

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

**February 24, 2010
Quarterly Meeting**

**Sheraton Westport Plaza Hotel
St. Louis, Missouri**

Charles Barton of the U.S. Army Corps of Engineers called the meeting to order at 8:07 a.m. on February 24, 2010. Other EMP-CC representatives present were Kevin Foerster (USFWS), Mike Jawson (USGS), Rick Mollahan (IL DNR), Bernie Hoyer (IA DNR), Tim Schlagenhaft (MN DNR), Janet Sternburg (MO DoC), Jim Fischer (WI DNR), and Bill Franz (US EPA). A complete list of attendees follows these minutes.

Minutes from the November 19, 2009 Meeting

Tim Schlagenhaft moved and Rick Mollahan seconded a motion to approve the draft minutes of the November 19, 2009 meeting as drafted. The motion carried unanimously.

Program Management

FY 10 Fiscal Update

Marv Hubbell reviewed EMP's FY 10 appropriation and allocations within the program, as follows:

- Total appropriation — \$16.47 million
 - Regional Management — \$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 are each receiving \$500,000 less than they would under the typical allocation formula in order to “repay” MVR for inter-district transfers from FY 09.

Hubbell noted that USACE staff typically provide detailed quarterly and year-end budget spreadsheets in the EMP-CC agenda packets. These spreadsheets include a breakout of obligated and expended project funds within the three districts. Hubbell asked partners to contact him (marvin.e.hubbell@usace.army.mil) with any questions.

Hubbell reported that MVD recently received notice from Corps HQ that the Assistant Secretary for Civil Works (ASA(CW)) has informally confirmed that EMP may once again initiate planning and construction on new HREPs. This determination is based on the ASA(CW)'s interpretation of the FY 10 energy and

water appropriations measure. As reported at the EMP-CC's November meeting, the Senate Appropriations Committee's report language (S.Rpt. 111-45) for the energy and water spending bill explicitly provides for the EMP to plan and construct new HREPs as long as it can complete or readily transfer those projects to NESP within two years of NESP receiving sufficient construction funding to support transition. Hubbell said program staff are still awaiting formal confirmation of this guidance.

Hubbell outlined EMP's FY 10 budget and work plan, including:

- an overall reduction in regional administration from FY 09, except for an increase in spending related to the 2010 Report to Congress (RTC) development;
- LTRMP base monitoring and three research projects;
- model certification for the Wildlife Habitat Appraisal Guide (WHAG) and the Aquatic Habitat Appraisal Guide (AHAG);
- independent external peer review (IEPR) of the HPEP component;
- support for 22 existing HREPs (10 in construction and 12 in planning, engineering, and design); and
- initiate planning on 3-4 new HREPs and construction on 2-3 HREPs.

Hubbell said EMP and NESP staff are revising the draft EMP/NESP transition plan that General Walsh submitted to Corps HQ on June 18, 2009. In response to a question from Barb Naramore, Hubbell said the draft transition plan will be distributed to partners for review shortly, once the Corps has finalized its internal review at the district level. Following partner review, MVR staff will forward the draft plan to MVD. Elizabeth Ivy said she anticipates the draft plan will move relatively quickly through MVD and HQ, given the significant advance coordination that has taken place. She said it is more difficult to estimate how quickly the ASA(CW) will act on the proposed plan.

FY 11 Budget Request

Hubbell reported that the President's FY 11 budget request for the EMP is \$21.15 million. At this funding level, the Corps anticipates EMP's FY 11 capabilities would include:

- completing construction on 2 HREPs;
- continuing construction on 5 HREPs;
- initiating construction on 2-3 HREPs;
- continuing or completing design on 9 HREPs;
- initiating planning on 3-4 HREPs; and
- supporting LTRMP's base monitoring, 3-4 research projects, and 1-3 priorities of the FY 10-14 LTRMP Strategic and Operational Plan.

In comparison, EMP's FY 11 capabilities at its authorized funding level of \$33.17 million would include:

- completing construction on 2 more HREPs,
- accelerated construction on 4 HREPs,
- initiating construction on 4 more HREPs,
- accelerated design on 6 HREPs,
- initiating planning on 3 more HREPs, and
- supporting 2-4 LTRMP research projects and 1-2 additional planning efforts.

In response to a question from Janet Sternburg, Hubbell said there is no indication that the Appropriations Committees are considering reestablishing the prohibition on EMP new starts. Barb Naramore added that partners have effectively communicated the FY 08 and 09 provisions' unintended consequences for ecosystem restoration efforts on the UMR, resulting in their reversal in the FY 10 spending bill, with the consent of those who authorized the earlier language.

EMP Regional Management Meeting

Hubbell said the Corps' EMP regional and district program managers and technical staff convened an EMP Regional Management Meeting on January 20-21, 2010. Meeting topics included project evaluations, the HREP database, an external peer review plan for EMP's HREP component, reopening completed projects, reach planning, the EMP/NESP transition plan, website improvements, the EMP's 25th anniversary, and a possible HREP workshop in 2011.

David Conrad asked about the Corps' processes for conducting project monitoring, including coordinating with project sponsors. Hubbell said there is some variation in approach among the districts, but project monitoring plans must be included in project decision documents. Hubbell further explained that MVR strives to monitor and evaluate its habitat projects on a five-year rotating basis, to ensure the projects are performing as intended. He noted that the Corps focuses primarily on physical and chemical monitoring, relying on program partners to take the lead on most biological monitoring. Conrad said WRDA 2007's monitoring provisions are intended to ensure that Congress has accurate and timely information of project performance.

Hubbell said Corps staff continue to incorporate project monitoring data and other information into the HREP database, which will be integrated into the EMP/NESP Decision Support System (DSS). Corps staff would like to standardize procedures for summarizing information concerning project features and costs from DPRs and O&M Manuals. Hubbell said he anticipates the HREP database will be shared with partners for review shortly. In response to a question from Jim Fischer, Hubbell said Corps staff will seek partner input on the products desired, the database structure, and any data gaps.

Jon Duyvejonck asked about the potential to expand or build off of existing habitat projects, noting that this might be more cost effective than developing entirely new projects in some instances. Hubbell explained that any major change or addition to an existing project would likely require a new fact sheet. However, he said he would be willing to explore policies related to this question further if Duyvejonck had a specific proposal in mind.

In response to a request by Tim Schlagenhaft, Hubbell said he will distribute a summary of the EMP Regional Management Meeting to program partners.

Public Involvement

Schlagenhaft announced that there was an open house for the Mississippi Makeover Project on January 28, 2010. He noted that this effort has utilized LTRMP data extensively in setting restoration targets. More information can be found at http://dakotaswcd.org/wshd_missmak.html.

Mike Jawson reported that UMESC will revamp LTRMP's web site in the near future. LTRMP will continue to have a link on the homepage. Jawson said partners can contact Jennie Sauer (jsauer@usgs.gov) with any suggestions or questions.

Jim Fischer said Wisconsin DNR is using LTRMP data to propose total suspended sediment (TSS) and vegetation targets for the Lake Pepin TMDL. He also applauded USGS staff's work on the fact sheet for the FY 10-14 LTRMP Strategic Plan.

Gretchen Benjamin said The Nature Conservancy produced a virtual 13-day journey along the entire Mississippi River that is available at <http://nature.org/wherewework/greatrivers/explore/?src=exvid>.

2010 Report to Congress

Process and Timeline

Marv Hubbell reported that a contract for services related to the 2010 Report to Congress (RTC) has not yet been finalized. However, he anticipates a contract will be awarded within the next couple of weeks. Hubbell said it will not be possible to meet the previously announced report schedule because of the significant delays in contracting, but schedule revisions have not yet been determined. Adjustments will likely include the use of partner conference calls to facilitate progress between EMP-CC meetings.

In response to a question from Jim Fischer, Hubbell said Corps staff are still committed to meeting the December 2010 submission deadline. He said a key factor will be getting the contract awarded. Fischer asked what services will be included in the contract. Hubbell explained that the contractor will be responsible for editing, graphics, and printing, as well as writing portions of the RTC. In response to a question from Janet Sternburg, Hubbell said he anticipates convening conference calls to facilitate progress between EMP-CC quarterly meetings, in particular to discuss the report's approach to implementation issues and recommendations. Schlagenhaft asked how the Corps intends to solicit and reflect partner input on the various implementation issues, given the lack of time. He noted the importance of utilizing the RTC to document desired changes to EMP's authorization. Hubbell agreed, emphasizing that the report is a valuable communication tool for multiple audiences, including Congress, the Administration, partners, internal Corps staff, and the public. Hubbell said partners can discuss these issues via conference calls. [Note: Subsequent to the meeting, USACE staff outlined a modified RTC approach, under which a condensed report focused strictly on meeting the statutory reporting requirements is completed by December 2010 and a separate implementation assessment document allows partners to more fully address policy issues and other considerations that do not require Congressional attention.]

Issue Paper: Expanding Opportunities for Innovative HREPs

Sternburg and Gretchen Benjamin presented an issue paper regarding the potential to expand opportunities for innovative HREPs under EMP, including side channel enhancement and pool-scale water level management. Sternburg noted that the EMP-CC has certainly discussed the concepts in this issue paper previously, but said the draft issue paper takes a different spin, and has not yet been reviewed by the RTC Team. She asked partners to send her (janet.sternburg@mdc.mo.gov) and Benjamin (gbenjamin@tnc.org) comments on the issue paper by the end of March.

Sternburg explained that Corps policy regarding the cost-share provisions provided in Sections 906(e) of WRDA 1986 limit EMP's capability to implement HREPs in the middle Mississippi River, mostly because a majority of the floodplain is privately-owned. She suggested that the 2010 RTC include a recommendation to the Administration that it allow 100 percent federal funding for HREPs under all three criteria listed under Section 906(e) — i.e., projects that have a national benefit (including treaty species), are intended to benefit threatened and endangered species, or are on lands managed as a national wildlife refuge. In addition, Sternburg suggested including 100 percent federal cost share for projects located within the Ordinary High Water Mark (OHWM) in EMP's authorization.

Benjamin said the EMP has not yet employed water level management (WLM) on a pool scale, and suggested that partners consider WLM in selecting future projects. Benjamin acknowledged the many other priorities for HREP funding, and suggested that increasing EMP's annual appropriations could be a way to accommodate these competing restoration needs. Sternburg also noted that the issue paper includes a recommendation that the Corps policy requiring a 50-year design life for HREPs be reconsidered, in order to expand EMP's restoration options.

Hubbell noted that WRDA 2007 may have unrealized implications for EMP and the types of projects it can implement. Elizabeth Ivy said, in the absence of specific guidance, new restoration approaches under EMP can be explored on an individual project basis via fact sheets, similar to the current L&D 3 fish passage project proposal. Sternburg recalled that EMP had forwarded a side channel restoration project to MVD in 2007, and in response, MVD staff told partners to instead forward the project under NESP. She asked if MVD is now willing to consider such projects under EMP. Hubbell observed that EMP's political and funding climate has been considerably changed since 2007. He specifically noted that several WRDA 2007 provisions could potentially expand EMP's capabilities, such as NGOs' ability to serve as non-federal sponsors, and some assumptions about the EMP's capabilities and limitations may need to be revisited. Tim Schlagenhaft urged partners to include recommendations in the 2010 RTC to align EMP's authorization more closely with NESP, in an effort to facilitate a possible future EMP/NESP transition. He called in particular for clarification of floodplain restoration opportunities under EMP.

In response to a question from Barb Naramore, Roger Perk said partners can explore the EMP's 50-year project life span requirement through a specific HREP proposal. Perk explained that the design life requirement is an established part of Corps policy, but that there may be flexibility on this for some types of restoration projects. He added that the revised Principles and Standards may lead to further change policy regarding design life. Tim Schlagenhaft suggested that the districts' operating plans may be a way of addressing design life concerns for certain types of restoration techniques that could be incorporated into operating plans, rather than cast as stand alone projects. David Conrad urged partners to address EMP's policy limitations, such as the 50-year project life span requirement, by commenting on the draft Principles and Standards.

Jim Fischer asked if a decision to implement a new ecosystem restoration tool via the fact sheet process would essentially create a policy for similar future projects. Perk explained that once policies are determined via fact sheet approval, they will be applicable to subsequent EMP habitat projects.

Charles Barton stressed the distinction between questions of authority versus questions of policy. Congress, of course, is the forum for pursuing authorization changes, said Barton. On questions of policy, he emphasized MVD's willingness to work with partners to seek necessary clarifications and sound changes. He reiterated Ivy's earlier statement that project fact sheet submissions are the best mechanisms for exploring policy questions. He added that asking for policy changes in the abstract, absent a specific project proposal, rarely results in the desired outcome, explaining that the context and facts of specific projects are what enable decision makers to understand the implications of their policy decisions. Barton said Corps HQ makes most policy determinations of the type relevant to EMP, adding that ASA(CW)-level review is not typically required.

Sternburg urged partners to move forward with addressing EMP policy issues, to expand EMP's restoration toolkit. Barton encouraged partners to take a progressive approach in working with EMP, noting that it is a fully functional restoration program with great potential.

Schlagenhaft asked if EMP policy issues could also be explored through the 2010 RTC, rather than through a project proposal. Barton said that the Corps cannot lobby Congress, and thus is limited in how it can address policy issues in the RTC. Naramore noted that past RTCs have discussed partner

perspectives regarding policy questions, but have been careful to distinguish those from the Corps' report recommendations. Schlagenhaft observed that MVP's Fish and Wildlife Work Group (FWWG) developed fact sheets for innovative floodplain restoration and water level management projects 5-6 years ago, but did not ultimately submit them for approval. He suggested that the FWWG partners revisit those fact sheets and consider forwarding them for approval, given MVD's stated willingness to explore policy issues. Perk recalled that the FWWG previously sidelined those projects in favor of higher priority HREPs. He said partners would need to consider first whether those projects are now a top priority.

Hubbell said the RTC Team and partners will need to reexamine the list of issues to address in the 2010 RTC, in light of today's conversation about exploring policy questions through project proposals. He also echoed Perk's observation about the role of partner priorities, not just authority and policy, in determining what project move forward. Schlagenhaft urged partners to work quickly to develop/refresh the fact sheets needed to explore the changes of primary interest.

In response to a question from Gary Meden, Barton said 100 percent federal funding for projects below the OHWM is explicit in NESP's authorization, but has not been part of EMP. Given the NESP authority, Barton said it might be possible to successfully request a policy change extending this same authority to EMP. Such a policy determination would have to be made at the ASA(CW)'s level. Meden added that appropriations bills could offer a vehicle for addressing authorization issues if WRDA remains stalled. Hubbell advised partners to coordinate carefully regarding the question of extending 100 percent federal funding to projects below the OHWM, noting that there may be unwanted ramifications.

Habitat Rehabilitation and Enhancement Projects

New Planning Starts

Marv Hubbell observed that the System Ecological Team (SET) and reach planning processes are very similar, and thus the SET-endorsed projects can be readily integrated into the reach planning project identification and selection process. Hubbell said he anticipates that EMP staff will submit up to 19 HREP fact sheets to MVD for review by mid May. These will come from the 15 SET-endorsed projects; 2-3 projects recommended by the Illinois River Technical Work Group; and 3-4 projects identified through the reach planning process, if available. In collaboration with partners, Corps staff will ensure that projects submitted to MVD align with the floodplain reach objectives. Hubbell reported that a fact sheet for Pool 24 Islands has already been forwarded to MVD for approval, and the remaining fact sheets will be submitted individually or in small groups as they are ready.

Chuck Theiling said the reach planning teams are currently identifying priority subareas to target for project selection. On February 5, 2010, the Regional Support Team distributed a draft UMRS Ecosystem Restoration Objectives 2010 planning document, which can be found at <http://umesc-gisdb03.er.usgs.gov/umr/dss.aspx#>, under the documents tab. Theiling said Corps staff will integrate the four floodplain reach objectives reports into the current draft system report by April, and distribute a revised draft to partners for consideration at the May 19, 2010 EMP-CC/NECC joint session.

Hubbell reviewed the SET-endorsed projects within each district, as listed below. He encouraged the district-based teams to update their previous prioritization of these projects if it no longer represents their current priorities.

- MVP: Bass Ponds, Marsh, and Wetland; North Sturgeon Lakes; Clear Lake, Weaver Bottoms; McGregor Lake; and Lower Pool 10 Islands and Backwater Complex

- MVR: Turkey River Bottoms Delta and Backwater Complex, Snyder Slough Backwater Complex, Steamboat Island, Boston Bay, Keithsburg Division, and Delair Division.
- MVS: Pool 24 Islands, Rip Rap Landing, Clarence Cannon National Wildlife Refuge, West Alton Tract Enhancement, Harlow Island, and Salt Lake/Fort Chartres Side Channels.

Tim Schlagenhaft agreed that the teams should reconsider the relative priorities among these projects, particularly in light of the pool planning and objective setting work that the teams have done since the projects were originally recommended to the SET. Hubbell said if the reach planning process is not yet completed, he will ask a reconstituted SET to consider project priorities at the system scale. Janet Sternburg expressed support for this approach.

Theiling stressed the value of a structured decision making framework in supporting priority setting, noting that the SET explored such a mechanism in its work. He suggested a workshop might be helpful to inform decision makers of the available information. Schlagenhaft added that a workshop could provide a forum for partners to discuss priorities among systemic and reach goals and to determine their project priorities.

External Peer Review of HREP Component

Hubbell said the Corps' regarding independent external peer review (IEPR) policy, WRDA 2007's Sec. 2034 and 2035, establishes a comprehensive life-cycle review strategy for the Corps' civil works projects. There are four mandatory and one discretionary triggers for IEPR. The EMP HREP component exceeds the \$45 million total cost trigger, and is thus subject to a program-level IEPR. Hubbell said EMP staff have taken initial steps, including naming a lead for the IEPR. Hubbell said he will continue to inform partners as progress continues.

L&D 3 Fish Passage

Jeff DeZellar reported that, on February 8, 2010, the River Resources Forum (RRF) unanimously endorsed MVP's proposal to reallocate \$348,000 of EMP stimulus funding to develop a Definite Project Report (DPR) for L&D 3 fish passage. He noted that MVD would have otherwise rescinded the \$348,000 of stimulus funding for MVP's EMP project planning because the district did not have the capacity to execute the HREP planning in a timely way. DeZellar said Wisconsin and several NGOs have long advocated for fish passage at L&D 3. He added that MVP also strongly supports L&D 3 fish passage, but has not previously had a way to initiate project planning.

DeZellar said MVP convened a January 14, 2010 meeting with interested stakeholders to discuss options for fish passage at L&D 3, and participants identified the EMP stimulus funds as the most promising alternative to initiate project planning. DeZellar explained that, once the \$348,000 of stimulus funds are expended, the Corps will consult with program partners before deciding whether to devote any further EMP funds to planning, design, or construction of the L&D 3 project. DeZellar reported that MVD approved the L&D 3 fish passage fact sheet last week, allowing MVP to proceed only with project planning. MVP staff anticipate the DPR will be completed in 6-9 months.

In response to questions from Don Arnosti, Terry Birkenstock explained that the L&D 3 navigation safety and embankment project is scheduled for completion in 2011, by which time the fish passage planning and design will not likely be finalized. Thus, fish passage cannot be integrated into the navigation safety and embankment project. Birkenstock said there will be some inefficiency with this approach, but noted that the lower embankment has been designed to accommodate future fish passage.

Tim Schlagenhaft expressed concern that the Corps did not consult the EMP-CC in its decision to pursue L&D 3 fish passage as an EMP planning project, nor did partners identify the project as a

planning priority. He observed that EMP has a long-standing history of selecting habitat projects through partnership coordination mechanisms, and requested assurance that this will not set precedent for future project approval processes. Schlagenhaft also expressed concern that initiating planning for L&D 3 fish passage under EMP may have future implications for the program, particularly in terms of expectations that the EMP will support further investments in the project. DeZellar acknowledged that this project did not follow EMP's typical selection and approval processes, and stressed that this project will not set a precedent for future EMP projects. Birkenstock emphasized that MVP highly values the EMP partner process that it has been part of building over the years. He said only the unique circumstances of this case led the Corps to employ a streamlined approval process. Hubbell recalled that Batchtown and Swan Lake upland treatment elements were also subject deviations from standard practice, and assured that EMP will continue to operate with full regard to input from the partnership.

Gretchen Benjamin said, at the January 14 stakeholder meeting, she had understood that EMP would not fund construction, but that EMP was the only source readily available to initiate planning. Benjamin noted that the L&D 3 navigation safety and embankment contract came in \$20 million below budget and asked whether these funds could be used to construct fish passage. DeZellar said MVP cannot use those funds on fish passage because the project does not have an approved decision document. In addition, MVP anticipates that some or all of those funds will be needed for additional mitigation, contract modifications, and real estate costs associated with the navigation safety project.

Bernie Hoyer said some of the \$348,000 stimulus funds was originally allocated to planning for two projects in Iowa. He expressed his hope that EMP will use regular appropriations to initiate planning of these two projects shortly.

Jim Fischer said L&D 3 fish passage is a high priority for Wisconsin. He recognized that the Corps and partners were in a difficult situation when they decided to move forward with the project under EMP, but said this approach is a good solution, given the circumstances. Charles Barton said Schlagenhaft's concerns regarding EMP's partnership approach are shared internally within the Corps. He emphasized that this project will not set a precedent, but rather is an exception to the rule for EMP.

Barb Naramore asked about future implications for EMP in terms of requests for additional funding to support planning, design, or construction. Birkenstock said Corps staff anticipate receiving contract bids within two weeks, after which Corps staff can more accurately estimate funding needs. Barton said, if needed, MVP can request additional stimulus funds to complete planning. Elizabeth Ivy noted that the L&D 3 fish passage PED could also be reduced in scope to meet the current funds available.

Project Evaluation Reports

DeZellar said, because of staff demands and competing priorities, MVP has been slow to respond to partner requests for project evaluation reports (PERs). He said MVP increased its resources to complete the eight pending PERs last fall. DeZellar said MVP staff have completed a draft PER for Guttenburg, which MVP hopes to finalize this summer, as well as three other PERs. District staff will also strive to complete four more PERs by the end of FY 10.

Hubbell said, at the January EMP Regional Management Meeting, Corps staff discussed the need to establish a common approach to project monitoring and evaluation among the three districts. They suggested that this issue be addressed in an HREP Strategic Plan.

HREP Showcase: Batchtown

Brian Markert showcased the construction, features, and operation of the Batchtown HREP, which is located on the Illinois side immediately upstream of L&D 25. The project area is approximately 3,300

acres. Project partners include USFWS, Illinois DNR, and NRCS. Markert observed that NRCS is becoming a more regular partner in MVS's EMP projects. Batchtown's primary goal is to reduce sedimentation and thereby enhancing habitat diversity.

Markert explained that Batchtown construction involves four phases, with Phases I and II complete and Phases III and IV ongoing. The project's features include dredging; construction of lowland sediment traps, water control structures, sediment deflection berms, a floating pump station, and chevrons; and reforestation of bottomland hardwood forest. Frequent flooding has been a major challenge to construction. Markert illustrated the features and operation of the water control structures and chevrons. He noted that floating pump station affords considerable operational flexibility.

In response to a question from Barb Naramore, Markert explained that the Batchtown stop logs are made from aluminum and include hydraulic-assisted lifting, and thus are much easier to operate than the older chain-operated timber stop logs. In addition, the width of the stop log structure permits recreation access when the logs are not in place. In response to a question from Dan McGuiness, Markert said decreasing sedimentation and being able to manage water levels, independent of the Mississippi River, will increase habitat diversity for a range of species, including mussels. Markert noted that the Corps will analyze its pre- and post-project monitoring data to determine actual benefits to mussels from the Batchtown HREP. He referred partners to the project's monitoring plan for more detailed information of expected project benefits.

In response to questions from David Conrad, Markert explained that several high water events have delayed construction, but there has been little structural damage. He noted that Batchtown could experience similar delays this spring, depending on water levels. Markert said the water control gates can be used to minimize flood damage and increase water levels throughout the project site, as needed. In response to a question from Barry Johnson, Markert said Batchtown water level management will strive to enhance vegetation growth and habitat diversity by restoring the natural hydrograph, rather than maintaining a specific water level.

Model Certification

Hubbell reported that USACE must certify the models it uses in plan formulation. He explained that EMP and NESP are sharing the responsibility and cost for certifying two models both programs use in planning restoration projects – i.e., the Wildlife Habitat Appraisal Guide (WHAG) and the Aquatic Habitat Appraisal Guide (AHAG). In preparation, Hubbell said MVR staff anticipate awarding contracts shortly that will support the certification process. The AHAG model may be revised soon, in which case those changes will need to be included in the certification.

District Reports

Hubbell introduced Steve Rumble, MVR's new HREP coordinator. Hubbell then reported that MVR plans to complete design and initiate construction on Rice Lake and Fox Island this year. With these projects, and continued work on Lake Odessa Stage IB and IIB, MVR anticipates a very busy FY 10 construction season. Hubbell said USFWS and USACE are currently developing the FY 10 SOW for the Service's HREP support.

Jeff DeZellar said MVP plans to complete construction of Pool 8 Islands Phase III Stage 3A in FY 11, and initiate construction of Stage 3B this year. DeZellar said MVP will distribute a preliminary draft DPR for Capoli Slough to partners for review in April, with construction expected to begin in FY 11. The District hopes to complete a draft DPR for Harper's Slough and initiate planning on Conway Lake this fiscal year. DeZellar said the River Resources Forum has endorsed fact sheets for Lake Winneshiek and McGregor Lake, both of which MVP plans to forward to MVD for approval before May. MVP also anticipates distributing

draft O&M manuals for Spring Lake and Long Meadow to partners for review by September. MVP's funding agreement with the Service for HREP support will be at \$110,000, the same level as FY 09.

Brian Markert said MVS continues planning on Rip Rap Landing, Wilkinson Island, and Ted Shanks. He said the District will initiate construction of Pools 25 and 26 and the Swan Lake pump station modification this year, and continue construction of Calhoun Point and the Batchtown pump station, chevrons, water control structure, and reforestation. Markert said MVS and USFWS staff are working on a draft FY 10 SOW. He anticipates that a completion report for Swan Lake will be finalized shortly.

HREP Strategic Plan

Marv Hubbell recapped a January 29, 2010 conference call, on which a group of EMP-CC members and other program partners discussed the possibility of developing an HREP Strategic Plan. Discussion focused on the Plan's potential objectives, end product, process, and timeframe. He reported that call participants agreed to recommend the development of an HREP Strategic Plan.

Jim Fischer observed that the LTRMP Strategic Plan has been very valuable, and said he fully anticipates that an HREP Strategic Plan would be similarly useful. Fischer moved and Schlagenhaft seconded a motion to endorse the HREP Strategic Plan proposal as provided in the agenda packet. The motion was approved unanimously. Hubbell said the Corps, with partner input, will develop a detailed scope of work for the EMP-CC's consideration at its August 5, 2010 meeting.

Long Term Resource Monitoring

LTRMP Showcase: Land Cover/Land Use in 2010

Larry Robinson presented the 2010 Land Cover/Land Use (LC/LU) project, which is a continuation of the 1989 and 2000 systemic vegetation monitoring efforts. A comparison of these systemic LC/LU data sets can illustrate vegetation responses to various natural events (e.g. floods) and management actions (e.g. drawdowns), at systemic and site-specific levels.

Robinson said the USFWS and the Corps partnered in FY 09 to purchase a digital camera that will greatly enhance data acquisition, processing, and serving. He listed several advantages of the digital camera, including:

- greater light sensitivity, allowing for data collection in a wider range of conditions;
- GPS and inertial measurement units record precise position information at exposure, creating location-referenced imagery in a largely automated process;
- no film to purchase, store, expose, process, scan, print, or archive;
- external hard drives provide an almost limitless image capacity;
- immediately display captured images, so quality is assured during data collection;
- images are GIS-ready, and thus can be shared within days, instead of weeks or months;
- can collect imagery in 3-band natural color, color infrared, or in a 4-band (red, green, blue, near infrared) combination; and
- light-weight and easy to operate.

Robinson said USGS will develop the 2010 photography from color infrared (CIR) images, consistent with the 1989 and 2000 photography. The images will be collected at approximately 8 inches per pixel (1.2 acre mapping unit) in Pools 1-14, and at approximately 16 inches per pixel (2.5 acres mapping unit) for the remaining Upper Mississippi and Illinois River reaches.

Robinson reported that the 2010 LC/LU will use the same 31-class vegetation classification system that was used in 2000. Detailed information on the classification system can be found at <http://pubs.usgs.gov/tm/2005/tm2A1/>. He noted that the same staff who classified the 2000 data will be interpreting the 2010 images, further enhancing consistency. Robinson said the 31-class classification system crosswalks with the National Vegetation Classification Standard (NVCS) and the National Land Cover Database classification. In response to a question from Roger Perk, Robinson said software is now available to identify areas of change, and said this has been applied to the 1989 and 2000 LC/LU data. Robinson said comparisons of the 2000 and 2010 data will likely be more informative because of the consistent classification system used.

Robinson explained that assessing the accuracy of the LC/LU data could range greatly in terms of cost and associated confidence. He noted that the UMRS's dynamic conditions further complicate accuracy assessment efforts and put a premium on completing the assessment as soon as possible. Although USGS will test the data through its typical quality assurance/quality control (QA/QC) procedures, small scale assessments would lend valuable insights on the data's associated confidence, necessary for data analysis. Robinson outlined two possible approaches: 1) throughout at least two representative pools per resolution, a vegetation specialist reviews random points in each vegetation classification present; and 2) trend pool specialists train and deploy staff to assess vegetation types on-the-ground at predetermined locations in each pool, using standardized assessment protocols, based on each pool's relative vegetation complexity. He noted that upper reaches have higher vegetation complexity and thus will require more resources to assess. Robinson suggested that partners consider the level of information desired, given the relative expense and logistics. Chuck Theiling cautioned that small vegetation patches may not be captured in the lower reaches, at the proposed minimum mapping units. Robinson said certain areas could be analyzed at a finer scale to detect small vegetation patches, although that would result in higher associated costs.

Barb Naramore asked whether it would be feasible to compare the insight gained as associated costs of the accuracy assessment for a small test area. Robinson said this certainly could be done. Marv Hubbell emphasized the importance of an accuracy assessment to determine the 2010 LC/LU data set's level of confidence, especially when making claims regarding a habitat project's benefits. He requested input from EMP-CC members on the desired level of confidence, given relative cost considerations.

Karen Hagerty noted the challenge of comparing field assessments with the LC/LU imagery, if assessed in a different year, due to possible annual variations. Robinson said ground truthing was employed prior to data collection for the 1989 and 2000 data sets to confirm the appearance of different vegetation classes, but there was no subsequent accuracy assessment. In response to a question from Theiling, Robinson said USGS staff will explore options for possibly automating classification of large vegetation patches.

In response to a question from Scott Whitney, Robinson said hyperspectral imaging is very expensive, and there would be issues with ownership rights to the data when utilizing the software. Bernie Hoyer asked if LiDAR and LC/LU data could be combined to enhance the photo interpretation. Robinson said both LiDAR and digital elevation model (DEM) data will be very helpful in identifying elevation shifts for the interpreters. He said Feature Analyst can also make use of elevation data in doing automated classifications. Jim Fischer noted that there are some known issues associated with "training" Feature Analyst. Robinson said Feature Analyst does not work well in areas of greatest complexity, and glare from water can also be problematic.

Hubbell reported that the current \$1.2 million allocated for the 2010 LC/LU does not include funding for an accuracy assessment. He requested that the EMP-CC consider what level of investment in accuracy assessment is appropriate. He noted that the level of accuracy needed may depend on the type of products partners intend to use. In response to a request from Tim Schlagenhaft, Robinson agreed to outline a range of accuracy assessment options and associated costs for the EMP-CC's consideration at its May meeting.

Product Highlights

Mike Jawson outlined the LTRMP's FY 10 first quarter product highlights, as follows:

- Six manuscripts, the first three were published in *Hydrobiologia*, which featured the UMR: 1) Nitrogen and phosphorus in the Upper Mississippi River: transport, processing, and effects on the river ecosystem; 2) Challenges in merging fisheries research and management: the Upper Mississippi River experience; 3) Synthesis of Upper Mississippi River System submerged and emergent aquatic vegetation: past, present, and future; 4) Patterns of forest succession and impacts of flood in the Upper Mississippi River floodplain ecosystem; 5) A spatial simulation model for forest succession in the Upper Mississippi River floodplain; and 6) Evaluation of single- and two-stage adaptive sampling designs for estimation of density and abundance of freshwater mussels in a large river.
- Updates to the aquatic vegetation and fish graphical browsers; and addition of sampling allocations, total catches, and hydrographs data sets to the fish graphical browser.
- One completion report: Exploratory analysis of three fish assemblage sampling programs on the Upper Mississippi River: Are they telling us the same thing?
- Various outreach activities, including 1) contributing to TNC's virtual tour of the Mississippi River, 2) continued information sharing with Chinese scientists, and 3) presenting LTRMP's data and products to two local organizations.

FY 10 Scope of Work

Jawson reported that LTRMP's FY 10 Scope of Work includes base monitoring and three research projects regarding 1) the factors influencing metaphyton abundance and distribution; 2) the relationships between landscape patterns and resource condition; and 3) the effects of current velocity, depth, nutrient concentration, and water clarity on phytoplankton. The first two are continuing research projects. Ninety-three percent of the FY 10 budget is going to support the base monitoring program. He said the A-Team has commented on draft 5-year focused research plans for mussels and aquatic vegetation. LTRMP staff are drafting a 5-year research plan regarding landscape patterns in the river corridor, and will initiate a river/floodplain connectivity research plan as time allows. The A-Team is continuing its efforts to assess and refine indicators used in the LTRMP's Status and Trends Report.

Janet Sternburg asked if NRCS is using LTRMP data in its Mississippi River Basin Initiative. Bill Franz and Jawson said the effort is utilizing SPARROW and tributary data, but is not using LTRMP data extensively. Jawson said NRCS might use LTRMP data for ground truthing.

LiDAR and Bathymetry Update

Karen Hagerty reported that EMP received \$2.5 million in stimulus funding to complete LiDAR and bathymetry data acquisition. In addition, EMP has received \$400,000, and requested \$334,000 more, in stimulus funds to complete data processing and serving. Hagerty said Corps staff anticipate completing acquisition of all LiDAR and bathymetry data by the end of FY 10, contingent on favorable weather and

water levels. With the integration of LiDAR, bathymetry, and the 2010 LC/LU data, the Corps will work with USGS to create a bluff-to-bluff, seamless digital elevation layer. Corps staff plan to allocate 2-3 TB of server space per district to provide project planners with ready access to the data.

In response to a question from Janet Sternburg, Hagerty said USACE and USGS are currently determining whether/how the data can be made available via ArcGIS. She added that partners can contact the Corps or USGS to request specific product types.

A-Team Report

Jim Fischer reported that the A-Team met via conference call on February 11, 2010. Discussion topics included an update from the *ad hoc* group focused on the A-Team's future function and composition and the draft mussels research plan. The A-Team is considering a process for compiling LTRMP Field Station accomplishments since the 2004 accomplishments report, as well as a mechanism to consistently gather and report such information. Fischer said the next A-Team meeting is scheduled for April 21, 2010.

Hagerty reported that the A-Team's *ad hoc* indicators group is drafting a purpose statement for its efforts that it will submit to the A-Team for review in April, with a subsequent request for EMP-CC review anticipated in May.

Other Business

Barb Naramore reported that the UMRBA Board reviewed various meeting schedule and mechanism options and concluded that UMRBA will continue meeting on an in-person, quarterly basis for now. According to Naramore, the UMRBA Board appreciates the close coordination over the years between EMP and NESP. She stressed that the Association will endeavor to maintain this collaboration regardless of any meeting adjustments EMP-CC and/or NECC may elect to make. In weighing the merits of various meeting alternatives, Naramore explained that the UMRBA Board concluded that quarterly, in-person meetings are key to the Association's timeliness, effectiveness, and transparency.

Tim Schlagenhaft suggested that EMP-CC members consider having one web-based meeting per year after gaining insights from the NECC's August quarterly meeting. Janet Sternburg observed that there is frequently repetition across the UMRBA, EMP-CC, and NECC meetings. Naramore acknowledged this, but stressed that some topical repetition is necessary because the groups may need to deal with the same issue, but in different ways. For instance, UMRBA needs to decide what the states' position will be on Inland Waterway Trust Fund (IWTF) issues in light of their implications for NESP and other regional projects and programs, while NECC needs to consider the implications of IWTF-related funding delays for NESP implementation. Naramore also observed that some people do not attend all three meetings, so presenters invariably need to repeat information to ensure participants have a common basis of understanding.

Marv Hubbell observed that today's discussion was very valuable to EMP, and would likely not have occurred on a web-based meeting. He stressed the importance of face-to-face meetings to the partnership, including the opportunity for additional conversations. Mike Jawson agreed, and said web-based meetings are more conducive to shorter, single topic meetings. However, Jawson said he is not convinced EMP-CC needs to meet four times per year.

The upcoming quarterly meetings are as follows:

- **May 2010 — St. Paul**
 - UMRBA — May 18
 - NECC — May 19
 - **Joint EMP-CC and NECC — afternoon of May 19**
 - **EMP-CC — May 20**

- **August 2010 — La Crosse**
 - UMRBA — August 3
 - **EMP-CC — August 4**
 - NECC — August 10 (Web-based)

- **November 2010 — Quad Cities**
 - UMRBA — November 16
 - NECC — November 17
 - **Joint EMP-CC/NECC — afternoon of November 17 (if needed)**
 - **EMP-CC — November 18**

With no further business, the meeting was adjourned at 3:06 p.m.

**EMP-CC Attendance List
February 24, 2010**

EMP-CC Members

Charles Barton	U.S. Army Corps of Engineers, MVD
Kevin Foerster	U.S. Fish and Wildlife Service, UMR Refuge
Mike Jawson	U.S. Geological Survey, UMESC
Rick Mollahan	Illinois Department of Natural Resources
Bernie Hoyer	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
Bill Franz	U.S. Environmental Protection Agency, Region 5

Others In Attendance

Elizabeth Ivy	U.S. Army Corps of Engineers, MVD
Terry Birkenstock	U.S. Army Corps of Engineers, MVP
Jeff DeZellar	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
Steve Ruple	U.S. Army Corps of Engineers, MVR
Chuck Spitzack	U.S. Army Corps of Engineers, MVR
Ken Barr	U.S. Army Corps of Engineers, MVR
Dorie Bollman	U.S. Army Corps of Engineers, MVR
Chuck Theiling	U.S. Army Corps of Engineers, MVR
Scott Whitney	U.S. Army Corps of Engineers, MVR
Leo Keller	U.S. Army Corps of Engineers, MVR
Brian Markert	U.S. Army Corps of Engineers, MVS
Ron Dieckmann	U.S. Army Corps of Engineers, MVS
Amanda Oliver	U.S. Army Corps of Engineers, MVS
Jon Duyvejonck	U.S. Fish and Wildlife Service, RIFO
Jason Wilson	U.S. Fish and Wildlife Service, Great Rivers NWR
Scott Yess	U.S. Fish and Wildlife Service, UMRCC
Barry Johnson	U.S. Geological Survey, UMESC
Larry Robinson	U.S. Geological Survey, UMESC
Robert Stout	Missouri Department of Natural Resources
Don Arnosti	Audubon
Kevin Pierson	Audubon
Dan McGuiness	Dan McGuiness and Associates
Gary Loss	HNTB
Brad Walker	Izaak Walton League
Tom Boland	MACTEC
David Conrad	National Wildlife Federation
Mark Gorman	Northeast-Midwest Institute
Vince Shay	The Nature Conservancy
Gretchen Benjamin	The Nature Conservancy
Barb Naramore	Upper Mississippi River Basin Association
Dave Hokanson	Upper Mississippi River Basin Association
Kirsten Mickelsen	Upper Mississippi River Basin Association