 20, UMRR restored, created, improved, or protected 31,370 acres, approximately 10 percent of the 332,000 acres restored nationally. In any given year, UMRR may account for a greater or lesser proportion of the national acres restored. There are currently 24 projects in planning, design, or construction that would restore over 65,000 acres by 2030. Plumley said high water in 2018 and 2019 delayed completion of some projects, but that two projects are anticipated to be completed in FY 21 and will account for 4,310 of those acres. In response to a question from Andrew Stephenson, Plumley said Conway Lake and Ted Shanks are anticipated for completion and that Harpers Slough is not yet considered complete. Projects are considered complete after physical construction is completed and the O&M manual is delivered to the sponsor, but monitoring still occurs after. Rachel Perrine expressed appreciation for the national perspective context.

UMRR Ten-Year Plan

Plumley said the 10-year outlook provides the best estimate of scheduled for projects through FY 30. He overviewed changes to UMRR's 10-year outlook since the October 28, 2020 UMRR Coordinating Committee quarterly meeting. Plumley explained that he has no concern over modifications to the estimated completion dates for projects five or six years out, but that it is helpful to understand the decisions behind changes made to project schedules in the next one to two years. Changes in St. Paul District include adjusting projects on a scale of months, adding Lower Pool 4 Big Lake to the list as well as a placeholder for a yet-to-be-determined project beginning in FY 23. Rock Island District did not have any changes. Changes in St. Louis District include extending construction timeframes for numerous projects, starting feasibility sooner on West Alton Islands and adding two undetermined projects that are contingent on sponsor availability. Megan Moore noted that Pool 4, Big Lake should be identified as Wisconsin and Minnesota, as opposed to Iowa.

Statements of Significance

Plumley said that multiple discussions over the last two years have culminated in the UMRR Coordinating Committee developing the Statements of Significance. This will be a living document that will be updated as necessary and serve as resource for other efforts. It will be used to inform the 2022 Report to Congress, communication and outreach materials being developed by UMRR Communications Team, and discussion on desired future condition. The Communications Team

reviewed the Statements of Significance and is preparing a memo with feedback for the UMRR Coordinating Committee.

UMRR Joint Charter Review

Plumley said that, on February 10, 2021, the UMRR Coordinating Committee held a virtual meeting to discuss the review of the 2013 UMRR Joint Charter of Consultative Bodies. The UMRR Coordinating Committee reviewed the A-Team's suggested edits to its provisions in the Charter. The Coordinating Committee accepted the majority of the A-Team's suggested changes and provided some revised language for the A-Team to consider. The A-Team will review and respond to the comments prior to the Coordinating Committee's May 26, 2021 quarterly meeting. Plumley said that Stephenson provided some example Charters and noted there was not a clear statement about what UMRR does in the Charter. The Committee recommended that the Joint Charter include additional context regarding UMRR's purpose, vision, mission, and a reference to the 2015-2025 Strategic Plan. The Committee also discussed the role of other teams or ad hoc groups in program implementation and determined that, although no additional consultative bodies will be added to the Charter at this time, improved communication may be needed to clarify when and how various teams are used. Nick Schlesser said the comments from the UMRR Coordinating Committee back to the A-Team sparked additional debate. Plumley said next steps will be to incorporate additional feedback from the A-Team, distribute a revised draft of the Joint Charter to the Coordinating Committee, and consider signing the revised Charter at the quarterly meeting in May.

UMRR Strategic and Operational Plan Review

Plumley recalled that, in May 2020, an initial survey to assess progress on the objectives outlined in the 2015-2025 UMRR Strategic and Operational Plan was distributed to the UMRR Coordinating Committee, District HREP Managers, and River Team Chairs. The survey results showed areas of considerable progress and identified a number of activities and actions that may need additional focus in the second half of the planning horizon. It was determined that a modified survey be distributed to a broader audience, including those who participate in science meetings, HREP workshop, and NGO partners who engage with the program.

Plumley said that, on a February 16, 2021 call, Stephenson presented a draft survey to the 2022 Report to Congress Scoping Team for review and to identify linkages between the survey items and the Report to Congress. The survey will seek input regarding progress achieved since 2015, priorities for the next five years, and the issue areas to include in the 2022 Report to Congress. A revised survey and information outlining the purpose, audience, background of the effort will be provided to the UMRR Coordinating Committee for review prior to distribution to the broader UMRR partnership.

Moore expressed appreciation for the effort and acknowledged the importance of assessing progress and future direction, especially in light of increased authorization. She asked if another strategic planning process would occur as part or in parallel to this effort. Plumley said the implementation period of the current strategic plan extends through 2025 and that the next planning process will begin in two to three years, but acknowledged the need to address the change in authorization. He said there was time set aside later in the meeting to discuss how to modify the program to be more responsive to science and restoration needs of the river should the program receive increased appropriations. Jim Fischer expressed support for developing a brief report on the strategic and operational plan review and said it would be useful for directing program activities over the next five years and for reflecting on well into the future. Plumley expressed appreciation to Stephenson for facilitating conversations and developing a first draft of the survey for others to react to. Stephenson said he appreciated the constructive comments and feedback and noted that the overall strategic plan review effort has already proved very

beneficial as it has helped orient new Coordinating Committee members and himself to the program's long-term perspective.

2022 Report to Congress

Plumley said the 2022 Report to Congress Scoping Team met on November 3, 2020, December 15, 2020, and February 16, 2021 to discuss report development and completed a draft outline for the report. The outline includes six chapters with details to guide content development:

Chapter 1 – Strategic Direction	Chapter 4 – Interagency Partnership and Recognition
Chapter 2 – Enhancing Habitat	Chapter 5 – Implementation Issues
Chapter 3 – Enhancing Knowledge	Chapter 6 – Conclusions and Recommendations

The draft outline will be sent to the UMRR Coordinating Committee to coordinate any necessary agency review and a meeting will be scheduled in late-March to early-April to discuss feedback. In response to a question from Karen Hagerty, Stephenson said that WRDA 2020 was passed following completion of the draft outline, but that it could be incorporated in the first chapter. Plumley said the Scoping Team will schedule a meeting to discuss the Coordinating Committee's feedback and determine writing assignments. Plumley overviewed some modifications to the report development schedule including some additional steps for MVD review and a touch point with USACE HQ in June 2022. In response to a question from Plumley, Brian Chewning said the schedule is good and shows due diligence to ensure HQ is fully aware of this report process.

Desired Future Condition

Plumley said he will ask the UMRR Coordinating Committee to initiate a process to develop a desired future condition for the UMR ecosystem. He acknowledged the diversity of missions and perspectives across the partnership and said a qualitative narrative approach is anticipated. Plumley said HREPs provide a desired future condition for a specific area of the river, the Statements of Significance include threats and factors that may contribute to degradation of the resource, and the Strategic Plan review provides perspectives on where we want to go as a partnership. The discussion will also include reflection on other previous efforts including the Habitat Needs Assessment-II and the 2011 NESP Report, among others.

Hagerty said, and Dave Glover agreed, that identifying the desired future conditions of a dynamic system presents a challenge. Glover suggested focusing on limiting measurable impacts. Hagerty suggested revisiting the desired future condition on a regular basis as more information is gained, more restoration is completed, and as new threats come on line or existing threats change. Tim Yager said the National Wildlife Refuges involved with UMRR have all developed Comprehensive Conservation Plans and stepped down Habitat Management Plans that will guide the habitat goals on NWRS lands. Plumley expressed appreciation for the discussion and said the next step is to assemble a small ad hoc group to further outline the process for this discussion. Stephenson said the strategic plan identifies a need to aggregate relevant agency restoration documents and noted that Steve Winter began this with state wildlife action plans to inform development of the Upper Mississippi Refuge habitat management plans. Kirsten Wallace said a NESP group was also going to review the 2011 NESP Report and it may be a useful place to consider a joint UMRR-NESP team, as separate efforts would have many of the same participants. In response to a comment from Plumley, Jim Fischer said he agreed that the small group approach would be helpful and suggested creating a list of potential members for comment and consideration. Plumley agreed and said that with the upcoming Report to Congress, the moment seems right for tackling this conversation.

WRDA 2020

Plumley reported that, on December 9, 2020, Congress passed the 2020 Water Resources Development Act, increasing the UMRR HREP annual authorized appropriation limit to $40,000,000 and LTRM to $15,000,000. Plumley said that increased authorization does not mean increased appropriations. However, the program should think about what additional value it can bring to the nation and the region if additional dollars were to be available. Plumley said there was time set aside later in the meeting for LTRM-specific discussion and overviewed that short-term opportunities for utilizing additional HREP funds can be through the 24 projects in planning, design, and construction. In response to a question from Stephenson, Plumley said that efficiency can be gained by creating larger construction contracts that reduce needs to demobilize and remobilize for separate contracts. In response to a question from Chewning, Plumley said he will compare UMRR's appropriations to acres restored over the 2012-2020 timeframe to better understand the program's return on investment relative to other ecosystem programs and projects. Chewning said it could be a useful message to include in the Report to Congress. Stephenson noted that there were 100,000 acres captured nationally from 2017-2019 and that UMRR would be a greater percentage in some other years than others. Plumley agreed and noted that increase may represent a completed project in the Everglades. Stephenson echoed Perrine's earlier sentiment on the value of adding the national perspective to the program update. Plumley expressed appreciation for all the partners who voiced support for LTRM receiving additional authorization in addition to the HREP element. He said the UMRR Coordinating Committee will convene a meeting in the future to discuss how additional dollars would benefit habitat and the state of science in the UMR.

Communications

UMRR Communications Team

Rachel Perrine said she and Jill Bathke are co-leading the UMRR Communications Team. The team developed a goal statement to guide their work: "Develop, organize, and implement clear and updated communication materials to support the success of the UMRR program." Perrine said the team is finalizing a draft UMRR flyer, with a goal of seeking the UMRR Coordinating Committee's approval in summer 2021. The flyer is geared toward a general audience with limited knowledge of UMRR and will highlight the value of the UMRS and benefits of UMRR in the context of water, wildlife, and way of life. Anticipated updates to the flyer include a new cover photo due to copyright issues, adding the Illinois River HREPs to the map on the second page, and modifying some of the language. The team also reviewed and discussed the UMRR draft storyline and will provide written comments to the Coordinating Committee. At the next meeting, the Communications Team will discuss development of an inventory of existing outreach materials and how UMRR can recognize and celebrate its 35th anniversary and Earth Day. Potential future activities include refining the Lower Illinois River Communications Pilot project or revising the UMRR Communication and Outreach Plan.

In response to a question from Perrine, Anthony Heddlesten suggested recording a video explaining the program with different partners saying a couple words each of "the message" from each of the different restoration sites. Andrew Stephenson expressed appreciation to Perrine and Bathke for their work and said the flyer is a good example of an outreach product that was informed by other programmatic efforts including the Statements of Significance. Jim Fischer said the flyer looked great and Brian Chewning agreed. In response to a question from Ken Westlake, Perrine said red dots on map show projects in-progress, gray dots indicate completed projects, and that the map will need to be updated from time to time with new projects, info, and priorities. JC Nelson said the map graphic should be reviewed for Section 508 compliance, because the symbols were the same size and shape and included red over green coloring. Bathke said they will work with the visual design expert to modify the colors and shapes. In response to a question from Chewning, Perrine said the target audience is people with limited familiarity with UMRR and that the flyer will be available at sponsor sites, festivals, conference booths, and

different public outreach opportunities. Karen Hagerty said programmatic flyers have been included in information packets for Congressional visits. In response to a question from Hagerty, Perrine said the team is still determining the best way to share the flyer with partners, such as PDF for printed copies. Jill Bathke said the flyer could also be added to social media or agency websites. Jennie Sauer said a print-ready PDF with bleed marks would be appreciated and could be used at local printers. In response to a question from Stephenson, Perrine said she is looking at other photos the Corps has to replace the front banner photo. Tim Yager said the image is credited to Robert Hurt and USFWS has permission to use it, but could not say if the Corps has rights. Sabrina Chandler said she would follow-up with Perrine and Bathke regarding whether the USFWS' rights to use the photo would apply to the flyer.

External Communications and Outreach

Communication and outreach activities in the first quarter of FY 2021 include the following:

- Marshall Plumley said that on Monday, February 22, the University of Minnesota held a symposium on stream restoration during which he provided an overview of UMRR to 170 attendees. It was a particularly good opportunity to connect with many new people who are currently working in the streams in the UMR and they discussed how to identify opportunities to connect with other groups.

- Jim Fischer said he will attend an upcoming meeting of the Wisconsin Conservation Congress Mississippi River Study Committee on March 30. He said the Conservation Congress is statutory body of elected delegates to guide management of natural resources in WI and this represents a good opportunity to get information out about UMRR.

- Lauren Salvato said that on March 8, she will present at the University of Wisconsin Extension's Wisconsin Water Week on nutrients, sediments, and UMRR's role in restoration and monitoring. Kirsten Wallace mentioned that UMRBA's Water Quality Executive Committee is considering if LTRM protocols can and should be used for Clean Water Act purposes.

- Megan Moore said she will present at the Upper Mississippi River Conservation Committee's (UMRCC) annual meeting on LTRM data from Pool 4 and the implications of climate change.

- Jennie Sauer overviewed upcoming events to learn about the status and trends report including a presentation by Jeff Houser at the UMRCC's annual meeting and a session at the Mississippi River Research Consortium's (MRRC) annual meeting featuring presentations by the report chapter leads.

- Brian Chewning said the Mississippi River Commission is tentatively planning a visit to the lower Missouri the week of March 29 and an inspection trip for the Lower Mississippi a couple weeks after.

- Kara Mitvalsky said that she, Steve Gustafson, and Dillan Laaker are presenting at the ASCE/SAME conference on Friday February 26, and will be discussing "Engineering Habitats" with a focus on UMRR and development of habitat features for aquatic vegetation.

- Aaron McFarlane will present at the MRRC annual meeting on comparisons of constructed soils at two UMRR projects (Pool 8 Islands and Capoli) to surrounding natural floodplain forest soils.

UMRR Showcase Presentations

UMRR Pool 12 Forestry HREP

Rachel Hawes provided an update on the Pool 12 Forestry HREP. It is the first UMRR HREP to focus specifically on forestry and will encompass 4,000 acres. Project objectives include:

- Enhance and promote continued forest health and growth in existing quality floodplain forests.
- Increase topographic diversity and elevation where significant forest loss and decline occurs from increased flooding.
- Enhance and increase the pool coverage extent, patch size, and successional diversity of floodplain forest communities.
- Restore and maintain large contiguous patches of forest communities by reduction in canopy gaps converted to invasive species.
- Enhance and increase habitat corridors and connectivity (focus is on forest-dependent and migratory species).

The PDT is refining project objectives into SMART objectives and reviewing relevant information in the UMR Systemic Forest Stewardship Plan and USFWS Upper Mississippi Refuge habitat management plan. Foresters and partner agencies completed timber inventory data collection. Data was then entered into an interactive ArcGIS web map geodatabase, which will be used to inform the feasibility efforts and drive project success. The geodatabase includes plot and site level health and age characteristics and other existing data layers, such as inundation duration, can be overlayed to inform data analysis and decision-making.

Wild Celery Winter Bud Dynamics

Jennie Sauer and Sabrina Chandler provided brief introductions for Kirsten Schmidt. Sauer said Schmidt's project was part of the first UMRR Science meeting proposal process that identifies existing science needs and how to address them and shows how funds from different agencies can be leveraged to get meet our science needs. Chandler said the project ties management needs into LTRM work and sets the standard for how program elements can be further integrated in the future. Chandler said Schmidt will be joining the USFWS as a wildlife biologist at the Two Rivers National Wildlife Refuge.

Kirsten Schmidt summarized her work on wild celery winter bud dynamics in Pools 4, 8, and 13 of the UMR. This work was undertaken as one of the projects from the 2018 UMRR Science meeting. The Upper Mississippi River Great Lakes Region (UMRGLR) Joint Venture is an important area for canvasback ducks and mainly serves as stopover sites and wintering areas. Canvasbacks are a specialist feeder and utilize their sloped bill when diving underwater to reach the below ground structures of wild celery. Previous large-scale losses of wild celery are associated with declines in canvasback populations. Habitat objectives for the UMRGLR are based on the food limitation hypothesis that suggests food availability can affect body condition, timing of migration, distribution of birds and subsequently productivity and survival. Daily ration models (DRMs) are used to estimate the population of birds an area can support by incorporating food energy density and the energetic demands of a target duck or guild. LTRM vegetation monitoring collects data annually on presence/absence and relative abundance in pools 4, 8, and 13, but rake sampling methods do not sample underground vegetation structures on which canvasbacks like to feed. To estimate underground bud availability based on rake scores, substrate cores were taken in autumn and spring from LTRM vegetation sites where above ground biomass information was collected in the summer. Using a weighted logistic regression, Schmidt found that there is approximately 90 percent chance of finding wild celery winter buds at sites with an average rake score of 1 and 100 percent change at sites with an average rake score

of 1.7. A weighted linear regression showed a positive linear relationship between average rake score and bud counts up to rake scores of two. At a rake score of two, managers can estimate about 490 buds per meter squared. Closed areas to waterfowl hunting had higher winter bud counts in autumn and spring. By using LTRM rake sampling and other factors to estimate underground structures, organizations that base management decisions on waterfowl food availability now have a more accessible and affordable means of estimating wild celery buds on an annual basis. Schmidt expressed appreciation to staff at the multiple agency partners, volunteer data collectors, and student technicians.

In response to a question from Sauer, Schmidt said is finalizing her thesis, but believes it will be available on the University of Wisconsin - Stevens Point website when completed and she is hoping the data can be uploaded to ServCat for anyone to access. In response to a question from Kirk Hansen, Schmidt said they are hoping to apply her regression equation to estimate food availability in past years. In response to a question from Andrew Stephenson, Chandler said closed areas on the refuge are closed to hunting, not all recreators and that birds may use closed areas more by default of hunting pressure. Schmidt said the closed area had significantly more buds in the autumn than open area, but similar levels in the spring. The closed area was the only one that met the criteria at the highest estimated foraging threshold where it would be energetically efficient for birds to feed. Sauer, Karen Hagerty, Jeff Houser expressed appreciation for the work. Houser said the project is a great example of work that makes use of and complements LTRM data and improves the utility of both the project and LTRM data.

NESP Update

Andrew Goodall said that, in FY 20, NESP was allocated $4.5 million that was used to advance designs on three navigation projects and five ecosystem projects. The Corps allocated $5 million in FY 21 that will be used to prepare all three navigation projects and four ecosystem projects to be construction ready by the end of FY 21. The navigation projects include Lock 25 lockwall modifications to prepare the existing lockwalls for the future 1,200-foot lock and Lock 14 mooring cell installed downstream of Lock and Dam 14 to reduce locking times and erosion. Goodall said the navigation side of NESP is also required to do systemic mitigation to mitigate for any potential increase in degradation due to incremental increases in navigation traffic. Moore's Towhead on the Illinois Waterway is a navigation project that has notable habitat benefits by protecting the island from erosion.

The four ecosystem projects include Twin Islands, Alton Pool Islands, Pool 2 wingdam notching, and Starved Rock habitat restoration and enhancement. Twin Islands and Alton Pool Islands are in close proximity and are designed to prevent loss of islands and associated side channels and may be awarded as one construction contract. In response to a question from Karen Hagerty, Shane Simmons said Alton Pool Islands alternating hardpoints inside the channel will create sinuosity in the area and concentrate the flow to expel sediment from Apple Creek out of the side channel. In response to another question from Hagerty, Simmons said the increased velocity in the side channel could disrupt overwintering habitat but would have been considered in the design of size and spacing of the hardpoints. In response to a question from Stephenson, Goodall said the NESP authorization does specify the floodplain area that can be affected by projects, but it probably did not extend up into the watershed of Apple Creek. Hagerty indicated that may provide a good opportunity to partner with other organizations, such as NRCS. Pool 2 wingdam notches would create channel border habitat for fish and is anticipated to be constructed with inhouse crews, pending a construction new start. Starved Rock HREP includes construction of a riprap breakwater to help restore submerged aquatic vegetation, improve spawning and nursery habitat for native fish, and improve the habitat quality of the area for resting and feeding migratory waterfowl.

Feasibility for Lock 22 fish passage was advanced to the TSP milestone in December 2020 with design nearly 35 percent complete. This will be the first fish passage project on the Upper Mississippi River and will increase the opportunity for fish passage through the dam to access upstream habitats. Goodall

said Corps staff have discussed with the UMRBA Board utilizing some FY 21 funds to set up a quasi-Navigation and Ecosystem Coordinating Committee (NECC) to facilitate partner coordination for NESP. He and UMRBA staff will work to develop a scope of work and objectives for that group for discussion and consideration at the UMRBA Board's May quarterly meeting. Goodall said he hopes to develop a project pipeline similar to UMRR's with projects in planning, design, and construction. Jim Fischer expressed support for establishing the NECC and asked whether there was greater urgency to line up additional projects or complete design on the aforementioned projects. Goodall said that future funding was not yet certain, but that are still working to determine how much of the allocated $5 million will be needed to advance projects to construction readiness.

Habitat Restoration

Angela Deen said MVP's planning priorities include Reno Bottoms and Lower Pool 10. Reno Bottoms used the forest succession model to evaluate alternatives. Virtual public outreach is underway and includes a YouTube video and flyer and TSP selection is anticipated in August 2021. A TSP was selected for Lower Pool 10 in fall 2020 and a draft report is anticipated for review in summer 2021. Lower Pool 10 is a large project with conceptual designs approximating $25-$30 million and presents another opportunity for beneficial use of dredged material. The district's design priority is addressing repairs on three islands and backwater areas at Harpers Slough. The project's design was approved in January 2021 and a construction contract is ready to advertise. The District requested use of existing funds to advertise this bid. Brian Chewning expressed appreciation to Deen for the coordination on Harpers Slough and said MVD is tracking the change form. Construction at Conway Lake is complete and final grading, seeding, and tree planting are scheduled for spring 2021. A virtual ground breaking ceremony for Bass Ponds was held November 6, 2020 and construction is approximately 40 percent complete and ahead of schedule. Construction at McGregor lake is approximately 5 percent complete and additional construction zone signs will be placed at boat ramps in the area. All five of the recently selected HREP fact sheets have been approved. The first project, Lower Pool 4 - Big Lake is anticipated to begin in fall 2021.

Julie Millhollin said MVR work is heavy on planning this year and that priorities include Steamboat Island, Lower Pool 13, Green Island, and Pool 12 Forestry. Steamboat Island was approved by MVD on January 22, 2021 and will enter design following a signed MOA. PDTs for Lower Pool 13 and Green Island completed chapters 1-3 reviews in January and are working to refine features and dependency relationships. The Pool 12 Forestry PDT held a kickoff meeting in December 2020 and is identifying project goals and objectives. MVR's design priorities include Keithsburg Island and Steamboat Island Stage I. The 100 percent review was completed for Keithsburg Division Stage II plans and specs and the PDT sent the dam/floodplain permit letter to the IL DNR in February 2021. A construction contract can be advertised following permit issuance and acquisition of real estate. The 35 percent review for Steamboat Island Stage I started on January 29, 2021. Tree planting was completed at Pool 12 Overwintering Stages II and III and Huron Island Stage II. ERDC's aquatic vegetation for Huron Island Stage III may have been affected by the recent extreme cold winter weather. MVD approved the fact sheets for the Lower Pool 11 and Pool 18 forestry habitat projects. In response to a question from Andrew Stephenson, Millhollin said that island height may be considered for the Pool 12 Forestry HREP and beneficial use of dredge material could be a possibility, but would be contingent upon dredging needs and locations at the time.

Brian Markert said MVS's planning priorities include West Alton Islands, Oakwood Bottoms, and Yorkinut Slough. The feasibility study for West Alton Islands is scheduled to start in spring FY 21. The Oakwood Bottoms feasibility report is anticipated to be approved in spring FY 21. Hydrology and hydraulic modeling for Yorkinut Slough is nearly complete. Plans and specs for Piasa and Eagles Nest Phase II and Crains Island Phase II are both anticipated to be completed in fall 2021. A construction contract was awarded for the Piasa and Eagles Nest rock structure. The sediment deflection berm is nearly complete at Crains Island. Reforestation and pump station warranty work continue at Ted

Shanks. The pump station at Clarence Cannon is expected to be operational by late summery 2021. The District is preparing maps for discussions with IDNR and USFWS to prioritize newly identified HREP fact sheets for each sponsor. In response to a question from Chewning, Markert said that fact sheets with MDC and USFS as sponsors will be sent to MVD for approval later this year.

Ken Westlake asked if any District HREP Managers anticipated having any projects in planning ready for public NEPA review this fiscal year. He said that a hardcopy letter about Twin Islands was sent to his office, but, due to teleworking requirements, he did not see it until the comment period had passed. He encouraged email distributions regarding public comment periods for the near future. Deen said that Lower Pool 10 HREP will go into review this summer and will include email notification of the comment period. Millhollin and Markert said they do not anticipate any public review of projects in the coming months.

Stephenson said that USACE staff have shared after action review results at river team meetings and encouraged that lessons learned be shared across districts as well, possibly as part of a webinar series. Marshall Plumley agreed and said a program-wide reoccurring webinar series was discussed at the 2019 HREP Planning and Design Workshop and can be implemented in the future with topics such as these.

Long Term Resource Monitoring and Science

FY 2021 1st Quarter Report

Jeff Houser said Accomplishments of the first quarter of FY 21 include publication of the following manuscript and completion reports:

- Species specific wet-dry mass calibrations for common submersed macrophytes in the Upper Mississippi River
- Upper Mississippi River System weighted wind fetch analysis
- Backwater net sedimentation rates
- Four-band aerial imagery testing and acquisition for 2020 Land Cover/Land Use mission

Status and Trends 3rd Edition

Houser expressed appreciation for the partnership feedback on the draft Status and Trends Report 3rd Edition and said the report is being revised to address comments. The final version of the report is anticipated to be released in summer 2021. Jeff Houser will present a summary of the report at the Upper Mississippi River Conservation Committee's annual conference on March 18. Chapter leads will present on their respective chapters at the annual meeting of the Mississippi River Research Consortium to be held virtually on April 22-23, 2021. Marshall Plumley expressed appreciation for the various efforts to publicize release of the report and said the report will help inform development of the 2022 Report to Congress. In response to a question from Plumley, Jennie Sauer said that, following report finalization, a summary brochure will be created for use in outreach and communication activities.

Kirsten Wallace said the partnership has a powerful story to tell with the data and the report answers important questions about the river ecosystem and represents a significant benefit UMRR provides. Houser agreed and said that communications experts from the partner agencies could help identify how best to promote awareness of the report and information therein. Megan Moore said she was impressed with how comprehensive the draft report was and that she was in contact with a reporter who is eager to share the information. Jim Fischer said the Long Term Resource Monitoring is incredibly important and that, during his involvement with UMRR, it has drastically increased our understanding of the river and

ability to explain that ongoing changes in the river warrant continued monitoring. Fischer expressed appreciation to those who overcame challenges to science funding in past years.

Andrew Stephenson said it is important to keep in mind how the information in the report relates to other information being shared by agencies in the basin and that preparation for the report release should include anticipating and preparing answers to questions that may arise. Houser agreed and said perceived differences may be from substantial differences in level of detail, noting that AWI's report card indicated water quality declined everywhere. Marshall Plumley suggested convening a small group to discuss developing a strategic rollout for the UMRR Status and Trends Report. Houser agreed and asked UMRBA to help identify points of comparison. Stephenson said nutrients and invasive carp issues may be highly relevant to a broader audience than UMRR typically reaches and confirmed that UMRBA will convene a small group to continue the discussion.

USACE LTRM Report

Karen Hagerty said that UMRR's FY 21 LTRM allocation is $6.3 million ($5.0 million for base monitoring and $1.3 million for analysis under base) with an additional $2.5 million available for Science in Support of Restoration and Management. Previously funded science activities for FY 21 totaled $6,668,028 and include LTRM base monitoring overage, IWW monitoring, COVID-related safety expenditures, graphical assistance on the Status and Trends report, and adjustments to FY 20 proposals. Hagerty noted that the LTRM management team's recommended high priority areas for funding under FY 21 Science in Support of Restoration and Management are included on pages C15-C17 of the meeting agenda packet. Hagerty requested the UMRR Coordinating Committee endorse the following projects:

- FY 20 stable states proposal (remainder) $77, 573
- Landscape patterns (FY 22-24) $390,733
- Resilience (FY 22-24) $671,066
- Ecohydrology (FY 23) $212,685
- Land Cover / Land Use Processing (FY 24) $638,029

Jim Fischer moved and Matt Vitello seconded a motion to endorse using $1.99 million to fund the five recommended FY 21 Science in Support of Restoration and Management projects. The motion passed unanimously.

A-Team Report

Nick Schlesser said the A-Team met via webinar on January 25, 2021. Topics discussed included macroinvertebrate sampling and research needs, continued impacts of COVID-19 on agency policies and potential impacts to the 2021 field/work season, possible processes for LTRM implementation planning in response to increased UMRR authorization, and revisions to the roles and responsibilities of the A-Team outlined in the 2013 UMRR joint Charter of consultative bodies. Schlesser said that Shawn Giblin recommended reinstating the macroinvertebrate component of LTRM for three- to five-years and create a macroinvertebrate focal area for upcoming science meetings. Jeff Houser had indicated the focal area could be added, but that additional discussion would be needed to reinstate the monitoring component. It was determined that the macroinvertebrate subgroup will develop a proposal including methods and budgets in a format that allows for comparison and prioritization by the A-Team relative to other science needs at the next science meeting.

Schlesser explained that the A-Team agreed unanimously on revisions to the A-Team's charter language and submitted a revised charter to the UMRR Coordinating Committee. The A-Team received comments from the Coordinating Committee that sparked additional discussion that will be addressed at the A-Team's next meeting. The A-Team's next meeting will be held via webinar in the second half of April, not to coincide with the MRRC annual meeting. In response to a question from Schlesser, Andrew Stephenson said and Marshall Plumley agreed, that receiving revised Charter language from the A-Team in late-April would be appropriate for the Coordinating Committee's May meeting. Stephenson offered to provide additional context to the A-Team on Charter discussions to date, if needed.

LTRM Implementation Planning

Plumley said that, on February 17, 2021, he sent an email to the UMRR Coordinating Committee indicating that planning activities were needed to address UMRR's increased authorization in WRDA 2020 for the purposes of enhancing the program's capabilities to better meet science and restoration needs and effectively execute dollars in outyears should the opportunity arise. An informal discussion on February 16, 2021 between the LTRM management team and UMRBA staff regarding past strategic planning processes preceded the email. The email solicited input from Coordinating Committee members regarding the scope of planning and whether a small group should be assembled to layout a process or implementation planning. Planning objectives would be to address currently unmet information needs for the UMRS and promote further integration of the UMRR program elements.

In response to a question regarding timeline for the planning effort from Brian Chewning, Plumley said he hopes to initiate LTRM implementation planning this calendar year and noted that there are sufficient science needs identified through FY 22 and the focus is on FY 23 and beyond. Matt Vitello expressed appreciation for the questions and said there is a need to review ongoing research to look at how we implement and use that research. Vitello also suggested including the A-Team and field station leads in the planning conversation. Megan Moore agreed and said scoping could be done with a larger group for broad perspectives and a follow-on series of facilitated discussions would be a good approach with a smaller group to flesh out ideas. Jim Fischer supported the facilitated discussion approach and noted that development of the 2015-2025 Strategic Plan included a limited number of people from all levels of the program and could be used again. He said the Strategic Plan review may help identify some topics to consider in the discussion as well. Hagerty agreed and said it is important to be strategic in our thinking and to identify critical information needs. She added that the conversation should not be just about adding monitoring components, but should consider data analysis and structured research. Brian Chewning said other programs under MVD have had opportunities to address scientific uncertainty through pilot projects. Plumley expressed support for reaching out to others in MVD as part of the process. Stephenson said pilot projects are useful for effectively and efficiently testing processes. He added that an impediment to increased implementation of adaptive management is whether funding should come from the HREP or LTRM element. Increased authorization for both elements provides an opportunity to revisit issues such as adaptive management or integration of the two elements. Chewning suggested reviewing UMRR's authorization to ensure pilot projects would eligible. Houser said it is important to start at a high level with determining the river monitoring and science needs to best achieve the program vision. Plumley and Ken Westlake agreed. Westlake added that there is a need to understand climate change impacts to river system and what that means for resiliency. Stephenson said that the discussion of desired future condition may help identify fundamental information needs. In response to a question from Stephenson, the Coordinating Committee agreed that a small group should be convened to discuss and layout a process for implementation planning for consideration by the

Coordinating Committee. Issues to be discussed include using a facilitated planning approach with neutral facilitator, identifying participants to ensure vertical representation of the program, and the timeline for implementation planning.

Other Business

Jennie Sauer said the LTRM components biennial meeting will be held virtually March 30-31, 2021.

Kirsten Wallace expressed appreciation to Marshall Plumley for supporting UMRR's partial funding of a UMRBA and Sustainable River Program workshop to utilize structured decision making related to the implementation of water level management for ecological purposes. Wallace said funding will help secure a neutral facilitator for the workshop. Plumley said there is overlap in UMRR's priorities, particularly the Pool 13 HREP, and the interests of many program partners on water level management. [Note: Subsequent to the meeting, on March 1, 2021, the UMRR Coordinating Committee indicated their support via email for UMRR to partially fund the workshop.]

Upcoming quarterly meetings are as follows:

- **May 2021 – Remote**
  - UMRBA quarterly meeting – May 25
  - **UMRR Coordinating Committee quarterly meeting – May 26**
- **August 2021 – Remote**
  - UMRBA quarterly meeting – August 10
  - **UMRR Coordinating Committee quarterly meeting – August 11**
- **November 2021 – TBD**
  - UMRBA quarterly meeting – November 16
  - **UMRR Coordinating Committee quarterly meeting – November 17**

With no further business, Megan Moore moved and Jim Fischer seconded a motion to adjourn the meeting. The motion carried unanimously and the meeting adjourned at 1:35 p.m.

UMRR Coordinating Committee Virtual Attendance List
February 24, 2021

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

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
Bryan Taylor	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
Aaron McFarlane	U.S. Army Corps of Engineers, MVP
Terry Zien	U.S. Army Corps of Engineers, MVP
Eric Hanson	U.S. Army Corps of Engineers, MVP
Dillan Laaker	U.S. Army Corps of Engineers, MVP
Ann Banitt	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
Andrew Goodall	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
Julie Millhollin	U.S. Army Corps of Engineers, MVR
Davi Michl	U.S. Army Corps of Engineers, MVR
Jesse Ray	U.S. Army Corps of Engineers, MVR
Rachel Perrine	U.S. Army Corps of Engineers, MVR
Rachel Hawes	U.S. Army Corps of Engineers, MVR
Kara Mitvalsky	U.S. Army Corps of Engineers, MVR
Jason Appel	U.S. Army Corps of Engineers, MVR
Anthony Heddlesten	U.S. Army Corps of Engineers, MVR
Marisa Lack	U.S. Army Corps of Engineers, MVR
Indigo Rockmore	U.S. Army Corps of Engineers, MVR
Tara Gambon	U.S. Army Corps of Engineers, MVR
Brian Markert	U.S. Army Corps of Engineers, MVS
Jasen Brown	U.S. Army Corps of Engineers, MVS
Brandon Schneider	U.S. Army Corps of Engineers, MVS
Ben McGuire	U.S. Army Corps of Engineers, MVS
Brian Johnson	U.S. Army Corps of Engineers, MVS
Shane Simmons	U.S. Army Corps of Engineers, MVS
Bryan Taylor	U.S. Army Corps of Engineers, Tulsa District
Kraig McPeek	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
Mary Stefanski	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
Jayme Strange	U.S. Geological Survey, UMESC
Danelle Larson	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
JC Nelson	U.S. Geological Survey, UMESC
Chad Craycraft	Illinois Department of Natural Resources
Kristopher Maxson	Illinois Natural History Survey
Kirk Hansen	Iowa Department of Natural Resources
Tom Boland	Iowa Department of Natural Resources
Nick Schlesser	Minnesota Department of Natural Resources
Jess Fulgoni	Missouri Department of Conservation
Mike Finlay	Wisconsin Department of Natural Resources
Christine Favilla	Illinois Sierra Club
Doug Daigle	Lower Mississippi River Sub-basin Committee
Kara Knuffman	Quincy Bay Area Restoration and Enhancement Association
Rick Stoff	Stoff Communications
Doug Blodgett	The Nature Conservancy
Gretchen Benjamin	The Nature Conservancy
Kirsten Schmidt	University of Wisconsin - Stevens Point
Rachel Curry	University of Illinois Extension
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