

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

**November 18, 2010
Quarterly Meeting**

**Holiday Inn
Rock Island, Illinois**

Kevin Foerster of the U.S. Fish and Wildlife Service called the meeting to order at 8:04 a.m. on November 18, 2010. Other EMP-CC representatives present were Mike Jawson (USGS), Rick Mollahan (IL DNR), Pat Boddy (IA DNR), 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 4, 2010 Meeting

Tim Schlagenhaft moved and Rick Mollahan seconded a motion to approve the draft minutes of the August 4, 2010 meeting as written. The motion carried unanimously.

Program Management

FY 10 Year-End Report

Marv Hubbell said EMP's FY 10 total obligation authority was \$31.613 million in American Recovery and Reinvestment Act and regular appropriations, which included its regular appropriation of \$16.47 million and FY 09 carry-over of \$15.143 million. EMP's FY 10 appropriation of \$16.47 million was allocated as follows:

- Regional Administration — \$626,000*
- LTRMP — \$4,983,180
- HREPs — \$10,886,820
 - Program Model Certification and Regional HREP Support — \$250,000
 - MVP — \$2,691,046**
 - MVR — \$5,254,728
 - MVS — \$2,691,046**

* Includes \$26,000 in carry-over funds.

** MVP and MVS each received \$500,000 less than they would have under the typical allocation formula in order to "repay" MVR for inter-district transfers from FY 09.

Hubbell explained that the Corps is requiring all projects without an approved DPR to undergo the Corps' new project review process, per the requirements mandated in WRDA 07. Thus, Rice Lake must be resubmitted to all levels of peer review, even though the project was scheduled for a construction start in FY 10. This has resulted in FY 10 carry-over of \$4.4 million, which is allocated to Rice Lake's construction in FY 11.

Karen Hagerty reported that a small work group of the LTRMP Strategic Planning Team recently conducted its annual performance evaluation of the LTRMP component and set priorities for FY 11

based on the FY 10-14 LTRMP Strategic Plan. Hagerty said combined funding from EMP's FY 10 appropriation, FY 09 carry-over, and American Reinvestment and Recovery Act gave EMP \$8.389 million in FY 10 obligation authority for LTRMP-related activities. This funding was used to complete or advance progress on efforts related to baseline monitoring, land cover/land use (LC/LU), landscape analysis, mussel planning, LiDAR, bathymetry, and hydrodynamic modeling, as well as for equipment refreshment.

FY 11 Appropriations Status and Work Plan

Hubbell reported that EMP, along with most of the federal government, is currently operating under a continuing resolution authority (CRA) until December 1, 2010. The President's FY 11 budget request and the House Energy and Water Subcommittee's FY 11 appropriations markup include \$21.15 million for EMP. The Senate Appropriations Committee has included \$19.0 million for EMP in its FY 11 energy and water spending measure (S. 3635). It is not yet known how Congress will handle FY 11 funding for the balance of the fiscal year. Possibilities include an additional CRA(s) or an omnibus measure. Hubbell said, in the interim, the Corps is assuming FY 11 EMP funding of \$21.15 million for planning purposes. Under this assumption, the funding allocation would be as follows:

- Regional Administration — \$868,000
- LTRMP — \$6,400,000
- HREPs — \$13,882,000
 - Program Model Certification and Regional HREP Support — \$250,000
 - MVP — \$4,100,000
 - MVR — \$5,432,000
 - MVS — \$4,100,000

If EMP receives \$19 million, the funding allocation would be as follows:

- Regional Administration — \$650,000
- LTRMP — \$5,762,000
- HREPs — \$12,588,000
 - Program Model Certification and Regional HREP Support — \$250,000
 - MVP — \$3,701,000
 - MVR — \$4,936,000
 - MVS — \$3,701,000

Hubbell said these allocations will be adjusted as needed once EMP's actual funding level is known. [Note: On December 4 and December 22, Congress enacted subsequent CRAs. The December 22 CRA runs through March 4, 2011.]

Hubbell said EMP's top FY 11 priorities include a meeting for all LTRMP field staff and supporting 24 HREPs in various stages of planning and construction. He said USACE would fund state employees' time and travel costs for the LTRMP field station meeting.

In response to a question from Jim Fischer, Hubbell said allocations within the Program Management account to regional project sequencing, HREP/LTRMP integration, and public outreach would decrease by \$100,000, \$50,000, and \$68,000, respectively, under the \$19.0 million funding scenario relative to funding of \$21.15 million. Hubbell said EMP staff are still exploring sustainable options for enhancing integration of the HREP and LTRMP components. In particular, he noted the immediate need to incorporate LTRMP information into project planning. Barb Naramore suggested that EMP-CC consider integration alternatives at its February 16, 2011 meeting. Karen Hagerty agreed and

encouraged EMP-CC members to consider how LTRMP data can be useful for all types of restoration and for use in other programs.

Mike Jawson also expressed support for discussing HREP-LTRMP integration at February's meeting. He suggested that EMP-CC consider EMP's immediate and long-term goals for such integration. He explained that it will be a challenge for USGS to identify a single staff person to serve as a point of contact for HREP-LTRMP integration. USGS staff are mostly specialists, however integration efforts will likely require a staff person with broad knowledge of all LTRMP efforts. Jawson suggested that the HREP Strategic Planning Team also address ways to enhance HREP-LTRMP integration. Schlaghaft emphasized the need to involve HREP and LTRMP technical staff in these discussions.

Hubbell overviewed EMP's anticipated FY 11 programmatic efforts, including EMP-NESP Transition Plan, HREP Strategic Plan, Implementation Issues Assessment (IIA), outreach related to EMP as a USACE Nationally Significant Ecosystem, new planning starts, and the HREP Database. In response to a question from Mike Jawson, Monique Savage explained that UMESC will serve the HREP database as a layer of the UMRS Decision Support System (DSS) (<http://umesc-gisdb03.er.usgs.gov/umr/dss.aspx>), along with all of EMP's HREP and LTRMP data. Savage said the integration of HREP information into the DSS should be completed shortly.

Naramore suggested that the three UMR Districts include a direct link to the HREP Database on their individual EMP web pages and consider other changes to provide more comprehensive and consistent information about EMP. Jeff DeZellar agreed and said District staff will explore ways to do so. Savage noted that the Corps is redeveloping all of its web pages to provide consistency.

Hagerty said the estimated cost of LTRMP's base monitoring efforts, including the LC/LU photography collection and accuracy assessment, is \$4.955 million in FY 11. She noted that the LTRMP component would receive \$6.4 million or \$5.76 million under a \$21.15 million or \$19 million FY 11 appropriation scenario. Hagerty said any additional funding will be used toward the following five priorities, shown in order:

- 1) Bathymetry processing and serving
- 2) Tier 1 LiDAR processing and serving
- 3) Additional ecological indicator analysis
- 4) Equipment refreshment
- 5) Tier 2 LiDAR processing and serving

Hagerty explained that Tier 1 LiDAR processing includes serving basic LiDAR products quickly and Tier 2 LiDAR processing includes LiDAR products with enhanced quality, including extensive error correction and contour smoothing.

EMP-NESP Transition Plan

Hubbell reported that COL McGinley is expected to submit his EMP-NESP Transition Plan to MVD next week. This revised plan, reflecting MVD and Headquarters comments on the May 2010 version, will be made available to EMP and NESP partners at the same time. Hubbell emphasized that, while the issues and key messages described in the May version remain largely unchanged, the revised draft describes EMP's historical successes and the importance of fully funding EMP until and unless Congress directs an EMP-NESP transition.

Jawson asked if the Transition Plan includes an option for co-implementing EMP and NESP. Hubbell explained that the Transition Plan recommends that EMP transition to NESP once 1) the Inland

Waterways Trust Fund (IWTF) situation is resolved, 2) stable construction general funding is appropriated for NESP, and 3) a Chief's Report for NESP is submitted to OMB. In the interim, the Plan recommends that EMP remain fully functional. Hubbell said the Transition Plan does not include a scenario for simultaneously implementing both programs in the long term. Hubbell noted that the Transition Plan does not speak specifically about LTRMP implementation during or after the possible transition.

Jeff DeZellar noted that none of the three conditions needed for a transition to NESP have made any significant progress in the recent years. Hubbell explained that District staff hope this Transition Plan will initiate a dialogue with the Administration regarding what information or modifications to NESP's implementation strategy are needed for the Administration to submit a Chief's Report for NESP to OMB.

Public Involvement and Outreach

Jeff DeZellar said the Corps held a public meeting regarding Pool 8 construction activities on August 4, 2010. While most of the comments were generally positive regarding the Pool 8 HREP, participants expressed concerns with other Corps activities and increased vegetation on the river. DeZellar reported that the third annual boat tour of the Pool 8 project, held on August 30, was quite successful. MVP has uploaded a video of Pool 8 construction activities on YouTube (<http://www.youtube.com/watch?v=RnJ2terM9tU>).

DeZellar announced that MVP will not be able to contract with Twin Cities Public Television for a feature on the Pool 8 Islands because of restrictions on sole-source contracts. MVP will continue to film Pool 8 construction activities and explore other contracting options for completing the film. Karen Hagerty suggested MVP consider partnering with a university.

Kevin Foerster expressed his appreciation for the multi-agency public relations response to questions about this summer's Pool 6 drawdown and increased aquatic vegetation. Partners formed a united voice, describing the long term habitat value associated with these drawdowns.

Mike Jawson reported that Yao Yin from UMESC will be serving on an interagency personnel agreement (IPA) with The Nature Conservancy's Great Rivers Partnership. Yao will focus mostly on the Yangtze River, but will also help develop relationships with other major rivers. LTRMP's protocols are already being used by one Yangtze resource agency, with the resulting data being served on the internet in China. This is one of the first data sets to be served in real time on China's internet.

Don Powell recognized the recently completed USFWS overlook at Brownsville. He said the overlook is well positioned to view waterfowl using the Pool 8 Islands. The overlook has an informative kiosk and USFWS staff are sometimes present to help interpret the landscape. The adjacent highway receives heavy vehicle traffic. Foerster noted that Minnesota Department of Transportation was an integral partner in funding the overlook.

Regional Review Plan

Hubbell reported that District staff will submit an EMP Regional Review Plan to MVD soon. DeZellar said the Review Plan establishes how EMP as a program will comply with various elements of the Corps' new project review requirements in implementing its individual HREPs. The Plan will describe EMP's specific procedures for all stages of project planning, including district quality control (DQC), agency technical review (ATR), and independent external peer review (IEPR). Hubbell reiterated that all projects without an approved DPR are required to undergo the Corps' new project review process, per the requirements mandated in WRDA 07. This has significantly delayed Rice Lake's construction.

Hubbell said MVR will request a programmatic IEPR exemption for EMP projects. He explained that this programmatic exemption would increase EMP's efficiency by eliminating the requirement for all HREPs to apply individually for an IEPR exemption. Under a programmatic exemption, an HREP that triggers one of the WRDA 07 criteria would still be required to complete an IEPR. DeZellar noted that HREPs are unlikely to require an IEPR, and without the programmatic exemption each project will incur the costs associated with the waiver process.

Report to Congress

2010 Report to Congress

Marv Hubbell reported that the first and final drafts of the 2010 Report to Congress (RTC) were submitted to partners for review and comment on September 15 and October 19, respectively. A revised final report will be submitted to MVD on December 1. The Corps will distribute hardcopies and CDs of the report to the EMP-CC distribution list shortly afterwards.

Implementation Issues Assessment

Hubbell briefly recounted that, as a follow-on document to the 2010 RTC, the Corps, in collaboration with partners, will develop an Implementation Issues Assessment (IIA) to address issues related to EMP's policies and program implementation. The IIA will address the following issue topics, as agreed on by EMP-CC at its May 2010 quarterly meeting:

- NGOs as cost share sponsors
- Cost sharing (criteria for 100 percent federal funding)
- HREP operation and maintenance
- Delegated authority
- Land acquisition
- HREP planning and prioritization
- HREP evaluations
- EMP's habitat project types
- LTRMP implementation
- UMRS emerging trends and issues
- Maintaining state participation with diminishing state resources
- Coordination with other UMRS restoration programs

[Subsequent to the meeting, EMP-CC members also agreed to address the need for an explicit adaptive management framework. Iowa withdrew its suggestion to explore coordination with other UMRS restoration programs.]

Hubbell observed that several of the IIA issues overlap with issues that will be considered as part of the HREP strategic planning process. While the IIA will consider these issues at more of a policy- and programmatic-level, the HREP Strategic Plan will address their implementation and technical aspects.

In response to a question from Kevin Foerster, Hubbell said the IIA will not be formally submitted to Congress, allowing partners more flexibility and latitude in addressing the issues. Partners may be able to agree on ways to resolve some issues relatively quickly, while other issues may take quite a bit more

partner discussion and careful thought. He estimated that the IIA will require nine months to a year to complete. This will include development of issue papers, similar to the 2004 Issue Papers. Barb Naramore explained that the IIA and issues papers can serve as concise and carefully articulated communications tools about the partnership's consensus on issues and how to address them. They can be used internally by EMP staff and partners, as well as with the Administration, Corps, and other external agencies and individuals. Naramore said staff working on the IIA will use quarterly meetings to inform EMP-CC of their progress and confirm that efforts reflect the partnership's collective thinking. Between meetings, the IIA team will develop issue statements, explore options for resolving issues, and consider any EMP-CC recommendations. Tim Schlagenhaft added that the IIA development process represents a significant opportunity to define ways to improve the program.

In response to a solicitation by Hubbell for IIA Team volunteers, Naramore suggested that, rather than forming a separate team, the EMP-CC serve as the consultative body for the process. She noted that EMP-CC members' commitment, beyond the quarterly meetings, would mostly include conference calls and perhaps taking the lead on an issue paper. Tim Schlagenhaft suggested that EMP-CC members convene a conference call in December to outline next steps, and Jim Fischer requested that EMP-CC members discuss the IIA's relationship to the HREP Strategic Plan during that call.

Habitat Rehabilitation and Enhancement Projects

District Reports

Brian Markert reported that MVS has finalized an agency technical review (ATR) for Ted Shanks (MO) and is currently implementing an ATR for Rip Rap Landing (IL). Wilkinson Island (IL) is the District's other FY 11 planning priority. Depending on the final FY 11 appropriation, MVS will advance planning on Clarence Cannon NWR (MO) and Eagles Nest and Piasa Island (IL). Market said MVS is finalizing design of Pools 25 and 26 Islands (MO) and is developing an O&M manual for Swan Lake (IL). He explained that, due to high water conditions this past summer, MVS was not able to advance construction significantly on any of its projects. The District is seeking to enhance its project evaluation process. Recently, MVS completed its evaluation of Swan Lake and anticipates initiating an evaluation of Calhoun Point (IL) shortly.

Jeff DeZellar said Capoli Slough (WI) and L&D 3 Fish Passage (MN) are MVP's planning priorities for FY 11. Capoli is currently undergoing an ATR, and MVP anticipates finalizing the project's Definite Project Report (DPR) this spring. The District will likely submit a draft DPR for L&D 3 Fish Passage to the project's ATR Team, MVD, and partners by the end of November for simultaneous review. DeZellar said MVP is hoping to complete project design for L&D 3 fish passage in March 2011. A DPR for Harper's Sough (IA/WI) is about half complete. In FY 11, the District also anticipates initiating some level of planning on all of its projects with recently approved fact sheets, including Conway Lake (IA), Lake Winneshiek (WI), and North and Sturgeon Lakes (MN). DeZellar said MVP will finalize construction of Pool 8 Islands Phase III Stage 3A this spring and will continue to focus its construction efforts on Stage 3B this year. The District is increasing its staff resources to finalize completion reports. A draft evaluation report of Guttenberg Ponds (IA) will be distributed to partners for review soon.

Tim Schlagenhaft mentioned that, since fish passage is a new tool for EMP, it may be valuable for the L&D 3 project to undergo the IEPR process. DeZellar noted that Wisconsin DNR's water quality permitting for the L&D 3 lower embankment project is linked to progress on the fish passage design effort. For this reason, DeZellar said he would be reluctant to introduce the time required for an IEPR. He said a decision on whether to apply for an IEPR exemption will need to be made soon. Jim Fischer confirmed that the L&D 3 lower embankment permit requires that the DPR for L&D fish passage is completed. Therefore, partners would need to evaluate the schedule implications associated with the

additional review. Markert observed that the ATR, rather than the IERP, tends to provide the most valuable input to project planners.

Marv Hubbell said MVR's FY 11 planning efforts will include Pool 12 Overwintering (IL), Huron Island (IA), Beaver Island (IA), Boston Bay (IL), and final work on Rice Lake (IL). This year, the District plans to initiate design on Pool 12 Overwintering and construction on Rice Lake. Hubbell said construction on Fox Island (Missouri) is scheduled for completion in FY 11.

HREP Selection and Sequencing

Hubbell noted that, at its August 4, 2010 meeting, the EMP-CC discussed the need to update EMP's HREP Planning and Sequencing Framework to select projects that reflect system needs. However, he proposed that EMP-CC delay its efforts to refine the Framework. This would allow USACE to further explore internally how reach planning will link with project selection by various Corps programs and would also allow partners to initiate the HREP strategic planning process. Hubbell said both of these efforts will inform refinement of the Framework.

Janet Sternburg and Schlagenhaft expressed their support for Hubbell's suggested approach. Sternburg noted that HREP sequencing is not an immediate need. In response to a question from Kevin Foerster, Hubbell said he anticipates EMP-CC would initiate efforts to revisit the Framework sometime in 2012. Pat Boddy called for keeping the Framework simple, and suggested including external input into the project selection process. Rick Mollahan expressed his support for delaying EMP-CC's reconsideration of the Framework. Mike Jawson noted that the HREP Strategic Plan will address issues related to project selection.

Don Powell suggested reconvening the System Ecological Team (SET) to get its input on how to refine the Framework and any suggestions for the HREP strategic planning process. Hubbell recalled the difficulty in structuring the Framework so that projects are prioritized based on their potential to meet the needs of the complex UMRS ecosystem, while employing natural river processes. Some partners questioned whether the Framework led the DETs and SET to overlook important ecosystem and habitat needs. He said advances in GIS technology should enhance project sequencing efforts overall.

Bob Clevestine asked how the district-based river teams will be involved in EMP's sequencing process and the HREP Strategic Plan. Hubbell said he anticipates that each agency's representative on the HREP Strategic Planning Team will serve as a POC within their respective agency, communicating between agency staff and the two efforts.

HREP Strategic Plan

Hubbell emphasized that the IIA and HREP strategic planning efforts will not be duplicative. When necessary, the IIA will provide guidance to the HREP Strategic Planning Team on what and how to address certain issues. Hubbell said USACE and USFWS have agreed to co-chair the HREP strategic planning effort.

In response to a question from Schlagenhaft, Hubbell said the NESP Program Management Plan (PMP) will not directly relate to the HREP strategic planning effort. The PMP will articulate management differences between NESP and EMP, and determine whether these differences are real or perceived. This effort is intended to facilitate NESP and EMP integration. In response to a question from Fischer, Hubbell said the Corps will request partners' input on the draft NESP PMP, but its development will be largely internal.

Hubbell said he will confirm the HREP Strategic Planning Team's composition within the next few weeks.

HREP Showcase: Huron Island

Monique Savage, using Huron Island HREP as an example, overviewed the Corps' HREP development process from planning to construction, including implementing the Corps' new review requirements. She said Pool 18's Huron Island consists of about 164 acres of backwater habitat and 500 acres of secondary channels. The project area is part of the Port Louisa National Wildlife Refuge System. Project partners include USFWS and Iowa DNR, and the project is 100 percent federally funded. Huron Island's draft project objectives, which reflect the UMRS and Lower Impounded Floodplain Reach goals, include:

- Increase diversity, species, and structure of forest
- Increase forest stands with hard mast producing trees as a dominant or component species
- Restore areas suitable for supporting the regeneration of hard mast producing trees
- Maintain and increase depth diversity in backwaters
- Create off-channel deepwater areas to provide overwintering and year-round habitat for fish
- Decrease bank erosion at Huron Chute

Savage explained the project's monitoring and adaptive management components. She said the Corps is currently determining the variability of quantifying project objectives, including related scientific findings, a cumulative effects study, the Habitat Needs Assessment, and the Mark Twain Comprehensive Conservation Plan. Project partners will then try to link monitoring efforts to the project's objectives. The project will incorporate adaptive management to determine whether subsequent phases should be modified.

Savage showed an excerpt of EMP's typical network diagrams, which are used to document and communicate project management details. If Corps staff are seeking an IEPR exemption, they need to receive a determination on that request before completing the project's review plan. Savage said a project management plan (PMP) is a living document that serves as a communication tool among partners. It includes the agreement on project goals and objectives, an implementation plan that meets sponsors' needs, an external and internal communications strategy, the project scope, a list of any resources needed, and several other project implementation details and schedules. Huron Island's PMP was approved on July 22, 2010.

Once a project receives an approved project review plan, it undergoes a first round of agency technical review (ATR) to address the technical validity of the project objectives and description of existing conditions. The PDT, District Supervisors, and MVD then hold a feasibility scoping meeting to ensure the project's feasibility study is correctly focused and that the essential project objectives are addressed. A second ATR is implemented that addresses the technical validity of the project alternatives, as selected by the PDT. The PDT then submits an alternative formulation briefing (AFB) to MVD, which includes the ATR certification, the ATR Team's comments, and an Office of Counsel Certification, among other things. Upon MVD's approval of the project's AFB, the project undergoes an IEPR, unless it receives an exemption, and concurrent public review. According to Savage, the planning process seeks to create cohesiveness between the Corps and project sponsors, buy-in from District supervisors and MVD early in the planning process, and enhanced products with more accurate cost estimates.

Barb Naramore asked what would happen in the event that a project IEPR exemption was repealed later in the planning process. Savage said the PDT would need to revise the project's review plan to incorporate the IEPR. She said that, as USACE gains more experience with the WRDA 07 review requirements, it might eliminate or modify its requirement to include IEPR plans in the initial review plan.

Long Term Resource Monitoring Program

Product Highlights

Mike Jawson reported that LTRMP has acquired aerial photographs for Pools 1-13 and the Illinois River as part of the 2010-2011 Land Cover/Land Use (LC/LU) project. Due to high water conditions, photo acquisition of Pools 14-26 and the Open River Reach is postponed until fall 2011. Jawson said Tier 1 LiDAR products for Pools 8-14 and 20-24 are available at http://www.umesc.usgs.gov/data_library/gis_data/lidar.html. UMESC staff recently completed the initial processing of LiDAR into digital elevation models, contours, and hillshades for Pools 2-7 and the lower St. Croix River. He explained that this initial processing is the first of three phases that will allow the LiDAR and bathymetric data sets to be combined into one seamless layer for the entire UMRS. [Tier 1 LiDAR processing allows serving basic LiDAR products quickly. Tier 2 processing yields products with enhanced quality, including extensive error correction and contour smoothing. Subsequent to the meeting, Tier 1 products for Pools 2-7 and the lower St. Croix River were also made available on the website.]

Jawson outlined LTRMP's FY 11 scope of work (SOW), which includes baseline monitoring for the aquatic vegetation, fish, and water quality components; LC/LU and bathymetric data collection; data analysis; and data management. Additional SOW priorities include focused and adaptive management research related to ecological indicators, native mussels, and aquatic vegetation; decision support tools; and HREP/LTRMP coordination and integration.

Jawson noted that today's meeting does not include an LTRMP showcase. He said LTRMP scientists have expressed reluctance to present at EMP-CC meetings, given the limited presentation time and often significant time and travel costs involved. Jawson asked for EMP-CC input on whether these showcases are valuable, and suggested the possibility of LTRMP scientists presenting via a web connection as an option to encourage their participation. Janet Sternburg expressed her disappointment that LTRMP scientists are hesitant to present, especially since they often suggest that HREP staff are not using their information. But, Sternburg said she does understand the travel constraints. Jon Duyvejonck suggested having a future showcase on the recent backwater vegetation report and its applicability to enhancing project design. Marv Hubbell said the science and restoration components are both integral parts of EMP, and attending meetings facilitates establishing better connections between the two components.

Monique Savage suggested regular EMP-CC discussions on improving HREP/LTRMP integration. Tim Schlagenhaft emphasized the value of the showcases. He suggested exploring technology that would allow for off-site presentations, if needed. Jawson said USGS has technology available to do off-site presentations and will explore its use for future EMP-CC meetings. Pat Boddy suggested changing the term "showcase" to something more compelling. Barry Johnson welcomed suggestions for future presentations.

Barry Johnson said USGS's Water Resources Division (WRD) completed its review of the Wisconsin Water Science Center, including LTRMP's water quality component. The reviewers interacted with UMESC and Wisconsin field station staff. On September 29, 2010, WRD submitted its written LTRMP water quality review, which Johnson characterized as very positive. WRD's major comments were that LTRMP:

- is one of the federal government's flagship programs relative to long term monitoring and research in support of a large scale ecosystem restoration effort;
- staff are very conscientious and show a strong sense of ownership over the program and a willingness to share their information, thoughts, and ideas with the review team;
- has excellent project and laboratory documentation and many procedures in place to assure the quality of the data and results generated by the project;

- makes extensive use of the internet to present data and information developed by the project team and about the UMRS as a whole;
- is doing substantial cutting-edge work relative to ecological research and LU/LC characteristics of a complex river ecosystem; and
- has fixed sites that meet a range of project objectives and suit state and local needs.

Johnson said the review team made several minor recommendations for improvement, including:

- Update the 2004 Procedures Manual to accommodate any changes since its publication.
- Overhaul of web pages to improve the look and operation, coding and depiction of censored data, display of boxplots and percentiles of small datasets, and graphics to facilitate visual patterns.
- Add more explanation of the procedures used to develop statistical summaries of data and trends in future Status and Trends Reports.
- Consider how LTRMP data can provide added value to other federal programs through leveraging existing data and sampling designs, modifications to existing design, or expanded data collection using additional resources.

Johnson said he will provide WRD’s written report and UMESC’s responses to the recommendations to the EMP-CC within the next few weeks. Overall, UMESC concurs with the recommendations. Jim Fischer said he is very pleased with the review results, but expressed concern that the value of fixed sites is not being adequately communicated, especially for applications such as state water quality assessments and the Lake Pepin TMDL analyses. Johnson noted that the review was primarily focused from a federal, and in particular USGS, perspective.

Draft LC/LU Accuracy Assessment Plan Update

Johnson reported that, in response to a request by EMP-CC at its May quarterly meeting, UMESC developed a cost-effective approach to determining the accuracy of the 2010-2011 LC/LU dataset using a combination of field-based assessment and map validation methods. The assessment will examine the whether 1) the polygons are accurately mapped and 2) the land cover classes are correctly identified. According to Johnson, advances in technology (e.g., digital camera will directly incorporate GPS data into each photograph) have increased UMESC’s confidence that it will be able to accurately delineate borders and identify the appropriate cover classes.

Johnson outlined two possible approaches to assessing the 2010-2011 LC/LU’s thematic accuracy, as follows:

Field-Based Accuracy Assessment	Map-Based Validation
<ul style="list-style-type: none"> • Two-person team compares map classes with vegetation in the field 	<ul style="list-style-type: none"> • Two-person team compares map classes with another interpretation of aerial photos
<ul style="list-style-type: none"> • Team generates random sampling points (1 ha) based on area of natural/semi-natural map classes (~ 15,187 points in the UMRS or ~ 63 to 629 per pool/reach) 	<ul style="list-style-type: none"> • Team generates random sampling points (1 ha) based on area of all map classes (~ 20,397 points in the UMRS or ~ 123 to 784 per pool/reach)
<ul style="list-style-type: none"> • Data is entered into database and compared with map 	<ul style="list-style-type: none"> • Data is entered into database and compared with map
<ul style="list-style-type: none"> • Team analyzes associated error with any mismatches – i.e., field or mapping error 	<ul style="list-style-type: none"> • Team analyzes associated error with any mismatches and verifies in the field, if needed

Johnson said that, based on EMP-CC's input, USGS will implement a hybrid approach. This will include a field assessment of Pool 13 and La Grange in FY 11-12 and map validation of Pool 13 in FY 12 and either Pool 26 or a portion of the Open River in FY 13. The total estimated cost to complete the accuracy assessment over the three years is \$241,600. Johnson said this approach is comprehensive and will adequately assess the accuracy the mapping effort.

In response to a question from Tim Schlagenhaft, Johnson said reviewers would not correct any discovered inaccuracies. Jawson said this is in part because the accuracy assessors may be in error, rather than the original interpreters. Also, the river's conditions may have changed since data collection. Marv Hubbell noted that LTRMP can learn from any inaccuracies to improve future mapping efforts.

Monique Savage asked if the polygons will be computer or manually generated. Johnson said interpreters will classify computer-generate polygons. He said this is the most accurate approach. In response to a question from Schlagenhaft, Johnson explained that the assessment can be adjusted based on initial results.

In response to a question from Fischer, Johnson said UMESC will implement both field- and map-based validation in Pool 13 since it is the most complex pool. Field assessments are scheduled first to minimize any changes in the river system between the date of the original imagery and the time of the held assessment. The overall accuracy assessment is scheduled for three years to spread out the costs and resources required.

Bathymetry and LiDAR Update

Karen Hagerty said bathymetric data has been collected for the entire UMRS. Bathymetric data within MVS's jurisdiction will be available soon on LTRMP's website. MVR and MVP are finalizing QA/QC for the bathymetric data acquired within their respective boundaries.

Hagerty said Corps staff anticipate initiating LiDAR data acquisition for Pools 15 and below in early December, when there is leaf-off and no snow. Iowa DNR is currently doing additional processing and packaging on Tier 1 products for Pools 2-7.

A-Team Report

Janet Sternburg reported that the A-Team met by conference call on August 5. Discussion topics included updates on programmatic activities, 2010 RTC, HREP Strategic Plan, and the A-Team's *ad hoc* Indicators Work Group. The A-Team is compiling a list of the field stations' 2009 products, which will be posted on the A-Team Corner. The A-Team plans to compile these lists annually.

The A-Team is scheduled to meet in-person on December 1-2 at the new National Great Rivers Research and Education Center. Agenda topics include quantifying landscape patterns, ecological assessment of floodplain forests, LTRMP's research framework, additional indicators for future Status and Trends Reports, and program updates and agency reports.

Ad Hoc Indicators Group Update

Hagerty reported that the A-Team's *Ad Hoc* Indicators Group is completing a draft assessment report on the indicators used in the 2008 Status and Trends Report. The assessment report attempts to answer 1) whether the 2008 indicators are useful, 2) if there is potential to make improvements to any of the

indicators, and 3) whether there are possible replacement indicators. On an October 6 conference call, the Indicators Group reviewed recommendations from the fish and macroinvertebrate work groups.

Hagerty said the A-Team will review the draft report at its December 2010 meeting, with the goal of having it to the EMP-CC for its February or May meeting. Following the report's completion, Hagerty said the Indicators Group plans to set targets and benchmarks for each indicator and explore the potential use of additional indicators of ecosystem health and management.

In response to a question from Hubbell, Hagerty said good indicators are relevant, sensitive, and measurable. Fischer expressed appreciation to the A-Team for this effort. Pat Boddy said these indicators could be applicable to regulatory efforts as well. Johnson noted that any new indicators would require additional analyses, beyond this first report. He said the NESP Science Panel would like to meet with the A-Team this year, funding permitting.

Other Business

The upcoming quarterly meetings are as follows:

- **February 2011 — St. Louis**
 - UMRBA — February 15
 - **EMP-CC — February 16**
 - **Joint EMP-CC/NECC — afternoon of February 16**
 - NECC — February 17

- **May 2011 — Rock Island***
 - UMRBA — May 17
 - NECC — May 18
 - **Joint EMP-CC/NECC — afternoon of May 18 (if needed)**
 - **EMP-CC — May 19**

- **August 2011 — Quad Cities***
 - UMRBA — August 16
 - **EMP-CC — August 17**
 - **Joint EMP-CC and NECC — afternoon of August 17 (if needed)**
 - NECC — August 18

* For both the May and August quarterly series, the EMP-CC and NECC meetings may be held on a single day — i.e., May 18 and August 17. This will depend on a number of variables (e.g., potential virtual NECC meetings, need for a joint session, estimated meeting time required, etc.).

Jim Fischer asked whether EMP-CC, NECC, and UMRBA would consider hosting a future meeting in Dubuque. Barb Naramore observed that Dubuque is significantly less convenient than the Quad Cities for airline commuters and offers fewer hotel options. Mike Jawson noted that federal agencies are also beginning to implement travel restrictions.

Rick Mollahan moved and Tim Schlagenhaft seconded a motion to adjourn. The motion passed unanimously. With no further business, the meeting adjourned at 12:30 p.m.

**EMP-CC Attendance List
November 18, 2010**

EMP-CC Members

Kevin Foerster	U.S. Fish and Wildlife Service, UMR Refuge
Mike Jawson	U.S. Geological Survey, UMESC
Rick Mollahan	Illinois Department of Natural Resources
Pat Boddy	Iowa Department of Natural Resources
Tim Schlagenhaft	Minnesota Department of Natural Resources
Janet Sternburg	Missouri Department of Conservation
Jim Fischer	Wisconsin Department of Natural Resources

Others In Attendance

Jeff DeZellar	U.S. Army Corps of Engineers, MVP
Don Powell	U.S. Army Corps of Engineers, MVP
David Potter	U.S. Army Corps of Engineers, MVP
Marvin Hubbell	U.S. Army Corps of Engineers, MVR
Karen Hagerty	U.S. Army Corps of Engineers, MVR
Monique Savage	U.S. Army Corps of Engineers, MVR
Brian Markert	U.S. Army Corps of Engineers, MVS
Charlie Hanneken	U.S. Army Corps of Engineers, MVS
Donnovan Henry	U.S. Army Corps of Engineers, MVS
Kat McCain	U.S. Army Corps of Engineers, MVS
Bob Clevenstine	U.S. Fish and Wildlife Service, Refuges
Jon Duyvejonck	U.S. Fish and Wildlife Service, RIFO
Rick Frietsche	U.S. Fish and Wildlife Service, UMR Refuge
Barry Johnson	U.S. Geological Survey, UMESC
Brad Walker	Izaak Walton League
Tom Boland	MACTEC
Barb Naramore	Upper Mississippi River Basin Association
Dave Hokanson	Upper Mississippi River Basin Association
Kirsten Mickelsen	Upper Mississippi River Basin Association