

**Minutes of the  
Upper Mississippi River Restoration-  
Environmental Management Program  
Coordinating Committee**

**November 16, 2011  
Quarterly Meeting**

**Stoney Creek Inn  
Moline, Illinois**

Tim Yager of the U.S. Fish and Wildlife Service called the meeting to order at 8:02 a.m. on November 16, 2011. Other EMP-CC representatives present were Charles Barton (USACE), Mike Jawson (USGS), Dan Stephenson (IL DNR) on behalf of Rick Mollahan, Kirk Hanson (IA DNR) on behalf of Diane Ford, Tim Schlagenhaft (MN DNR), Janet Sternburg (MO DoC), and Jim Fischer (WI DNR). A complete list of attendees follows these minutes.

**Minutes of the August 17, 2011 Meeting**

Janet Sternburg moved and Jim Fischer seconded a motion to approve the draft minutes of the August 17, 2011 meeting as presented. The motion carried unanimously.

**Program Management**

*FY 11 Year-End Report*

Marv Hubbell reported that UMRR-EMP obligated over 99 percent of its \$21.122 million FY 11 allocation by the end of the fiscal year. He acknowledged the tremendous contributions of District staff and partners to the program's fiscal performance. He noted that committing the additional \$2 million received in the third quarter was a particular challenge. While under continuing resolution authorities (CRAs) earlier in the year, UMRR-EMP had been executing based on a \$19 million budget for FY 11. Hubbell expressed special appreciation to Illinois DNR for its efforts in finalizing the Rice Lake project cooperation agreement, allowing the project to go to contract before the close of FY 11.

Hubbell reviewed the FY 11 program allocations, as follows:

- Regional Administration – \$840,000
- LTRM – \$6,400,000
- HREPs – \$13,822,000
  - Program Model Certification and Regional HREP Support – \$250,000
  - MVP – \$4,100,000
  - MVR – \$5,432,000
  - MVS – \$4,100,000

Hubbell noted several highlights from FY 11, including the September 29 25th anniversary celebration, new UMRR-EMP and LTRM web sites, completion of the 2010 Report to Congress, initiation of the Implementation Issues Assessment, land cover/land use data acquisition and accuracy assessment, systemic bathymetry data acquisition, LiDAR data acquisition for the Illinois River upstream from Havana, development of a Programmatic Review Plan, certification of six planning models, and 24 HREPs currently in planning and construction.

Hubbell reported that USACE Headquarters (HQ) reviewed six UMR models for use in planning Corps' restoration projects. These models include Bluegill Winter Habitat Suitability Index (HSI) Model, Smallmouth Bass HSI Spreadsheet, Diving Duck Migration Model, Dabbling Duck Migration Model, Shorebird Migration Model, and Mink HSI Modification Model. Hubbell said District staff are also addressing comments received on the Aquatic Habitat Appraisal Guide (AHAG) and the Wildlife Habitat Appraisal Guide (WHAG), and anticipate that those models will also be approved following their revision.

#### *FY 12 Fiscal Update*

Hubbell reported that UMRR-EMP is currently operating under a continuing resolution authority (CRA) for FY 12. The President's FY 12 budget request and the Senate Appropriations Committee's FY 12 energy and water spending measure include \$18.15 million for UMRR-EMP, while the House approved \$16.445 million in FY 12 funding for the program. Until the final FY 12 appropriation is known, UMRR-EMP will execute based on a \$16.445 million budget, under which program allocations would include:

- Regional Administration – \$675,000
- LTRM – \$4,952,000
- HREPs – \$10,818,000
  - Program Model Certification and Regional HREP Support - \$150,000
  - MVP – \$2,331,000
  - MVR – \$4,267,000
  - MVS – \$3,200,000

Hubbell explained that, in FY 11, UMRR-EMP shifted about \$900,000 from LTRM to MVP for the Capoli Slough construction award. MVP will essentially “repay” this funding to LTRM in FY 12. Thus its allocation is reduced by this amount, relative to what it would typically be under the standard allocation formula. In response to a question from Janet Sternburg, Hubbell said UMRR-EMP last operated at a similar budget level in FY 05. He said UMRR-EMP received \$16.870 million in FY 10 appropriations, but also had about \$15 million in American Recovery and Reinvestment Act (ARRA) stimulus funding that year. [Note: On December 23, 2011, FY 12 Consolidated Appropriations Act (P.L. 112-74) was enacted, providing \$17.787 million for UMRR-EMP.]

#### *UMRR-EMP's 25th Anniversary/100,000 Acres Celebration*

Hubbell described UMRR-EMP's September 29 celebration of its 25th anniversary and restoration of 100,000 acres of aquatic habitat as quite successful. The event was held at Eagle Point Park in Dubuque and included a visit to the Sunfish Lake HREP, with a monitoring demonstration. He expressed particular appreciation to Iowa DNR, Wisconsin DNR, and USFWS for their support of the site visit. The event featured a variety of speakers, including representatives from USACE, DOI, USGS, Iowa (on behalf of the five UMR states), UMRBA, and TNC; an entertaining demonstration of fish monitoring; and a ceremonial ribbon cutting. The Assistant Secretary of the Army of Civil Works [ASA(CW)] Jo-Ellen Darcy and MVD Commander MG Michael Walsh were in attendance, as were several federal and state agency leaders, Congressional staff, and UMRR-EMP partners. Hubbell said media features on the event include:

- October Tower Times (pgs. 3, 8-9):  
<http://www.mvr.usace.army.mil/PublicAffairsOffice/TowerTimes/Tower%20Times%20Publications/October2011/OctoberTT.pdf>
- October *Open Channels* (pg. 8):  
<http://www.mvk.usace.army.mil/offices/pa/openchannels/current.pdf>
- October 16 *Cedar Rapids Gazette*

### *Public Involvement and Outreach*

Hubbell said USACE recently hosted a dedication at Calhoun Point. Tim Yager said Izaak Walton League of America (IWLA) hosted a tour of the UMR refuge in the fall. Jim Fischer said the new HREP and LTRM websites are getting positive reviews from Wisconsin DNR staff. The improved accessibility to definite project reports (DPRs) on the HREP website is particularly helpful. Fischer suggested that the introductory web text be modified to create a compelling story regarding UMR habitat needs and the UMRR-EMP's ability to address those needs, rather than focusing on engineering details. He also suggested better links between the HREP and LTRM web sites, to facilitate navigation between them, as well as to improve integration of the two components.

Hubbell said USACE staff are exploring opportunities to install signs at HREP sites and field stations in an effort to inform visitors about UMRR-EMP. Hubbell noted that MVP and USFWS do a particularly good job of installing signs at project sites. Proposals to install signs at field stations has raised some issues, which will be discussed at the February 15-17, 2012 LTRM Team Meeting.

### *Fiscal Austerity*

As is the case for all federal agencies, Hubbell said Corps spending is subject to heightened scrutiny both within the Administration and Congress. HQ is placing greater restrictions and review on travel, contracts, and indefinite delivery/indefinite quantity (IDIQ) options. For example, most Corps staff are now not allowed to work overtime. Further, there is a new emphasis on keeping work in-house when possible. This may include transferring work to another District.

Barb Naramore asked how the effort to keep work in-house relates to the Corps' previous, Congressionally mandated push to contract. Gary Meden said USACE's goal for all Districts is to contract about 30 to 40 percent of architecture and engineering (A&E) funds. He explained that the pace of disaster recovery efforts in New Orleans following Hurricane Katrina required MVD to contract approximately 70 percent of its A&E work. The Division is now back to contracting around 30 to 40 percent of its A&E work. Meden said MVR's contracting rate is closer to 10 to 20 percent, and will likely continue to have lower levels of contracted work in the foreseeable future.

### *LTRM Management Roles and Responsibilities*

Hubbell reported that USACE and USGS staff met on June 1-2, 2011 and November 1-2, 2011 to discuss 1) plans to work with field station staff and component specialists to develop more accurate estimates of the resources required to implement base monitoring and 2) ways to enhance the coordination of LTRM's scientific efforts – e.g., better capturing the array of LTRM projects and activities in the annual scopes of work (SOWs). Hubbell said the staff also discussed the need to improve overall coordination among field stations, component specialists, UMESC, and the three Corps Districts. He stressed the need for partners to consider LTRM implementation in relation to the overall program goals when developing annual SOWs – i.e., how LTRM's efforts would advance the FY 10-14 LTRM Strategic Plan. Hubbell also suggested that partners continuously identify and pursue opportunities to integrate the HREP and LTRM components. For example, the Huron Island project delivery team (PDT) is using LTRM data in project planning, NEPA compliance, and establishing a baseline for project evaluation. Hubbell said partners will discuss these and other programmatic and science issues at the February 15-17, 2012 LTRM Team Meeting. All technical field station staff, LTRM technical support team, component specialists, USACE technical representatives, and the USACE and USGS LTRM management team are required to attend the meeting.

Mike Jawson added that partners need to address the issue of accountability. He said better clarity and accountability in the annual SOWs is needed to improve product tracking and delivery, as well as to dispel the misconception that LTRM staff and funding are being devoted to non-program work.

Karen Hagerty emphasized the need for field station staff to attend the LTRM Team Meeting. UMESC is working with field stations to include the meeting in their FY 12 SOWs. She asked that field station staff and component specialists contact her if they anticipate any potential conflicts in participating. In response to a request by Janet Sternburg, Jawson said a meeting announcement was provided to partners via email on October 27, 2011, and is included in the meeting packet. Sternburg suggested requesting formal RSVPs.

In response to a question from Tim Schlagenhaft, Hubbell said the LTRM Team Meeting will focus on big-picture policy and programmatic issues during the first two days and specific science and research issues on the third day. Hubbell said the agenda is still being developed and encouraged partners to send him suggestions for meeting topics.

In response to a question from Schlagenhaft, Hubbell said he wants to develop a process that LTRM staff can use to determine how internal and external requests for assistance relate to LTRM priorities. Hubbell clarified that responding to requests for information and assistance is certainly not necessarily contradictory to LTRM's Strategic Plan. But he stressed the need for a clear process to address such requests, noting that it would provide a structure for considering activities that are not included in SOWs and for documenting and communicating LTRM's full breadth of activities.

Jim Fischer observed that, in UMRR-EMP's early years, relationships were much stronger among field station staff, component specialists, and LTRM managers. He said this cohesiveness has diminished over time. Fischer said he hopes that the Team Meeting will begin to restore relationships among all LTRM partners.

## **Habitat Rehabilitation and Enhancement Projects**

### *District Reports*

Marv Hubbell said MVS is currently addressing comments received on Rip Rap Landing's alternative formulation briefing (AFB). Vicksburg District staff are helping to develop plans and specifications (P&S) for Ted Shanks. MVS held a dedication for Calhoun Point on November 4, and is wrapping up final details on the project.

Hubbell said MVP anticipates submitting a draft feasibility report for L&D 3 fish passage to MVD in December. Staff are currently finalizing the project's cost estimates. Hubbell reported that MVP recently awarded a construction contract for Capoli Slough Stage 1. He expressed appreciation to Jeff DeZellar for his role in authoring the UMRR-EMP Programmatic Review Plan. In response to a question from Tim Schlagenhaft, Hubbell said MVP's next planning priority is Harper's Slough, with L&D 3 fish passage, Conway Lake, Lake Winneshiek, and McGregor Lake following.

In response to a question from Naramore, Hubbell said he has been told HQ plans to formally approve the UMRR-EMP Programmatic Review Plan in the near future. This Plan identifies ways to guide and streamline HREP reviews in compliance with the Corps' 2010 project review guidance. The Plan also includes a programmatic independent external peer review (IEPR) exemption for HREPs, although an individual HREP will still be subject to an IEPR if it meets one of the seven triggers identified in WRDA 2007. Hubbell said Corps staff will distribute the approved Plan to EMP-CC members and stakeholders.

Schlagenhaft asked how Corps staff plan to advance L&D 3 fish passage once project planning is finalized. Fischer said he does not expect that the project will advance under UMRR-EMP, and noted

that a possible cost share sponsor for the project still needs to be identified. Fischer said it is unlikely that Wisconsin DNR will serve as the cost share sponsor. Hubbell said the L&D 3 project faces two significant hurdles: 1) questions about the advisability of enhancing fish passage given concerns with Asian carp and 2) funding constraints within USACE and among potential cost-share partners.

Hubbell introduced Kara Mitvalsky, who is a project engineer for MVR and is co-authoring a revision of UMRR-EMP's 2006 Environmental Design Handbook. Regarding the status of MVR's HREP program, Mitvalsky reported that high water has delayed construction at Lake Odessa, requiring the Corps to extend project construction to next summer. MVR awarded a construction contract for Rice Lake Stage 1 at the end of FY 11. She said planning for Stage 2 is postponed until after the 2012 construction season to ensure that there are sufficient FY 12 funds available to cover potential contract modifications for Stage 1 and to implement adaptive management – i.e., incorporate lessons learned from Stage 1 into Stage 2's design. Other MVR planning priorities include Huron Island, Fox Island, Beaver Island, and Pool 12 Overwintering.

### *Environmental Design Handbook*

Mitvalsky explained that Corps staff are initiating efforts to update UMRR-EMP's Environmental Design Handbook. The revised Handbook will describe the partnership's ecosystem goals and objectives and discuss how various restoration techniques can further those goals and objectives. Mitvalsky said she anticipates that the Handbook revisions will be completed by September 2012.

In response to a question from Mike Jawson, Hubbell said the Handbook will report on how restoration techniques have been used to further biological goals. However, highly detailed questions about biological responses to engineering designs will not be addressed in the Handbook. Mitvalsky explained that the Handbook will describe how project features have performed relative to project objectives. She said including detailed evaluation of biological response data would render the Handbook too cumbersome and would detract from its purpose.

In response to a question from Barry Johnson, Hubbell confirmed that USACE plans to develop an Ecological Response Handbook as a subsequent effort. This volume will address biological responses to project designs. In response to a comment from Terry Birkenstock, Hubbell clarified that the Environmental Design Handbook will inform future design and construction efforts, but will not provide off-the-shelf project designs. Hubbell concurred with Birkenstock that individual projects will continue to be uniquely designed, tailored to specific objectives and site conditions. Mitvalsky added that the 2006 Environmental Design Handbook has served as a valuable communications tool to inform new staff about UMRR-EMP's restoration techniques.

### **Pool 12 Monitoring and Adaptive Management Efforts**

#### *Pool 12 Overwintering Monitoring: Fisheries*

Kirk Hansen described the Pool 12 Overwintering HREP design, as well as pre-project monitoring efforts and preliminary results. The project design includes dredging six backwater lakes, increasing topographic diversity, and managing backwater connectivity. Initiated in 2006, pre-project sampling includes third-period day electrofishing throughout Pool 12 and fyke netting in six backwaters, including three lakes in the project site and three lakes in Pool 13, serving as controls.

Hansen said HREP impacts on fish abundance, biomass, and physical condition will be examined using a before-and-after control impact analysis; with Pool 13 serving as a control reference. In individual backwaters, HREP impacts on length-weight and proportional stock density of all species and age and on growth, sex ratios, and mortality of bluegills will be assessed. Hansen explained that fisheries will

be monitored in the first five years following construction; however, analyses of post-construction fish responses will be initiated after 5 years, allowing for fish populations to colonize and reach equilibrium.

In response to a question from Roger Perk, Hansen explained that fyke net sampling was only employed one year, and thus it is still premature to make any conclusions about the data. In response to a suggestion from Kara Mitvalsky, Marv Hubbell said he would encourage the Pool 12 Overwintering PDT to explore opportunities to utilize data from Huron Lake monitoring.

#### *Pool 12 Overwintering Monitoring: Water Quality*

Laura St. Louis reported that Pool 12 Overwintering's definite project report (DPR) is deferred because zinc in samples collected from several backwaters in 2003 exceeded Illinois EPA's standard (0.2655 mg/L) for issuing a 401 water quality certification. She presented the Corps' 2003, 2005, and 2011 sampling results for zinc in the project area. The results indicate that Fishtrap Lake contains the greatest level of zinc among all the backwaters sampled and tests above Illinois EPA's zinc standard in all three sampling years. Sunfish Lake in 2003 and Stone Lake in 2007 also exceeded Illinois' zinc standard. St. Louis explained that Fishtrap Lake's slow settling rate for total suspended solids (TSS) appears to contribute to its maintaining high levels of zinc for several hours following disturbances. She noted that 2011 sampling results from Fishtrap Lake also showed exceedances of Illinois standards for other contaminants, including copper, lead, mercury, nickel, and ammonia. Corps staff are working with Illinois to meet the requirements necessary for a 401 certification. This includes possible adjustments to the project design to lessen water quality impacts.

Dan Sallee asked if particle size is a factor in Fishtrap Lake's settling rate. Mitvalsky said the 2011 results were only recently released and factors influencing settling rates have not yet been determined. In response to a question from Sallee, Mitvalsky said mechanical dredging may be an option for reducing sediment resuspension and associated contaminant release. However, Corps staff need to determine whether mechanical dredging in the backwaters is feasible.

In response to a question from Tim Schalgenhaft, St. Louis clarified that Fishtrap Lake has both a high concentration of zinc and a low settling rate. Hansen noted that natural background levels of zinc and other metals are highly spotty around Dubuque. In response to a question from Sallee, St. Louis said the samples were homogenized to depths that would likely be dredged.

Hubbell expressed appreciation to Illinois EPA and Iowa DNR for their efforts on the Pool 12 Overwintering project.

#### *Pool 12 Overwintering: Adaptive Management Plan*

Hubbell acknowledged the challenges in developing adaptive management plans for habitat projects, given the iterative nature of HREP planning. Project-specific AM plans require flexibility to be modified as needed throughout project development. Hubbell reviewed the draft AM Plan for Pool 12 Overwintering, explaining that the Plan is designed to examine unknowns related to the project's primary objective of providing suitable overwintering habitat to support Centrarchid fisheries. Hubbell listed the preliminary questions that will be explored through AM, including:

- Can the sphere of influence of restoration projects be detected in Centrarchid populations?
  - How and when do fish disperse from overwintering habitat?
  - What is the spatial scale at which the fish disperse?
- Is overwintering habitat quality affected by backwater size or location?
  - Do larger overwintering areas promote greater dispersal?
  - Are dispersal patterns affected by other landscape features (e.g., proximity to the main channel, etc.)?

- How much overwintering habitat is needed in a pool to restore or re-establish healthy Centrarchid populations (i.e., String of Pearls)?
  - How many overwintering sites are needed throughout the UMRS?
  - What sizes are appropriate for overwintering habitats?
  - At what interval should overwintering habitat be spaced?

Following project implementation, Hubbell said monitoring data will be analyzed to determine if any modifications are necessary to the Pool 12 Overwintering project's design and/or future similar project designs. The design, implementation, and results of Pool 12 Overwintering's AM Plan will be documented and communicated to program partners.

Hubbell suggested that UMRR-EMP's System Ecological Team (SET) be involved in designing and prioritizing the program's AM efforts. For example, the SET could be responsible for coordinating the program's AM activities. In addition, he suggested that the 2003 HREP Planning and Sequencing Framework be revised to reflect reach planning and other developments in the program's planning efforts since it was established.

Mike Jawson suggested that the Pool 12 Overwintering AM Plan also include learning objectives, even if the learning objectives are the same as the management objectives. Mitvalsky said she will communicate this suggestion to Chuck Theiling, who is authoring the AM Plan. In response to a question from Mitvalsky, Jawson said learning objectives describe what uncertainties will be answered through AM to inform future management.

In response to a question from Stephen Winter, Darron Niles said Pool 12 Overwintering's management objectives include restoring overwintering habitat for Centrarchids and dredging backwater lakes to improve connectivity, as well as making minor improvements to the site's forestry. Niles said these objectives are currently being revised to enhance their measurability. Winter emphasized the importance of measureable objectives.

Ken Barr expressed support for the Pool 12 Overwintering AM Plan, noting that it meets the Corps' standard requirements for a successful AM analysis. Hubbell said the Mississippi Makeover's effort to define measureable objectives offers important insights. Schlagenhaft said the Mississippi Makeover effort used Pool 13 data to set concrete, achievable targets related to various biological indices in Pools 2 and 3, including fisheries and aquatic vegetation. In response to a suggestion by Nate De Jager, Karen Hagerty confirmed that the Pool 12 Overwintering PDT is using UMESC's research related to backwater habitat criteria. Schlagenhaft observed that sometimes generally applicable objectives and criteria may not be applicable to a particular site, such as areas where fish may tolerate low dissolved oxygen levels. He said learning objectives should focus on determining ranges associated with habitat needs and should account for site-specific factors.

Hubbell said comments on the draft Pool 12 Overwintering AM Plan should be sent to Chuck Theiling by December 30. Partners should contact Mitvalsky or Niles regarding other aspects of the HREP.

### **Long Term Resource Monitoring Program**

#### *Product Highlights*

Mike Jawson reported that LTRM staff published manuscripts on the following topics during the last quarter:

- Comparison of two systemic fish assemblage sampling programs on the UMR (LTRM and the Environmental Monitoring and Assessment Program-Great Rivers Ecosystem (EMAP-GRE)).

- Comparison of two electrofishing methods used to monitor fish on the Illinois River.
- Proportional size density and frequency of occurrence of three catfish species in an impounded and unimpounded reach of the UMR.

Jawson said he is aware of some concern that LTRM has not been sufficiently focused on Asian carp research. He stressed that Asian carp certainly have implications for UMR-EMP. In particular, given the carps' ability to dominate native species, Jawson said it is important to determine how HREPs might be able to minimize Asian carps' presence and impacts to the river, while improving populations of native species. Jawson also stressed the need for UMR-EMP to take credit for the research it has done, including:

- Occurrence and predicted dispersal of bighead carp in the Mississippi River System: Development of a heuristic tool (pointing to multiple, broadly distributed release points close in time).
- Management implications from a stock-recruit model for bighead carp in portions of the Illinois and Mississippi Rivers.

Tim Schlagenhaft encouraged using LTRM data to assess how Asian carp are affecting native species across habitats of differing quality. Dan Sallee said he is optimistic that commercial fishing for Asian carp can help reduce their populations. Jawson expressed concern that if a market is created, there may be pressure to maintain a supply of the fish. Steve Shults said the American Fisheries Society (AFS) has released an updated version of [Invasive Asian Carps in North America](#) and noted that AFS members can purchase the book at a discounted rate.

Jawson strongly encouraged EMP-CC members to attend the February 15-17, 2012 LTRM Team Meeting.

#### *LTRM Activities Update*

Karen Hagerty said that, of LTRM's \$6.4 million FY 11 allocation, \$4.96 million was spent on base monitoring (including land cover/land use collection and serving and accuracy assessment) and \$1.44 million was spent on focused research. She listed the specific LTRM activities and equipment needs that are slated to receive FY 12 funding. Based on the Corps' current planning assumption of \$16.445 million for UMR-EMP in FY 12, LTRM would receive \$4.9 million for base monitoring. However, the current estimated cost of implementing base monitoring is \$5.2 million. This amounts to about a six percent shortfall.

#### *FY 10-14 LTRM Strategic Plan: Annual Progress Review*

Hagerty explained that the EMP-CC tasked an *ad hoc* group to review the annual LTRM SOWs and evaluate progress in implementing the FY 10-14 Strategic Plan. The group has not yet reviewed the FY 12 SOW because 1) several of the FY 11 research proposals have been deferred to FY 12 and 2) vacancies in the group need to be filled. The group's current membership includes Hubbell, Hagerty, Barry Johnson, and Jennie Sauer, representing LTRM's management team; and Schlagenhaft and Janet Sternburg, representing EMP-CC members. Vacancies include EMP-CC members from USFWS and USEPA. Hagerty suggested either 1) filling the *ad hoc* group's vacancies and proceeding or 2) tasking the A-Team with SOW and Strategic Plan review responsibilities.

Sternburg said she favors having the A-Team conduct the annual progress review, in part to increase technical staff's familiarity with the Plan and the partnership's priorities for LTRM. Tim Schlagenhaft said he prefers that the *ad hoc* group consist of both EMP-CC and A-Team representatives.



Tim Yager said he will volunteer as USFWS's representative on the review group. In response to a question from Janet Sternburg, Hagerty said USEPA is still considering its engagement in UMRR-EMP's efforts, as well as other UMR programs and projects, following Bill Franz's retirement. Jawson observed that Franz was personally quite engaged in LTRM matters, but that this does not necessarily mean there is a strong need to preserve an EPA slot on the *ad hoc* group.

Jim Fischer moved and Schlagenhaft seconded a motion that a small group of EMP-CC and A-Team members continue to serve in reviewing LTRM's annual SOWs in relation to the FY 10-14 Strategic Plan. In response to a question from Karen Hagerty, Hubbell suggested that there not be a fixed number of places on the team, but rather that participation be open to any member of the EMP-CC and A-Team. Fischer noted that the breadth of participation in the strategic planning effort was a primary reason for its success. He said the review group should include a similar full array of partners, including representatives from all agencies and a balance of managers and technical staff. Charles Barton urged that USEPA be invited to participate on the review group, noting the importance of being inclusive to all program partners.

Fischer withdrew his motion. Based on the preceding discussion, the EMP-CC agreed to convene the review group prior to its March 1 quarterly meeting to discuss LTRM's FY 12 SOW. Kirk Hansen said he will query the A-Team members regarding their interest in participating. Other interested EMP-CC and A-Team members should contact Karen Hagerty by December 16.

#### *LTRM Implementation in Low Funding Years*

Hagerty recalled that, at the August 17, 2011 EMP-CC meeting, partners discussed a draft IIA issue paper concerning LTRM implementation in low funding years and agreed to form an *ad hoc* group to consider the issue further and address any immediate, FY 12 issues that might arise. The group's composition was tentatively agreed to consist of the following:

- 2 USACE staff
- 2 USGS staff
- 1 USFWS staff
- 2 field station staff
- 1-2 EMP-CC state members
- 1 A-Team member
- 1-2 UMRBA staff

Hubbell said he does not anticipate that LTRM will experience a dramatic budget shortfall (i.e., significantly below base program costs) in FY 12. He said the USACE and USGS Management Team are prepared to address any minor issues and suggested convening the *ad hoc* group following the EMP-CC's next meeting.

#### *LTRM Research Highlight: Landscape Pattern Research and Application on the UMRS*

Nate De Jager presented the results and applications of LTRM's landscape pattern research on the UMRS floodplain. De Jager said a team of geospatial technicians and biologists at UMESC, several undergraduate students, and other LTRM principle investigators are involved in implementing LTRM's landscape research efforts. Since UMRR-EMP began funding landscape research in 2008, the group has published articles about submersed aquatic vegetation, floodplain forest connectivity and community composition, and aquatic habitat diversity in peer-reviewed journals. Ongoing studies include aquatic nutrient distribution, fish community composition, freshwater mussels, and herbivory in floodplain

forests. In addition, several maps and metrics of UMRS landscape patterns have been developed that will be available on LTRM's website in 2012.

De Jager demonstrated how to use LTRM's landscape research to bridge the gap between system/regional and site management. He said landscape researchers should continuously transition between various spatial scales and decision-making levels to identify resource and policy questions or issues. For example, how can a floodplain forest restoration project maximize habitat connectivity on a regional basis? De Jager said that, while a regional approach to landscape analysis does not inform managers about factors that might limit project-level outcomes, it does allow for a targeted approach that seeks to address habitat loss across the entire UMRS. However, combining local analyses with a regional perspective can inform restoration opportunities to achieve a desired outcome – e.g., improving forest composition and biodiversity. De Jager said the next step for LTRM's landscape research is to identify adaptive management techniques to monitor responses and evaluate the effectiveness of landscape restoration activities.

Hubbell noted that two Illinois River projects still need to be determined and asked if the landscape modeling tools can help to identify those projects. De Jager said it would be possible to use the landscape models to examine restoration needs and the likelihood of success of various management interventions and use these analyses to inform project selection. Tim Yager expressed appreciation for De Jager's research, noting the value in having the landscape models to guide restoration.

### **Implementation Issues Assessment**

Marv Hubbell acknowledged that partners are dealing with significant workloads, which have resulted in several delays in preparing the Implementation Issues Assessment (IIA) issue papers. As an option to facilitate timely completion of these papers, Hubbell said UMRBA staff are prepared to provide assistance under the Association's contract with USACE. Authors who are interested should contact Kirsten Mickelsen.

#### *State Participation and Leadership Support*

Jim Fischer recalled that, at its August 17, 2011 meeting, the EMP-CC discussed a draft State Participation and Leadership Support Issue Paper. The paper addresses both 1) how to maintain the states' current level of participation in UMRR-EMP in an era of declining staff and fiscal resources and 2) how to engage state agency leadership. Fischer said the issue paper is substantially different than the August 17 version, particularly in terms of the options identified. He asked partners to provide him with comments on the draft paper by December 30.

Fischer overviewed the following options for maintaining state participation:

1. Consider ways to make all stages of the HREP development process more efficient, while maintaining the program's high level of integrity and effectiveness.
  - a. Explore ways to eliminate overlap and better integrate various river teams that have similar functions. This could include establishing a small working group to evaluate institutional arrangements and using UMRR-EMP's existing infrastructure (e.g., standing groups) to implement various aspects of adaptive management.
  - b. Streamline HREP design and contracting processes. UMRR-EMP should evaluate the project design process and contracting procedures for efficiencies.
2. Implement UMRR-EMP and NESP efforts in a program-neutral fashion, having immediate benefits to both programs.

3. Evaluate options for reducing states' UMRR-EMP-related expenses.
  - a. Provide reimbursement to states for UMRR-EMP-related time and travel dedicated to planning and scientific coordination efforts.
  - b. Evaluate cost-share policies to create additional credit options for in-kind contributions, such as project planning, pre- and post-construction monitoring, and permitting.
4. Evaluate means to enhance information transfer and decision-making at EMP-CC quarterly meetings. This would include using webinars for program updates and to introduce topics that require discussion prior to the in-person meetings.
5. Consider mechanisms to implement small-scale projects more cost effectively.
  - a. USACE's permanent staff (e.g., Fountain City's hired-labor crew and analogous crews in other districts) should be utilized more for small construction projects, such as rock protection for islands, small-scale mechanical dredging, etc.
  - b. Transfer funding for small projects to the states.
  - c. Develop habitat projects that incorporate several small-scale measures, similar to the Bank Stabilization HREP.

Dan Sallee expressed support for Option 1a. Fischer and Janet Sternburg volunteered to serve on the working group (Option 1a) since they actively participate in several of the Corps' UMR-related groups.

Fischer said the A-Team could potentially implement aspects of AM, noting that the A-Team's involvement in AM might also further HREP/LTRM integration efforts. Sternburg observed that the A-Team does not have the proper expertise for planning project-specific AM, particularly if A-Team members are asked to comment on habitat needs in a specific area. Fischer clarified that his intention was for the A-Team to focus on identifying and prioritizing learning opportunities. Hubbell said, if the A-Team is to be actively involved in AM, that would warrant reexamining its composition and perhaps broadening its membership.

Hubbell said HREP engineers should be involved in addressing Option 1b. Barry Johnson said Options 1a and 1b are consistent with the draft AM Issue Paper. In planning the Huron Island project, Hubbell said MVR is emphasizing upfront efforts to minimize design modifications and other delays later on. Thus, Huron Island may provide insights regarding options to streamline HREP planning and contracting. Heather Anderson cautioned that some issues will inevitably arise despite such streamlining efforts. These include high water events, contractor insights, etc. However, Anderson said she and other Corps staff welcome the opportunity to discuss ways for increasing efficiencies in the HREP planning and contracting processes.

In response to a question from Sternburg, Fischer said he would like the Corps to consider ways to credit additional in-kind contributions (Option 3b), such as pre- and post-project monitoring. Hubbell clarified that the Corps determines the specific in-kind contribution credits on an individual project basis. He added that credits for in-kind contributions are only available to the cost-share sponsor(s).

Sternburg expressed support for Option 4, noting that webinars would allow more people to view LTRM and HREP showcase presentations. Fischer recognized that in-person meetings provide substantial value by promoting fuller discussion of complex issues and enhancing the partnership's strength by allowing partners to form and maintain relationships. Hubbell said this Option could be explored in the near term, noting that past agendas could be used to determine which meeting topics are conducive to webinars and which need to be addressed at in-person meetings.

In response to a question from Sternburg regarding Option 5c, Hubbell said USACE's project planning process is standard for all water resources projects regardless of size. USACE's hired-labor crew is available to construct small-scale projects. Tim Schlagenhaft said Minnesota DNR is using contractors to construct a small-scale river restoration project. He said lessons learned from this project might

inform UMRR-EMP's efforts to streamline smaller projects. Terry Birkenstock said USACE staff should think beyond USACE's standard planning and contracting processes and consider how small scale projects can be executed more efficiently. Charles Barton said he will work with USACE planning staff to explore options for streamlining small projects.

Fischer explained that the paper's second major option explores ways to enhance or provide additional tools and opportunities for engaging state agency leadership. These tools and opportunities might include a) using webinars for program updates, b) inviting upper level state agency leaders to one EMP-CC meeting per year, c) developing a proactive communications plan that creates more formal and routine outreach materials, and d) including UMRR-EMP as a regular agenda item when District Commanders meet with the states. Hubbell expressed support for these ideas and asked the states for input on the issues/topics for an EMP-CC meeting with state agency leadership. Sternburg suggested that the meeting be held in February, when federal agencies at the UMRBA's meeting typically present the President's budget request for the next fiscal year and address regional implications of that request. Barton suggested that partners initiate planning at least six months in advance of the meeting to provide sufficient time for coordinating with the state agency leaders. Dru Buntin said agendas aimed to attract state leaders should focus on big-picture items, such as UMRR-EMP's historical context, successes, and presentations of completed and ongoing HREPs, not simply budget matters.

#### *Non-Profits as Cost Share Sponsors*

Marshall Plumley said Section 2003 of WRDA 2007 amended the 1970 Flood Control Act to expand the definition of non-federal interests eligible to sponsor water resources projects to include nonprofit entities. Under Section 2003, the non-profit must have the consent of the affected local government and meet other eligibility standards to cost share a project. USACE Headquarters has not issued implementation guidance related to this amendment, and is not expected to do so, since similar legislative authority is well established for several continuing authorities programs (CAPs). Thus, it now appears that USACE can partner with a non-profit sponsor on an HREP. In response to a question raised at the August 17, 2011 EMP-CC quarterly meeting, Plumley confirmed that, while the Corps prefers a single project sponsor, multiple non-profits can cost share on an individual project.

Plumley reviewed the options laid out in the Non-Profits as Cost Share Sponsors issue paper as follows:

- Invite non-profits to a future EMP-CC meeting to discuss their perspectives on cost sharing HREPs.
- Maintain *status quo* — i.e., non-profits do not serve as cost share sponsors of HREPs.
- Include non-profits in project planning.
- Submit an HREP proposal to MVD that includes a non-profit as a cost share sponsor, to test the relevant policies and processes applicable to HREPs.

Plumley said a candidate non-profit would be responsible for meeting the typical requirements of a non-federal project sponsor — i.e., provide the required construction cost share and then operate, maintain, repair, replace, and rehabilitate the project, or functional portion of the project, using non-federal funds, throughout the project's 50-year life span.

In response to a question from Janet Sternburg, Plumley said that, in order for a non-profit project sponsor to use money from a federal agency as part of its cost share contribution, the non-profit must supply a letter from the federal agencies' head. Renee Turner confirmed Plumley's statement.

Plumley said he will extend invitations to UMR non-profits potentially interested in cost-sharing habitat projects to share their perspectives related to HREPs at EMP-CC's March 1 quarterly meeting.

## *Land Acquisition*

Plumley confirmed that UMRR-EMP can acquire lands and easements for habitat projects, as long as the acquisition meets the Corps' cost share and land acquisition requirements. For example, any land acquired must include active construction and/or operation and maintenance (O&M) measures to improve fish and wildlife habitat relative to its current condition. In addition, the non-federal sponsor must assume full responsibility for all real estate interests acquired for the project. Plumley offered the following options for UMRR-EMP's consideration:

- Maintain *status quo* — i.e., implement projects on lands that are already in federal- or state-ownership
- Pursue projects with a land acquisition component
  - These projects would be prioritized using the same criteria as all other potential HREPs — i.e., their ability to advance the UMR's ecological goals and objectives
- Develop a communications strategy that will achieve a consistent understanding of UMRR-EMP's land acquisition policy

In response to a question from Dan Stephenson, Barb Naramore clarified that HREP proposals sponsored by non-profits would be subject to UMRR-EMP's standard prioritization scheme. Sallee mentioned that Illinois does not participate regularly on the District-based planning teams, which identify and prioritize projects. He expressed concern that potential projects on the Illinois River might thus be overlooked. Hubbell said several Illinois River projects were identified in the 2009-2010 UMRS Reach Planning process. However, the Illinois River Work Group (IRWG) and Illinois River Coordinating Council (IRCC) have not yet determined their priority habitat projects for the Illinois River. Plumley said these Illinois River projects, once identified, will then be subject to review and prioritization relevant district-based interagency teams. For example, projects on MVR's portion of the Illinois River will move from the IRCC to the Fish and Wildlife Interagency Committee (FWIC) and then to the River Resources Coordinating Team (RRCT). Sternburg noted that Butch Atwood has represented Illinois DNR on MVR's and MVS's planning teams for the purpose of considering Mississippi River projects.

Schlagenhaft asked whether controlled burning on acquired land would meet the definition of "active O&M." Barton replied that it would not, distinguishing between conservation measures like controlled burns and active restoration measures. Plumley said the construction or O&M on the acquired land must be necessary to the overall project functioning as designed, if the non-federal sponsor is to receive credit for the real estate interests acquired. In response to a request from Naramore, Plumley said the Land Acquisition issue paper will include an example(s) of a land-intensive restoration project that fits within the policy limits. In response to a question from Brad Walker, Plumley said improving ecological processes and functions (e.g., nutrient storage) is considered restoration. For example, Emiquon uses water control structures to improve floodplain connectivity.

Schlagenhaft asked if land acquisition projects can advance without all of the project lands secured, noting that acquiring all real estate for a project is often very lengthy, potentially spanning decades, because it usually involves working with multiple willing sellers on an opportunistic basis. Hubbell said project planning can begin before all lands are secured. He explained that, depending on the nature of the project, it might be feasible to divide the work into discrete phases, allowing each phase of the project to advance to implementation once parcels of land needed for that phase are acquired. Hubbell offered that partners could use Rice Lake as a case study for a land acquisition project. Schlagenhaft said it would be helpful to have a couple examples of projects that would and would not be consistent with UMRR-EMP's land acquisition policy. Hubbell noted that, while Corps policy allows for non-federal sponsors to receive credit for excess lands, easements, rights-of-way, relocation and dredged material disposal area (LERRDs), UMRR-EMP will request that the non-federal sponsor waive this

right. In response to a comment from Plumley, Barton said all real estate interests must be acquired from willing sellers, noting that eminent domain is not an option under UMRR-EMP. Plumley suggested that a future EMP-CC meeting include a presentation on the program's land acquisition policy and eligible projects.

### *Adaptive Management*

Barry Johnson said the draft Adaptive Management (AM) Issue Paper is currently being developed. It considers how UMRR-EMP has applied AM thus far and provides next steps for implementing AM if partners agree to take a more explicit and deliberate approach. Johnson overviewed suggested next steps for operationalizing AM within UMRR-EMP, as follows:

- 1) Confirm EMP-CC's desire for UMRR-EMP to pursue more deliberate and explicit AM approach(es).
- 2) Define critical uncertainties affecting management of the UMR.
  - a) Define the composition of, and convene, a work group to assess and document uncertainties at reach and pool scales, including review of existing documents – e.g., LTRM research frameworks, reach objectives reports, HREP evaluations.
  - b) Develop an Environmental Response Handbook, similar to the Environmental Design Handbook, that will document what we have learned about ecological responses to management interventions, as well as key knowledge gaps.
- 3) Define and implement changes in the HREP planning process.
  - a) Develop a process to determine if a project would benefit from an explicit application of AM, assessing critical uncertainties regarding the project's success and defining potential learning objectives. The process should also consider ways to combine a single project with multi-project learning opportunities.
  - b) Develop a process to prioritize among those projects that are AM candidates, giving higher priority to projects with greater learning objectives.
  - c) Determine ways to help PDTs develop detailed AM plans with input from researchers, subject matter experts, statisticians, etc.
  - d) Define ways to use existing LTRM data to define pre-project conditions or reference/control areas.
  - e) Assign responsibilities for AM duties and oversight to individuals or groups within UMRR-EMP.
- 4) Develop ways to integrate LTRM procedures and tools to assist HREP and AM activities.
- 5) Apply next steps 2 and 3 above to projects currently being designed.

Johnson said the draft AM issue paper will be distributed to partners in advance of the March 1 EMP-CC meeting. Tim Yager underscored the value that AM could provide as a tool for the program to evaluate its success in restoring the UMR and identify ways to enhance its restoration techniques. He said USFWS supports UMRR-EMP taking a more explicit and deliberate approach to implementing AM techniques. Johnson clarified that not all HREPs will be candidates for an AM analysis. Some projects will not offer significant learning opportunities through AM – e.g., projects with routine, standard designs. Hubbell noted that several projects currently in early planning are excellent AM candidates. Sternburg expressed support for increased emphasis on AM in UMRR-EMP to further our knowledge of river management, but also stressed that not all projects should receive a full-scale AM analysis and that there are many factors other than AM potential that should be considered in prioritizing projects.

Mike Jawson said the AM issue paper authors are seeking a formal decision from EMP-CC regarding whether UMRR-EMP should implement AM more explicitly and deliberately going forward. The AM

issue paper will capture this decision, and if the EMP-CC agrees to develop a formal AM framework, the paper will suggest next steps for developing an AM framework.

In response to a question from Bob Clevenstine, Ken Barr explained that USACE's implementation guidance for Sections 2036(a) and 2039 of WRDA 2007 requires that all water resources projects include plans for monitoring project performance and AM. Hubbell said the guidance is specific to projects, ensuring that project designs can be adjusted throughout project implementation in order to optimize their success. However, he noted that UMRR-EMP is considering implementing AM pre-project and at systemic/programmatic scales. This goes beyond the guidance for implementing Sections 2036(a) and 2039 of WRDA 2007.

Sternburg said that, while she supports UMRR-EMP implementing AM techniques, she would like to see the draft AM issue paper before making any final decisions about the program's future AM efforts. Birkenstock clarified that, while AM must be addressed in every DPR, this need not be extensive in all cases. Hubbell explained that several of the suggestions Johnson outlined for operationalizing AM within UMRR-EMP would have multiple, non-AM benefits to the program. For example, using LTRM sampling protocols would allow for AM project data to be added to LTRM's out-pool sampling database.

Tim Schlagenhaft agreed with Hubbell's comment, and noted that partners have long discussed the need to implement AM more explicitly. He expressed support for UMRR-EMP moving forward with developing an AM framework. Schlagenhaft suggested referencing the UMRS Pool Plans when identifying critical uncertainties affecting UMR management (see next step 2 above).

The following EMP-CC members confirmed their desire for the UMRR-EMP to take more deliberate and explicit approaches to implementing AM: Mike Jawson, Tim Yager, Kirk Hansen (on behalf of Diane Ford), Dan Stephenson (on behalf of Rick Mollahan), Tim Schlagenhaft, Janet Sternburg, and Jim Fischer.

### **Other Business**

The upcoming quarterly meetings are as follows:

- **February-March 2012 — Davenport**
  - UMRBA (strategic planning session) — February 28
  - UMRBA — February 29
  - EMP-CC — March 1
- **May 2012 — St. Louis**
  - UMRBA (strategic planning session) — May 22
  - UMRBA — May 23
  - EMP-CC — May 24
- **August 2012 — La Crosse**
  - UMRBA (strategic planning session) — August 28
  - UMRBA — August 29
  - EMP-CC — August 30

Barb Naramore reported that the UMRBA Board has initiated a strategic planning effort to determine key issues and priorities for UMRBA over the next one to five years. She said UMRBA staff will be contacting EMP-CC state members shortly to seek their input on the Association's priorities related to ecosystem restoration and monitoring on the UMR.

With no further business, the meeting adjourned at 2:56 p.m.

**EMP-CC Attendance List  
November 16, 2011**

**EMP-CC Members**

Charles Barton	U.S. Army Corps of Engineers, MVD
Tim Yager	U.S. Fish and Wildlife Service, UMR Refuge
Mike Jawson	U.S. Geological Survey, UMESC
Dan Stephenson	Illinois Department of Natural Resources [On behalf of Rick Mollahan]
Kirk Hansen	Iowa Department of Natural Resources [On behalf of Diane Ford]
Tim Schlagenhaft	Minnesota Department of Natural Resources
Janet Sternburg	Missouri Department of Conservation
Jim Fischer	Wisconsin Department of Natural Resources

**Others In Attendance**

Renee Turner	U.S. Army Corps of Engineers, MVD
Terry Birkenstock	U.S. Army Corps of Engineers, MVP
Chuck Spitzack	U.S. Army Corps of Engineers, MVP
Gary Meden	U.S. Army Corps of Engineers, MVR
Roger Perk	U.S. Army Corps of Engineers, MVR
Marvin Hubbell	U.S. Army Corps of Engineers, MVR
Karen Hagerty	U.S. Army Corps of Engineers, MVR
Heather Anderson	U.S. Army Corps of Engineers, MVR
Ken Barr	U.S. Army Corps of Engineers, MVR
Kara Mitvalsky	U.S. Army Corps of Engineers, MVR
Darron Niles	U.S. Army Corps of Engineers, MVR
Marshall Plumley	U.S. Army Corps of Engineers, MVR
Heather Schroder	U.S. Army Corps of Engineers, MVR
Laura St. Louis	U.S. Army Corps of Engineers, MVR
Bob Clevestine	U.S. Fish and Wildlife Service, Refuges
Jon Duyvejonck	U.S. Fish and Wildlife Service, RIFO
Amber Andress	U.S. Fish and Wildlife Service, RIFO
Sharonne Baylor	U.S. Fish and Wildlife Service, UMR Refuge
Stephen Winter	U.S. Fish and Wildlife Service
Scott Yess	U.S. Fish and Wildlife Service, UMRCC
Gary Johnson	U.S. Geological Survey, Illinois Water Science Center
Barry Johnson	U.S. Geological Survey, UMESC
Nate De Jager	U.S. Geological Survey, UMESC
Dan Sallee	Illinois Department of Natural Resources
Steve Shults	Illinois Department of Natural Resources
Dru Buntin	Missouri Department of Natural Resources
Robert Stout	Missouri Department of Natural Resources
Olivia Dorothy	Izaak Walton League
Tom Boland	AMEC
Brad Walker	Missouri Coalition for the Environment
Cynthia Drew	University of Miami
Barb Naramore	Upper Mississippi River Basin Association
Dave Hokanson	Upper Mississippi River Basin Association
Kirsten Mickelsen	Upper Mississippi River Basin Association