

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

**February 22, 2007
Quarterly Meeting**

**Sheraton Westport Lakeside Chalet
St. Louis, Missouri**

Terry Smith of the U.S. Army Corps of Engineers called the meeting to order at 8:00 a.m. on February 22, 2007. Other EMP-CC representatives present were Don Hultman (USFWS), Mike Jawson (USGS), Rick Mollahan (IL DNR), Martin Konrad (IA DNR), Rebecca Wooden (MN DNR), Janet Sternburg (MO DOC), Gretchen Benjamin (WI DNR), and Al Fenedick (USEPA). A list of attendees follows these minutes.

Minutes from the November 16, 2006 Meeting

Martin Konrad moved and Janet Sternburg seconded a motion to approve the draft minutes of the November 16, 2006 meeting as written. The motion carried unanimously.

Program Management

FY 07 Update

Marv Hubbell reported that both houses of Congress recently passed a joint resolution funding the Corps of Engineers and most other domestic agencies through the end of FY 07. The measure lacks the usual specificity of the annual appropriations bills. According to Hubbell, the resolution identified the amounts for the Corps' major accounts (i.e., construction, O&M, etc.), leaving it to the Administration to allocate within the major accounts to individual projects and programs, such as the EMP. Those allocations have not yet been determined, but are expected shortly. The joint resolution does not include any savings and slippage reduction, nor does it prohibit new starts, as the FY 06 appropriations measure did. Hubbell said the Corps will continue to award only fully funded contracts and allow funds to be carried forward into the next year. Adherence to a project or program's obligation and expenditure plan will again be a major factor in measuring fiscal performance.

Assuming there is no FY 07 rescission, Hubbell said the EMP is expected to receive funding of \$21.911 million. [Note: the actual allocation was subsequently set at \$21.894 million after this meeting.] This would be an increase of \$2.111 million in funds available to the program relative to FY 06. Hubbell explained that, of this \$2.111 million, \$1.911 million is the amount identified by MVR and MVD in a recent "plus-up" exercise. This plus-up amount would be directed entirely to the HREP component. However, Hubbell went on to explain that the LTRMP would still receive approximately \$900,000 more than in FY 06 because 1) last year's transfer of funds from LTRMP to HREPs will not be repeated and 2) the absence of an FY 07 rescission.

Assuming a \$21.911 million allocation, no rescission, and administrative costs of \$560,000, Hubbell said the base amount to be allocated between HREP and LTRMP would be \$19.44 million. In summary,

under this scenario, the planned allocation within the EMP would be as follows:

TOTAL FY 06 Program	\$21,911
S&S Amount	0%
Recision	0%
ADMINISTRATIVE COSTS	560
Regional Management (includes LTRMP Admin)	325
Independent Technical Review Comm./SET	75
Public Involvement	35
Program Initiatives (i.e. HREP/LTRMP, Database)	125
SUB (TOT – ADMIN)	21,351
LTRMP 31.4% (of \$19,440)	6,104
HREP 68.6% (of \$19,440 & \$1,911)	15,247
St. Paul District	6,000
Rock Island District	5,336
St. Louis District	3,911
(amounts in thousands of dollars)	

According to Hubbell, the majority of the plus-up amount would go to MVP, though all three districts would have at least one project going to construction in FY 07.

President's FY 08 Budget Request

Hubbell reported that the EMP is once again identified as a national priority construction project in the President's FY 08 budget request. He explained that the Office of Management and Budget determines the Administration's national priority projects and does not release the criteria whereby those priorities are determined. However, the Corps' own criteria for identifying projects of national significance include:

- National scarcity of the resource
- Habitat connectivity
- Special species (federal and state threatened and endangered)
- Restoration cost/acre (\$1,100-\$6,000)
- Self-sustainability
- Acres of habitat restored
- Relationship to other planning efforts (watershed, basin, etc.)

The President's FY 08 budget proposal includes \$23.46 million for the EMP. The EMP's expressed capability for FY 08 is \$33.52 million, which is the program's full authorized funding level. Hubbell observed that the President's request is down from last year's request of \$26.8 million, but still well above the \$20 million appropriation level that has been typical in recent years.

Potential Management Changes under P-2

Hubbell explained that recent Corps-wide changes in accounting and project management systems may have unintended consequences for the EMP. Specifically, under the new system, MVR would no longer receive outside contracting credits for the money it passes through USGS to the field stations. These contracting credits are important for MVR, which must meet district-wide contracting goals as part of Congressionally imposed requirements on the Corps. Hubbell said MVR granted the EMP

an exemption in FY 07, which will permit the field station funds to be transferred in the typical manner. However, it remains to be determined whether an alternative to the USGS pass-thru will be needed in FY 08 and beyond. The alternatives could include having MVR contract directly with the states. This would raise a host of new issues, including whether the work would have to be put out for competitive bidding or could be justified as sole source contracts. Hubbell said the disruptions associated with a shift to direct contracting could range from moderate to extreme. He said the Corps expects to make a decision on this matter within a couple of months, in an effort to provide as much transition time as possible, should a change be required in FY 08.

Janet Sternburg asked whether the new system gives the Corps outside contracting credit for money transferred to universities. Hubbell said it depends on the transfer mechanism used. In response to a further question from Sternburg, Hubbell said the issue of the field station transfers is related to NESP's increased emphasis on using outside contractors only to the extent that both come in response to a general Corps effort to increase contracting. Gretchen Benjamin asked about magnitude of the Corps' contracting goals. Hubbell said MVR's goal is 25 percent this year. Terry Smith said the overall national figure is about 30 percent.

Public Outreach

FY 07 Priorities

Marv Hubbell noted that the FY 07 budget for public involvement is \$35,000, under the tentative allocation plan presented earlier. The Corps has identified the following three priority areas of work:

1. Web site improvements—the Corps will try to handle this work in house, and will coordinate with NESP's ongoing web enhancement efforts. Hubbell said he hopes to have some ideas ready to share with partners at the May 2007 EMP-CC meeting.
2. Update the 20th anniversary displays and postcards for more general use—Hubbell said plans are to exhaust the current supply of these products before reissuing the non-anniversary versions.
3. Develop a museum display—the Corps will work with the National Mississippi River Museum in Dubuque on an opportunity the museum has offered to rework one of its existing displays this summer.

Regarding the museum display, Hubbell explained that he had initially envisioned a small EMP kiosk that could be readily replicated and deployed in various museums and visitor centers. However, in discussions with the Dubuque museum staff, they emphasized their need to have a consistent look to the displays within their facility. Moreover, they explained that it would be more cost-effective to work with the museum to modify an existing display than to develop a new one.

Don Powell reported that, a couple of years ago, staff at the Science Museum of Minnesota offered MVP an opportunity to collaborate on a river display. Powell said the district didn't follow through on this due to lack of time. But he said it was his impression that the Science Museum was primarily seeking ideas and technical expertise, rather than money to help fund the display.

Gretchen Benjamin expressed strong support for developing an EMP display at the National Mississippi River Museum, noting that it is an ideal location for reaching a lot of people. Angie Freyermuth reported that the Fish and Wildlife Service partnered with the Dubuque museum on a display that only cost the Service \$10,000.

Barb Naramore asked if working with the Dubuque museum would result in a template that could, with minor modifications, be replicated for other locations. She observed that there is a risk of losing

efficiencies if the display is too tailored to a particular site. Freyermuth said she is mindful of this issue and wants the Dubuque display to be something that could be scaled down and used elsewhere.

Martin Konrad asked about the time required to develop a display at the Dubuque museum. Freyermuth estimated that reworking the existing display could be completed by the end of this summer. Developing an entirely new display for the museum would require three to five years.

Hubbell reported that Teri Goodman of the Dubuque Museum has invited the EMP-CC to hold a meeting at the museum.

Partner Reports

Benjamin reported that the Wisconsin Wetlands Association held a conference in La Crosse on February 1-2. Approximately 330 people attended, many of whom were unaware of the EMP. Benjamin said the conference was an excellent outreach opportunity.

Powell said the dedication for the Spring Lake HREP is upcoming. Representative Ron Kind has expressed his interest in participating in the ceremony. In response to a question from Terry Smith, Powell said the Spring Lake ceremony will likely be held in August. He explained that MVP wants to complete the tree and shrub planting on the island prior to the event. Powell characterized dedication ceremonies as excellent opportunities to raise the EMP's public profile and connect with elected officials. He urged the EMP partners to get the newly elected members of Congress out on the river to see HREPs.

Sternburg reported that the Middle Mississippi Partnership will hold its annual meeting July 11-12. She said she plans to have some of the EMP anniversary displays at the event.

Holly Stoerker reported that she will be visiting several Congressional offices next week, including many of the new members with river districts. Noting that two of the four co-chairs of the Upper Mississippi River Congressional Task Force are no longer serving in Congress, Stoerker said she hopes to talk with Representative Kind about how to reinvigorate the group.

Benjamin thanked Freyermuth for her excellent work developing the various products for the EMP anniversary celebration.

Habitat Rehabilitation and Enhancement Projects

HREP Database

Marv Hubbell reported that Corps staff are currently reviewing data in preparation for merging the HREP database with GIS. As a result, launching the database on the web has been further delayed. In the interim, Hubbell said he would be happy to provide partners and stakeholders with custom reports to meet their specific needs.

Update on Data Utilization Pilot

Hubbell indicated that the Corps intends to allocate \$50,000 in FY 07 funds to the pilot effort to enhance HREP utilization of existing LTRMP data. He reported that Jason Rohweder, the lead UMESC staff person for the pilot, has started sitting in on some HREP-related meetings and has already brought valuable information to the table. Hubbell said Rohweder will participate on between three and six PDTs for the balance of FY 07. Given the constraints imposed by the delayed appropriations process, Hubbell acknowledged that this number would most likely be closer to three than six. The

districts' priorities for assistance during the pilot are Huron Islands and Rice Lake for MVR, Harpers Slough and Capoli Slough for MVP, and Wilkerson Island and Ted Shanks for MVS.

As discussed previously with the EMP-CC, the \$50,000 cost of the FY 07 pilot will be charged as a regional expense and thus allocated 2/3 to HREPs and 1/3 to the LTRMP. Martin Konrad asked whether a project proposal for the pilot would be developed. Hubbell said he will update his August 2006 proposal to reflect the final implementation strategy for the pilot. Janet Sternburg requested an interim progress report at the EMP-CC's May meeting, and a final report in August. Hubbell agreed to provide these reports.

Terry Smith said he looks forward to seeing how the EMP's two major components can better support each other. Gretchen Benjamin noted that Yao Yin recently gave an excellent presentation on how LTRMP data has captured changes associated with some habitat projects.

CWA/Ecosystem Restoration Update

Hubbell reported that a planned February meeting of Corps and USEPA staff to discuss linkages between the Clean Water Act and ecosystem restoration on the river was postponed due to weather. The meeting has been rescheduled for March 7. Tentative topics include the linkages among authorities, opportunities to use habitat project objectives to help identify impaired waters, HREP identification and selection process, how EPA can help address water quality issues related to projects, the intent and purpose of the TMDL program, EPA's potential participation on PDTs, identification of a pilot area, support for the UMRBA's proposed broader dialog concerning connections between the CWA and restoration efforts, coordination of monitoring efforts, and the role of state pollution control agencies.

Barb Naramore noted that the EMP-CC agenda packet includes a UMRBA proposal to explore policy and practice interfaces between ecosystem restoration and Clean Water Act implementation on the UMRS. The UMRBA board approved the proposal at its November 2006 meeting, contingent upon securing adequate outside funding to support the work. While things have not yet been finalized, progress has been made in identifying the necessary funding. More specifically, it appears that the Corps will make approximately \$4,000 available through its support services agreement with UMRBA and USEPA intends to provide approximately \$15,000. At its February 20 meeting, the UMRBA board agreed that \$19,000 would come close enough to fully funding the project and directed staff to proceed with implementation upon receipt of the funding commitments. The proposal envisions two workshops, one of which would be held in conjunction with a meeting of the UMRBA Water Quality Task Force and the other of which would follow an EMP-CC meeting. Key participants in both workshops would be state and federal staff involved in ecosystem restoration and CWA implementation.

District HREP Reports

Powell reported that MVP's FY 07 work plan calls for approximately \$6 million in HREP activity, an increase of about \$2 million over FY 06. This includes some level of planning on six projects. The draft DPR for Capoli Slough is expected in August, with the DPR for Harpers Slough following in September. The district will be restarting Conway Lake and Lake Winneshiek in a couple of months. MVP's new planning start for FY 07 is McGregor Lake. Data collection and initial PDT activity on McGregor will begin late in the fiscal year. Powell described the Finger/Clear Lakes HREP as a modification to the completed Finger Lakes project. Within that project area, Clear Lake is not performing as expected due to a lack of depth. A letter report outlining the problem, identifying alternatives, and making recommendations will be released soon. This project is timely in that it may be possible to achieve cost efficiencies by integrating the modification with L&D 4 embankment work. Specifically, dredge material from Clear Lake could be used to support vegetation on the embankments,

with EMP paying only the differential between the least cost environmentally acceptable alternative and the Clear Lake dredging.

In FY 07, MVP will focus its design work on developing plans and specs for Pool 8 Islands Phase III Stages 2A and 2B. There will also be some minor work on Spring Lake and Long Meadow Lake. MVP anticipates awarding the contracts on both of the Pool 8 Islands Phase III stages this year. Depending on progress and funding, MVP may also elect to award some additional Stage 2B options in FY 07. Powell explained that Pool 8 Phase III is expensive, with the entirety of Stage 2 estimated at \$6.9 million. Of note, coordinating with scheduled O&M work should save the EMP approximately \$1.6 million in costs for Stage 2B. In addition, there will be planting activity on Spring Lake and Long Meadow Lake. Dredging may be initiated on Clear Lake. Powell reported that the district is waiting for delivery of the pump for the Pool Slough project. Once the pump is in place, state staff will receive operational training and the project will be turned over to the Iowa DNR.

Powell reported that MVP will again transfer funds to the Fish and Wildlife Service to assist in project evaluation. MVP expects to produce seven completion reports in FY 07. MVP will be getting a new District Engineer in June. Powell said he would be asking for partner assistance in getting the new Commander out on the river to see some habitat projects. Terry Smith applauded MVP's efforts to coordinate EMP and O&M activities. In response to a question from Martin Konrad, Powell estimated that the Pool Slough dedication might be held in September or October. Powell said he would like to have the project fully operational for the ceremony and committed to working with Mike Griffin on the arrangements.

Brian Markert reported that MVS expects to submit the planning report for the Pools 25/26 project to MVD this spring. He described the project as using a simple, low tech design. DPRs are underway for both Wilkerson Island and Ted Shanks and should be completed in FY 07. FY 07 planning priorities also include developing fact sheets for Pool 24 Islands and Rip Rap Islands. Design work on Batchtown Phase IIIA is virtually complete. This project is MVS's major construction priority for FY 07. Markert explained that Batchtown Phase III is broken down into a series of options, allowing the district to fully fund each increment independently. Work is complete on Calhoun Point, and MVS is in the process of closing out the contract. The district continues to work with the Fish and Wildlife Service to address pumping problems at Swan Lake. Draft evaluation reports should be completed for Cuivre Island and Stump Lake in FY 07. In addition, MVS will be doing baseline mussel monitoring at Batchtown.

Marv Hubbell reported that MVR currently has five projects in planning. Work is wrapping up on the draft DPR for Rice Lake. The Pool 12 overwintering project is pending at MVD. Fox Islands is under review. Lake Odessa Stage 2 has been broken into a base project and a series of options, which will permit MVR to execute the various components as funds become available. Hubbell reported that the Lake Odessa Stage 1 Base and Option A are under construction. MVR expects to award Stage 1 Option B in FY 07. FY 07 evaluation activities include baseline monitoring on Pool 12 with the field station and assessing prairie plantings and bottomland hardwoods at Rice Lake. In addition, MVR will be working with the Fish and Wildlife Service on performance evaluations, including reviewing water quality objectives.

Implementing the Planning and Sequencing Framework

Hubbell reported that the System Ecological Team (SET) convened via conference call on February 6 to discuss 18 proposed HREPs, six from each of the three districts. That call included consideration of the SET's evaluation criteria and the spreadsheet format that will be used to manage the information. The SET is scheduled to meet March 15-16 in the Quad Cities to continue its consideration of the 18 project proposals. Each District Ecological Team (DET) is being encouraged to have a representative present

at that meeting to answer questions, provide additional information and context, etc. The three district HREP managers are also expected to attend. Hubbell explained that SET members will also be encouraged to participate in a training session later in March. This session, led by Tony Starfield from the University of Minnesota, will focus on evaluating and prioritizing ecological investments. Hubbell said the SET will then report its recommendations to the Program Planning Team (PPT) and EMP-CC in May.

Martin Konrad asked when the PPT will meet. Hubbell observed that the May quarterly meeting schedule will be very tight, with only four hours set aside for the EMP-CC. Any time for a PPT meeting would presumably have to come out of these four hours. Hubbell suggested that it may be necessary for the PPT to meet via conference call. However, he said it is difficult to judge how long the PPT will need and how best to structure its first meeting until he sees the SET recommendations.

Long Term Resource Monitoring Program

FY 07 Update

Mike Jawson reported that completion of the LTRMP's FY 07 scope of work has been delayed due to the uncertainty caused by short term continuing resolution funding. Now that funding for the Corps through the end of the year has been passed, Jawson said the scope should be completed shortly. Remaining work includes adjustments to reflect Corps comments and incorporate the final funding numbers, once they are determined.

Jawson reported that, despite the funding delays, the LTRMP's FY 07 products are largely on track at this point. First quarter highlights include completion of a report on land cover changes, submission of a manuscript comparing flood stages on the Mississippi and Rhine Rivers, provision of various GIS and bathymetry support to the partnership, development of a manuscript that uses turtle data collected during LTRMP fisheries sampling, and the use of LTRMP fisheries data to help support Fish and Wildlife Service management of the American eel.

As a result of the APE refinement process, the A-Team, Corps, and USGS have identified the following focus areas for FY 08:

1. Connectivity and its effect on rates of biological processes
2. Landscape/habitat patterns—relation to the abundance and diversity of biota
3. Aquatic vegetation—influence on biotic and abiotic components
4. Establishing baseline goals for the major resources monitored by LTRMP
5. Native mussels—population size, species diversity, and age

Jawson briefly reviewed the process and timeline used to develop the FY 07 APE proposals. This culminated in the Corps and USGS placing the project proposals in high, medium, and low priority categories. As agreed among the partners, the A-Team Chair was permitted to observe this prioritization process, which took place in September 2006. Contingent on an actual FY 07 LTRMP allocation close to the anticipated level of \$6.104 million, Jawson said the Corps and USGS will fund all high- and medium-ranked APE proposals. He further explained that receipt of FY 07 APE funding for a particular project will also be contingent upon completion, or demonstrable near completion, of any previous APE products by that author. Martin Konrad expressed support for this emphasis on timely completion of previously funded work. Gretchen Benjamin applauded Jim Rogala's wind fetch model, which she said is a very helpful HREP design tool.

A-Team Report

Rob Maher emphasized that the modifications in the APE selection process have been very beneficial. He expressed optimism that additional refinements for FY 08, including the focusing questions, will improve the process still further. Maher said he is pleased to hear that all high- and medium-ranked APEs, including the increment of restored monitoring, will be funded in FY 07.

Consistent with discussions at the October LTRMP partnership unity meeting, Maher said the A-Team is attempting to increase its focus on science and technical matters. The A-Team's April 2007 meeting will be held in conjunction with the annual Mississippi River Research Consortium meeting and will feature a series of technical presentations, including results from multi-gear fisheries analysis.

USACE/USGS Coordination Meeting

Marv Hubbell reported that Corps and USGS staff met in early December 2006 to coordinate on a variety of operational issues. The topics for discussion included: relationships and roles, USGS policy standards and LTRMP workforce, program transparency, LTRMP/HREP linkages, annual scope of work and performance, and Status and Trends Report. Hubbell characterized the meeting as very productive and said several modifications and enhancements should improve program performance. For example, the FY 07 scope of work will include more information and detail, which should be helpful.

Hubbell said the reporting and publication process is being streamlined in a variety of ways, including a shift from the current 12 product types to 3. There will also be a strong effort to release initial products more rapidly without undermining efforts to publish in peer reviewed journals. Hubbell said approximately \$74,000 is being added to the MSP to reduce publication bottlenecks. Jawson further explained that certain editorial-related functions will now be contracted out, though the people doing the work will still be housed at UMESC. While this is a more costly approach, Jawson said it was unavoidable. Jawson also explained that OMB-imposed review requirements for USGS authors include a mandatory Bureau-level review that takes at least 3-4 weeks. Martin Konrad said he anticipates that the LTRMP strategic planning process will need to consider some of these issues.

Benjamin asked where HREP data is housed. Hubbell said the Corps maintains HREP data, though a relatively small amount is also housed at UMESC. To access most the Corps' HREP data, people must contact the appropriate district office. Benjamin suggested that the partners consider whether HREP data should be housed at UMESC. Hubbell said he would like to make this an agenda topic at a future EMP-CC meeting. Jawson said UMESC is interested in serving as a one-stop portal to river-related information. He noted that USGS is currently exploring a request from Southern Illinois University for UMESC to house historical river information. Benjamin said she understands that such centralization requires resources, but emphasized that it is quite helpful for data users.

Status and Trends Report

Barry Johnson said that the final draft of the Status and Trends Report was distributed to the LTRMP partners on February 14 for comment. An executive summary for the report remains under development. Johnson encouraged reviewers to be as specific as possible and to focus their comments on substantive matters, noting that publications staff will be doing a final editorial review. UMESC is seeking one set of consolidated comments from each partner agency. Comments are due to Jennie Sauer by March 30, 2007, and the final report is scheduled to go to the printer by July 16, 2007.

Johnson then briefly highlighted several findings from the draft report, including the following:

- Nutrients are high
- Total suspended solids (TSS) are higher in the southern reaches
- Depth diversity is poor
- Forest coverage is reduced
- Macrophytes and invertebrates are low in the southern reaches
- Fish species richness is good
- Non-native fish populations are high
- Population levels for other fish species are variable
- Substantially lower health in southern reaches

Overall, Johnson said the Status and Trends Report reveals a system that is not in immediate danger of collapse, but that does have problem areas. Generally, problems are more prevalent on the southern reaches.

Looking further at the TSS data, Johnson noted that there is a decreasing trend in Pools 4 and 8, but said sedimentation is still a problem in off-channel areas. He explained that sedimentation is very episodic, with long time lags. Determining trends is quite difficult, according to Johnson.

Examining data on winter habitat suitability and fish abundance leads to some interesting observations, according to Johnson. While there is substantial variability north to south in terms of suitability metrics such as dissolved oxygen, temperature, and depth, suitable overwintering habitat is generally more plentiful in the southern reaches. But the best populations of backwater fish are on the northern reaches, suggesting that winter habitat may not limit abundance. Johnson emphasized the need for more research and directed study of HREPs, rather than more monitoring, to help explain the relationship between abundance and overwintering habitat.

Johnson stressed the need for indicators related directly to management objectives and desired endpoints. Monitoring efforts can then be focused on collecting the data needed for those indicators. Johnson highlighted a range of possible indicators associated with water quality, vegetation, fish abundance, invertebrates, and habitat diversity. While the indicators used in this draft Status and Trends Report are set, Johnson encouraged the partners to engage in a dialog concerning the selection of appropriate indicators for the future.

In response to a question from Don Hultman, Johnson said that the draft Status and Trends Report does not examine trends relative to those identified in the 1998 Status and Trends Report. Nor does it reference the previous report to any great extent. In answer to a question from Holly Stoerker, Johnson said the schedule for future Status and Trends Reports has not been determined, but is under discussion.

Estimating Status and Trends Using LTRMP Data

Brian Gray stressed that estimating status and trends depends on defining program objectives, explaining that data by themselves have no meaning. Without first establishing objectives, Gray cautioned that analyses lose their meaning. And, as the number of analyses increases, the probability of finding spurious effects or trends increases. He demonstrated how examining data in the absence of defined objectives can result in the failure to detect trends as well as the erroneous identification of trends.

Gray said it is common to ask what the data are telling us. He said it is better to ask what questions we want to answer and then prioritize those objectives/questions. Gray discussed the difference between taking an annual and a long-term focus, noting the background annual variation complicates trend

detection. He also explained the trade-off between reducing false positive and false negative error rates. Gray emphasized that the importance of trends and status changes should be determined by the defined objectives and the ecological significance of those changes, rather than by statistical significance. He said increasing sample size risks identifying statistically significant, but ecologically insignificant, effects. Conversely, decreasing sample size will eventually yield neither ecologically nor statistically significant effects.

Gray reviewed the LTRMP sampling design as it relates to status and trends detection, describing the implications of the LTRMP's stratified random sampling, nonproportional sampling across strata, and annual sampling events. Acknowledging this design produces defensible estimates of means and standard errors, according to Gray. He explained that, in the absence of a trend, the status is the mean over the entire sampling period. If there is a trend, then the status is the mean from the most recent year. Variation in status helps define the background variation of the mean, highlights unusual means, yields long-term patterns, and is useful for researchers.

Gray reiterated that ecologists and managers, not statisticians, should determine the importance of trends. Trends are long-term changes in the mean, with long term typically being 10 to 20 years. The continuous increases or decreases that define trends may be linear (water quality data), exponential (fish or invertebrate data) or logistic (vegetation data). Under the LTRMP design, temporal trends are estimated across annual sampling events, and status is embedded in trend estimates. Sample size is the number of sampling events. Gray explained it is the sampling period and the number of sampling events, rather than the sample size per event, that primarily determine the precision of the trend estimates and the power to detect trends.

Rebecca Wooden asked if a flat curve (i.e., neither increasing nor decreasing) represents a trend of no change. Gray replied that statisticians would indeed view this as a stable trend. He noted that there is always a trend, but that trend is not always ecologically important. Jawson added that the absence of change does not necessarily mean that the status is acceptable. He cited the status of smallmouth buffalo in Pool 13 as an example of a stable situation in which management intervention might well be appropriate.

In response to a question from Hubbell, Gray explained that a different statistical approach is required to use data from our trend pools to draw conclusions about the broader river. Specifically, a modeling approach is needed, in which trend pools are said to be representative of larger reaches. This assumption cannot be justified based on design. Instead, the defense is based on outside science experts who concur with the assumptions about the trend pools being representative of larger reaches. Jawson noted that outpool data would help justify the application of trend pool data to reaches. Gray agreed, but said the non-random selection of previous outpool sampling sites limits the data's utility to simply strengthening the opinion of the science experts. Conversely, if outpool sites were selected randomly in the future, after some period of time, it would be possible to make design-based conclusions about trends in the outpools.

Jawson emphasized that monitoring cannot replace research. Gray explained that monitoring is best suited to identifying status and trends, but is a poor source of data for scientific inquiry. He said one will almost certainly never obtain cause and effect insights from monitoring data, or any other observational data.

Hubbell asked about the value of cross component analysis of monitoring data. Gray said this must be addressed carefully. He said there is typically a problem with differing spatial scales across the components. This requires either very expensive modeling, or aggregation to the smallest common scale, which is typically the strata level. He cautioned that there are very serious ways in which cross component analysis can go astray.

FY 08 APE Process

Hank DeHann said he is very pleased with the partners' efforts to develop focusing questions to guide the FY 08 APE selection process. He briefly reviewed the process that was employed, starting with each partner agency being asked to identify its top three management-related questions. UMESC staff then consolidated and organized those questions, asking for clarification where necessary. USGS, USACE, and the A-Team then ranked the partners' questions independently. Last week, those three rankings were compared and integrated. DeHaan said there was substantial commonality across the three lists and it was not difficult to reach consensus on the five focusing questions Jawson highlighted early. He described three of the questions as addressing broad areas, with the other two being more component-focused.

In answer to a question from Benjamin, DeHaan said the vegetation question need not be restricted to submersed aquatic vegetation. He noted that all five questions are still rather broad. USACE would like to work with USGS and the A-Team to develop more specific questions and guidelines to use with these five focusing questions. Maher said this process would need to be quite streamlined in order to keep the FY 08 APE process on schedule. DeHaan agreed, and said it should be possible to develop the more detailed questions in two to three weeks, with the goal of reaching consensus among the A-Team, USACE, and USGS by the end of March. This would permit the request for APE proposals to be issued in early April.

Martin Konrad asked how the increment of restored monitoring will be handled in FY 08. Hubbell said he sees it fitting in well as an APE. Barb Naramore clarified that the question pending from the November EMP-CC meeting is whether restored monitoring will be treated as a technical or administrative APE in FY 08 and 09. Hubbell asked to defer this discussion, saying that he was not prepared to offer a recommended approach. He agreed to consider the matter and share his preferred approach with the partners in the near future—i.e., before the due date for FY 08 letters of intent.

FY 10-14 Strategic Planning Process

Jawson thanked the states for their perspectives paper concerning LTRMP strategic planning [dated 1/25/07 and included in the EMP-CC agenda packet]. He noted that the states' thinking is quite close to the USGS and Corps' initial ideas and expressed his preference for using the states' paper as a starting point for discussion. Jawson said he would like to have additional discussion and clarification concerning some of the assumptions highlighted in the states' paper. In addition, he expressed the opinion that the states' timeline seems overly aggressive. While he shares the desire to get started and keep the process moving, Jawson said he doubts the planning effort could be successfully completed by March 2008. Jawson said the Corps and USGS concur with the states' recommendation to use a facilitator. However, he said the two federal agencies would like to start the planning process with a more comprehensive look at LTRMP goals and objectives than is reflected in the states' perspectives paper. He also said he would like the plan to address both strategic and tactical issues.

Jawson suggested forming an *ad-hoc* scoping group to modifying the states' paper, creating a joint state-federal scoping document. He suggested that such a scoping group could complete its work by the end of March, permitting the first planning meeting to be held in April. Jawson also raised the question of whether the partners should ask an outside group to look at the LTRMP and provide input.

Hubbell expressed support for the ideas Jawson outlined and said the February 7, 2007 response piece included in the agenda packet reflects their joint thinking. Hubbell stressed his desire to begin by identifying the program's vision and then determining how best to pursue and support that vision.

Konrad asked for clarification regarding Hubbell and Jawson's recommendation for a scoping group. Jawson said the group would ensure that we establish common assumptions about the strategic planning process before the process is initiated. The states' perspectives document would be the basis for the scoping group's discussion. In answer to a question from Benjamin, Jawson said the Corps and USGS would share their alternative timeline recommendation, as well as identify areas of the states' paper for which they would like elaboration or clarification. Benjamin cautioned that the planning process must not extend to the point where it is not feasible to implement the new plan in FY 10. She emphasized the need for adequate transition time to adjust to whatever changes may be required. Hubbell said the Corps share's the states' desire for adequate transition time. Jawson said he also understands the need for transition time, but suggested that October 2008 is a more reasonable target for completing the strategic plan. He said that adequate planning time is also important, particularly if the partners do want an outside LTRMP review.

Konrad stressed the states' desire for an outside facilitator and for UMRBA staff to serve in a "co-taskmaster" role for the process. Jawson and Hubbell said they have no problems with this approach. Sternburg observed that the Fish and Wildlife Service has some excellent facilitators. After some additional discussion, the EMP-CC charged a small scoping group with assessing and refining the state perspectives document. The scoping group consists of Marv Hubbell, Hank DeHaan, Mike Jawson, Martin Konrad, Janet Sternburg, Jim Fischer, Don Hultman, and Barb Naramore.

In response to a question from Jawson, Naramore said the states were not ready to identify their members of the actual strategic planning group. She explained that, while the states discussed this question at their pre-meeting, not all of the potential candidates were present. After everyone's willingness to serve has been confirmed, Naramore said she would identify the full slate of state members. Todd Strole offered The Nature Conservancy's expertise if outside perspectives are desired during the strategic planning process.

FY 07 Priorities

Hubbell explained that tentative FY 07 priorities include \$4.0 million for the MSP and \$1.2 million for APEs, as well as funding for equipment refreshment, wrapping up the Status and Trends Report, LTRMP strategic planning, a reduced level of bathymetry, GIS tools, cross component analysis, and LIDAR. In response to a question from Benjamin, Hubbell indicated that the standard three percent annual inflation adjustment for the MSP, which the field stations had previously been asked to forego in FY 07, would be restored under the anticipated funding levels. In response to a question from Jon Duyvejonck, Hubbell said all of these priorities, with the exception of the LIDAR, have been discussed with the partners, though not necessarily with the specific dollar allocations that are now planned. He noted that the LIDAR would receive \$250,000 to \$350,000.

In response to a question from Maher, Hubbell explained that items such as bathymetry and GIS tools would not be funded as MSP+ items in FY 07. Hubbell went on to note that, consistent with discussion at the EMP-CC's November meeting, the MSP+ category has been eliminated this year. Instead, equipment refreshment, Status and Trends, strategic planning, bathymetry, GIS tools, cross component analysis, and LIDAR will all be treated as administrative APEs in FY 07. There is no special priority being assigned to bathymetry or anything else that is not part of the established MSP, according to Hubbell.

Don Hultman asked how geographic priorities will be determined for the LIDAR work. Hubbell said the Corps would consult with the program partners, but said one priority may well be to coordination with the State of Iowa on some ongoing work. Bob Clevestine stressed the need for current topographic information. Jawson asked whether the Corps would consider other strong proposals as alternatives to the LIDAR work. Specifically, he cited the ongoing need for mussel research. Hubbell

said he would consider such ideas, but stressed the need to obligate the funds and said any alternative proposal would need to have the capacity to obligate and expend quickly. Benjamin told Hubbell that Wisconsin also plans to undertake some LIDAR work this year and urged him to keep her informed as Corps' LIDAR plans develop. Joyce Collins cited the need for LIDAR on the Open River.

Sternburg asked how far into the next fiscal year a project funded with FY 07 money could go. Hubbell explained that there's no absolute timeframe, but said any project would need a sound spend out schedule to extend into FY 08.

Hubbell encouraged partners to inform him ASAP if they intend to submit any alternate proposals.

Other Business

Barb Naramore outlined the following schedule for upcoming quarterly meetings:

May 2007—Rock Island, Illinois

- UMRBA—May 22
- **EMP-CC—morning of May 23**
- Adaptive management workshop—afternoon of May 23 and early morning of May 24
- NECC/ECC—balance of May 24

August 2007—La Crosse, Wisconsin

- UMRBA—August 21
- NECC/ECC—August 22
- **EMP-CC—August 23**

November 2007—Twin Cities, Minnesota

- UMRBA—November 13
- NECC/ECC—November 14
- **EMP-CC—morning of November 15**
- Water quality/ecosystem restoration workshop—afternoon of November 15 and morning of November 16

Mike Jawson expressed concern with the reduced time for the May EMP-CC meeting, noting that there will be several very important agenda items. Bob Clevenstine emphasized that the Corps and Service are planning the adaptive management workshop to begin on the afternoon of May 23. Ken Barr said the workshop was placed between the EMP-CC and NECC/ECC meetings with the goal of accommodating many people's interest and reducing travel demands. He said that, if the EMP-CC does not want the workshop held in conjunction with its meeting, the Corps would consider rescheduling the workshop. Jawson said he simply wants to make sure that options for accommodating the workshop without unduly constraining the EMP-CC meeting have been fully explored. Barb Naramore assured Jawson that UMRBA staff have been working closely with the Corps and the Service to optimize the schedule for all concerned. She said every effort will be made to provide adequate time for pressing agenda items at the EMP-CC's May meeting, while acknowledging that it will likely be necessary to reduce or eliminate some of the more routine items. Martin Konrad suggested leaving it to the staff involved with the various meetings to work out the best possible schedule.

Terry Smith thanked all of the partners for their excellent work and expressed his satisfaction with the EMP's progress. With no further business, the meeting adjourned at 2:15 p.m.

**EMP-CC Attendance List
February 22, 2007**

EMP-CC Members

Terry Smith	U.S. Army Corps of Engineers, MVD
Don Hultman	U.S. Fish and Wildlife Service, UMR Refuge
Mike Jawson	U.S. Geological Survey, UMESC
Al Fenedick	U.S. Environmental Protection Agency, Region 5
Rick Mollahan	Illinois Department of Natural Resources
Martin Konrad	Iowa Department of Natural Resources
Rebecca Wooden	Minnesota Department of Natural Resources
Janet Sternburg	Missouri Department of Conservation
Gretchen Benjamin	Wisconsin Department of Natural Resources

Others in Attendance

Don Powell	U.S. Army Corps of Engineers, MVP
Kevin Bluhm	U.S. Army Corps of Engineers, MVP
Jeff DeZellar	U.S. Army Corps of Engineers, MVP
Chuck Spitzack	U.S. Army Corps of Engineers, MVR
Ken Barr	U.S. Army Corps of Engineers, MVR
Marvin Hubbell	U.S. Army Corps of Engineers, MVR
Hank DeHaan	U.S. Army Corps of Engineers, MVR
Angie Freyermuth	U.S. Army Corps of Engineers, MVR
Brian Markert	U.S. Army Corps of Engineers, MVS
Kip Runyon	U.S. Army Corps of Engineers, MVS
Ron Dieckmann	U.S. Army Corps of Engineers, MVS
Jon Duyvejonck	U.S. Fish and Wildlife Service, RIFO
Bob Clevestine	U.S. Fish and Wildlife Service, RIFO
Dick Steinbach	U.S. Fish and Wildlife Service, Mark Twain & IL River Refuges
Karen Westphall	U.S. Fish and Wildlife Service, Mark Twain Complex
Joyce Collins	U.S. Fish and Wildlife Service, Marion ES Sub-Office
Barry Johnson	U.S. Geological Survey, UMESC
Brian Gray	U.S. Geological Survey, UMESC
Rob Maher	Illinois Department of Natural Resources, Brighton
Bernie Schonhoff	Iowa Department of Natural Resources
Dru Buntin	Missouri Department of Natural Resources
Bob Goodwin	U.S. Maritime Administration
Todd Strole	The Nature Conservancy
Brad Walker	Prairie Rivers Network (IL)
Christine Favilla	Sierra Club, Illinois
Tom Boland	MACTEC, St. Louis
Holly Stoerker	Upper Mississippi River Basin Association
Dave Hokanson	Upper Mississippi River Basin Association
Barb Naramore	Upper Mississippi River Basin Association