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

August 5, 2009 Quarterly Meeting

Hotel Père Marquette Peoria, Illinois

Rick Frietsche of the U.S. Fish and Wildlife Service called the meeting to order at 9:30 a.m. on August 5, 2009. Other EMP-CC representatives present were Elizabeth Ivy (USACE), 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 (USEPA). A complete list of attendees follows these minutes.

Minutes from the May 21, 2009 Meeting

Tim Schlagenhaft moved and Janet Sternburg seconded a motion to approve the draft minutes of the May 21, 2009 meeting as written. The motion carried unanimously.

Program Management

FY 09 Fiscal Update

Marv Hubbell noted that EMP operated under a continuing resolution authority (CRA) at \$18 million prior to the enactment of the FY 09 omnibus measure on March 11, 2009. The omnibus lowered EMP's final FY 09 appropriation to \$17.713 million. Within the program, funding was allocated as follows:

- Regional management \$662,000
- LTRM \$5,428,432
- HREPs \$11,622,568
 - Program Model Certification \$100,000
 - MVP \$3,483,770
 - MVR \$4,555,028
 - MVS \$3,483,770

Hubbell said EMP received an additional \$13.179 million in stimulus funding in February 2009, bringing EMP's total FY 09 obligation authority to \$30.889 million. EMP's stimulus funding is allocated to specific activities and projects, as follows:

- MVP \$5,048,000
 - Pool 8 Islands Phase 3 \$4,700,000
 - Planning, Engineering, and Design \$348,000
- MVR \$3,298,000
 - GIS Landscape Analysis \$300,000
 - Lake Odessa (Tree Planting) \$150,000
 - LiDAR and Bathymetry \$2,500,000
 - Planning, Engineering, and Design \$348,000

- MVS \$4,833,000
 - Rip Rap Landing \$325,000
 - Swan Lake \$1,160,000
 - Batchtown \$3,000,000
 - Planning, Engineering, and Design \$348,000

FY 10 Appropriations Status

Hubbell reported that the President's FY 10 budget request for EMP is \$20 million. The House has approved \$20 million and the Senate has approved \$18 million in FY 10 funding for EMP. Hubbell said that conference action is expected after the Congress' August recess.

Hubbell reported that, in its FY 10 energy and water report, the Senate Appropriations Committee directed the Corps to develop an EMP-NESP transition plan. However, the Committee recognized that shortfalls in the Inland Waterway Trust Fund (IWTF) will likely delay NESP construction funding, precluding an immediate transition. To facilitate future transition while maintaining the EMP's current functionality in the interim, the Senate report would allow EMP to start new projects that could be completed or transferred to NESP within two years of NESP receiving adequate funding to support transition. Hubbell said the House appropriators did not include language regarding new starts or an EMP-NESP transition plan in their FY 10 appropriations report. Hubbell said it appears the Senate language would provide significant relief for EMP regarding planning and constructing new starts. However, he observed that the Senate's language is subject to change in the conference report and interpretation with the Administration.

In response to a question from Bernie Hoyer, Hubbell said, while the Senate language appears to permit the EMP to initiate planning on new projects, certain details would remain to be addressed. For example, staff would need to ensure work done in developing the EMP Definite Project Reports (DPRs) would meet NESP's Project Implementation Report (PIR) requirements, should the project ultimately be transferred. In response to a question from Janet Sternburg, Hubbell said Corps staff is also interpreting the Senate's language to allow projects in the planning phase to move to construction. Elizabeth Ivy said MVD will consult with HQ to confirm their interpretation of the Senate's language. Doug Blodgett asked how NESP would prioritize projects transitioned from EMP. According to Hubbell, projects on which construction had been initiated would likely become a high priority under NESP to complete. This would not, however, necessarily be the case for EMP projects in the planning or design phase.

Vince Shay asked whether the Corps staff anticipate complications when transferring projects. Hubbell said he did not, given that no project permitted under the EMP authority would be precluded under NESP's authorization. He noted that EMP DPRs will likely increase their focus on explicitly describing the projects contributions to natural river processes and adaptive management to facilitate incorporation into NESP's project prioritization framework. Ken Barr offered the NESP project planning handbook as a reference for EMP PDTs. Hubbell suggested Corps staff also explore ways to enhance compatibility with the Section 519 program, noting the potential for projects to be transferred between all three of these restoration programs.

Barb Naramore observed that the conference committee could approach the issue of EMP new starts and transition plan in several ways. The conference report could include all or parts of the Senate Appropriations Committee's language, provide an alternative directive, or not speak to these issues at all. In the latter case, she said the Senate's language would be controlling because it was not modified in conference and there is no alternate House language. She noted that conferees often choose to remain silent when there is no need to resolve differences between House and Senate reports. Naramore said she was encouraged that the Senate Appropriations Committee's report provision so closely tracks the

language proposed by the states and NGOs. She said the group will work to ensure that HQ and ASA(CW) staff interpret the language as intended.

Hubbell said EMP currently has 20 active projects, with approximately one-third of the projects in each phase—i.e. planning, design, and construction. Hubbell stressed the importance of having new projects identified for planning and design this year, if the restriction on new starts is lifted. He observed that the limited number of projects in the pipeline has already reduced EMP's execution capability. He said this constraint will escalate in FY 10, especially for MVR and MVS, and will affect all three districts by FY 11. According to Hubbell, the EMP-CC-endorsed System Ecological Team (SET) structured decision-making process and the UMR reach planning process are fundamentally compatible. He suggested a combined approach, applying structured decision making to the reach planning output, could serve as an excellent framework to identify and select projects.

Public Involvement and Outreach

Hubbell noted that the August 5 EMP-CC/NECC joint session will include a discussion of the Corps' program-neutral outreach effort on the UMRS. Its ultimate purpose is to create unified messages tailored to various stakeholders about the Corps' regional programs and accomplishments. Hubbell reported that the National Conference on Ecosystem Restoration was held on July 20-24, 2009, and featured a session on the Mississippi River. Hubbell said the "Visions of a Sustainable Mississippi River: Merging Ecological, Economic, and Cultural Values" conference will be held in Collinsville, Illinois on August 10-13, 2009. LTRMP, in partnership with TNC, is currently hosting Chinese scientists who are examining monitoring and research protocols used in large river programs. Hubbell said the UMRS portion of the Mississippi River Commission's (MRC) Low Water Inspection Tour will be held on August 10-14, 2009. Janet Sternburg added that the MRC is scheduled to participate in policy discussions at the "Visions of a Sustainable Mississippi River" conference on August 13.

Jim Fischer announced that WI DNR's Secretary, Matt Frank, has expressed interest in highlighting green infrastructure along the UMR in Wisconsin, including EMP- and FY 09 stimulus-funded projects. Mike Jawson invited partners to join UMESC in celebrating its 50th anniversary at an open house, scheduled for September 12, 2009 in La Crosse.

2010 Report to Congress

Marv Hubbell said the EMP authorization requires the Corps to submit a Report to Congress (RTC) to the House and Senate authorizing committees every six years, with the next report being due by December 31, 2010. He reported that a second scoping meeting for the report was held on June 15-16, 2009, at which participants developed a draft outline and identified authors. Hubbell outlined the following anticipated schedule for the report development:

- August 5, 2009 EMP-CC reviews draft outline
- February 24, 2010 EMP-CC reviews rough draft RTC
- May 20, 2010 Seek EMP-CC endorsement of revised RTC
- June 2010 Submit RTC to MVD
- July 2010 Submit RTC to HQ
- December 2010 Submit the RTC to Congress

Hubbell expressed appreciation to the scoping participants for their contributions. The participants included representatives from USACE, USFWS, USGS, US EPA, MO DoC, TNC, WI DNR, and UMRBA.

Required components of the RTC are as follows:

- an evaluation of the restoration and monitoring components,
- a description of the accomplishments of each major program element,
- an update to the systemic habitat needs assessment (HNA), and
- identification of any needed adjustments in the authorization.

Hubbell said that, while using a format similar to the 2004 report, the 2010 report will have a greater focus on accomplishments and outcomes. He reviewed the following insights gained from developing the 1997 and 2004 reports:

- Going through the process of developing a RTC is extraordinarily valuable for EMP and the partnership, as it reflects on accomplishments, articulates issues, recommends solutions, and sets forth a collaborative vision. It is not only valuable in shaping the report, but also in improving subsequent program implementation efforts.
- It is important to have a schedule and process that permit meaningful participation and review, especially in light of staffing and resource constraints.
- There are multiple audiences for the RTC. Although the authorizing committees are the primary audiences, the appropriators, OMB, ASA(CW), USACE HQ, partner agencies and stakeholders, and interested public are also important audiences. It is important to recognize that there are different kinds of issues, and be careful to articulate which recommendations are for Congress, which are for the Administration, and which are for the partnership.
- Be clear and concise in reporting accomplishments and outputs.
- Ultimately, the Corps is responsible for submitting the RTC. Therefore, there are limits to what will be included in the report, particularly when it comes to the conclusions and recommendations.
- Clearly identify the report's purposes, including providing a program update and summary of the program's history, addressing transition issues as needed.

Hubbell said he anticipates that the Corps will contract for an overall report editor and writer. UMRBA provided similar services for the 1997 and 2004 reports. In addition, each section of the report will have a lead author. Hubbell described the following sections of the scoping group's draft outline:

- Forward a transmittal letter signed by the MVR District Commander, including two to three key messages highlighting EMP's success and goals for the future
- Executive Summary
- Introduction
- Chapter 1 history and background, with focus on highlights from the past six years and anticipated goals for the next six years
- Chapter 2 highlights and accomplishments of the program, HREPs, and LTRMP
- Chapter 3 implementation issues, including NGOs as cost-share partners, cost sharing, HREP operation and maintenance, delegated authority, LTRMP program implementation, HREP planning and prioritization, HREP evaluation, future trends/emerging issues, coordination with non-structural flood damage mitigation efforts, and EMP-NESP transition issues
- Chapter 4 Conclusions and recommendations, which will be an outgrowth from Chapters 2 and 3

EMP-CC members generally agreed that the 2010 RTC should follow the scoping group's draft outline. Jim Fischer suggested that the report emphasize EMP's maturity, evidenced by its national and international recognition. Bernie Hoyer suggested that the report emphasize the strong scientific base that LTRMP provides, allowing for advanced analysis that supports a wide range of management activities. Tim Schlagenhaft said the value of LTRMP's long term data sets should also be highlighted. Hoyer suggested that the 2010 report address the potential for integrating non-structural flood risk management (FRM) planning with EMP project planning. Depending on the status of NESP at the time the RTC is completed, Schlagenhaft suggested the partners may want to recommend modifying the EMP authority to permit water level management (WLM) projects, and possibly other restoration tools. Sternburg also suggested that the report explore 100 percent federal funding for projects benefiting threatened and endangered species and projects below the ordinary high water level (OHWL).

Hubbell said UMRBA will distribute the 2004 EMP RTC Issue Papers for people's reference, noting that they should prove useful in considering several issues that may be addressed in the 2010 RTC. Hubbell requested that partners submit comments on the draft annotated outline to him by September 30, 2009. Kirsten Mickelsen also requested that partners provide information regarding HREP evaluation results and EMP accomplishments, awards and recognitions, and collaboration efforts to Marv Hubbell by September 30.

Habitat Rehabilitation and Enhancement Projects

District Reports

Brian Markert reported that MVS continues planning on Ted Shanks, Rip Rap Landing, and Wilkinson Island. Designs for the Batchtown pump station and chevrons have been completed, and MVS anticipates awarding a construction contract for the chevrons in early fall. Markert expressed appreciation to the USFWS for its collaboration in repairing flood damage and making other modifications at Calhoun Point. The Swan Lake project evaluation report is underway. Markert also reported that Pools 25 and 26 Islands will likely be ready for construction in the next 12-18 months, but will be precluded from moving to construction unless the restriction on EMP new starts is lifted. Jim Fischer asked about the Corps' use of stimulus funds for HREP design. Markert said MVS used a vast majority of its stimulus funds for construction, with minor amounts going to design work in an effort to advance projects' construction readiness. Hubbell added that the Corps is using contractors extensively in its stimulus-funded work, including project design and data collection. He said this is consistent to the stimulus package's job creation goal.

Jeff DeZellar reported that estimated construction costs for Capoli Slough have doubled in the past year. This escalation was driven by efforts to protect mussel beds in the project area by reconfiguring island size and placement to reduce boater access to the mussel areas. District staff is now seeking ways to reduce project costs. DeZellar said the draft DPR for Capoli is scheduled for completion in December, while staff shortages have delayed planning on Harper's Slough. This delay, however, will permit staff to apply lessons from the Capoli planning to work on Harper's. DeZellar said MVP expects to award a construction contract on Pool 8 Islands Phase III Stage 3B by fall, with construction to begin in spring 2010. He said construction of Pool 8 Islands Phase III Stage 2B should be completed by early fall. Construction on Stage 3A has been accelerated considerably using stimulus funds. DeZellar said construction of Finger Lakes is essentially complete, though some minor work is still needed. MVP anticipates having at least two draft HREP completion reports for partnership review by the end of FY 09. DeZellar reported that MVP is working very closely with Minnesota DNR to address a notice of violation the state issued when the Pool 8 Stage 3A contractor dredged an access channel not provided for under the permit.

Tim Schlagenhaft expressed frustration that the Corps does not expect to follow through with its previous commitment to furnish four completion reports by the end of this fiscal year. Dan Wilcox said Corps staff are currently working with partnering agencies and will try to produce the four draft project reports by the end of September.

Jim Fischer expressed concern that staff reallocations and additional workload demands have resulted in insufficient USACE staff assigned to EMP projects. He noted increasingly common delays with project design and evaluation. Hubbell acknowledged that all districts have tremendous workloads, and said staff shortages have forced the Corps to prioritize construction-critical work.

Hubbell said he anticipates that Fox Island, Rice Lake, and Pool 12 Overwintering will be ready for construction in FY 10, assuming EMP is permitted to move projects from design to construction. He reported that MVR plans to award construction contracts for Lake Odessa Stage IB within the next couple of weeks, and for Stage IIB in late fall. Hubbell said MVR is conducting pre-project monitoring on Pool 11 Islands and Pool 12 Overwintering.

HREP Showcase: Lake Chautauqua

Ron Fisher described the history and management of Lake Chautauqua. In 1936, the Lake Chautauqua NWR was established to provide a refuge and breeding ground for migratory birds and other wildlife. However, because of deficiencies in levee and water control structures, managers were prevented from employing desired management practices, limiting the refuge's habitat value. Sedimentation was a severe problem on the refuge, and planning for the HREP began in the late 1980s. The Corps, working with the Service and Illinois completed project design in 1991, and construction was finished in 1999.

Fisher said the HREP encompasses approximately 4,488 acres on the Illinois River, consisting of two large pools that are separated by a crossdike. The primary project purpose was to increase reliable waterfowl and fish habitat. Significant project features include water control structures, a boat ramp, levees, spillways, a pump station, and extension of a drainage ditch. Fisher explained that these water control structures allowed managers to employ complete drawdowns when necessary to stimulate vegetation growth, eradicate nuisance species or disease, and make other improvements within the pools.

Fisher reported that the Lake Chautauqua project's unusually long construction period permitted an overgrowth of willows. Managers have been working to remove many of the willows. He also noted that the project's versatile pump station provides a range of water management options. Spillways have performed successfully during recent flood events.

Marv Hubbell said he would like to discuss some of the construction issues Fisher described at a future EMP-CC meeting. Rick Mollahan noted that the original Lake Chautauqua project was proposed with two moist soil units for wildlife habitat. However, because the levees were too low and other concerns regarding biota, the proposal was recast. The moist soil units were eliminated, and a deep water area for fish was added. Following completion of construction, Illinois DNR stocked the pools with several hundred thousand dollars worth of fish. Mollahan said that, following a 2006 change in site managers, the HREPS's fisheries purpose was abandoned in favor of managing as two moist soil units. He asked whether, after the EMP invests substantial resources in a project, there should be any recourse if the project is not managed in accordance with the approved project purposes. Hubbell and Rick Frietsche suggested including a session on HREP management flexibility at the November 2009 EMP-CC quarterly meeting. Eric Schenk expressed interest in this topic, including questions of adaptive management in a dynamic floodplain system.

Long Term Resource Monitoring

LTRMP Showcase: The LaGrange Filed Station—A Research Sampler of Fish, Vegetation, and Asian Carp

Greg Sass presented the LaGrange field station's research on fish, invasive species, and aquatic vegetation. He said the station, with LTRMP Additional Program Element (APE) funding, is researching fish community structure and population dynamics and recruitment. Sass said factors that affect fish population sustainability include having an adequate number of spawners, consistent recruitment, and suitable habitat and resources to complete life cycles. He observed that losing one or more of those factors can cause a fish population to collapse. Goals for the fisheries research include:

- Establish species-specific fisheries management objectives for the UMRS
- Focus on status, not trends
- Establish fish community management objectives for the UMRS (fish species diversity)
- Focus on assessment, not mechanisms and projects to remedy

Sass said the past 20 years of LTRMP catch per unit effort (CPUE) fish data in each of the six trend pools were used to determine the reference condition for each area and the UMRS. An index was developed by dividing the data into quartiles; with the lowest quartile representing a poor condition, second quartile a fair condition, third quartile a good condition, and fourth quartile an excellent condition. Sass explained how the results can be used as a tool to assess fish habitat and ecosystem health in each pool and the UMRS, and to compare between pools.

Sass reported that the index of overall fish CPEU rankings indicate that the six trend pools are all in fair condition. However, when assessed based on species diversity, the results indicate that Pool 8 is in excellent condition, Pool 13 is in good condition, Pool 26 and the Open River are in fair condition, and the La Grange Reach and Pool 4 are in poor condition. In response to a question from Tim Schlagenhaft, Sass said that presence and abundance were considered in calculating species diversity. Dan Wilcox observed that a score for a particular area is relative only to other areas in the system—i.e., a "good" relative score may still represent low quality conditions in more absolute terms. Sass asked what Wilcox is proposing as the reference stream for the UMRS. Wilcox suggested considering the biological potential of the system. Schlagenhaft noted that upper and lower Pool 4 are vastly different, and he suspects that lower Pool 4 is more similar to Pool 8.

Sass reported that the LaGrange field station is researching Asian carp in the Illinois River. He said the presence of bighead carp was first detected in the LaGrange Pool in 1995, and silver carp in 1998. Since 2007, both carp species' populations have increased significantly. Sass said the silver carp population has grown exponentially, nearly doubling each year. In 2009, silver carp made up about 50 percent of the total catch in the LaGrange Pool. Sass said estimates from commercial fisheries indicate that bighead carp population growth in the area has been similar to silver carp, though LTRMP's sampling gear does not provide good bighead carp data. Sass reported that silver carp spawned three times in 2007, and at least once in 2008. Sass explained that silver carp often spawn in response to flood pulses. He said Asian carp can overwinter at small sizes, furthering the species' robustness. Their overwintering capabilities unusual compared to most native species.

In response to a question from Barry Johnson, Sass said there has been very little research to estimate Asian carps total food consumption, though some work has been done in the Great Lakes. Sass explained that Asian carp seem to be creating conditions that benefit themselves—e.g., shifting zooplankton populations to a size that only they would consume.

Sass said the LaGrange station has also been researching submersed aquatic vegetation (SAV) in the Illinois River. He explained that, historically, SAV flourished throughout the Illinois Waterway. In the early to mid-1900s, SAV continued to flourish in the lower River, but was virtually lost in the upper Illinois River, due to the influence of Chicago. Currently, SAV is generally limited to the uppermost reaches of the Illinois River, where water clarity is generally better. Sass said results from two studies in the LaGrange and Starved Rock reaches indicate that potential limiting factors for SAV include turbidity, herbivory, dessication, and seed bank viability. A die-off in the test area during a flood pulse indicated that herbicides may be another potential limiting factor. Sass said adaptive management is a key part in the restoration process in terms of how experimentation and monitoring can inform management actions.

Product Highlights

Mike Jawson reported that third quarter project highlights include the following:

- The second LTRMP fact sheet, "Taking the Pulse of a River System: Research on the Upper Mississippi River System."
- Three completion reports, which were distributed to the partnership on August 3, 2009:

 Cumulative effects of restoration efforts on ecological characteristics of an open water region within the Upper Mississippi River, 2) Evaluation of single- and two-stage adaptive sampling designs for estimation of density and abundance of freshwater mussels in the Upper Mississippi River, and 3) Analysis of water quality following a drawdown in Navigation Pool 5 Upper Mississippi River System.
- A manuscript, "Evaluation of invertebrate sampling methods for use in the Open River Reach of the Upper Mississippi River."
- A report published by an LTRMP scientist, Nate De Jager, "Scaling the effects of moose browsing on forage distribution, from the geometry of plant canopies to landscapes." (Not an LTRMP publication.)
- International recognition, including from Chinese scientists touring the UMRS and a write-up in the Chinese magazine, *World Environment*, "The Diverse World We Live In: Taking the Pulse of the Mississippi River."
- Airboat replacement at the Bellevue Field Station.
- A promotional bulletin, Positioning the Long Term Resource Monitoring Program for the Future: Strategic Plan for the Long Term Resource Monitoring Program on the Upper Mississippi River System, 2010-2014.

Bathymetric and LiDAR Update

Karen Hagerty said Corps staff is continuing to implement the LiDAR and Bathymetry Data Acquisition Plans, both of which were significantly accelerated with 2009 stimulus funds. She anticipates data acquisition under both plans will be completed by the end of FY 10. She reported that cooperative efforts with Illinois, Minnesota, and Missouri to share LiDAR data are going well. In response to questions from Eric Schenk, Hagerty said LiDAR data will be acquired on the Illinois River, and processed at 2 foot resolution. She noted that the data will be able to support finer resolutions, but with less accuracy. In response to a question from Dan Wilcox, Hagerty said the Corps does not intend, as part of the current effort, to resample bathymetric data in areas where data have been previously acquired. However, she anticipates the Corps will develop a longer term plan for resampling.

FY 10-14 Strategic and Operational Plan

Marv Hubbell reported that the final FY 10-14 LTRMP Strategic and Operational Plan was distributed to the partnership on July 7, 2009. He explained that a subgroup of the Strategic and Operational Planning Teams will be formed this fall to review progress made towards implementing the Plan and review the FY 10 LTRMP SOW as it relates to the goals identified in the Plan. He noted that some goals have already been accelerated with stimulus funds. The subgroup will include Marv Hubbell, Karen Hagerty, Barry Johnson, Jennie Sauer, Rick Frietsche, Tim Schlagenhaft, Janet Sternburg, and Bill Franz.

A-Team Report

Janet Sternburg explained that the LTRMP Strategic and Operational Plan identifies various tasks for the A-Team that may require the Team to expand its scope and composition. She proposed that an *ad hoc* group of A-Team, EMP-CC, and LTRMP representatives consider the A-Team's scope, and clarify issues regarding 1) how to bring in additional areas of expertise (e.g., floodplain forests and mussels), and 2) broadening the A-Team's roles and responsibilities. Sternburg said she envisions this effort will consist of a few conference calls, with no face-to-face meetings. She requested that willing volunteers contact her by August 31, 2009.

In response to a question from Barry Johnson, Sternburg and Hubbell clarified that they are seeking EMP-CC's support for convening a small group in an effort to respond to the provision in the FY 10-14 LTRMP Strategic and Operational Plan that calls for the EMP-CC to consider the A-Team's roles and responsibilities. Bernie Hoyer asked if the additional areas of expertise needed for the A-Team are known. Sternburg said this should be an initial task for the *ad hoc* group. In response to a question from Joyce Collins, Sternburg said it remains to be determined whether the A-Team would need to be expanded to accommodate additional areas of expertise.

EMP-CC members agreed to move forward with the approach as proposed by Sternburg.

Other Business

The upcoming quarterly meetings are as follows:

- November 2009 Quad Cities
 - UMRBA November 17
 - NECC November 18
 - Joint EMP-CC and NECC afternoon of November 18
 - EMP-CC November 19
- February 2010 St. Louis
 - UMRBA February 23
 - EMP-CC February 24
 - Joint EMP-CC and NECC afternoon of February 24 (if needed)
 - NECC February 25
- May 2010 St. Paul
 - UMRBA May 18
 - NECC May 19
 - Joint EMP-CC and NECC afternoon of May 19 (if needed)
 - EMP-CC May 20

With no further business, the meeting adjourned at 12:30 p.m.

EMP-CC Attendance List August 5, 2009

EMP-CC Members

Elizabeth Ivy U.S. Army Corps of Engineers, MVD U.S. Fish and Wildlife Service, UMR Refuge **Rick Frietsche** Mike Jawson U.S. Geological Survey, UMESC Illinois Department of Natural Resources **Rick Mollahan** Bernie Hover 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

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 **Chuck Spitzack** U.S. Army Corps of Engineers, MVR U.S. Army Corps of Engineers, MVR Ken Barr Jim Homann U.S. Army Corps of Engineers, MVR T. Leo Keller U.S. Army Corps of Engineers, MVR Monique Savage U.S. Army Corps of Engineers, MVR Scott Whitney U.S. Army Corps of Engineers, MVR Brian Markert U.S. Army Corps of Engineers, MVS **Bob** Clevenstine U.S. Fish and Wildlife Service, RIFO U.S. Fish and Wildlife Service, Marion Sub-Office Jovce Collins Jon Duyvejonck U.S. Fish and Wildlife Service, RIFO Ron Fisher U.S. Fish and Wildlife Service, Illinois River U.S. Fish and Wildlife Service, Great Rivers NWR Jason Wilson Barry Johnson U.S. Geological Survey, UMESC Mike Wells Missouri Department of Natural Resources Eric Schenk **Ducks Unlimited** Scott Stuewe HDR Engineering HDR Engineering Matt Cochran Izaak Walton League Brad Walker Tom Boland MACTEC Max Starbuck National Corn Growers Association Vince Shav The Nature Conservancy Gretchen Benjamin The Nature Conservancy Doug Blodgett The Nature Conservancy Kim Schneider Schneider Communications **Bill Wittland** VoxStrategic Upper Mississippi River Basin Association **Barb** Naramore Dave Hokanson Upper Mississippi River Basin Association Upper Mississippi River Basin Association Kirsten Mickelsen