Minutes of the Upper Mississippi River System Navigation Environmental Coordination Committee

November 17, 2010 Quarterly Meeting

Holiday Inn Rock Island, Illinois

Chuck Spitzack of the U.S. Army Corps of Engineers called the meeting to order at 9:00 a.m. on November 17, 2010. A complete list of attendees follows these minutes.

Minutes from the August 10, 2010 Meeting

Jim Fischer moved and Bernie Schonhoff seconded a motion to approve the minutes of the August 10, 2010 meeting as drafted. The motion passed unanimously.

Program Management

FY 10 Year-End Report

Scott Whitney reviewed NESP's major programmatic accomplishments to-date, including the 2004 Feasibility Study, receiving authorization in WRDA 2007, the 2008 Economic Re-Evaluation Report, and the 2009 NESP Implementation Report to Congress. Whitney noted that, since FY 05, Congress has appropriated \$58.6 million in preconstruction engineering and design (PED) funding for NESP. Of the \$58.6 million, NESP has allocated \$4.2 million (7.2 percent) to program management, \$4.28 million (7.3 percent) to economic re-evaluation, \$25.175 million (43.0 percent) to navigation, and \$24.895 million (42.5 percent) to ecosystem restoration.

Whitney said NESP's FY 10 milestones include completing:

- a draft design documentation report (DDR) for L&D 22;
- project implementation reports (PIRs) for three restoration projects i.e., Pool 2 wing dam/dike alteration, L&D 22 fish passage, and Herculaneum;
- alternative formulation briefings for Pool 2 wing dam/dike alteration and Herculaneum; and
- designs for Pool 2 wing dam/dike alteration, mooring cells at L&D 14 and La Grange, and switchboats at L&Ds 22 and 25.

In response to a question from Tim Schlagenhaft, Whitney said program management includes activities that cut across ecosystem restoration and navigation, such as economic re-evaluation, and education and outreach efforts.

FY 11 Work Plan

Whitney reported that the Senate Appropriations Committee's FY 11 energy and water spending measure (S. 3635) and the House Energy and Water Subcommittee's FY 11 appropriations markup include \$4.0 million and \$1.0 million in PED funding for NESP, respectively. On September 30,

Congress approved a continuing resolution authority (CRA) for the entire federal government that will expire on December 1, 2010. Whitney said Congressional action beyond the CRA is unknown. He said Corps staff are assuming FY 11 NESP funding of \$3 million for planning purposes. [Note: On December 4 and December 22, Congress enacted subsequent CRAs. The December 22 CRA runs through March 4, 2011.]

Whitney explained that, under the \$3 million planning assumption, NESP would allocate \$350,000 to program management and \$1.352 million each to navigation planning and ecosystem restoration planning. He outlined the FY 11 allocations within NESP's major components, as follows:

- Program Management \$350,000
 - Program management \$275,000
 - Public involvement \$75,000
- Navigation Efficiency \$1,325,000
 - Systemic studies \$290,000
 - Navigation adaptive management \$150,000
 - Systemic environmental mitigation \$130,000
 - Navigation traffic management \$10,000
 - Small and large scale projects \$1,035,000
 - Small scale navigation \$125,000
 - Large scale navigation \$910,000
- Ecosystem Restoration \$1,325,000
 - Systemic projects \$639,500
 - Navigation structure projects \$406,000
 - Habitat improvement projects \$279,500

Chuck Spitzack said there are several ongoing efforts to enhance traffic management throughout the nation's inland navigation system. In particular, USACE's Inland Marine Transportation System (IMTS) is developing several improvements to the Corps' navigation operational processes and strategies. Jeff Stamper is participating on the IMTS's Working Group, which assists the IMTS Board of Directors. Spitzack and Stamper will continue to monitor the Group's efforts to determine how its work relates to NESP and to inform the Group about NESP and the Upper Mississippi River-Illinois Waterways System.

In response to a question from Jim Fischer, Whitney said NESP's FY 11 allocations are \$150,000 for navigation adaptive management and \$407,000 ecosystem restoration adaptive management. In response to a question from Schlagenhaft, Whitney said NESP's recent adaptive management efforts have included a) program managers attending USACE's national adaptive management meetings to learn about various techniques and b) technical managers providing insights to project delivery teams (PDTs) and river management teams.

Whitney said NESP's FY 11 goals include:

- 1) continuing efforts to increase construction readiness on several small scale ecosystem and navigation projects;
- 2) finalizing project implementation reports (PIRs) for Reno Bottoms, Pool 18 water level management, Upper Peoria Pool, Buffalo Island, Schenimann Chute, and Twin Islands;
- finalizing design reports for several projects, including locks, mooring cells, and mitigation;
- 4) preparing to transfer from a multi-lock to a single-lock planning approach in FY 12.

Janet Sternburg asked about the costs associated with the additional project review requirements mandated in WRDA 07. Whitney said the additional reviews are very significant in terms of staff and budget resources. He estimated that agency technical reviews (ATRs) cost between \$20,000 and \$50,000 and independent external peer reviews cost between \$150,000 and \$300,000. However, NESP is exploring the potential for an IEPR exemption on most of its ecosystem and small-scale navigation projects. According to Whitney, an overall increase in Congressional scrutiny on USACE will likely make it very difficult to receive such an exemption.

In response to a question from Sternburg, Whitney said projects cannot be submitted together for simultaneous review. However, he said insights gained will be incorporated into similar subsequent projects, thus decreasing costs over time. Brian Johnson added that NESP has been able to submit similar projects to the same ATR Team, creating obvious efficiencies. Whitney acknowledged that as the ATR Teams gain more experience under the new review requirements, the Teams will likely discover areas of project reports that do not require high levels of scrutiny.

In response to a question from Jon Duyvejonck, Whitney said the additional review costs he cited earlier do not include model certification, which is required for all USACE models, including those with an established history of use. Within the next few weeks, EMP and NESP staff will submit eight models for certification, with estimated certification costs totaling between \$4 million-\$5 million. The timeline for the models' certification process is unclear. Johnson added that, although NESP projects currently undergoing ATR have used uncertified models, the ATR Teams will evaluate whether the models were appropriately applied. Duyvejonck suggested that a future EMP-CC/NECC joint session include a discussion on what models are certified. Johnson noted that the USFWS's Habitat Suitability Index (HSI) Models are certified. (The HSI Models are commonly referred to as the Blue Book and are available at http://el.erdc.usace.army.mil/emrrp/emris/emrishelp3/list of habitat suitability index hsi models pac.htm.) H owever, he noted that any modifications to a model will require it to undergo recertification.

Whitney outlined NESP's anticipated FY 11 ecosystem restoration activities, including planning starts in each of the four floodplain reaches, continuing adaptive management efforts, finalizing the Cultural Resources Stewardship Teaching Guide and the Fleeting Plan, and advancing current navigation structure and habitat improvement projects. Whitney mentioned that NESP's "Blueprint for Action" has been very well received among the partnership. He said it serves as a communications tool to inform Congress of NESP's goals for addressing the UMRS's navigation and ecosystem restoration needs, the potential economic importance of the program to the region and nation, and its construction readiness.

Schlagenhaft expressed concern that support for NESP has been declining over the past few years, both within Congress and the Administration and among state field staff. With NESP's uncertain near- and long-term future, he posed the question of whether partners should reconsider NESP's implementation strategy, or instead, focus on investing resources in other regional restoration programs. Whitney acknowledged that Corps staff share similar concerns about declining support for NESP. He stressed the need for partners to continually reevaluate NESP's vision and communications strategy to revive and expand support for the program, emphasizing the strong, collaborative partnership. Whitney advised restoration advocates against separating from navigation partners, and emphasized the possible benefits associated with "comparable funding" for ecosystem restoration when high-expense navigation improvements are implemented.

In response to a question from Bob Clevenstine, Whitney said NESP's estimates for job creation associated with its planning and construction activities are derived from a Tennessee Valley Authority (TVA) calculation. Clevenstine offered the USFWS's 5-year reports on the economic impacts from wildlife-based recreation as a resource for describing potential NESP-related economic benefits in outreach materials.

Schlagenhaft noted that there are significant challenges to new lock construction starts nationally. He observed that NESP has allocated significant money to planning projects that have very high construction costs, and suggested that partners reconsider whether it would be more valuable in the current fiscal and political climate to place more emphasis on completing plans for smaller, lower cost projects. Whitney said the Corps has had similar discussions internally. However, Congressional support for NESP is unknown at this point, and having larger projects with substantial potential benefits to the UMRS and nation might provide greater motivation for the Administration and Congress to include NESP in the Corps' CG account.

Chuck Spitzack said he appreciates Schlagenhaft's comments and suggested that NECC discuss NESP's future strategy at its February 17, 2011 meeting. He emphasized the need for partners to consider how to communicate the need for increased UMRS funding generally, especially since the ASA(CW) has identified the UMRS as a nationally significant ecosystem.

Bernie Schonhoff asked if partners can do anything to accelerate other interim program needs, such as getting the Wildlife Habitat Appraisal Guide (WHAG) and the Aquatic Habitat Appraisal Guide (AHAG) models certified. Whitney said those models are currently under review by the USACE Center for Expertise. Hubbell said he anticipates that all eight models under review be certified. While ultimate approval of project plans may be delayed until certification is approved, planning efforts on the various EMP and NESP restoration projects will continue to progress. Clevenstine noted that WHAG and AHAG are based on "Blue Book" numbers, and therefore should be certified.

NESP Lock Sequencing

Chuck Spitzack briefly reviewed the lock construction proposal put forth in the IMTS Team's Capital Investment Plan. Under the IMTS approach, UMRS locks would be constructed individually, as follows: L&D 25 in FY 11, although the earliest feasible start is likely FY 12; La Grange in FY 17; L&D 22 in FY 22; and L&D 24 in FY 24. Construction on the remaining three new UMRS locks authorized in WRDA 07 (i.e., L&D 20, 21, and Peoria) would begin beyond the IMTS Plan's 20-year timeframe.

In a September 16 email, MVR requested partner input on NESP lock sequencing by October 30, with particular attention to whether there's any reason to deviate from the order proposed in the Capital Plan. Spitzack said comments from Iowa DNR, Missouri DNR, US EPA, UMRBA, AEP River Operators, American Waterways Operators, and Waterways Council expressed support for NESP following the IMTS Team's recommended lock sequencing. These positions were generally predicated on La Grange receiving necessary rehabilitation in a timely manner. He said the Nicollet Island Coalition also submitted comments, but focused primarily on process-related requirements related to NESP's 2008 Economic Reevaluation Report. Corps staff will address the Coalition's comments soon. Spitzack said he will distribute a summary of the lock sequencing comments received. Spitzack mentioned that the Corps will revisit the sequencing question after risk-based cost estimates of the UMRS locks are finalized and prior to initiating detailed designs of any new lock.

Jim Fischer asked if the Inland Waterway Trust Fund (IWTF) is required to cost-share major rehabilitation of La Grange. Gary Meden explained that current laws would require cost sharing from the fund. However, full federal funding for major lock rehabilitation costing over \$100 million is recommended in the IMTS Team's Plan. Meden noted that the Plan's inclusion of a fuel tax increase could work against the Plan's acceptance in Congress. In response to a question from Fischer, Meden acknowledged that future funding and political considerations could well affect construction and rehabilitation priorities, both nationally and on the UMRS. Thus, Corps staff and partners will need to maintain some flexibility in planning. In response to a question from Rick Mollahan, Meden explained that major rehabilitation is not in NESP's realm, but NESP will still need to consider rehabilitation

needs and schedules, since both draw from the IWTF. Whitney noted that timely construction of a new lock at La Grange, as recommended in the Feasibility Study, would have eliminated the need for a separate major rehabilitation project.

UMR-IWW Navigation Study Mitigation Update

Nate Richards overviewed NESP's activities related to both site-specific and systemic mitigation for impacts from lock construction and increased commercial traffic. NESP's authority includes \$205 million for mitigation, which is about 10 percent of NESP's total authorized funding. Of that amount, roughly \$149 million has been identified for systemic efforts and \$56 million for site-specific projects. Richards described NESP's five major themes for its systemic mitigation activities, including fisheries, submersed aquatic vegetation (SAV), backwater and side channel sedimentation, bank erosion, and cultural resources.

Richards said NESP has completed 17 studies on the possible impacts to fish from forecasted increases in commercial traffic resulting from the navigation improvements authorized under NESP. The fish mitigation strategy was developed using a larval fish entrainment model, which was extrapolated to determine potential adult fish mortality and foregone recruitment and production. About \$60 million in fish mitigation projects are identified, including backwater dredging, large woody debris anchors, gravel bars, side channel restoration, and pile dikes. He said NESP plans to develop a fish mitigation team to review current research, develop mitigation measures, identify potential project locations, and initiate projects. Corps staff also anticipate convening a NECC webinar on future fish mitigation shortly.

Richards said the goal of SAV mitigation is to reduce the wave effects on SAV populations that are at risk from commercial navigation. NESP has developed SAV models to determine what populations might be impacted by increased commercial navigation. The models and field surveys identified 33 potential SAV impact zones in Pools 5, 9, 11, 13, and 19. It was found that 25 out of the 33 potential impact zones can support SAV. And out of those 25 zones, field surveys in 2005-2006 and 2008 found that SAV occurred in 4 to 10 zones. Richards reported that MVP has recently completed a white paper that summarizes the survey results and guides NESP's potential SAV mitigation efforts. The NESP Systemic Mitigation Team will review the white paper, which NESP anticipates finalizing in early 2011.

Richards said NESP's mitigation goal for backwater and side channel sedimentation is to stop or slow sediment deposition in areas identified at risk from commercial navigation. He explained that gauges will be placed in backwaters and on tows to determine the current water flow speed and direction, suspended sediment concentrations, and water level fluctuations, and to identify locations that would most likely be affected by increases in navigation. So far, NESP has identified 30 potential mitigation locations. Projects would include dredging, diversion and barrier structures, rock placement, and islands. Richards said pre-construction studies are needed to determine the potential significance of sediment deposition. He explained how the Corps plans to use bathymetry to understand potential changes in sediment deposition from NESP's navigation projects.

Richards explained that NESP has assessed potential increases in bank erosion based on commercial navigation traffic forecasts, using existing literature, GIS databases, field surveys, numeric models, and resource manager input. The potential affected areas were ranked high and medium based on the level of impact and the significance of the resource. Resources affected include threatened and endangered species, floodplain forest, islands, social resources, and historic properties. Richard said options for mitigating bank erosion include non-structural (e.g., vegetation planting) and structural (e.g., offshore revetment) measures, as well as combinations of both. Richards showcased Moore's Towhead bank erosion project, which is located in Alton, Illinois on land owned by TNC. Corps staff are currently developing preliminary alternatives for the project — e.g., reduce navigation-induced bank erosion, increase fish habitat, and avoid impacts to an existing mussel bed and to the side channel.

Richards said NESP, as part of its cultural resources mitigation, has developed a Teacher's Curriculum Guide to serve as an educational tool for grades 5-8. The Guide includes interesting and engaging text, interviews, histories, images, diagrams, examples, experiments, and problem solving tasks. The Cultural Resources Stewardship Team, Mitigation Team, and UMR States Historic Preservation Officers (SHPOs) are currently reviewing the draft Guide. NESP staff anticipate publishing the Teacher's Guide in early 2011.

Barry Johnson asked if the Fish Mitigation Team has used an adult fish entrainment model, in addition to the larval entrainment model. Richards said Killgore *et al.* recently developed a towboat fish entrainment rate study for 13 UMRS pools that considers fish species that are 12.5 centimeters and larger. The study is currently under review, but its results can be used in further fish mitigation analyses. Mark Cornish said several studies are nearly completed that examine systemic fish mitigation.

In response to a question from Johnson, Richards said the Fish Mitigation Team has focused on waves generated by commercial vessels, not recreational boats. Johnson asked for more details regarding methods to select potential side channel restoration sites. Scott Whitney explained that NESP has conducted extensive modeling of sediment transport, including possible impacts from barges. Richards said the side channel projects are generally dispersed throughout the UMRS. Johnson encouraged the Corps to carefully consider modifications to Moore's Towhead, noting that the side channel is in relatively good condition. Richards said the side channel is very shallow and models are showing high sedimentation rates, causing it to fill-in fairly quickly.

Janet Sternburg asked if Corps staff plan to review the systemic mitigation plan and reach planning for common projects. Richards said the Corps has identified at least one or two common projects in each reach, and is currently reviewing reach planning projects for site-specific fish mitigation. Brian Johnson also noted that reach planning projects can be used to think more broadly about how mitigation efforts can benefit multiple species.

In response to a question from Tim Schlagenhaft, Whitney clarified that the Moore's Towhead project is being funded from NESP's mitigation account, not its adaptive management account. Bernie Schonhoff asked if the Moore's Towhead project has identified any alternatives to benefit amphibians and reptiles. Richards said the project has focused mainly on off-shore revetment that would be most affected by high currents. In response to a question from Bob Clevenstine, Richards said TNC has not done a resource inventory at Moore's Towhead, but has completed one at Spunky Island, which is located near Moore's Towhead. He said Moore's Towhead has little habitat value currently. Corps staff anticipate having a draft Plan for the project to share with partners this fiscal year.

Schlagenhaft observed that EMP implements many of these project types and suggested that Corps staff consider ways to leverage funding between NESP's mitigation efforts and EMP. Whitney articulated that NESP and EMP are different programs and are appropriated funds separately for their own respective projects that cannot be combined. Schlagenhaft noted that NESP and EMP are currently involved in a program-neutral reach planning effort. He offered his perspective that it would be in the UMRS's best interest to combine resources to advance the highest priority projects. Chuck Spitzack recalled that Corps staff intended to link the reach planning process with the identified mitigation projects. However, that comparison step was not realized. He also mentioned that any efforts to combine ecosystem restoration and mitigation projects will need to include very careful allocation of costs between the two accounts. Whitney noted that all mitigation projects will need to be directly tied to resources that will be impacted by increased barge traffic, limiting the projects' scope. Schlagenhaft suggested that Corps staff consider priority projects identified through reach planning for NESP's systemic mitigation efforts. Whitney agreed, and said Corps staff will need to consider which projects best address mitigation needs.

Schlagenhaft also mentioned the potential for other UMR restoration programs to accelerate priority projects. Whitney said mitigation projects will receive cost share from the Inland Waterway Trust Fund, allowing NESP to implement more projects with its mitigation funding. Richards said that, since navigation improvements are likely to occur in the southern portions of the UMR, mitigation projects in those areas would also be implemented first. Schlagenhaft clarified that his comments were to emphasize the need to select mitigation projects that address mitigation needs and also reflect partner priorities.

Partner Reports

Jim Fischer announced that Scott Walker is Wisconsin's incoming Governor. Walker has called for the current Administration to stop negotiations with unions and postpone hiring new staff. Fischer said he anticipates that Walker will appoint a new DNR Secretary and Division Administrators. Fischer reported that the Wisconsin State Legislature accepted new rules to limit both point and nonpoint sources of phosphorus. Wisconsin DNR will submit the new phosphorus criteria to US EPA in December for review and approval.

Tim Schlagenhaft said Minnesota has scheduled a recount for its Governor's race, given the very close vote totals between Mark Dayton and Tom Emmer. He said either candidate will likely result in administrative changes for Minnesota DNR. [Subsequent to the meeting, a recount confirmed Mark Dayton as the winner of Minnesota's gubernatorial election and Tom Emmer conceded.]

Mike Jawson reported that USGS is currently undergoing a major reorganization. The five USGS branches (Geology, Geography, Water, Biology, and Geospatial Information) will be replaced with six thematic areas, which include Ecosystems; Climate and Land-Use Change; Energy and Minerals, and Environmental Health; Natural Hazards; Water; and Core Science Systems. USGS will also eliminate its three geographic regions, but will maintain eight smaller geographic areas. The UMRS states will be divided among three areas. Jawson said this reorganization is intended to facilitate interdisciplinary research and information exchange, both internal and external to the agency.

Kevin Foerster introduced Ryan Aylesworth, USFWS's Intergovernmental External Affairs Liaison. Aylesworth said he is involved with USFWS's Congressional affairs efforts and Midwest Natural Resources Group (MNRG). He is also currently finalizing his doctoral research on interagency collaboration in the Mississippi River Basin. Aylesworth will more regularly attend future NECC meetings.

Bernie Schonhoff reported that Iowa's incoming Governor is Republican Terry Brandstad. Pat Boddy said Governor Culver discontinued the hiring freeze. She said Brandstad has also expressed his support for state agencies to continue hiring new staff. Boddy said it is not yet known how the change in Administration will affect Iowa DNR and other state agencies.

Rick Nelson announced that USFWS has proposed two freshwater mussels found in the UMRS, the Sheepnose (*Plethobasus cyphyus*) and Spectaclecase (*Cumberlandia monodonta*), for protection as endangered species.

Brad Walker mentioned that, in its recently released "illustrative savings list" of options for reducing the national deficit, Co-Chairs of the National Commission on Fiscal Responsibility and Reform recommended that fuel tax revenues fully fund construction and maintenance of the inland navigation system. The full list of recommendations is available at http://www.fiscalcommission.gov/sites/fiscalcommission.gov/files/documents/Illustrative_List_11.10.2010.pdf. [Subsequent to the meeting, on December 1, the Commission released its final report, with an accompanying list of savings options in discretionary spending that includes the navigation fuel tax

recommendation. The Commissioner's report, however, was not endorsed by the 14-member minimum needed to trigger immediate Congressional consideration. The final vote was 11-7 in favor of the report recommendations.]

Janet Sternburg reported that Senator Kit Bond is retiring. Bond has always been a strong supporter of NESP, EMP, and other UMRS programs. Sternburg noted that the partnership needs to continue to demonstrate its support for NESP.

Chuck Spitzack said NESP staff are considering having a river conference in 2012 or 2013 to align with the next NESP Implementation Report to Congress (IRTC). He said NESP will need to begin planning for the IRTC soon.

Other Business

Mike Jawson observed that Dubuque, Iowa would be a more central meeting place for partners and suggested it as a location for future quarterly meetings. Janet Sternburg suggested convening both EMP and NECC meetings on the same day, especially if a joint session does not occur. Spitzack said Corps staff will consider ways to make the meeting schedule more efficient, including convening web-based teleconferences between meetings. Kevin Foerster expressed support for meeting three times a year instead of quarterly. Jim Fischer suggested that NESP and EMP Program Managers provide partners with programmatic updates in advance of the meetings, in an effort to increase meeting efficiency and reducing redundancy between UMRBA, NECC, and EMP-CC quarterly meetings, as well as EMP-CC/NECC joint sessions.

The upcoming quarterly meetings are as follows:

- February 2011 St. Louis
 - o UMRBA February 15
 - o EMP-CC February 16
 - o Joint EMP-CC/NECC afternoon of February 16
 - o NECC February 17
- May 2011 Rock Island*
 - o UMRBA May 17
 - NECC May 18
 - O Joint EMP-CC/NECC afternoon of May 18 (if needed)
 - o EMP-CC May 19
- August 2011 Quad Cities*
 - o UMRBA August 16
 - o EMP-CC August 17
 - O Joint EMP-CC and NECC afternoon of August 17 (if needed)
 - o NECC August 18

With no further business, the meeting adjourned at 11:15 a.m.

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

NECC Attendance List November 17, 2010

NECC Members

Chuck Spitzack
Rick Nelson
U.S. Fish and Wildlife Service, RIFO
Butch Atwood
Bernie Schonhoff
Tim Schlagenhaft
Janet Sternburg
Jim Fischer
U.S. Army Corps of Engineers, MVR
U.S. Fish and Wildlife Service, RIFO
Illinois Department of Natural Resources
Iowa Department of Natural Resources
Minnesota Department of Natural Resources
Wisconsin Department of Natural Resources

Others in Attendance

Jeff DeZellar U.S. Army Corps of Engineers, MVP U.S. Army Corps of Engineers, MVR Garv Meden **Scott Whitney** U.S. Army Corps of Engineers, MVR U.S. Army Corps of Engineers, MVR Nate Richards Mark Cornish U.S. Army Corps of Engineers, MVR U.S. Army Corps of Engineers, MVR Marvin Hubbell U.S. Army Corps of Engineers, MVR Karen Hagerty Brian Johnson U.S. Army Corps of Engineers, MVS U.S. Army Corps of Engineers, MVS Hal Graef Donovan Henry U.S. Army Corps of Engineers, MVS U.S. Army Corps of Engineers, MVS Kat McCain

Kevin Foerster U.S. Fish and Wildlife Service, UMR Refuge Ryan Aylesworth U.S. Fish and Wildlife Service, UMR Refuge

Jon Duyvejonck U.S. Fish and Wildlife Service, RIFO

Bob Clevenstine U.S. Fish and Wildlife Service, UMR Refuge Scott Yess U.S. Fish and Wildlife Service, UMRCC

Mike Jawson

Barry Johnson

U.S. Geological Survey, UMESC

U.S. Geological Survey, UMESC

Rick Mollahan Illinois Department of Natural Resources
Pat Boddy Iowa Department of Natural Resources
Robert Stout Missouri Department of Natural Resources

Brad Walker Izaak Walton League

Nicole Staskowski JFNew Tom Boland MACTEC

Laura Kammin Prairie Rivers Network

Kirsten Mickelsen Upper Mississippi River Basin Association