

**Minutes of the 122<sup>nd</sup> Quarterly Meeting  
of the  
Upper Mississippi River Basin Association**

**May 23, 2012  
St. Louis, Missouri**

UMRBA Chair Diane Ford called the meeting to order at 9:40 a.m. Participants were as follows:

UMRBA Representatives and Alternates:

|                   |   |
|-------------------|---|
| Arlan Juhl        | Illinois Department of Natural Resources            |
| Dan Stephenson    | Illinois Department of Natural Resources            |
| Diane Ford        | Iowa Department of Natural Resources                |
| Harold Hommes     | Iowa Department of Agriculture and Land Stewardship |
| Dave Frederickson | Minnesota Department of Agriculture                 |
| Dru Buntin        | Missouri Department of Natural Resources            |
| Robert Stout      | Missouri Department of Natural Resources            |

Federal UMRBA Liaisons:

|                 |   |
|-----------------|---|
| J.R. Flores     | Natural Resources Conservation Service, Missouri          |
| MG John Peabody | U.S. Army Corps of Engineers, MVD                         |
| Charles Barton  | U.S. Army Corps of Engineers, MVD                         |
| Kathy Kowal     | U.S. Environmental Protection Agency, Region 5 (by phone) |
| Josh Svaty      | U.S. Environmental Protection Agency, Region 7            |
| Tim Yager       | U.S. Fish and Wildlife Service, NWRS                      |
| Dave Bornholdt  | U.S. Geological Survey, MWA                               |

Others in Attendance:

|                    |  |
|--------------------|--|
| Hon. Francis Slay  | City of St. Louis                            |
| John Goss          | White House Council on Environmental Quality |
| Renee Turner       | U.S. Army Corps of Engineers, MVD            |
| Judy DesHarnais    | U.S. Army Corps of Engineers, MVP            |
| Tom Crump          | U.S. Army Corps of Engineers, MVP            |
| Terry Birkenstock  | U.S. Army Corps of Engineers, MVP            |
| Chuck Spitzack     | U.S. Army Corps of Engineers, MVP            |
| Tom Novak          | U.S. Army Corps of Engineers, MVP            |
| COL Shawn McGinley | U.S. Army Corps of Engineers, MVR            |
| Roger Perk         | 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            |
| Kelly Baerwaldt    | U.S. Army Corps of Engineers, MVR (by phone) |
| COL Chris Hall     | U.S. Army Corps of Engineers, MVS            |
| Joe Kellet         | U.S. Army Corps of Engineers, MVS            |
| Brian Johnson      | U.S. Army Corps of Engineers, MVS            |
| Tom Quigley        | U.S. Army Corps of Engineers, MVS            |
| Jeff Stamper       | U.S. Army Corps of Engineers, MVS            |
| Deanne Strauser    | U.S. Army Corps of Engineers, MVS            |
| Jasen Brown        | U.S. Army Corps of Engineers, MVS            |

|                   |   |
|-------------------|---|
| Laurie Farmer     | U.S. Army Corps of Engineers, MVS             |
| Hal Graef         | U.S. Army Corps of Engineers, MVS             |
| Charlie Hanneken  | U.S. Army Corps of Engineers, MVS             |
| Kat McCain        | U.S. Army Corps of Engineers, MVS             |
| Matthew Rector    | U.S. Army Corps of Engineers, MVS             |
| Jon Duyvejonck    | U.S. Fish and Wildlife Service, RIFO          |
| Sam Finney        | U.S. Fish and Wildlife Service                |
| Matt Mangan       | U.S. Fish and Wildlife Service                |
| Mike Jawson       | U.S. Geological Survey, UMESC                 |
| Barry Johnson     | U.S. Geological Survey, UMESC                 |
| Kevin Stauffer    | Minnesota Department of Natural Resources     |
| Chris Klenklen    | Missouri Department of Agriculture            |
| Janet Sternburg   | Missouri Department of Conservation           |
| Andrea Balkenbush | Missouri Department of Natural Resources      |
| Ron Benjamin      | Wisconsin Department of Natural Resources     |
| Tom Boland        | AMEC  |
| Tim Eder          | Great Lakes Commission                        |
| Gary Loss         | HTNB  |
| Bob Ivarson       | HTNB  |
| Colin Wellenkamp  | Mississippi River Cities and Towns Initiative |
| Brad Walker       | Missouri Coalition for the Environment        |
| Todd Strole       | The Nature Conservancy                        |
| Paul Rohde        | Waterways Council Inc.                        |
| Barb Naramore     | Upper Mississippi River Basin Association     |
| Dave Hokanson     | Upper Mississippi River Basin Association     |
| Kirsten Mickelsen | Upper Mississippi River Basin Association     |

### **Minutes**

Olivia Dorothy requested a clarification to page 4 of the draft minutes of the February 29, 2012 meeting, explaining that her reference to a fuel tax increase of \$0.50 per gallon was simply intended to be an example of a mechanism for increasing revenue to the Inland Waterways Trust Fund. She clarified that the Nicollet Island Coalition is not committed to that particular tax increase, but does support some combination of new user fees and/or fuel tax increases. Dru Buntin moved and Arlan Juhl seconded a motion to approve the draft minutes with the clarification offered by Dorothy. The motion carried unanimously.

### **Recognitions**

Diane Ford observed that both Charles Barton and Chuck Spitzack will be retiring in the near future. She expressed UMRBA's appreciation to both men for their many contributions on the UMR and their commitment to collaboration and partnership.

### **Executive Director's Report**

Barb Naramore reported that UMRBA staff distributed the Aquatic Life Designated Uses Report following the Board's approval of the draft report in February. UMRBA's Water Quality Executive Committee and Task Force will be working to implement its central recommendation for a classification framework that standardizes the lateral and longitudinal strata for Clean Water Act implementation on the UMR.

Naramore also noted that UMRBA's water quality monitoring project is well underway. State personnel and others will review a draft strategy document at a September 2012 meeting. She also distributed copies of a recent *Wall Street Journal* article about the increased level of sand mining in the Midwest. The article focuses particularly on mines in Wisconsin and Minnesota that supply a sand especially valued by oil and gas drillers.

Naramore directed the Board's attention to pages B-5 to B-8 of the agenda packet for the current Treasure's Statement, Profit and Loss Statement, and Balance Sheet. As of May 9, 2012, ordinary income totaled \$592,692 and expenses totaled \$517,761, for net ordinary income of \$74,931. Naramore said she expects year-end net income to be approximately \$20,000. Dru Buntin moved and Dave Frederickson seconded a motion to accept the FY 12 Profit and Loss Statement and Balance Sheet dated May 9, 2012. The motion carried unanimously.

### **Navigation Infrastructure**

#### *Update from Division Commander*

MG John Peabody explained that, over the years, USACE has been authorized and funded to construct more infrastructure than the nation, through Congress, is now prepared to support. As a result, the Corps faces a critical shortage of funding for operation and maintenance (O&M) and major rehabilitation, a shortage that is particularly acute for navigation infrastructure. While expressing confidence that the impasse with the Inland Waterways Trust Fund (IWTF) will ultimately be resolved, he said it is clear the USACE will not have sufficient funding in the future to adequately service all of its existing built infrastructure.

MG Peabody stressed that the importance of the Mississippi River Basin and its waterways to the nation is hard to overestimate. He explained that the basin's combination of navigable rivers, mineral and energy resources, and agricultural productivity make it unique in the world.

Most structures on the inland navigation system are beyond their 50-year design life, with some as old as 110 years. MG Peabody said these structures are deteriorating at an alarming rate, with several structures on the Lower Monongahela, Lower Ohio, and Upper Mississippi Rivers rated at highest risk for failure. Under these circumstances, USACE is focused on realizing every possible efficiency and allocating its limited resources to the most critical structures. However, he acknowledged that most feasible efficiencies have already been achieved and there is limited potential for further improvement. MG Peabody said structures the Corps can no longer support are more likely to be relegated to a caretaker status than to be formally deauthorized.

#### *Civil Works Transformation*

Tom Crump described changes in the Corps' planning process being made as part of its Civil Works Transformation effort. He explained that the current planning process is often criticized for being lengthy and costly, and for producing overly technical documents that do not necessarily optimize decisions. He said this frustrates project sponsors, Congress, and the Administration. The revised planning process is intended to produce concise, actionable reports, with an emphasis on delivering quality products in a reasonable period of time and at a reasonable cost. According to Crump, the new approach strives for a fundamental consistency across the Corps, while recognizing the need for scalability and adaptability. The 3x3x3 rule calls for feasibility studies to be completed within three years (with an 18 month target for most studies), while costing \$3 million or less and integrating the study across District, Division, and HQ. Crump outlined next steps, which call for implementing the new planning paradigm in FY 14.

MG Peabody explained that planning is one of four central elements to the Corps' overall Civil Works Transformation. The other areas are asset management, budget development, and delivery methods. The asset management effort will focus on being able to compare criticality across project type and geography. In the area of delivery methods, USACE will focus on minimizing costs while maximizing effectiveness.

### *Industry Update and Perspectives*

Paul Rohde briefly reviewed data on the nation's aging inland waterways infrastructure. At the same time the structures are aging and thus requiring greater resources, the funds available for O&M, major rehabilitation, and new capital investment are all declining. Rohde said the Corps' share of the federal budget was 0.59 percent in 1976, shrinking to 0.14 percent in 2012. These two trends are combining to increase lock outages and other emergency repair needs. In 2011, lock outages nationwide exceeded 170,000 hours.

Rohde reviewed the most pressing inland navigation issues from industry's perspective, including:

1. Inadequate navigation funding — the Administration, House, and Senate are all proposing amounts below the FY 12 funding level for FY 13
2. Administration's proposed lockage fees — industry strongly opposes these fees, which fail to treat inland waterways as a system
3. Cost overruns at Olmsted — the current estimate of \$3.1 billion represents a fourfold increase over the original 1988 authorized amount and these overruns are severely affecting the schedules for other construction and major rehabilitation projects — the House is proposing to condition release of half of Olmsted's FY 13 appropriation on completion of a project review and the Senate is proposing to reduce industry cost sharing on Olmsted in FY 13 to 25 percent to free funds for other projects
4. Administration's proposal to reduce levels of service at lower use locks — this would reduce operating hours at 63 locks nationwide, including five locks on the UMRS, based on the number of commercial lockages in 2010; industry is concerned with basing service levels strictly on usage figures and has called for alternatives to this "one size fits all" approach to reducing operating costs
5. Lock closure proposals related to Asian carp
6. Status of the Inland Waterways Users Board (IWUB) — the Users Board has not met since April 2011; the Administration recently resolved an internal debate that had blocked new appointments and the IWUB is scheduled to meet in early June
7. A Senate proposal for the Department of Transportation to assume responsibility for freight planning for all transportation modes, including the waterways — industry is concerned with the potential implications of such a shift

Rohde summarized the Waterways Are Vital for the Economy, Energy, Efficiency, and Environment Act (WAVE 4 Act). With Representatives Whitfield (R-KY) and Costello (D-IL) serving as lead sponsors, the measure would implement many recommendations from the IWUB-backed Capital Investment Plan. In particular, it would increase the fuel tax by \$0.06 per gallon, require the Administration to work with the IWUB to develop a 20-year capital development plan, eliminate industry cost share for dams and for major rehabilitation projects costing less than \$100 million, reform the project delivery process, and insulate industry from overruns on cost shared projects. Rohde said the measure is widely backed by operators and shippers. Rohde also reported briefly on an update to the Texas Transportation Institute's 2007 comparison of freight efficiency across transportation modes and highlighted recent media coverage of inland waterways transportation.

### *Nicollet Island Coalition Report*

Olivia Dorothy reported that the Nicollet Island Coalition will be issuing a follow-up to its February 2010 report, *Big Price, Little Benefit*. The 2010 report articulated the range of reasons that Coalition members believe the Navigation and Ecosystem Sustainability Program (NESP) is not justified. These include flat or declining traffic, a growing maintenance backlog, the potential of non-structural and small scale measures to reduce traffic delays, unit trains' comparable fuel efficiency for many shipments, NESP's low benefit-cost ratios, and the IWTF's revenue constraints.

While the new report is still pending, Dorothy outlined its major messages. These include the Coalition's continued opposition to the large scale measures authorized in NESP, and its support for major rehabilitation and O&M of the existing system, as well as small scale and non-structural improvements. Dorothy said the Coalition opposes the WAVE4 Act. In particular, she characterized the \$0.06 per gallon fuel tax as insufficient and said increasing the taxpayers' share of inland navigation projects is unwarranted.

Dorothy said the Coalition strongly supports full authorized funding for the Upper Mississippi River Restoration-Environmental Management Program (UMRR-EMP). In addition, she said members would like to see the UMRR-EMP mirror the NESP and Illinois River Section 519 programs more closely in terms of being able to pursue a wider range of floodplain and tributary projects. She said the Coalition also strongly supports floodplain buyouts and advocates funding to implement related Comp Plan recommendations. Members continue to support reforms to the Principles and Guidelines (P&G) for water resources planning, with priorities including enhancing tools for estimating costs and modernizing evaluation mechanisms to permit integrated consideration of environmental and economic factors.

### *Update on Middle Mississippi Training Structures EA*

Jasen Brown provided a brief update on the St. Louis District's pending Environmental Assessment (EA) of its Middle Mississippi River channel training structures. He reminded attendees that this study stems from a December 2011 Government Accountability Office (GAO) report auditing the District's use of training structures on the Middle Mississippi (RM 0 to 195). The GAO called on the Corps to conduct an EA to determine whether there have been significant new issues since publication of a 1976 Environmental Impact Statement (EIS). While MVS believes it is in full compliance with the National Environmental Policy Act (NEPA), Brown said the District agreed to perform an EA. With no specific funding for this effort, Brown said MVS is redirecting money from its regulatory works program to pay for the assessment.

Brown reported that MVS held two public scoping sessions, both of which were relatively lightly attended. The District received few scoping comments and is currently working to identify impacts from its training structures. The schedule currently calls for completion of the final EA by November 1, 2012, though Brown noted that this is subject to change as the team refines the study scope and completes its impact identification.

### *UMRBA Next Steps*

Diane Ford said UMRBA Board members have identified navigation as a priority issue in their current strategic planning process. She invited input on how the states and UMRBA can best carry the message about the need to resolve the IWTF issue and invest in the region's navigation infrastructure.

MG Peabody noted that the IWUB is scheduled to meet soon and conversations amongst industry, the Administration, and Congress will be ongoing. He noted that his charge is to manage critical infrastructure, not to advocate for a particular source of funding or mix of sources. However, he stressed that the situation is critical. If funding is not increased, he said there is no doubt that there will be a catastrophic failure somewhere. Options include addressing the constraints imposed by the no earmarks policy, providing the Administration with increased block funding to allocate to its priorities, and/or increasing non-federal contributions. MG Peabody also offered his personal opinion that beneficiaries should be contributing to infrastructure funding. He observed that operators and their shipping customers do this through the IWTF. In the non-federal realm, MG Peabody said the Corps is also examining possible innovations involving venture capital and public-private partnerships. He said inland navigation is a small part of a much larger debate regarding the nation's willingness to invest in its infrastructure.

Dru Buntin said the states fully recognize the impediments to new infrastructure investment on the UMRS, including overall fiscal constraints, the IWTF situation, the cost overruns at Olmsted, and the Administration's lack of support for NESP. He emphasized that the states continue to support NESP, but also want to work with MVD and the Districts to address O&M and major rehabilitation needs on the UMRS. He requested a briefing at UMRBA's August 29 meeting regarding each District's critical O&M and rehab needs, noting that specifics are critical as the states seek to communicate with their Congressional delegations and others regarding regional needs.

MG Peabody said the Corps has made considerable progress enhancing its efficiency and effectiveness, but observed that opportunities for the greatest savings with the least negative impact have been realized. MVD continues to examine the ways it does O&M and is open to all ideas, but he stressed that whatever further savings are achieved will not be sufficient to eliminate the funding gap. He emphasized that the nation needs to decide how much it is willing to invest in its infrastructure needs and what its priorities are in allocating those resources.

Buntin invited the states' other partners to contribute ideas for delivering an effective message about the implications of infrastructure failure and the need to increase investment. Rohde reported that Waterways Council members and staff have made more than 300 Congressional visits this year. In those conversations, two themes have emerged:

1. There is increased awareness of the special problems the earmarks ban is causing for USACE, and support for modifying the definition of earmarks is building.
2. Members are increasingly distinguishing between consumptive spending and infrastructure investment.

Rohde acknowledged that the November elections reduce the likelihood of much concrete progress this year, but said important work remains to be done educating Members and laying the groundwork for next year.

MG Peabody said the 2011 collapse of a portion of the canal wall at Lockport was a startling reminder that catastrophic failures are a very real possibility given the level of deferred maintenance and the lack of recapitalization. He said the implications of failure and the available response options vary by location. For example, he said a failure on the Lower Monongahela could increase electrical costs by \$1 billion per year, an increase that would likely persist for several years in the event of a major failure. Explaining the project lifecycle, MG Peabody stressed that, at some point, maintenance and even major rehabilitation are not sufficient and USACE must either recapitalize, remove, or shutdown a project.

Arlan Juhl said the states understand that the terrain has shifted, but emphasized that the states want to ensure they have appropriate input regarding difficult decisions. He observed that the Corps' typical study process is written to serve procedures, not people. He noted that traffic levels are increasing on the Kaskaskia River and stressed that Illinois wants to be engaged in deliberations regarding modified service levels. MG Peabody said USACE emphasizes vertical alignment and integration internally and also works hard to coordinate with partners and stakeholders. While people are rarely fully satisfied with the outcome, he stressed the importance of ensuring the Corps is engaged and listening, while also complying with applicable policies, regulations, and authorities. Juhl cited recent studies in East St. Louis and Des Plaines as examples where the feasibility analyses were completed per the approved study plans, only to have the study results rejected at Corps Headquarters. He said this type of approach seriously undermines partnership efforts. MG Peabody said the planning reforms Tom Crump described earlier are designed in part to surface policy issues earlier and avoid surprises late in the process.

Dorothy attributed declining traffic levels in recent years to three primary factors — i.e., the poor economy, increased ethanol production, and slower transportation times relative to shipping by rail to the west coast. Rohde said traffic delays and other uncertainties have played an important role in driving traffic off of the system. He also noted that ethanol production is highly volatile. MG Peabody observed that uncertainty is a key factor in people's business decisions and that any perceived or real decrease in system reliability increases the waterways' cost relative to other modes of transportation.

Dave Frederickson questioned whether infrastructure projects could produce rates of return sufficient to attract venture capital. MG Peabody said USACE is in the earliest stages of exploring this option. He said the Corps will be asking people from outside of government to bring their expertise and perspectives to the table. Rohde observed that privatizing waterways infrastructure could be at odds with the public trust doctrine well established in federal and state law, providing free access to the waterways. Frederickson said population growth coupled with expansion of the Panama Canal would seem to indicate that future traffic demand will be strong. Ford emphasized the importance of telling the story of the economic value of both navigation and recreation on the river.

Buntin asked about progress resolving the IWTF impasse. Rohde cited the Assistant Secretary's rejection of the IWUB-endorsed Capital Investment Plan and the Administration's failure to appoint members to the IWUB for more than a year as significant impediments to progress. He said informal attempts to open dialogue with the Administration during this period were unsuccessful. Regarding the Capital Investment Plan, MG Peabody explained that Corps staff participated with industry representatives in identifying capital needs. However, he said USACE did not help develop the portion of the Investment Plan that addresses revenue generation and potential cost share changes.

Barb Naramore asked about the process the Corps employs in identifying projects for deauthorization pursuant to Section 1001 of WRDA 86 as amended, under which projects that have not received funding for five consecutive years are subject to deauthorization. MG Peabody explained that policy considerations are part of developing the list — i.e., not all projects that qualify for deauthorization are necessarily placed on the list that is submitted to Congress. Factors considered in determining whether a particular project goes on the list include whether it aligns with Administration priorities and its funding prospects. In response to a question from Naramore, MG Peabody said he did not have details regarding the cycle for developing each list.

Brad Walker pointed out that the inland waterway system is unique in that it is the most subsidized system in the country. He said these subsidies total \$1 billion per year and asked what giving the rail industry \$1 billion each year would do to decrease its rates to users. Walker said there is no "free market" on the river, but said we do need to reevaluate the law that requires the river to be free to use by all users. Finally, he suggested that the states and UMRBA consider these matters when they are deciding whether to support the WAVE4 Act, H.R. 4342, on the IWTF.

## **Hydropower**

### *Free Flow Power Briefing*

BG Robert Crear (Ret.) said Free Flow Power's (FFP's) goal is to establish the Mississippi River as a renewable energy center for the nation. He provided a brief overview of hydropower in the United States, explaining that hydro currently represents 6-7 percent of power generation, down from 40 percent in the 1940s. However, hydropower represents 70-75 percent of renewable energy generation in the U.S. and has, according to Crear, the greatest potential for growth.

FFP, which was formed in 2007, is focusing on establishing new hydrokinetic capacity, though it also operates traditional hydro and pumped storage facilities. FFP currently has 1,500 MW of hydrokinetic capacity under development at 68 sites. Crear outlined FFP's development strategy, which includes securing rights to high quality sites, developing sites in clusters to achieve economies of scale and reduce risk, and establishing strong relationships with stakeholders. FFP has also been active in seeking tax and regulatory changes that encourage hydro development.

Crear reported that FFP recently surrendered preliminary permits for five sites in the St. Paul District, after determining that those locations (at L&Ds 3, 4, 6, 7, and 9) did not have the potential to meet the company's return on investment needs. Crear described the process of evaluating those sites as very informative. He said the Federal Energy Regulatory Commission (FERC) process worked as designed, and he praised the states and federal agencies for their expertise and involvement. He noted that FFP is still pursuing four projects in the Rock Island District, at L&Ds 12, 13, 16, and 18, with a total estimated capacity of 89 MW. Crear emphasized the importance of maintaining effective communication among developers, FERC, and other agencies that have review and permitting roles.

Ron Benjamin asked whether hydropower, wind, and solar would be viable without tax incentives. Crear said he could not speak to the economics of other generating modes, but said hydropower certainly cannot compete if it is not receiving incentives comparable to other modes. He emphasized that incentives are critical to encouraging investors to take risk and innovate.

### *USACE Policies and Roles*

Matt Rector briefly reviewed the FERC pre-licensing and licensing processes. He outlined the issues of concern to USACE as it reviews proposed projects. These issues include impacts to: navigation (both commercial and recreational), Corps operations, flood risk management, public and worker safety, security, the lock and dam structures, and cultural and environmental resources. While decisions concerning licensing rest with FERC, USACE does have the final word on the constructability of projects proposed to be built on a Corps structure. Developers must receive a Section 408 permit in order to build on Corps infrastructure.

## **Mississippi River Cities and Towns Initiative**

St. Louis Mayor Francis Slay described the newly formed Mississippi River Cities and Towns Initiative (MRCTI). With initial funding from the Walton Family Foundation and staffing through the Northeast Midwest Institute, the MRCTI will allow mayors from along the Mississippi River's entire length to come together as a strong new voice on the river. According to Mayor Slay, issues of common interest to the mayors include the 100,000 jobs supported by the Mississippi River, sport fishing, trails, byways, and water supply.

Mayor Slay said MRCTI was established in February 2012 and has 22 mayors on board thus far, starting in St. Cloud, Minnesota and running down the river to Vidalia, Louisiana. He stressed that the mayors



will seek to establish strong relationships with a broad range of agencies and organizations on the Mississippi, including USACE, Waterways Council Inc., The Nature Conservancy, and UMRBA.

Relative to large aquatic systems such as the Everglades, Gulf of Mexico, and Great Lakes that have received considerable federal funding, Mayor Slay said the Mississippi River has suffered from benign neglect. In the current fiscal environment, Mayor Slay said it is more important than ever to take a smart, collaborative approach to obtaining the resources the Mississippi River needs. Key factors that should inform current efforts include ongoing flood recovery efforts, the pending Panama Canal expansion, and efforts to address impacts from the British Petroleum spill, according to Mayor Slay. Beyond increasing resources available to meet Mississippi River needs, MRCTI's goals include reforming the National Flood Insurance Program and addressing nonpoint source pollution and other water quality issues.

Mayor Slay announced that members of MRCTI will hold their first organizing meeting in September. The mayors will gather with agency, private sector, and NGO representatives to discuss critical issues. The MRCTI members will also outline their initial policy agenda and elect interim leadership at this meeting. They will then formally launch the initiative at a February or March 2013 event in Washington, D.C.

Diane Ford said MRCTI is a well-timed and exciting development. Dru Buntin also welcomed establishment of the Initiative and said UMRBA look forwards to working closely with MRCTI. He called on the two organizations to keep lines of communication open. Mayor Slay said the mayors are also eager to work with UMRBA and the states. Barb Naramore observed that MRCTI could also be a key player in the America's Great Watershed Initiative (AGWI), which seeks to promote water resources collaboration across a range of interests at the scale of the full Mississippi River Basin.

### **L&D 3 Fish Passage Study**

Tom Novak noted that Wisconsin DNR and others have called for enhancing fish passage at L&D 3, a site that has also long needed safety improvements to address severe outdraft at the lock and weak embankments on the Wisconsin side of the structure. When MVP received American Recovery and Reinvestment Act (ARRA) funding to make the safety improvements, Wisconsin asked that fish passage also be addressed as part of this work. Novak explained that it was not possible to include fish passage as part of the embankment contract, given ARRA-related constraints. But MVP did agree to conduct a separate fish passage feasibility study, using UMRR-EMP funds. Novak stressed that the decision to use UMRR-EMP funds for the feasibility phase did not represent a commitment for the program to fund construction. He said this was clearly conveyed to partners at the outset of the feasibility study. However, he said all of the potential options to fund construction have limitations and none appears particularly promising at this point. Those options include NESP, UMRR-EMP, and project-specific funding.

Novak explained that existing fish passage at L&D 3 is primarily through open gates during high flow conditions. This means reduced connectivity for many species, including those that are weak swimmers, those that do not typically inhabit the main channel, and those that do not migrate during the spring months when high flows are most common. In addition to direct impacts on fish populations, the limited connectivity affects mussels and other aquatic biota that rely on migratory fish. The feasibility study examined a range of alternatives, including no action, several fishway options, spillway notches, assisted fish lockage, and a fish elevator. The alternatives were evaluated using a Fish Passage Connectivity Index score and the number of habitat units (measured in acres) benefited.

Novak acknowledged that Asian carp complicate evaluation of fish passage at L&D 3. While some individual carp have been caught upstream of the structure, there are concerns that improved fish

passage would facilitate the species' northward expansion. However, Novak noted that Asian carp are strong swimmers that would likely be able to get past L&D 3 without any improvement in passage. Acknowledging that there are many unknowns concerning likely project impacts, Novak said the weight of professional opinion among fish biologists generally seems to be that connectivity would afford native species a competitive advantage over Asian carp.

Novak reported that MVP provided a preliminary draft of its L&D 3 fish passage study to MVD in early May. Remaining tasks include incorporating Division comments, issuing the public review draft and holding a public meeting, and then finalizing and submitting the feasibility study. The public meeting is tentatively scheduled for July or August. Based on a 2010 meeting, Novak said he expects public concern to focus on two issues — i.e., the potential for fish passage to facilitate Asian carp expansion and concern from anglers that fish passage will degrade fishing conditions immediately below the dam.

### **Asian Carp**

#### *Perspectives from the Asian Carp Regional Coordinating Committee*

John Goss reviewed current information about the distribution, potential expansion, and impacts of Asian carp. He stressed his desire to ensure that the UMR states are fully engaged in the Great Lakes and Mississippi River Interbasin Study (GLMRIS) and the decision making process regarding Asian carp. He reported that USACE has announced plans to release a shortlist of alternatives for preventing interbasin aquatic nuisance species (ANS) transfer by the end of 2013. Goss noted that there are more species of concern present in the Great Lakes Basin with the potential to transfer to the Mississippi River Basin than vice versa.

Goss explained the composition and work of the Asian Carp Regional Coordinating Committee (ACRCC), which is focused on preventing the introduction of Asian carp to the Great Lakes. Members include the Council on Environmental Quality (CEQ), the range of relevant federal agencies, all eight Great Lakes states, the Great Lakes Fishery Commission, the City of Chicago, and the Metropolitan Water Reclamation District. The Committee's updated Asian Carp Framework Strategy released earlier this year identifies 58 actions designed to prevent the introduction of carp to the Great Lakes. The ACRCC is also actively engaged in evaluating various control activities. Some, though not all, of this work is taking place under the GLMRIS umbrella. The ACRCC has also made extensive use of Great Lakes Restoration Initiative (GLRI) funding for its prevention and control work.

Goss applauded the Corps' efforts thus far in executing GLMRIS. He outlined the study's basic structure, explaining its primary focus on the Chicago Area Waterway System (CAWS) but also its identification and assessment of 18 other potential pathways. Goss expressed appreciation for the UMR states' work on Asian carp and encouraged their continued and expanded involvement. He said he would be pleased to provide individual state briefings if that would be helpful.

#### *Asian Carp Distribution*

Ken Barr described an interagency effort by USACE, USFWS, and Illinois DNR to identify the leading edge of Asian carp populations nationwide. Biologists at federal and state agencies, universities, and NGOs have been surveyed regarding the presence of different life stages in an effort to characterize distribution — i.e., low abundance = infrequent occurrence of adults, moderate to high abundance = consistent catches of adults, and established population = verified spawning. The team has received 80 responses from 22 states and is in the process of refining the distribution data. Barr displayed a map showing what has been determined thus far regarding distribution on the UMRS and the lower portions of the Ohio and Missouri Rivers. Barr said the team expects to release a draft white paper with its distribution findings in June.

### *Update on the National Carp Plan and Perspectives from MICRA*

Sam Finney emphasized the importance of a national approach to addressing Asian carp. The National Asian Carp Plan, originally drafted in 2003 and finalized 2007, represents a broadly based effort to establish such an approach. The Plan includes 133 recommendations for implementation over 20 years at an estimated cost of \$286 million. The recommendations address containment, control and extirpation, minimizing impacts, outreach and education, research, and adaptive management. Finney said the Plan has not yet received implementation funding, but reported that the Fish and Wildlife Service and others are currently exploring a potential budget initiative focused on the Plan's top priorities.

Ron Benjamin explained that the Mississippi Interstate Cooperative Resource Association (MICRA) represents 28 state fish chiefs, who have diverse opinions regarding how best to address Asian carp, but all of whom believe control efforts are crucial. Benjamin said his message as MICRA Chair is that Asian carp cannot be successfully addressed if the focus is solely on preventing spread to the Great Lakes. He emphasized that a national approach is needed and offers the best promise for protecting the Great Lakes.

Benjamin highlighted the state fish chiefs' potential role in mobilizing stakeholders for measured, technically sound responses to Asian carp. He observed that the carp present a very complex problem, while people are demanding action now. He also stressed the need for a permanent source of funding to support ANS work, noting that agencies find themselves scrambling for resources with each new species.

### *Restoring the Natural Divide*

Tim Eder described *Restoring the Natural Divide*. Developed jointly by the Great Lakes Commission (GLC) and the Great Lakes and St. Lawrence Cities Initiative (GLSLCI), the report examines options for separating the Great Lakes and Mississippi River Basins in the Chicago area. Eder said he believes ecological separation is the best long term solution to species transfer, but stressed that such options must be compatible with existing uses. He said GLC/GLSLCI evaluated options designed to prevent aquatic invasive species transfer, while improving water quality, flood protection, and commercial transportation.

Eder reviewed the points of connectivity in the Chicago area and explained that three separation options were evaluated — i.e., Down River, Mid-System, and Near Lake alternatives. He said the barriers themselves are relatively simple in each of the three options, consisting of earth and sheet pile. However, the number of barriers and the cost of required infrastructure changes vary greatly among the three options. The Down River option involves only one barrier, but requires significant investments in wastewater and flood protection infrastructure. The Near Lake alternative involves five barriers, with significant flood management and transportation impacts, and would require more time to implement than the other two options. Eder said the Mid-System alternative would be significantly less expensive and would require less time to implement. With an estimated cost of \$4.27 billion, the Mid-System alternative would cost less than half of either of the other options.

Eder said the study did not include a detailed benefit-cost analysis. However, he said there would be some clear economic benefits to separation, including avoided aquatic invasive species costs and improved water quality. He described the estimated costs of separation as affordable, ranging from \$3.93 to \$24.60 per person over the life of the project when allocated over the entire population of the Great Lakes Basin or the combined population of the Great Lakes and Mississippi River Basins.

Eder said next steps include building support for separation within the Mississippi River Basin, education and outreach, and determining the roles of the states and the Metropolitan Water Reclamation District in funding a separation project.

#### *Control Research and Field Testing*

Mike Jawson expressed appreciation to Goss for his leadership on Asian carp prevention and control. According to Jawson, seven USGS centers, including three outside of the midwest area, are currently conducting Asian carp control research and are working closely with many other federal, state, and university cooperators. He said USGS's research initially focused on questions related to pathways for spread and habitat suitability in the Great Lakes. The Survey's research emphasis has now shifted more to control options, though he emphasized that information about distribution, habitat suitability, and hydrology is critically important input to the control research.

Jawson highlighted USGS research on water guns, selective agents, and attractants. He explained that the water guns, which create an acoustic wave but no loud noise, could be a supplement to, or backup for, electrical barriers. Researchers have also been seeking to identify a selective agent that they can then combine with a delivery agent and release trigger that are also selective to Asian carp. By combining a selective toxin with a delivery agent and release trigger that are also selective, the control agent should be highly targeted to Asian carp, minimizing impact to other species. Jawson said USGS hopes to begin controlled field testing by the end of the calendar year. Researchers are also developing attractants that could be used as herding agents, which could be very helpful in administering selective control agents efficiently.

Jawson emphasized that USGS is also seeking to develop control technologies that are ultimately transferable to other ANS.

#### *UMR Updates and Discussion*

Kevin Stauffer distributed a written summary of recent Asian carp-related developments in Minnesota. He noted that commercial fishermen caught adult bighead, silver, and grass carp in Pool 6 near Winona in March 2012. This is the furthest upstream record for silver carp. An adult bighead carp was also caught on the St. Croix River in April 2012, and commercial fishermen caught over 80 bighead and 50 silver carp in Lake Okoboji in northwestern Iowa this spring.

Stauffer said the Minnesota Legislature took several actions in its recent session to support carp research and control. This includes \$7.5 million for deterrent barriers; \$3.8 million to establish an Aquatic Invasive Species Center for research at the University of Minnesota; and funding for eDNA, commercial fishing, and other monitoring activities. Stauffer said L&D 1 is the state's top priority for a deterrent barrier, while other sites in the Sioux River watershed, on the Minnesota River in Mankato, and at the mouth of the St. Croix are also being evaluated. He also noted that Minnesota DNR has funding to cost-share barriers in Iowa, subject to additional approvals. Stauffer emphasized that Minnesota DNR is working closely with USACE and others in evaluating its options, identifying issues, and determining permit requirements. He said Minnesota DNR would prefer an electrical barrier at L&D 1, but said issues of public and worker safety, as well as feasibility and infrastructure impacts, must be fully evaluated before a final decision is made.

Stauffer said several members of Minnesota's Congressional delegation have introduced legislation to authorize emergency closure of the lock at Upper St. Anthony Falls if Asian carp are detected nearby. The measure also calls for a feasibility study of the impacts of lock closure and increased federal support for carp control on the Upper Mississippi River and its tributaries. He noted that Minnesota also recently enacted new restrictions on live bait. Minnesota DNR is currently seeking funds to cost share

a UMRR-EMP habitat project to benefit native fish species in Lower Pool 3 and to conduct a statewide risk assessment to determine areas in Minnesota that are most at risk from Asian carp.

Barb Naramore reported that UMRBA convened a May 1, 2012 conference call to discuss the potential for a fish barrier at L&D 19. This was in follow-up to UMRBA's February meeting and interest expressed by Minnesota DNR and several NGO and industry groups. All five states were represented, along with USACE, USFWS, USGS, and USEPA. Tim Schlagenhaft briefed participants on Minnesota's barrier work. Kelly Baerwaldt provided information about current carp distribution, and Gary Meden described specific features of L&D 19 as well as more general operational issues posed by electric barriers. Mike Jawson updated participants on USGS's control research. Naramore said no agency raised a show stopper issue and all expressed a willingness to explore the potential for a barrier at L&D 19. However, participants did identify several key questions, including who would fund construction and O&M and whether a barrier at this location would be a wise public investment. They also raised other concerns, both general, such as public safety, and specific to L&D 19, such as outfalls in the lock guidewalls. Fisheries managers expressed reservations with the impacts a barrier would have on native species and its likely efficacy in blocking carp movement.

Arlan Juhl emphasized that cost and ancillary impacts are major considerations associated with potential separation of the Great Lakes and Mississippi River Basins. He noted that the original divide between the two basins in what is now the Chicago area was occasionally breached under flood conditions. Eder explained that the GLC/GLSLCI's analysis calculated costs and benefits in present value, but acknowledged that those estimates are not based on fully designed projects. However, he said the study contractor did devote considerable attention to hydrology and hydraulics, including variation in Lake Michigan's water levels. He stressed that GLC and GLSLCI view any increase in flooding as unacceptable and said the commitment to avoiding induced flooding is a major cost driver in the separation alternatives evaluated.

MG Peabody concurred that there were certainly pre-settlement connections between the two basins. He said Asian carp present a tremendously complex problem, requiring consideration of a range of options. MG Peabody emphasized that USACE will follow the science and facts where they lead. While many people are calling for USACE to accelerate GLMRIS, he stressed that sound alternatives evaluation requires time. In this regard, he observed that USACE has not advanced its study schedule, but has announced that it will offer a list of potential control alternatives as an additional interim product in 2013. He said engineered structures can be valuable in delaying and preventing ANS spread, but cautioned that they may not ultimately be successful in stopping Asian carp or any other ANS. MG Peabody said he sees tremendous potential in the research USGS and others are doing on control options.

In response to a question from MG Peabody, Eder said the GLC/GLSLCI's study equates most closely to a pre-planning or reconnaissance study in terms of level of effort. Engineering analysis was limited. MG Peabody expressed appreciation for GLC/GLSLCI's contributions to advancing thinking on the issues. He observed that the costs associated with hydrologic separation in the CAWS would be considerable and emphasized that the GLMRIS authorizing language directs USACE to examine the range of alternatives available to prevent ANS spread, not merely hydrologic separation. MG Peabody also applauded Minnesota's leadership in addressing the spread of Asian carp on the UMR and elsewhere within the basin.

Dan Stephenson said commercial fishermen maintain that, if they have a market for their catch, they can contribute significantly to keeping carp numbers in check on the Illinois and Mississippi Rivers. However, with documented densities of 1,300 tons per river mile on parts of the Illinois River, Stephenson said Asian carp will prove very difficult to control through fishing pressure alone. Goss noted that Asian carps' rapid growth rate and high protein content contribute to their status as the

#1 farm raised fish in the world. While stressing that his role in leading the ACRCC is not to create a market for Asian carp, he characterized commercial harvest as a promising element of an overall control strategy. In response to a question from Diane Ford, Benjamin said MICRA's analysis shows that fishing pressure in China is far heavier than anything likely to be achieved in the U.S. He said commercial fishing is unlikely to reduce carp populations to acceptable levels on its own.

Colin Wellenkamp noted that mayors from St. Cloud to Dubuque ranked ANS as their second highest priority river issue, right behind economic development. He said that the mayors, working through MRCTI, will be very interested in learning how they can advance efforts to limit ANS spread and control population levels. Goss said he would be pleased to speak directly with the mayors and emphasized that the ACRCC is looking for opportunities to partner with the mayors, UMRBA, and others.

UMRBA Board members confirmed that staff should continue to serve on the GLMRIS Executive Steering Committee, support L&D 19 discussions to the extent that there is agency interest, and keep in communication with the ACRCC and MICRA regarding developments and the potential for joint action.

### **Water Quality**

#### *States' Meeting with EPA Headquarters*

Dave Hokanson reported that UMRBA Water Quality Executive Committee members and Association staff met with senior water leaders at USEPA Headquarters on March 13, 2012. Participants included Ken Kopocis, President Obama's nominee for Water Administrator, and Ellen Gilinsky, Senior Policy Advisor in the Office of Water. Hokanson said the states shared the results of their recent nutrient and biological assessment work, emphasizing the states' commitment to developing shared building blocks to guide Clean Water Act implementation on the UMR and the need for sustained federal resources and partnership.

Hokanson said EPA participants acknowledged the importance of developing building blocks such as a shared monitoring strategy for the UMR, but were clearly interested primarily in nutrient-related issues. They posed several questions about how the states' work through UMRBA relates to the Hypoxia Task Force's work and about how the states intend to pursue recommendations contained in UMRBA's recent nutrients report. The EPA representatives emphasized the importance of developing a broader constituency if the UMR is to compete successfully with the nation's other large aquatic systems for increasingly scarce federal resources.

#### *WQEC Next Steps*

Hokanson reported that the WQEC met last week by conference call and discussed:

1. Developing a tool to track the status of report recommendations and other work plan items
2. Casting a broader net in the WQEC's efforts to strengthen the constituency for water quality efforts on the UMR
3. Engaging with the Hypoxia Task Force — possible venues for a joint meeting include the September meeting of the National Association of State Directors of Agriculture or UMRBA's November quarterly meeting
4. Having Tim Henry and Wayne Gieselman from Regions 5 and 7 ask EPA HQ to identify any questions or concerns stemming from the March meeting

In addition, other WQEC priorities include the ongoing monitoring strategy project and revisiting the question of what organizational structure will best support the states' future joint water quality work.

Diane Ford encouraged efforts to arrange a meeting of the UMR state members of the Hypoxia Task Force with the UMRBA Board and WQEC.

Colin Wellenkamp asked about the prospects for a regional total maximum daily load (TMDL) approach to addressing Mississippi River water quality issues. Barb Naramore indicated that the states have not historically favored regional TMDLs for the River. Josh Svaty described a recent response from Acting Water Administrator Nancy Stoner to a letter from Iowa Agriculture Secretary Bill Northey, in which Stoner reaffirmed USEPA's commitment to working with the states individually rather than through a regional TMDL.

### **Strategic Planning**

Diane Ford reported that the UMRBA Board is in the midst of a strategic planning exercise, designed to ensure that the Association's resources are aligned with the states' priorities. In November, the Board confirmed fundamental elements of UMRBA's mission and structure and then identified several priority issue areas. After surveying state personnel, the Board spent time in February and May exploring the priority issue areas, which include aquatic nuisance species, ecosystem monitoring and restoration, flood risk management, hydropower, navigation, spills planning and response, and water quality. Ford said the Board will survey its federal liaisons and other partners prior to its August meeting, seeking their perspectives on UMRBA's engagement in these issues. She encouraged partners to respond to the survey and reported that the Board plans to finalize its strategic plan by the end of December 2012.

### **Administrative Issues**

#### *FY 13 Budget*

Diane Ford announced that the Board only recently finalized its decisions regarding staff compensation for the coming year and is thus deferring action on its FY 13 budget. Ford asked Barb Naramore to schedule a conference call before the end of June for the purpose of discussing and adopting an FY 13 budget.

#### *Future Meetings*

Barb Naramore announced that the next quarterly meeting series will run from August 28-30, 2012 in La Crosse, with the Board's strategic planning session on August 28, the UMRBA quarterly meeting on August 29, and the UMRR-EMP CC quarterly meeting on August 30. The November quarterly meeting series will be held November 27-29, 2012 in the Twin Cities, with the UMRBA meeting on November 28 and the UMRR-EMP CC meeting on November 29. November 27 is reserved for a potential water quality-related meeting. The UMRBA Board set its winter quarterly meeting for February 27, 2013 in the Quad Cities. The UMRR-EMP CC is expected to meet February 28.

With no further business, the meeting adjourned at 3:45 p.m.