

**Minutes of the 134th Quarterly Meeting
of the
Upper Mississippi River Basin Association**

**May 5, 2015
St. Louis, Missouri**

UMRBA Chair Dan Baumann called the meeting to order at 9:30 a.m. Participants were as follows:

UMRBA Representatives, Alternates:

Dan Stephenson	Illinois Department of Natural Resources
Rick Gosch	Illinois Department of Natural Resources
Tim Hall	Iowa Department of Natural Resources
Sam Hiscocks	Iowa Department of Transportation
Barb Naramore	Minnesota Department of Natural Resources
Patrick Phenow	Minnesota Department of Transportation
Harry Bozoian	Missouri Department of Natural Resources
Robert Stout	Missouri Department of Natural Resources
Bryan Hopkins	Missouri Department of Natural Resources
Dan Baumann	Wisconsin Department of Natural Resources
Jim Fischer	Wisconsin Department of Natural Resources (by phone)
Sheri Walz	Wisconsin Department of Transportation

Federal UMRBA Liaisons:

Mark Moore	U.S. Army Corps of Engineers, MVD
Ken Westlake	U.S. Environmental Protection Agency, Region 5 (by phone)
Charlie Wooley	U.S. Fish and Wildlife Service
Scott Morlock	U.S. Geological Survey
J.R. Flores	U.S. Department of Agriculture, NRCS
Bill Paape	U.S. Department of Transportation, MARAD

Others in Attendance:

Nathan Bishop	Illinois Department of Transportation
Garrett Pedersen	Iowa Department of Transportation
Kevin Stouffer	Minnesota Department of Natural Resources
Chris Klenklen	Missouri Department of Agriculture
Janet Sternburg	Missouri Department of Conservation
Lorisa Smith	Missouri Department of Natural Resources
Sreedhar Upendram	Missouri Department of Natural Resources
Charlie Hanneken	U.S. Army Corps of Engineers, Headquarters
Andy Barnes	U.S. Army Corps of Engineers, MVR
Ken Barr	U.S. Army Corps of Engineers, MVR
Marv Hubbell	U.S. Army Corps of Engineers, MVR
Karen Hagerty	U.S. Army Corps of Engineers, MVR
Tim Eagan	U.S. Army Corps of Engineers, MVS
Mike Feldmann	U.S. Army Corps of Engineers, MVS
Hal Graef	U.S. Army Corps of Engineers, MVS

Brian Johnson	U.S. Army Corps of Engineers, MVS
Brian Markert	U.S. Army Corps of Engineers, MVS
Kat McCain	U.S. Army Corps of Engineers, MVS
Mike Rodgers	U.S. Army Corps of Engineers, MVS
Deanne Strauser	U.S. Army Corps of Engineers, MVS
Steve Faryan	U.S. Environmental Protection Agency, Region 5 (by phone)
Heath Smith	U.S. Environmental Protection Agency, Region 7 (by phone)
Kraig McPeck	U.S. Fish and Wildlife Service
Tim Yager	U.S. Fish and Wildlife Service
Jennifer Sauer	U.S. Geological Survey, UMESC
Mark Fuchs	National Weather Service
Tom Boland	Amec Foster Wheeler
Marcel Wagner	Great River Economic Development Foundation
Scott Sigman	Illinois Soybean Association (by phone)
Chuck Arnold	Ingram Barge Company
Ryan Mueller	Interstate Council on Water Policy
Charles Bell	Mid-America Port Authority
Colin Wellenkamp	Mississippi River Cities and Towns Initiative
Brad Walker	Missouri Coalition for the Environment
Gretchen Benjamin	The Nature Conservancy
Todd Strole	The Nature Conservancy
Nancy Guyton	Neighbors of the Mississippi
Mark Harvey	Neighbors of the Mississippi
Charles Williamson	Neighbors of the Mississippi
Tyler Rotche	Prairie Rivers Network
Mike Klingner	Upper Mississippi, Illinois, and Missouri Rivers Association
Kevin Stier	Upper Mississippi River International Port District
Dru Buntin	Upper Mississippi River Basin Association
Dave Hokanson	Upper Mississippi River Basin Association
Kirsten Mickelsen	Upper Mississippi River Basin Association

Minutes

Tim Hall moved and Barb Naramore seconded a motion to approve the draft minutes of the February 10, 2015 quarterly meeting as written. The motion carried unanimously on a voice vote.

Executive Director's Report

Dru Buntin presented the Executive Director's report and noted that the report is organized according to the focus areas in the 2013-17 UMRBA Strategic Plan. Among the items in the report, in the *Commercial Navigation focus area*, Buntin said he participated in Congressional and Administration staff advocacy briefings on April 6 – 7, 2015 regarding the Navigation and Ecosystem Sustainability Program (NESP) in Washington, DC with Gretchen Benjamin (The Nature Conservancy), Paul Rohde (Waterways Council, Inc.), Amanda DeJong (Iowa Corn Growers Association), Dan Barger (Carpenters' District Council of Greater St. Louis), and Mark Carr (Channel Design Group). Buntin said Congressional staff were supportive of NESP and were organizing a letter to the Administration from Members of Congress supporting the inclusion of funding for the program in the FY 2017 budget request. Buntin said UMRBA, in conjunction with the Inland Rivers, Ports and Terminals Association (IRPT) and the Mid-America Freight Coalition (MAFC), hosted a February 24-25, 2015 Ports, Terminals, and Operators Workshop in Dubuque, Iowa. Buntin noted that a summary of the workshop is included on pages C-1 to C-12 of the agenda packet and said Kirsten Mickelsen will provide an overview of the event later in the quarterly meeting. Buntin said UMRBA

sent a letter to MVD leadership on April 21, 2015 requesting that the necessary resources be allocated to the three UMRS Corps districts for channel maintenance and long term planning. The letter is included on pages B-7 to B-8 of the agenda packet.

In the *Ecosystem Restoration and Monitoring focus area*, Buntin said he and Gretchen Benjamin (TNC) participated in advocacy briefings with Administration and Congressional staff on April 6 – 7, 2015 regarding funding for the Upper Mississippi River Restoration (UMRR) program. UMRBA staff continue to facilitate work on the UMRR strategic operational plan. The operational planning team includes Marv Hubbell, Kevin Stauffer, Andy Casper, Tom Novak, Jeff Houser, Kat McCain, Gretchen Benjamin, Mickelsen, and Buntin. UMRBA executed a contract with the Corps on February 27, 2015 to write and publish the 2016 UMRR Report to Congress.

In the *Flood Risk Management focus area*, Buntin and Kirsten Mickelsen attended the February 12-13, 2015 annual meeting of the Upper Mississippi, Illinois, and Missouri River Association (UMIMRA) in Quincy, Illinois. Meeting topics included flood risk reduction and monitoring strategies, the need for investment in navigation and water resource infrastructure, and trends in agriculture.

In the *Spill Response Planning and Mapping focus area*, Buntin said UMRBA Oil Pollution Act (OPA) project staff are nearing completion of the Minnesota statewide update of Inland Sensitivity Atlas. Project staff also continue to support the development of geographic response plans (GRPs) for selected sensitive areas in the region. The UMR Spills Group met in St. Charles, Missouri on April 21, 2015. Topics addressed in this meeting included recent spill incidents on the UMR, in situ burning approaches, training activities, regional response equipment, GRP development, and the memorandum of agreement signature process for the UMR Spill Plan and Resource Manual. In response to a request from UMRBA Chair Dan Baumann, Buntin indicated that later in the meeting Dave Hokanson would provide information on the development of spill response tools and USEPA's Steve Faryan and Heath Smith would provide updates on recent spill incidents and lessons learned.

In the *Water Quality focus area*, UMRBA staff continue to support the work of the Water Quality Task Force (WQTF), Minnesota Pollution Control Agency and the Wisconsin Department of Natural Resources in planning for pilot field implementation of the *UMR Clean Water Act Recommended Monitoring Plan* in 2016. UMRBA staff have begun work on an initial draft of the field operations manual. Staff have also continued to assemble data to conduct a "virtual pilot" in other areas of the UMR wherein existing data meeting the specifications of the *Recommended Monitoring Plan* are extracted and compiled to determine the degree to which existent data sets can satisfy monitoring plan needs. The Water Quality Executive Committee (WQEC) met via conference call on April 8, 2015 and discussed *Recommended Monitoring Plan* implementation, the assessment feasibility project, state nutrient loss reduction strategies, cross-cutting initiatives, and mechanisms to support ongoing UMR water quality work. The WQEC and the WQTF will meet in a combined session on June 2-3, 2015 in Davenport, Iowa.

In the *Cross-Cutting Initiatives and Collaboration focus area*, Buntin participated in the Interstate Council on Water Policy (ICWP) Washington D.C. Roundtable meeting in Arlington, Virginia on April 8-10, 2015. The first day of the meeting was a water planners' conference focusing on opportunities for optimizing use of the Corps' Planning Assistance to States (PAS) Program, as well as the USGS realignment of the agency's water mission area. The Roundtable meeting included presentations by, and discussions with, leaders from the Corps, Department of Interior, USEPA, National Weather Service, and NRCS, as well as staff from the House Committees on Transportation and Infrastructure and Natural Resources. Buntin noted that ICWP Executive Director Ryan Mueller would provide a more detailed briefing on ICWP activities later in the quarterly meeting.

Buntin said USFWS staff continue work on the UMRS Economic Profile. The current schedule includes the completion of a partner review draft in June with the resulting product available for release at the Mississippi River Cities and Towns Initiative meeting in Dubuque on September 15-17, 2015. Dan Baumann asked how UMRBA states anticipate using the Economic Profile. Bryan Hopkins said Missouri anticipates using the Upper Mississippi River profile in combination with the Lower Mississippi River economic profile completed in 2013 to promote the value of the entire river to the region's economy. Barb Naramore said she anticipates sharing the results with the Minnesota Department of Employment and Economic Development, which also includes the Office of Tourism. Tim Hall said Iowa would use the profile similarly, but would also look for ways to inform evaluation of the economic benefit of Iowa lakes. Rick Gosch said he anticipates sharing the profile with staff in the Illinois Governor's Office, Department of Commerce and Economic Opportunity, and University of Illinois. Baumann suggested that Board members further discuss use of the Upper Mississippi River economic profile at the August Board breakfast meeting. In response to a question from Baumann, Bryan Hopkins said time constraints prevented the inclusion of the Illinois River in the initial iteration of the UMRS economic profile, but indicated the USFWS was considering including such analysis in a supplement to the profile.

Buntin directed the Board's attention to page B-9 of the agenda packet for a copy of UMRBA Treasurer Jason Tidemann's statement regarding his review of UMRBA's financial statement for the period of January 1, 2015 through March 31, 2015. Robert Stout offered and Rick Gosch seconded a motion to approve the Treasurer's statement. The Board unanimously adopted the motion by voice vote. Stout said the Board has identified a structural deficit in UMRBA's budget and will be working on addressing this issue in the coming months.

Dan Baumann suggested that additional time be included in the agenda for the August UMRBA quarterly meeting for the Executive Director's report to allow for a more expanded discussion of Association activities.

St. Louis District Update

Mike Feldman provided an overview of the activities of the St. Louis District (MVS). Feldman said the boundary of MVS includes the confluence of the Upper Mississippi, Missouri, and Illinois Rivers as well as the transition point between the locks and dams and the open river. MVS also includes:

- 10 rivers
- 5 lock and dam sites
- 5 Corps lakes
- 750 miles of levees
- 92 flood control systems
- 416 miles of navigable channel
- 70 pumping plants
- 162 recreation areas
- 1 hydropower plant

Feldman outlined the Corps' Campaign Plan Goals, which include:

1. Supporting the Warfighter – Delivering innovative, resilient, and sustainable solutions to the Department of Defense and the Nation.
2. Transforming Civil Works – Delivering enduring and essential water resource solutions, utilizing effective transformation strategies.

3. Reducing Disaster Risks – Delivering support that responds to, recovers from, and mitigates disaster impacts to the Nation.
4. Preparing for Tomorrow – Building resilient people, teams, systems, and processes to sustain a diverse culture of collaboration, innovation, and participation to shape and deliver strategic solutions.

Feldman said the Corps' focus areas for FY 2015 – 2016 are flood risk management, navigation, and ecosystem restoration. The Corps uses water management, the lock and dam system, channel maintenance, and river engineering or river training structures to support the navigation mission area. Feldman said 100 million tons of materials are transported through the St. Louis harbor annually, while 500 million tons of materials are transported on the national inland waterways system annually. The economic impact of materials moved on the nation's inland waterways is estimated to be \$180 billion annually. Feldman said the age of the inland waterways infrastructure on the UMRS is challenging the reliability of the system and highlights the need for rehabilitation. MVS has worked to address the need for channel improvements by dredging, removal of rock impediments on the open river, and the use of river engineering. Feldman said the repairs on the main chamber at Mel Price lock and dam are now complete and noted the main chamber was inoperable for several months in the past year. He noted that MVS has now identified the need for repairs on the auxiliary chamber at Mel Price. Feldman said auxiliary channel work at Lock and Dam 27 is also now complete. Feldman provided a picture of the now-completed work to repair a scour hole on the dam at Lock and Dam 25. He noted that emergency rock removal from the navigation channel on the open river near Thebes is completed, but said additional removal is needed to provide optimal conditions.

Feldman highlighted some of the work completed by MVS through the Upper Mississippi River Restoration (UMRR) Program, including the Batchtown, Ted Shanks, and Clarence Cannon projects. He said the Batchtown project was the recipient of the Chief of Engineers Design Award. MVS has identified the need for restoration projects on the open river or Middle Mississippi River. The district is working with partners to identify potential projects that improve the sustainability of the system while requiring less intensive operations and maintenance.

Feldman provided information regarding two studies being initiated by MVS. The Kaskaskia River Basin study is designed to create a comprehensive plan for restoring, preserving, and protecting the extensive natural resources within that watershed. MVS plans to execute the cost share agreement on the study and begin work in FY 2015. The St. Louis Riverfront Authority – Meramec – Big Rivers Study is designed to investigate ecosystem restoration measures within the Meramec and Big Rivers that can restore, reconnect, preserve, and benefit natural resources in the study area. The anticipated cost share sponsor is the Missouri Department of Natural Resources, and the Corps anticipates executing the cost share agreement and initiating the study in FY 2015. Robert Stout noted that the St. Louis Riverfront study offers a great opportunity to collaboratively address the legacy of lead mining in the Big River watershed.

Since 1960, Feldman said flood risk management structures have prevented more than \$14.8 billion in damages within the St. Louis District. The district's Levee Safety Program provides a system wide improvement framework. Feldman said current projects within MVS include Monarch-Chesterfield, the Metro East Levee Program, and St. Louis Flood Protection.

Gretchen Benjamin complemented St. Louis District staff for their approach on water level management. She said this approach offers an example of how to address the needs of commercial navigation and ecosystem habitat. In response to a question from Jennie Sauer, Feldman said the monitoring referenced in one of his slides was for threatened and endangered species.

Navigation

UMRS Ports, Terminals, and Operators Workshop

Kirsten Mickelsen provided an overview of the February 24-25, 2015 Upper Mississippi River System Ports, Terminals, and Operators Workshop held in Dubuque, Iowa and hosted by UMRBA, the Inland Rivers, Ports, and Terminals Association, and the Mid-America Freight Coalition. Mickelsen directed the Board's attention to the list of workshop invitees on pages C-11 to C-12 of the agenda packet. There were 59 attendees at the workshop representing federal and state agencies, ports, terminals, operators, shippers, commodity groups, economic development agencies, regional planning organizations, environmental organizations, and flood control associations. Mickelsen said the key messages and outcomes of the workshop include:

- Agricultural products, metals, cement, and road salt are the materials shipped on the river with the greatest demand.
- Industrial sand, lumber, crude oil, and other petro-chemical products are emerging markets.
- There is a renewed interest in container shipping on the UMRS.
- National and international factors are increasing the demand for shipping.
- Investment in infrastructure improvements and modernization of inland waterways is needed.
- Market analysis is needed to focus investments.
- Opportunities exist for integrated, collaborative advocacy, marketing, planning, open dialogue, and information exchange.

M-35 Marine Route Development

Mickelsen reviewed the Maritime Administration's (MARAD's) Marine Highway Program and updated the Board regarding progress on the development of the M-35 Marine Highway Route. MARAD's vision for the Marine Highway Program is the full integration of marine highway vessels and ports into the surface transportation system to ensure reliable, regularly scheduled, competitive, sustainable services are routine for shippers. Mickelsen said MARAD designated the M-35 Route in July 2014 in response to the application from the five Upper Mississippi River states of Iowa, Illinois, Minnesota, Missouri, and Wisconsin. The M-35 Route includes the Upper Mississippi River from Lock and Dam 1 in the Twin Cities to Grafton, Illinois. Mickelsen said the potential benefits of the marine highway designation include:

- Optimization of state and national transportation systems
- Revitalization of this critical transportation segment
- Pursuit of innovative, intermodal planning approaches

At the request of the five state departments of transportation, Mickelsen said UMRBA has facilitated a strategic visioning process through the UMRBA Navigation Work Group. Progress to date includes the completion of an initial strength, weakness, opportunity, and challenge (SWOC) analysis, a UMRS Navigation Stakeholder Survey, the UMRS Ports, Terminals, and Operators Workshop, and other related exercises. The vision for the M-35 Marine Highway Route is a modern, reliable, and cost-effective Upper Mississippi River transportation route that connects seamlessly into the existing Midwest and national transportation network, generates regional and national economic growth, and sustains the river's multiple uses. The mission for the M-35 Route development is to strengthen Upper Mississippi River transportation mobility and utilization, in the context of regional and national transportation networks, and improve the economic competitiveness of the Midwest and nation through improvements to channel and harbor maintenance, locks, and transfer points.

Mickelsen said the UMRBA Navigation Work Group has developed an implementation strategy for the M-35 Route. The implementation strategy envisions working with partners to:

- Promote the value of the river transportation system
- Advocate for infrastructure improvements and other needed resources
- Facilitate regional dialogue
- Market the river's services
- Foster an enhanced understanding of trends and forecasts
- Ensure the sustainment of the river's multiple uses
- Assist efforts to relieve landside congestion, reduce air emissions, and increase efficiency in surface transportation modes
- Seek programs, tools, and financial instruments to support marine highway service development and infrastructure improvements

Mickelsen provide a visual depiction of the draft governance architecture developed for the M-35 Marine Highway Route. Under the governance architecture, the five state departments of transportation would administrate the M-35 Route, with the UMRBA Navigation Work Group serving as the policy development body. The UMRBA Navigation Work Group includes representatives from the five Upper Mississippi River state departments of agriculture, economic development, natural resources, and transportation. The governance architecture also includes an advisory group which is anticipated to include representative from industry sectors, federal agencies, labor groups, local governments, regional planning agencies, and academia, as well as flood control and environmental organizations. The governance architecture envisions mechanisms for input from other stakeholders as well as the establishment of working groups on individual projects.

Ingram Barge Company Background and Container Shipping Test Run on the Mississippi River

Chuck Arnold provided information regarding the operations of Ingram Barge Company and updated the Board regarding the company's involvement in efforts to reestablish container shipping on the Mississippi River. Arnold said Ingram Barge Company is the largest dry cargo carrier and fourth largest chemical carrier on America's inland waterways system. Ingram operates over 150 towboats and the company's fleet includes nearly 5,000 open hopper, covered hopper, and tank barges. In response to a question from Dru Buntin, Arnold said Ingram's tanker barges operate primarily on the Lower Mississippi River and typically haul materials such as caustic soda. Arnold showed a map depicting Ingram's locations all along the inland waterways system. Ingram's safety statistics are consistently below the industry average and Arnold provided a graphical depiction of reduction in the company's incidents from the period of 1999 through 2014. Arnold provided statistics resulting from Ingram's focus on sustainability, including:

- 91,000 tons of metals diverted from landfills
- 3,247 pounds of batteries recycled
- 42,000 pounds of lockline recycled
- 6,200 hours volunteered by Ingram associates at community events
- An 11.8 percent increase in fuel efficiency
- 6.5 million gallons of oil use reduction and recycling
- 12 percent of vessel fleet waste recycling

Arnold said Ingram's company average is 689 ton-miles traveled per each gallon of fuel, compared to the industry average of 616, rail mode average of 478, and trucking mode average of 150 ton-miles per gallon of fuel. He provided information showing that Ingram, and the waterways mode as a whole, compares quite favorably to rail and trucking modes in terms of air emissions. Arnold said the economic impact of the barge transportation industry is substantial and includes:

- 33,000 people employed aboard tugs and towboats
- 30,000 people employed by shipyards
- Nearly 500,000 workers employed in industries that rely on raw materials delivered by barge
- \$5 billion contributed by industry each year to the nation's economy
- \$750 million in combined yearly total payroll and corporate income taxes paid by the industry

Arnold provided comparisons of congestion in the trucking, rail, and inland waterways modes that make up the national freight transportation network. While the trucking and rail modes are either at or above capacity, the inland waterways mode is at only 50 percent of its capacity and would require comparatively minimal investment to expand barge fleets and accommodate demand growth.

Arnold said the continued increase in container shipping volumes offer an opportunity for growth in inland waterways shipments. He said a significant increase in volume has been experienced at the Port of New Orleans Napoleon Avenue Container Terminal. The facility saw an 8.8 percent increase in volume of containers in 2014 as compared to 2013 and estimates a 7 percent increase over the four year period following completion of the Panama Canal expansion.

Arnold said these factors as well as Ingram's collaboration with the Mississippi River Cities and Towns Initiative (MRCTI) led the company to embark on a viability study to load 54 twenty-foot equivalent units (TEUs) or intermodal shipping containers into a standard jumbo hopper. Several partners participated in the effort with Ingram. Ken Canter at Paducah Riverport donated transloading services with the facility's Comansa tower crane. Greenfield products supplied the container handler or spreader and Pac-Van supplied the containers. Arnold showed attendees pictures of the containers being loaded onto the barge for the test run.

Arnold said the project resulted in a significant amount of media interest with articles appearing in the Waterways Journal, Marine News, St. Louis Business Journal, Pittsburgh Post Gazette, and Paducah Sun as well as publications from the Inland Rivers Ports and Terminals Association and MRCTI. He said the peak in shipping interest has caused Ingram to realize that the container market will inevitably materialize on the inland waterways system. Arnold cited several findings resulting from the study, including:

- Current barge fleet can accommodate container shipping with no modifications to existing equipment
- Success will require identification of customers and existence of competitive rates
- Establishment of container shipping will also require high TEU volume shippers
- Success will require TEU shippers with flexible lead times
- Steamship support would be required at least through New Orleans
- Container shipping requires transloading at point of origin and destination
- Investment will be required to establish faster transit times as the market develops
- Establishment of container shipping will require collaboration with other transportation modes

In response to a question from Patrick Phenow, Arnold said the type of material shipped would likely not change the number of containers per barge. He said it would not be desirable to load three levels of containers on barges and the company has focused their economic analysis on 54 containers per barge loaded two containers high. Arnold said Ingram believes that container shipping is possible as far north as the Twin Cities, but the initial focus is on St. Louis, Memphis, and Pittsburgh. In response to a question from Robert Stout, Arnold said the number of empty containers shipped must be minimized to make container shipping viable. In response to a question from Bryan Hopkins, Arnold said Ingram would look for opportunities to combine smaller batches of empty containers to maximize efficiency.

Port Developments on the UMRS

Bill Paape introduced Charles Bell from the Mid-America Port Commission and Kevin Stier from the Upper Mississippi River International Port District to discuss their respective entities' efforts to establish new intermodal ports. Paape indicated that MARAD has been providing technical assistance to the two ports and assisting with their TIGER grant applications. The formal designation of the M-35 route allows MARAD to provide such assistance.

Mid-America Intermodal Authority Port

Charles Bell said the Mid-America Port Commission's intermodal port under development in Quincy, Illinois has an ideal location from a logistical perspective in the center of the country. The Mid-America Port Commission is the first three-state port compact in the nation and includes 11 counties in Illinois, six counties in Iowa, and nine counties in Missouri. Bell said the enabling legislation for the Commission was enacted in 1999 and established a three-state compact between the states of Illinois, Iowa, and Missouri. The geographic boundary of the entity includes the Illinois and Mississippi Rivers as well as the M-35 and M-55 Marine Highway Routes. The Commission is made up of nine commissioners, three appointed by the respective Governors and two appointed from each state by the respective county board chairpersons. The Commission's authorization allows it to own and operate ports and to operate a foreign trade zone.

Bell said the enabling legislation for the Mid-America Intermodal Authority Port District was enacted in 1998. The legislation established the District as a special taxing district, includes 11 Illinois counties, the Illinois and Mississippi Rivers, and the M-35 and M-55 Marine Highways. The District is also governed by a Commission. It includes seven commissioners with three appointed by the Governor of Illinois, and four appointed by the county board chairpersons. The District is authorized to own and operate a port and related intermodal facilities, issue shoreline improvement permits, levy taxes, issue revenue bonds, and operate foreign trade zones.

Bell provided visual depictions of the planned Mid-America Intermodal Port. In addition to access to the inland waterways system, the site enjoys access to Interstate 72/172, the Chicago-Kansas City Expressway, the Avenue of the Saints, BNSF Railway, Norfolk Southern Railway, and the Quincy and Hannibal Regional Airports. Bell said additional strengths of the site include:

- Location below Lock and Dam 21 to reduce congestion and eliminate one lockage
- More than 600 acres of land
- 500 year levee
- Navigable 12 months of the year
- Existing Enterprise Zone
- Existence of utilities with high capacity
- Communication infrastructure
- Short line railway with high quality service

Bell showed the Board a table summarizing federal, state, local, and private investment in the port totaling \$12.1 million. He also provided examples of numerous business and industry users of the inland waterways system located in close proximity to the site. Bell said these businesses would benefit by the development of the port in several ways, including:

- Interconnection of three modes of transportation – barge, rail, and truck
- Additional capacity at peak times would reduce demurrage costs
- Ability to ship and receive container freight at lower cost
- Elimination of one lockage
- Provision of space for public/private warehousing and transloading
- More efficient and safer handling of both dry bulk and liquid cargo
- Ability to establish foreign trade zone and subzones

Bell said four companies with international markets and plant locations have proposed investments in infrastructure at the port site and have provided projections of their respective estimated use of the port. He said the establishment of the port will assist these companies in keeping production jobs in the United States rather than moving them closer to suppliers and markets. The partners involved in the development of the port believe that partner investment will create opportunities for additional local business expansion and development and Bell provided numerous examples such opportunities.

Bell said the Port Authority has received a \$1.3 million grant to complete the final permitting and wetland mitigation plan as well as for the design and construction of port infrastructure. The port has been included as an inland waterways pilot project in MARAD's Build America Transportation Investment Center (BATIC) program, a fast-track port assistance program. Bell said additional public and private funding is being sought for the port's construction. Bell said collaboration is a key factor in the ultimate development of the port, both geographically and across sectors. He said the partners involved want to establish the port as a fully multimodal site. In response to a question from Mike Klingner, Bill Paape said there is nothing to prohibit an entity from receiving an additional TIGER grant if they have received previous TIGER grants, but that this would factor into MARAD's decisions on grant awards. Paape said MARAD leaders were disappointed that funding for TIGER planning grants was not appropriated by Congress in the current fiscal year. In response to a question from Tim Yager, Bell said the bulk of National Environmental Policy Act (NEPA) analysis and permitting review has been completed, but all final permits have not yet been granted.

Upper Mississippi River International Port District

Kevin Stier said the potential location for the development of the Upper Mississippi River International Port has been identified on an island at Savanna, Illinois, but the identification of funding has been a challenge. Stier said the partners involved in the potential port development would like to make it a public port and bonding authority exists, but the lack of identified public funding might make a private port more likely. He said the site's location with access to the BNSF and Canadian Pacific Railway Companies make it attractive for the development of a multimodal port. Community leaders are supportive of the port as many jobs were lost in the area with the closure of the Savanna Army Depot.

In response to a question from Bryan Hopkins, Stier said the development of a public port is preferable as such a facility would have a broader mandate and more potential for economic development in the region. However, Stier reiterated that private sources of funding and development of a private port will be pursued if public funding is not possible.

Channel Maintenance Planning – St. Louis District

Mike Rodgers provided background regarding the St. Louis District's efforts on channel maintenance. The Corps' authority for the Regulating Works Project has existed since 1881 and was granted by Congress in various Rivers and Harbors Acts, including the River and Harbors Acts of 1910, 1927, and 1930. St. Louis District maintains a nine-foot deep and minimum of 300 foot wide navigation channel on 300 miles of the impounded and unimpounded Mississippi River, 80 miles of the Illinois River, and 36 miles on the lower Kaskaskia River. Rodgers said the Regulating Works Project is funded at 100 percent federal expense. He said this is important as the Mississippi River is an artery of commerce critical to the movement of hundreds of millions of tons of essential goods and commodities such as corn, grain, coal, petroleum, and many other items important to the national economy. He said the Port of St. Louis is the third busiest port on the inland waterways system, handles approximately 110 million tons annually, and is estimated to save transporters over \$3 billion in transportation costs annually.

Rodgers said there are a number of tools used by St. Louis District to maintain the navigation channel, including dikes and other river training structures, weirs, dredging, rock removal, and off-bank revetments. He provided several visual depictions of typical cross-sections of the river and navigation channel and how training structures assist in maintaining the channel. The training structures use the high energy of the system to construct the channel by concentrating flow and keeping sediment moving instead of accumulating. This ultimately results in greater depth as the river bed is moveable in most places.

Rodgers said a number of advancements in the design of river training structures have occurred over the years. The initial river training structures were timber pile dikes, while the revetments were wooden mattresses. In the 1960s, the Corps transitioned from wooden structures to rock. In the 1990s, the Corps began using bendway weirs and blunt nose chevrons in the Mississippi River. Rodgers said that by the early 2000s, the benefits of the Regulating Works Project advancements became evident with the reduction of dredging, the increased reliability of the navigation channel during low water periods, and the reduced number of accidents and groundings. Rodgers said St. Louis District has also modified river training structures to benefit other uses such as the restoration of ecosystem habitat. He showed pictures of a site both before and after dikes were notched resulting in the creation of permanent islands and a greater diversity of habitat.

Rodgers showed a rendering depicting how bendway weirs work to increase depth and reduce energy. These structures are completely submerged, allowing tows to navigate over them. Rodgers also showed a picture of a site where the Corps used chevron dikes. He said chevron dikes provide benefits for navigation, the ecosystem, and recreation by reducing dredging while maintaining connectivity. The structures allow some flow into side channels which, under previous approaches, would have been cut off. By maintaining flow in the side channels, the Corps is able to provide benefits to the ecosystem and recreational uses, while still maintaining the navigation channel. In response to a question from Dan Baumann, Rodgers said the sediment is not removed from the system, but is directed to locations downstream that do not impede the navigation channel. Rodgers showed a picture of a site on the Lower Mississippi River where the Corps deployed a "W" dike. These structures result in a greater diversity of the river bed as well as non-uniform velocities. Rodgers said most of the construction of "W" dikes is done with limestone rock which provides a biological benefit.

Rodgers said all of the developments in the approaches to Regulating Works Projects have combined to have a measurable benefit. He provided information showing that, since 1988, dredge volume has decreased, the channel has been maintained to deeper depths, channel maintenance costs were reduced, and channel reliability has increased. Rodgers said safety has also improved, with no groundings occurring during low water periods.

Rodgers said the St. Louis District's model of collaboration with partners and stakeholders through each phase of the Regulating Works Project is unique within the Corps. The involvement of partners is accomplished through their participation in such events as the annual River Resource Action Team (RRAT) trip, and tours and demonstrations at the Applied River Engineering Center. He said the project's approach is also consistent with the Corps Engineer Research and Development Center's (ERDC) Engineering With Nature initiative to enable more sustainable delivery of economic, social, and environmental benefits associated with water resources infrastructure. Rodgers provided some examples of awards given to St. Louis District for the project's success.

Rodgers provided an overview and update on the St. Louis District's efforts to remove rock outcroppings that have impeded the navigation channel at Thebes and Grand Tower. He provided several depictions of the locations of the rock formations and described the challenge of determining whether the impediments were the hard, dense limestone outcroppings versus depositions of sand. He also provide a cross section of the rock pinnacles at river mile 38.5 at Thebes and explained that these obstructions were what remained from previous efforts to remove rock as opposed to actual pinnacle formations. Rodgers provided an overview of the completion of the "urgent and compelling" rock removal action. The St. Louis District completed an environmental assessment (EA) that set out the approach to removal in order to minimize the impact to the environment. This approach entailed use of a 16,000 pound hydro-hammer where possible, but some locations required drilling and blasting. Rodgers said no taking of fish occurred during removal actions and overall there were limited impacts from the drilling and blasting. Rodgers said one of the challenges was that there was a very limited window of opportunity to complete the work as low river depths were required.

Rodgers said St. Louis District is in year two of a three-year plan to update the National Environmental Policy (NEPA) documents for the Regulating Works Project. He said the District does not anticipate major changes to project practices as a result of the NEPA analysis. In response to a question from Robert Stout, Rogers said the Corps is still in the process of determining membership on the external peer review panel for the NEPA Supplemental Environmental Impact Statement (SEIS) for the Regulating Works Project.

Rodgers said St. Louis District purchased 2,400 feet of flexible dredge pipe in the early 2000s. He said the flexible spill barge "Thomas George" was completed in FY 2014. The District is using this to create ephemeral islands with dredge spoil to enhance environmental diversity.

In response to a question from Harry Bozoian, Rodgers said modeling has shown that the notching of dikes has not resulted in compromising the integrity of the structures. Bozoian said he was aware of concern expressed by Missouri River stakeholders regarding the impact of dike notching on bank erosion. Rodgers said the structures on the Mississippi River are different. He said many dikes on the Mississippi River are now angled upstream to reduce impacts on the bank, while most dikes on the Missouri River are angled downstream. He said the Missouri River approach is also different in that a large number of dikes were notched at the same time.

Interstate Council on Water Policy

Ryan Mueller provided an overview of the Interstate Council on Water Policy (ICWP) and the organization's current activities and priorities. Mueller said ICWP's mission is to enhance the stewardship of the nation's water resources by:

- Serving as the national policy voice for state and interstate water resource managers
- Providing a national forum for evaluation of policy issues and development of solutions
- Providing leadership in the promotion and implementation of national policies that support integrated water resource planning and management
- Providing opportunities to engage federal agency and Congressional leaders

Mueller said the interstate basin organization members of ICWP include the Delaware River Basin Commission, the Interstate Commission on the Potomac River Basin, the New England Interstate Water Pollution Control Commission, the Ohio River Valley Water Sanitation Commission, the Susquehanna River Basin Commission, and the Upper Mississippi River Basin Association. ICWP member states include Alabama, Arkansas, Colorado, Illinois, Louisiana, Missouri, Nebraska, Oklahoma, Pennsylvania, South Carolina, West Virginia, and Wyoming. Mueller said ICWP also has affiliate members, including the U.S. Army Corps of Engineers Institute for Water Resources, YSI – Xylem, Hach, Hazen and Sawyer, and Aquatic Informatics.

Mueller described some of ICWP's current focus areas and indicated that the organization is interested in implementation of programs in addition to federal legislation. In national water policy development, ICWP is working to ensure that federal policies concerning water resources are aligned with and reflect state and interstate authorities' needs and capabilities. In integrated planning for sustainable management, ICWP is promoting effective national water policy that supports integrated planning for sustainable water resources management. ICWP is also working to promote the use and availability of water data and science as well as the development of effective integrated water science tools to inform policy and planning.

More specifically, Mueller said ICWP is working to support fundamental hydrologic data networks such as funding for the USGS National Streamgauge Network. He said members value ICWP's focus on the use of water data and science to inform policy and planning. In recent years, ICWP has organized a multi-signatory letter to members of Congress and Administration leaders supporting sufficient funding for full implementation of the National Streamgauge Network. Mueller indicated that Congress has appropriated additional resources for the program in the past two fiscal years. This success has proven the value of multiple groups unifying around a common message to achieve a shared goal. Mueller said that ICWP provides comments during the development of water policy such as the Corps of Engineers Principles, Requirements, and Guidelines and the 2014 Water Resources Reform and Development Act Implementation Guidance.

Mueller said a more recent focus of ICWP has been advocating for additional funding for the Corps' Planning Assistance to States (PAS) authority. He said this authority provides a good opportunity for states to leverage federal dollars to support water planning priorities. The match for the PAS authority is 50 percent federal and 50 percent state match. The state match can be provided in the form of in-kind services. Mueller said several ICWP member states have used PAS funding extensively because it is a good fit for their state water planning efforts, including Missouri, Arkansas, and Oklahoma. He said ICWP has worked extensively with the Corps to promote PAS as a tool for states.

Mueller said ICWP is working with USGS on the agency's new program for state water use grants. USGS has budgeted funding in FY 2016 to provide grants to states designed to enhance water use data collection and accuracy. ICWP is finalizing a proposal to convene three national cooperator meetings to gather input and provide recommendations to USGS regarding their future grant program and funding priorities. Mueller said the cooperator meeting for the Midwest is likely to be held in Chicago.

Mueller invited Board members to attend ICWP's 2015 Annual Meeting in Little Rock, Arkansas on September 28 through October 2, 2015. He said he would be happy to provide additional information regarding ICWP and the organization's work to any states not currently participating. In response to a question from Harry Bozoiian, Mueller said ICWP does not maintain data collected through the USGS National Streamgauge Network, but ICWP has focused on advocating for the funding necessary to fully implement the program. In response to a question from Mike Klingner, Scott Morlock said USGS is working on improving the accuracy of real-time data provided through the stream gage network. Morlock said USGS recognizes the importance of accurate real-time data, is working to improve it, and is in the process of bringing online a water data management software system known as AQUARIUS.

Mississippi River Cities and Towns Initiative

Colin Wellenkamp provided an update regarding the recent activities of the Mississippi River Cities and Towns Initiative (MRCTI). He noted that MRCTI held their annual Capitol Meeting in Washington DC in March 2015, provided support for the recent test run of container shipping described by Chuck Arnold of Ingram earlier in the meeting, and will be sending a delegation of mayors to the 2015 United Nations Climate Change Conference in Paris, France in late November 2015.

Wellenkamp reminded the Board that MRCTI is led by a 10-mayor Executive Committee. He noted that the terms of MRCTI's two co-chairs (currently Mayor A.C. Wharton of Memphis, Tennessee and Mayor Roy Buol of Dubuque, Iowa) will soon expire and said the organization will be electing new leadership at their annual meeting in September 2015 in Dubuque.

Wellenkamp said MRCTI's March 2015 Capitol Meeting was successful in continuing to build the coalition of partners interested in promoting the value of the Mississippi River and highlighting the common interests of communities all along the river. He indicated that the mayors were pleased with the press coverage of the event and noted that 48 members of the press attended the meeting. Wellenkamp noted that one issue discussed by mayors at the meeting was how to communicate why mayors in upstream communities in states such as Iowa care about the health and water quality downstream to Louisiana and the Gulf of Mexico. The discussion centered on the interconnected nature of the economies of river communities and the fact that companies headquartered in upstream communities either also have a presence in communities such as New Orleans, or use the river to ship exports to global markets through the Port of New Orleans. MRCTI continues to work with the bipartisan Mississippi River Congressional Caucus and Wellenkamp noted that Senator Amy Klobuchar (D-MN) replaced retired Senator Tom Harkin (D-IA) as the co-chair of the Senate caucus. Senator Roy Blunt (R-MO) is the other Senate caucus co-chair.

Wellenkamp directed the Board's attention to pages E-1 to E-8 of the agenda packet for a copy of MRCTI's 2015 Policy Platform and highlighted a few of the items in the platform. He said MRCTI is urging Congress to:

- Provide ample support for trails, byways, and bridges in the new Highway Transportation legislation
- Fund a flexible USDA NRCS Watershed and Flood Prevention "Landscape Resiliency" initiative
- Effectively prohibit coal ash from being deposited within floodplains
- Fund key economic development priorities underlying a sustainable Mississippi River economy, including:
 - America's Marine Highway Grant Program through MARAD - \$10 million
 - U.S. Army Corps of Engineers Civil Works Budget - \$5.5 billion
 - USEPA Section 106 Water Pollution Control Grants Program - \$249.2 million
 - USEPA Drinking Water and Clean Water State Revolving Funds - \$2.35 billion
 - FEMA Pre-Disaster Mitigation Program - \$200 million

Wellenkamp noted that MRCTI joined with the Inland Rivers, Ports, and Terminals Association, Walmart, Home Depot and 13 other entities to seek and receive from U.S. Secretary of Transportation Anthony Foxx project designation for the container on vessel initiative under the MARAD Marine Highway Program. He thanked UMRBA for providing a letter of support for the project's designation. Wellenkamp said the designation of the project makes it eligible for future funding if it is appropriated by Congress and also allows MARAD to provide technical support for the effort. He said the next step is to get ocean shipping companies involved in the initiative. Wellenkamp said MRCTI mayors from St. Louis, Missouri and Grafton, Illinois participated in the press conference highlighting Ingram Barge Company's recent effort highlighting the viability of container shipping on the inland waterways system.

Wellenkamp expanded upon the delegation of MRCTI mayors participating in the November 2015 UN Climate Change Conference in Paris, France. He said the Mississippi River mayors have a compelling story to tell given the increase of extreme weather events such as floods, droughts, hurricanes, and tornadoes as well as the significance of the Mississippi River basin to global food production. He said the conference offers an excellent opportunity for the leaders of Mississippi River communities to exchange information with leaders in other basins worldwide and learn about approaches to addressing climate change impacts.

Wellenkamp said MRCTI's 2015 Annual Meeting will be held in Dubuque, Iowa on September 15-17, 2015 just prior to the Iowa Presidential caucuses. He thanked UMRBA Chair Dan Baumann, Board member Bryan Hopkins, and UMRBA staff for their work in facilitating the USFWS' preparation of the Upper Mississippi River economic profile. Wellenkamp said MRCTI members have used the Lower River economic profile extensively and anticipate similar use of the Upper River profile in conjunction to promote a greater understanding of the economic value of the entire Mississippi River. Dru Buntin noted that partners involved in the Upper Mississippi River economic profile are planning to release it during the MRCTI meeting in September in Dubuque. In addition to the Upper River economic profile, Buntin said UMRBA is interested in highlighting the Upper Mississippi River Restoration (UMRR) program as well as the states' collective water quality work during the MRCTI annual meeting. In response to a question from Buntin, Wellenkamp said the theme for the annual meeting is "The Mississippi River as America's Main Street" and indicated he would be happy to work with UMRBA on highlighting these issues during the meeting.

Spills Contingency Planning

Given the inclusion of spills contingency planning as a focus area in UMRBA's strategic plan, Dave Hokanson said staff thought an update regarding recent spill event responses and lessons-learned, as well as development of spill response tools, would be of interest to the Board. Hokanson said Heath Smith of USEPA Region 7 and Steve Faryan of USEPA Region 5 would provide updates on two notable recent spill incidents.

February 2015 Ethanol Spill – near Balltown, Iowa

Heath Smith provided information regarding a February 4, 2015 Canadian Pacific Railway derailment near Balltown, Iowa. Smith said the initial NRC report indicated approximately six tanker cars containing ethanol had derailed. The report said one car was on fire and one was in the Mississippi River. The report stated that local fire department staff and representatives of the potentially responsible party were on site and Iowa Department of Natural Resources personnel were in route. No assistance was requested from USEPA.

In actuality, Smith said 15 cars derailed and 14 of them were tank cars. Smith said eight of the tank cars spilled approximately 55,000 gallons of denatured ethanol with some of this consumed by fire, some spilled into the Mississippi River, and some spilled inland to the ground. Smith said the remote location and steep grade of the derailment location limited response access to the site. Smith described the response actions including the creation of an access road and staging area, the purging of tank cars to remove residual ethanol, and the removal of the tank cars. The river was also iced over so an air boat was used for sampling. Smith said the derailment location was the only one (among many locations sampled) where there were results above screening levels for ethanol and benzene in water.

Smith played a video showing the deployment of an aeration device at the derailment site. He also shared a time lapse representation of the migration of the ethanol plume downstream based upon modeling and monitoring results. In response to a question from Robert Stout, Smith said response sampling focused on benzene due to its toxicity and presence in denatured ethanol. Tim Yager

acknowledged the participation of staff from the USFWS McGregor District office in the derailment response and noted that the air boat used for sampling was theirs.

March 2015 Crude Oil Spill - near Galena, Illinois

Steve Faryan provided an overview of response actions following a March 5, 2015 BNSF derailment resulted in the release of crude oil to the ground near the Galena River's confluence with the Mississippi River. Faryan said Galena Fire personnel made the decision to let the Bakken crude burn and focus response on safety and site stabilization to prevent the release of product off site. 415 personnel were initially involved in response actions. Faryan said the Illinois Emergency Management Agency and the Galena Fire Department used the National Incident Management System from the onset of the incident. USEPA and IEMA established Unified Command on day four of the incident with additional involvement of staff from the Illinois EPA, the Galena Fire Department, Jo Daviess County Emergency Management Agency, and BNSF Railway. Faryan said response activities included:

- Extinguishing the fire
- Developing roadway access to difficult incident area as well as associated permitting
- Removal of un-impacted cars from the area
- Removal of damaged cars from right-of-way
- Excavation of contaminated soil under tracks
- Replacement of damaged track and reestablishment of track operation
- Emptying, cleaning, purging, cutting, and scrapping rail cars

Faryan shared several photos of the incident site and response activities and provided a description of air, product, surface water, and soil monitoring and sampling activities at the site. Faryan said surface water sampling showed no exceedances of Illinois water quality standards. Sheet pile containment and excavation of impacted soils at the site is complete. The flushing of ballast and recovery of oil, as well as water treatment is ongoing. Restoration actions and additional monitoring are being planned. Faryan said product totals addressed at the site include:

- 230,242 gallons of crude oil
- 35,132 gallons of oil/water mixture
- 216,800 gallons of contact water treated
- 3,568 tons of contaminated soil
- 40 yards of oily and general debris
- 12 tanker cars wrecked

In response to a question from Ken Westlake, Faryan said response activities at the site have gone well and no recommendations for response improvement have been identified. In response to a question from Dan Baumann, Hokanson said the change in tanker car safety requirements and a June FEMA public safety exercise regarding a rail crude oil shipment are indications of growing federal agency engagement in crude-by-rail issues. Baumann said he is hearing that citizens are interested in additional actions being taken in residential areas near the rail lines.

Regional Response Planning Tools

Dave Hokanson said in light of recent spill incidents and interest from the UMRBA Board, staff have assembled a summary of regional planning and response tools that are most relevant for use on the UMRS. This summary includes tools developed by the UMR Hazardous Spills Coordination Group,

USEPA, and UMRBA OPA staff working under contract with USEPA. Tools described in the summary document provided to the Board include:

- UMR Spill Plan, Resource Manual, and Emergency Action Field Guide
- Region 5 Inland Sensitivity Atlas
- Geographic Response Plans (GRPs) for UMR Pools, including incident action plans
- UMR Response DVD
- Regional/Area Plans
- EPA Websites
- Habitat Fact Sheets for Response
- Inland Response Tactics Manual

Hokanson said a GRP is a location-specific strategy (or set of strategies) to help guide the initial response to a spill of oil or other hazardous materials. The GRP provides initial guidelines for responders in the event of a spill, greatly reducing the time needed to make decisions about how to respond. A GRP gives responders the information and guidance they need to ensure that response to a spill is fact and effective while protecting sensitive resources threatened by the spill.

Hokanson described the evolution of the development of the Upper Mississippi River GRP in phases. Phase one of the UMR GRP included an initial focus primarily on site-specific response strategies and also included description of the pool, inland sensitivity atlas maps, basic contact information and the tactics manual. Phase two added initial incident action plan (IAP), better aerial illustration of response tactics, and began to cover areas outside of the Upper Mississippi River National Wildlife and Fish Refuge. Hokanson shared some examples of UMR GRP response strategies.

Hokanson said the benefits of the initial IAP include accelerating initial response, defining roles early, and establishing response objectives, but it is not a substitute for incident-specific consultation and consideration. Initial IAPs contain:

- Cover sheet with background information on incident
- Agency roles and responsibilities
- Incident Command System (ICS) forms
- Incident Command organizational chart
- Emergency contact list
- Fill-able forms

Hokanson said the GRP/IAP development process can be as important as the product. The process includes the identification of private, local, state, and federal participants. Workshops and field assessments are also included in the process. With the review of information and creation of materials, the entire process from initial meetings to the creation of the final product CD can take six months to one year to complete.

Hokanson said the final GRP product includes materials on a stand-alone CD. It includes maps, specific response strategies, aerial imagery, the inland response tactics manual, and relevant Inland Sensitivity Atlas maps. The GRP also includes an area-specific IAP template, a UMR plan and field guide, and regional response plans. Supplemental information is included in the GRP, such as contact lists, habitat fact sheets, and navigation charts.

Hokanson said full GRPs for UMR Pools 7, 8, 10, 13, and 19 have been completed as has the GRP for Horicon Marsh. He said response strategies only have been developed for the Twin Cities (UMR Pools 1 and 2, and the St. Croix River), Quad Cities, and St. Louis (Pool 27 and Open River) as full sub-area plans exist in these areas. Hokanson said all of the UMR GRPs are available on CD and have been adapted for use in recent UMR incidents. In response to a question from Mike Klingner, Hokanson said next steps include the completion of GRPs for UMR Pools 5, 5a, and 6 this year. GRPs for Pools 11 and 12 will be completed in 2016. Hokanson said habitat and species fact sheets will continue to be used as companion tools.

In response to a question from Dan Baumann, Hokanson said UMRBA staff shared information regarding UMR response tools for use during the June 2015 FEMA exercise in La Crosse, Wisconsin. Kraig McPeck said the USFWS has assigned a contaminant specialist to assist with spill response issues and has undertaken a two-year process of updating the river resource inventory. In response to questions from Jim Fischer, Hokanson said that at the UMR scale, the listing of contacts is not very deep. However, he said local contacts with specific response expertise can be included in the GRPs to a much more detailed level.

Coal Combustion Residual Storage

Tyler Rotche provided information and an NGO perspective regarding the disposal and water quality impacts of coal ash in Illinois. He said there are 24 coal-fired power plants in the state and they are adjacent to rivers, lakes and over aquifers. There are 91 coal ash disposal pits in the state and Rotche said the pits are in unsuitable locations. He said 56 pits are over groundwater recharge areas, 62 are over shallow aquifers, and nine pits are located over wetlands. Rotche said 16 of the 38 dams assessed were deemed to be in poor conditions with some subject to the erosional forces of nearby rivers and others located over mine voids with the risk of subsidence.

Rotche said the disposal pit at the retired Vermilion Power Station has a hydraulic connection to the middle fork of the Vermilion River. Rotche showed an aerial photograph of the site, including the floodplain of the middle fork of the Vermilion River and the current and historic coal ash storage cells/ponds. Rotche said there are two ways the coal ash disposal areas at the site could fail during flood events – from inside or outside. He said the pits could fail as pressure inside increases or when erosion from the river undermines the structure. Rotche said there are approximately 3 million cubic yards of coal ash in the pits at this site.

Rotche said USEPA rules on coal combustion residuals (CCR) published in April and effective in October 2015 regulate coal ash disposal sites under subtitle D, the solid waste or non-hazardous waste provisions, of the Resource Conservation and Recovery Act (RCRA). He said the rule is self-implementing and will result in states revising solid waste management plans (SWMPs). Rotche said the rule also establishes national minimum criteria for groundwater contamination, structural failures, and fugitive dust. He said the rules contain short term deadlines for the creation of dust control plans, implementation of dam safety inspections, and the establishment of design standards. The rules also contain longer term deadlines for the notification of intent to initiate pond closure, as well as restrictions on location of disposal sites. Rotche said the federal rules exempt some older closed pits as well as those that will be closed in the next six months.

Rotche said under the State of Illinois' coal ash rules, the state will focus the first year on the hydrogeological characterization of sites, assessment of groundwater monitoring, establishment of background values, and creation of a groundwater monitoring plan. This information will be used to assess performance and prioritize units for closure and corrective action. Rotche said remaining issues to be addressed include the applicability of the rules, location restrictions, structural integrity assessments, closure plans, post-closure care, and financial assurances.

Susan Mooney said Rotche covered many of the highlights of the USEPA CCR rules, but pointed out that the rules establish nationally applicable minimum criteria for disposal in landfills and surface impoundments. She said a risk assessment showed groundwater was the greatest area of risk from coal ash disposal practices. The rules require CCR units posing an unacceptable risk to retrofit or close. Mooney said the rules' technical requirements apply to owners and operators of new and existing CCR landfills, new and existing surface impoundments, as well as owners seeking lateral expansions of CCR landfills or surface impoundments. The rule also applies to inactive CCR surface impoundments located at active utilities. Mooney said the technical requirements do not apply to:

- CCR landfills that have stopped receiving CCR prior to October 19, 2015
- CCR units at facilities that have ceased producing electricity prior to October 19, 2015
- CCR generated from non-utility boilers, e.g., manufacturing facilities, universities, hospitals
- CCR that is beneficially used
- CCR placement at active or abandoned underground or surface coal mines
- Municipal Solid Waste Landfills that receive CCR

Mooney said CCR is one of the largest waste streams generated in the United States. In 2012, approximately 110 million tons of CCR was generated by over 470 coal-fired facilities in 47 states and Puerto Rico. In 2012, 40 percent of CCR was beneficially used with 60 percent disposed of mostly onsite. Mooney said there are over 310 active CCR landfills and 735 active CCR surface impoundments. She said the number of CCR facilities in USEPA Region 5 states is:

- Illinois – 17 facilities
- Indiana – 26 facilities
- Michigan – 22 facilities
- Minnesota – 14 facilities
- Ohio – 25 facilities
- Wisconsin – 16

Mooney said USEPA assessed all of the known units with a dam hazard potential rating of “high” or “significant.” She confirmed that 16 of the 38 dams assessed in Illinois were deemed to be in “poor” condition.

Mooney said USEPA first published the proposed CCR rules in the Federal Register on June 21, 2010. She said two regulatory options were proposed – regulating CCR as non-hazardous (subtitle D of RCRA) or as a special waste (subtitle C of RCRA). USEPA received over 450,000 comments, conducted eight public hearings, and published three Notices of Data Availability during the course of the rulemaking. USEPA decided to regulate CCR under non-hazardous subtitle D provisions of RCRA in the final CCR rules. Mooney said key technical provisions of the final rule include:

- Location restrictions
- Design standards – liners and structural integrity
- Operating standards
 - Fugitive dust control
 - Run-on/run-off for landfills
 - Hydrologic and hydraulic capacity requirements for surface impoundments
 - Inspections for surface impoundments and landfills
- Groundwater monitoring and corrective action

- Closure and post-closure care
- Recordkeeping, notifications, and internet posting
- Beneficial use

Mooney said the effective date of the rule is October 19, 2015 with additional effective dates for specific provisions. She confirmed that the rule is self-implementing and will require no action by a regulator before facilities must comply. Citizens and states can enforce the requirements under RCRA citizen suit authority. Mooney said USEPA does have authority to address “imminent and substantial endangerment” situations, but cannot enforce the regulations. She said the rules require owners/operators to verify compliance with a certification by a qualified Professional Engineer (PE), disclose compliance activities, and notify the state in which the facility is located of decisions made and actions taken to comply with the rules.

Mooney said states are not required to adopt or implement the regulations or to develop a permitting program. She said USEPA does encourage states to adopt the federal minimum criteria into state regulation. Mooney said USEPA’s approval of a revised state SWMP provides the agency’s opinion of state regulations. Although this opinion will not preclude a citizen suit, Mooney said USEPA expects that a court would give it substantial weight.

Federal Liaison Updates

Tim Yager said effective June 1, 2015 the USFWS has assigned Tim Miller as the new district manager for the La Crosse District within the Upper Mississippi River National Wildlife and Fish Refuge.

Kraig McPeck said the USFWS is expected to list the Northern Long Eared Bat as threatened under the Endangered Species Act on May 4, 2015.

Scott Morlock said USGS is involved in expanding 10 stream gages in Minnesota to include real-time sediment data. He said USGS has also funded a real-time nitrate gage now operating on the Mississippi River at Clinton, Iowa. Morlock said USGS is analyzing the suitability of using Missouri River dredged material for frack sand. In response to a question from Bryan Hopkins, Morlock said he expected the Missouri River dredged material study to be completed in FY 2015. In response to a question from Harry Bozoian, Morlock said the Corps is interested in the study but USGS made the decision to undertake the study. Dan Baumann encouraged USGS to consider widening the study scope to include other beneficial uses beyond frack sand. Tim Yager suggested that coordination with MVP might also be in order regarding efforts to facilitate use of dredged materials. Morlock said USGS is also working with local partners on an inundation mapping project in the Green Island area of the Maquoketa River to assess the benefits and ecosystem services of nutrient/sediment removal.

Mark Moore said repairs on the Marseilles dam are ongoing. In response to a question from Dru Buntin, Moore said final cost of the project is estimated to be approximately \$45 million and the assignment of fault is the subject of ongoing litigation. Moore said MVP continues to work on the closure of Upper St. Anthony Falls lock to commercial navigation while still maintaining the projects’ flood risk function.

J.R. Flores said NRCS is accepting applications for the \$235 million second round of Regional Conservation Partnership Program (RCPP) projects through July 8, 2015. NRCS awarded \$314 million to RCPP projects in the first round. Flores said one of the RCPP projects was awarded to the Missouri Department of Natural Resources for the Our Missouri Waters Initiative. Flores described some of the additional Mississippi River Basin Healthy Watershed Initiative project work being funded by NRCS in

Missouri. In response to a question from Dru Buntin, Flores said NRCS added funding for additional watersheds to be included in existing MRBI projects.

Ken Westlake noted the Council on Environmental Quality (CEQ) draft guidance on consideration of climate change impacts in National Environmental Policy Act (NEPA) analyses. He said USEPA is encouraging the use of greenhouse gas reductions tools in project development so that adverse impacts and potential carbon sinks/reductions can be considered along with strategies such as green stormwater techniques and additional capacity to manage changes in flow.

Administrative Issues

UMRBA FY 2016 Budget

Robert Stout offered and Rick Gosch seconded a motion to adopt the draft FY 2016 budget for the Association. Dru Buntin indicated copies of the draft FY 2016 UMRBA budget were available at the back of the meeting room. Dan Baumann indicated that the Board would be discussing strategies for managing the current structural deficit in the UMRBA budget in advance of the August quarterly meeting. The motion was approved unanimously on voice vote.

Dru Buntin thanked the Board members for acknowledging in FY 2016 compensation adjustments the additional duties undertaken by Kirsten Mickelsen in the past year. Buntin also expressed appreciation to the Board for supporting Dave Hokanson's role with the Association in their approval of Hokanson as UMRBA's Deputy Director.

Bryan Hopkins said he attended a recent meeting of the UMR Hazardous Spills Coordination Group and said the Board's support for this type of regional engagement is critical.

Dan Baumann welcomed new Board members Rick Gosch and Sheri Walz.

Future Meeting Schedule

Buntin said the next meeting series will be held August 4-5, 2015 in Onalaska and La Crosse, Wisconsin with the UMRBA Quarterly meeting on the 4th in Onalaska and the UMRR Coordinating Committee on the 5th in La Crosse, Wisconsin at UMESC. The November meetings will be held November 16 -18, 2015 in St. Paul, Minnesota with the UMRBA Water Quality Executive Committee meeting on the 16th, the UMRBA quarterly meeting on the 17th, and UMRR Coordinating Committee on the 18th. The February quarterly meetings will be held February 23-24, 2016 in the Quad Cities with the UMRBA quarterly meeting on the 23rd, and the UMRR Coordinating Committee on the 24th.

With no further business, Harry Bozoian offered and Tim Hall seconded a motion to adjourn. The motion passed unanimously, and the meeting adjourned at 3:54 p.m.