

**Upper Mississippi River Hazardous Spills Coordination Group Meeting**  
**October 3-4, 2007**  
**Davenport, Iowa**

**Meeting Summary**

**Participants**

Roger Lauder	Illinois EPA
Rodney Tucker	Iowa DNR/USCG
Mike Anderson*	Iowa DNR
David Morrison	Minnesota PCA
Rick Gann	Missouri DNR
Brad Harris	Missouri DNR
Tom Kendzierski	Wisconsin DNR
Steve Faryan	US EPA Region 5
Bill Spaulding	US EPA Region 5
Ann Whelan	US EPA Region 5
Joe Davis	US EPA Region 7
Jim Silver	US EPA Region 7
Joel Allen**	US EPA Office of Research & Development
Katherine Weathers	USCG, Sector Upper Mississippi River
John Martin	USCG, Quad Cities MSD
Pete Vasquez	USCG, Quad Cities MSD
Matt Weakley	USCG, District 8
Liz Jones	NOAA
Clint Beckert*	USACE, Rock Island District
Frank Catalano	USACE, St. Louis District
Scott Pettis*	USACE, Rock Island District/USCG
John Punkiewicz	USACE, Rock Island District
Peter Hughes	USGS, Wisconsin Water Science Center
Ken Lubinski*	USGS, Upper Midwest Environmental Sciences Center
Gary Haden	McKinzie Environmental
Dave Fritz	BP America
Tim Ganz*	American Water Company
Ryan Schuler*	American Water Company
Dave Kull*	Iowa American Water Company
Greg Swanson*	City of Moline
Barry Kahl*	City of Moline
Mark Mitchell*	Illinois Rural Water Association
Kyle Waits*	YSI Incorporated
Dave Hokanson	UMRBA

\*Attended on October 3<sup>rd</sup> only.

\*\*Participated by phone on October 3<sup>rd</sup> only.

**Call to Order and Introductions**

The meeting of the Upper Mississippi River Hazardous Spills Coordination Group (UMR Spills Group) was called to order at 1:05 pm by Rodney Tucker, UMR Spills Group chair. Introductions of all in attendance followed.

### **Approval of Previous Meeting Summary**

The summary of the April 18-19, 2007 meeting of the UMR Spills Group was approved. Dave Hokanson indicated that the summary would now be considered final and posted on the UMRBA website. Hokanson suggested that future meeting summaries be approved via email both to expedite the posting of meeting notes and to save time during meetings. The Group concurred with this recommendation and Hokanson indicated that future approvals would be done in this manner.

### **UMR Early Warning Monitoring, Part 1: Current Status and Ongoing Efforts**

#### *Overview and Update*

Hokanson provided an overview of the goals of the early warning monitoring discussion for the meeting. He summarized the goals as follows:

- 1) To provide updates on various efforts related to early warning monitoring on the UMR,
- 2) For current and potential partners to offer their perspectives on what they could contribute to UMR early warning monitoring efforts, and
- 3) For the Group to identify next steps to be taken in the UMR early warning monitoring effort.

#### *UMRBA Role in Early Warning Monitoring*

Hokanson updated the Group regarding of the decision of the UMRBA Board to phase the UMRBA out of its coordination role in UMR early warning monitoring efforts. This decision was made at the August 21, 2007 quarterly meeting of the UMRBA Board. He highlighted the following elements of the Board's decision:

- The UMRBA board sees value in early warning capacity for UMR. However they do not see the effort as a primary role for UMRBA as an organization.
- The Board is not interested in a role beyond what has been supported in OPA cooperative agreement with US EPA, Region 5.
- The Board is not interested in UMRBA being the long-term institutional home for an early warning system.
- The Board does not see early warning monitoring as priority among UMRBA water quality activities.
- The Board therefore directed staff to phase UMRBA out of its coordination role in the UMR early warning monitoring effort.
- However, the Board also felt that an "orderly transition" is important and that UMRBA staff should seek to facilitate transition of roles, responsibilities and information regarding UMR early warning monitoring.

Hokanson characterized the discussion at today's UMR Spills Group meeting as being part of the effort to exercise the Board's preference for an orderly transition of roles and information.

#### *Status of Pilot Station at Lock and Dam 15*

Hokanson gave a brief status report regarding the pilot monitoring station at Lock and Dam 15 in Rock Island, Illinois. He reported that the monitoring system remains out of operation, pending

the purchase of a replacement water quality monitoring sonde. Hokanson added that a bid for the new sonde was in place and that a purchase could be quickly completed, but that finalization of the purchase was likely dependent on the outcome of the discussion at today's meeting.

#### *Biomonitoring Pilot Project*

Hokanson and Joel Allen provided an overview of the project currently being supported by US EPA (Region 5 Water Division and Office of Research & Development) to install pilot early warning monitoring stations on the UMR using biologically-based online toxicity monitors, along with more conventional monitoring technology. Hokanson described the project as coming from a watershed/source water protection perspective, but at the same time capable of providing early warning/spill detection capacity using a "tiered response" model. He further described the components of the monitoring installation, which include an online toxicity monitor (mussel-based biomonitor), multiparameter water quality sonde, and UV detection device (scan spectrometer). Hokanson further noted that the first monitoring installation has been completed and is located at the Minneapolis Water Works, and that there may be a total of three more stations installed under current funding, with at least one station likely to be located upstream from Minneapolis.

Peter Hughes asked whether raw or treated water was being monitored. Allen replied that the system is monitoring raw water. Tim Ganz asked whether the Minneapolis Water Works (MWW) was contributing to the operation. Allen indicated that MWW was indeed contributing, both in terms of material and personnel, and is the primary partner on the project. Katherine Weathers asked if homeland security funding had been used to fund the effort. Allen answered that homeland security funding had not been pursued, and that the funding for the project was being provided under a Regional Applied Research Effort (RARE) grant. Weathers noted that the St. Louis Area Maritime Security Committee may have the ability to fund an effort of this type. Allen indicated that the project is always open to new partnerships.

Greg Swanson asked what costs were associated with the equipment purchased for the MWW installation. Allen gave the following cost estimates, noting that these were all items paid for by US EPA:

- Bivalve (mussel) monitoring device = \$4000
- scan spectrometer = \$25,000
- YSI multiparameter probe = \$7000
- Telemetry equipment = \$2000

Hokanson added that the MWW had also expended about \$20,000 in materials and labor associated with the installation of the system.

Hokanson asked Allen why the bivalve system was selected (as opposed to other biologically-based systems) and why the scan spectrometer was preferred over other UV detection systems. Allen replied that the bivalve system is both less expensive to set up than other systems and that the mussels are more robust and long-lived than other organisms. In regard to the scan system, Allen noted that it is the only system on the market that is capable of full spectrum detection. Hughes asked about operation and maintenance requirements for the scan system. Allen replied that this was minimal, as no calibration was needed for the device.

Hughes asked whether this project was more research-oriented or operational in nature. Allen replied that it is being supported through EPA's Office of Research and Development and therefore has been more research-oriented to date. Hughes further asked whether there was yet a project report available. Allen replied that a report had not yet been produced.

*Iowa DNR Effort to Enhance Early Warning Capacity*

Mike Anderson reported on Iowa DNR's efforts to enhance early warning monitoring capacity on the UMR by adding additional detection devices at Lock and Dam 15 and Burlington, Iowa. He indicated that Iowa DNR would be willing to lead coordination of these projects, at least initially. Anderson reported that a total of approximately \$53,000 was being requested, with just over \$25,000 planned for each location.

Anderson asked Ganz if American Water would be willing to continue participating in the project if Iowa DNR were to move forward. Ganz indicated that American Water would be interested. Tucker indicated that support from the utilities would be needed for the project to be successful. Mark Mitchell asked whether IL EPA had made any indication of their willingness to support the project. Anderson replied that communication between EPA Regions 5 and 7 may be a bit of a holdup here. He added that Ken Deason is the contact person that Iowa DNR has been working with in Region 7.

Anderson stated that Iowa DNR hoped to hear back on its application with the next few weeks and that the funding was not necessarily tied to a specific state or federal fiscal year.

Weathers indicated that it would be worth pursuing support through the Area Maritime Security Committees. She further indicated that she would follow up regarding the Area Maritime Security Committees, working with Todd Epperson of USCG. Clint Beckert asked whether Homeland Security's requirement for a 25% match of funds could come from another federal agency. Weathers indicated that this question would need to be answered.

*Upper Mississippi River Basin Observatory*

Ken Lubinski reported on the recently initiated effort to develop an "Upper Mississippi River Basin Observatory", which is a collaborative of a number of Upper Midwest universities, including the University of Illinois, University of Iowa, Iowa State University, University of Minnesota, University of Missouri, Purdue University, and the University of Wisconsin. Lubinski stated that one goal of the effort was to develop predictive water quality modeling capacity for the UMR. He added that the consortium was viewed as a way to more effectively coordinate and leverage funding. Lubinski noted that the observatory concept would be presented at a meeting of the Consortium of Universities for the Advancement of Hydrologic Science (CUAHSI) in Chicago on October 12, 2007.

Lubinski observed that there is a potential relationship between the observatory concept and the efforts to develop early warning monitoring capacity on the UMR, since there is clearly a connection between spill events and water quality changes. Lubinski added that the observatory would also seek to have a practical value beyond just research goals.

Hokanson asked whether real-time water quality monitoring for early warning purposes had been considered as part of the observatory concept. Lubinski replied that this had not been

considered, at least to date, but added that the consortium will need input on how to proceed in developing a useful approach for agencies with responsibilities on the UMR.

Ann Whelan asked whether it would be helpful for any of the members of the Spills Group to attend the CUAHSI meeting on October 12<sup>th</sup>. Lubinski replied that it would be premature to invite the Spills Group's participation.

#### *Performance of Early Warning Monitoring Devices*

Peter Hughes summarized recent efforts by USGS and US EPA to evaluate the effectiveness of various monitors used for early warning system detection. In particular, he highlighted a recent report from USGS "Guidelines and Standard Procedures for Continuous Water Quality Monitors: Station Operation, Record Computation, and Data Reporting" (available at <http://pubs.usgs.gov/tm/2006/tm1D3/>) and a US EPA report currently under review titled "Water Quality Sensor Responses to Potential Chemical Threats in a Pilot-Scale Water Distribution System". Hughes highlighted the following from these investigations:

- In order to provide for detection of potential contaminants, multiple sensors are needed.
- There is a lot of natural variability in incoming water quality.
- Operation and maintenance costs can be quite significant for monitoring systems.
- Algorithms must be developed for triggering of alarms.
- Most of these studies were focused on distribution systems, but can provide insight for raw water monitoring as well.

Weathers asked if most of the sensors measure for a specific contaminant directly or respond to more general changes in water quality. Hughes responded that most of the sensors do not necessarily measure a particular chemical of concern, but rather respond to water quality changes more generally, and that followup analyses would need to be conducted if there was an alarm. Lubinski added that one reason why biological systems are appealing is because they are able to capture a wide variety of water quality changes.

Joe Davis asked what was responsible for "natural" changes in incoming water quality. Hughes replied that this can be due to storm events or other environmental changes.

## **UMR Early Warning Monitoring Part 2: Agency/Partner Perspectives and Next Steps**

#### *UMR Water Suppliers' Perspectives*

Greg Swanson offered commented on behalf of the UMR Water Suppliers Coalition. He noted the following in his comments:

- The pilot monitoring project at Lock and Dam 15 has been viewed as a success.
- There is concern about the decision made by the UMRBA Board to reduce UMRBA's coordination role.
- Even in light of concerns about UMRBA, there is interest in moving forward.
- It may be beneficial to broaden the focus of the monitoring system, and focus more on general water quality monitoring benefits in addition to early warning/spill response benefits. Therefore, it may be best to characterize the desired system as "real-time water quality monitoring".

- A water quality monitoring network for the UMR is in line with the goals of UMRBA, US EPA, USGS, USACE, and state environmental agencies.
- It is important to build a system by utilizing existing infrastructure, such as the locks and dams.
- If a coordinated network cannot be established, utilities will fall back to plant-based monitoring.
- Real-time monitoring should be tied into the funding being supplied to the UMR via the Water Resources Development Act (WRDA).
- The recent Governors' statement on UMR water quality supports the importance of a monitoring network on the UMR.
- There is a very positive public relations benefit associated with the establishment of a monitoring network.

#### *States' Perspectives*

Dave Morrison observed that a potential tie to water quality is the use of real-time monitoring data in support of TMDLs. Anderson added that the status of the effort may be fluid for the foreseeable future, but that participants would need to be able to adapt to some uncertainty. Roger Lauder supported Swanson's comments and emphasized the importance of efforts being coordinated rather than disparate. Morrison again emphasized the importance of making a connection to Clean Water Act work.

Rick Gann commented that Missouri values the idea, particularly as a downstream state that would be affected by water quality changes upstream. Tom Kendzierski noted that Wisconsin does not have any drinking water intakes, so that the value of a system for his state would be in the extent to which it could provide for better natural resource protection in general. Morrison commented that it was important to protect surface water quality so that use of surface water intakes continues to be a viable choice for public water supply.

Mitchell observed that it is important that there be a leader for such an effort, noting that UMRBA is well positioned to take that role. He added that he would be willing to work within the Illinois Rural Water Association and the National Rural Water Association to determine their interest in aiding the project. Anderson concurred with Mitchell that, in the long run, there is a need for a regional or federal coordinator of the effort.

#### *Federal Agency Perspectives*

US EPA. Bill Spaulding commented that a warning system provides both additional information about incoming water quality and an opportunity for collaboration between water systems. Steve Faryan emphasized that continued progress was important and that the effort should not get bogged down in process questions. Ann Whelan noted that, historically, the project has always sought to incorporate more general water quality monitoring benefits and that these should definitely continue to be emphasized. She noted that there is encouraging effort happening on several fronts and that there may be opportunities for Region 5 and Region 7 to collaborate in advancing the project. Finally, Whelan emphasized the need for continuity in the project and observed that UMRBA is the key organization holding the project together and is uniquely positioned to take leadership.

USACE. Beckert noted his concurrence with the comments made by Swanson. He noted that a lot of behind-the-scenes effort has contributed to the pilot project and that the Iowa DNR proposal may therefore underestimate the full costs of expanding the monitoring system, adding that funding is probably the biggest challenge facing the effort. Beckert also suggested that it might be helpful to obtain “statements of commitment” from current and potential project partners, which would specify the type(s) of support that the partner organization could bring to the project.

USCG. Weathers noted her agreement with Swanson’s statement, emphasizing that it is important that the project’s multiple benefits be recognized, and that this may enhance funding opportunities. She repeated her intent to bring the concept to the Area Maritime Security Committees, and suggested that Lauder and/or Swanson may wish to speak with these committees.

USGS. Lubinski stated that a project such as this needs to have objectives defined and that the UMR Water Suppliers’ Coalition was the most likely group to set these objectives. He added that the ultimate use of the data will help shed light on who the best organization is to lead the effort.

*Motion to Support Continued Work on Early Warning Monitoring*

Tucker, along with Anderson, proposed a motion of support for continued work on early warning monitoring in order to help draw together various follow up activities and express the Spills Group’s intent to keep moving the project forward. Following discussion, the motion was modified to reflect both early warning monitoring and real-time water quality monitoring goals. The motion was passed by voice vote and read as follows:

***“The Upper Mississippi River Hazardous Spills Coordination Group supports continuing efforts to develop and expand an Upper Mississippi River early warning/real-time water quality monitoring system in collaboration with interested stakeholders and partners.”***

Whelan asked about the relationship between the UMRBA Board and the UMR Spills Group, and whether the Spills Group’s expression of support would be problematic in light of Board’s intent to phase out of early warning monitoring efforts. Hokanson replied that he would inform the Board of the Spills Group’s decision, adding that the Spills Group has typically functioned in relative independence and that this situation may cause some examination of the relationship between the Board and the Spills Group. He added that it might be possible to meet the intent of both by working on early warning project at the request of the Spills Group, but that in this case, the work would come out of the roughly 10% of his time allocated to the Spills Group – which would limit his ability to work on other Spills Group projects and may not be a level at which significant progress can be made. Whelan asked how the Board would view further work on the project under the OPA cooperative agreement, if funding were added for that purpose. Hokanson replied that the Board had indicated they were not interested in UMRBA effort *beyond OPA-funded support*, so that further support within OPA might be possible.

*Purchase of Replacement Sonde for Lock and Dam 15 Monitoring Station*

Hokanson asked whether, given the preceding discussion, it was possible to determine if it would be appropriate to purchase the replacement sonde for the monitoring station and Lock and Dam 15. Ganz replied that his preference would be to base the decision on whether Iowa was successful in securing funds to help expand the effort. Dave Kull concurred, indicating that it is

difficult to keep support just a single station. Faryan and Whelan both stated that it was important to keep the project moving and that the purchase should be made. Ganz indicated that there would need to be more discussion within American Water before they would support the purchase. Morrison observed that the Spills Group may be sending mixed message if it is advocating for further progress but cannot support the purchase. Ganz indicated that he would consult further within American Water and then be in contact with the Spills Group.

#### *Follow Up Action Items*

The following were identified as action items resulting from the early warning monitoring discussion:

- Anderson and Tucker will continue to move forward the Iowa DNR proposal seeking EPA Region 7 funding.
- Weathers, working with Todd Epperson, will bring the concept to the attention of the St. Louis Area Maritime Security Committee and potentially other committees.
- Whelan and Faryan will seek further funding support from within US EPA Region 5.
- Mitchell will pursue opportunities with IRWA and NRWA.
- Ganz will discuss probe purchase and installation with American Water staff.
- Hokanson will communicate the Spills Group's intent to UMRBA Board, move forward with sonde purchase pending Ganz' input, and possibly facilitate statements of commitment from partners.
- Martin will promote the project as a discussion topic for UMR Stakeholders' Conference.

#### **Mobile Command Post Tour**

Joe Davis announced that the US EPA Region 7 mobile command post would be open for those interested immediately following the meeting in the parking lot adjacent to the RiverCenter.

*The meeting adjourned for the day at 5:15 pm on October 3<sup>rd</sup> and resumed at 8:00 am on October 4<sup>th</sup>.*

#### **SONS Debrief and Review**

##### *Recap of SONS 2007 Exercise*

Ann Whelan provided a brief summary and overview of the SONS 2007 Exercise, which was held June 19-21, 2007. She noted that participation in the exercise was as follows:

- 10 states
- four federal regions
- over 20 industry partners
- nearly 30 federal and regional agencies
- a total of more than 4,000 participants representing 243 organizations

Whelan also highlighted some of the new and unique elements of this exercise as follows:

- the first SONS exercise co-sponsored by both USCG and EPA
- the largest SONS exercise
- the largest National Response System (NRS) exercise
- the first SONS exercise ever held along the inland rivers instead of on coastal waters.



- the first time to test an Emergency Support Function (ESF)-10 Component of the Primary Joint Field Office (JFO), referred to as the Multi-agency Coordination Center (MAC)
- employed electronic tracking of injects, with over 500 incidents as part of exercise
- use of a “truth” website to disseminate information

Whelan emphasized that the exercise was designed to push the limits of the system, and did so – by overwhelming both the National Response Center and the Web OSC web site.

Whelan also briefly described the followup phases of the SONS exercise, the Response and Recovery Workshop which addressed long term issues (in the sectors of Emergency Response and Environmental Recovery, Waterways Management, Water Issues, and Information Management) and a Senior Leaders’ Seminar that addressed national implications of the SONS 2007 Exercise.

#### *States’ Perspectives on the SONS 2007 Exercise*

Illinois (Roger Lauder): Lauder observed that the SONS 2007 exercise was a very good experience overall. He noted that the most valuable benefit was getting individuals into the field, and highlighted the benefits of round-the-clock participation. Lauder added that SONS 2007 has spurred interest in further NIMS training for IL EPA staff. Lauder commented that IL EPA emphasized public water supply aspect of the exercise, with a total of ten public water systems participating (8 American Water Facilities and 2 municipally-owned utilities) and 40 staff from IL EPA water supply program involved. To emphasize the potential impact on staff of this scale of event, he explained that the scenario included the destruction of IL EPA Marion office, which required other staff to work in an area where they did not have familiarity.

Missouri (Rick Gann): Gann commented that the exercise demonstrated the lack of personnel to staff a response round-the-clock, as would be needed in a real situation of this magnitude. He noted that newly designed SEMA software was quickly overwhelmed in the exercise and that delays were experienced in communication. Gann observed that only one MO DNR staff person was assigned to the area command, and that more may have been need. Finally, he noted that it may be desirable to establish a list of “reserve OSCs” who can be called into duty in the event of a large scale response such as this one.

#### *Federal Agencies’ Perspectives on SONS 2007 Exercise*

U.S. Coast Guard-Sector UMR (Katherine Weathers): Weathers reported that the primary benefit of the exercise was the connections made between state and federal agency counterparts. She expressed some doubt that the idea of separate area commands in St. Louis and Springfield was realistic, but indicated that USCG worked within the constraints of the exercise. Weathers added that differing computer systems between USCG, US EPA and state agencies were a challenge. Moreover, she noted that jurisdictional boundaries also created issues during the exercise. Weathers suggested that the most important outcome of SONS 2007 will be to continue with smaller exercises to keep connections in place. She added that this type of event (New Madrid earthquake) needs to be considered for national response, as there are likely to be direct impacts on responders and more remote resources would need to be called in.

Morrison asked whether the reality would be that other states, such as Minnesota, would end up providing the resources for the response. Weathers concurred that this would likely be the case.

Jim Silver noted that this type of national response and movement of personnel was what happened in the response to Hurricane Katrina. Whelan noted that EMAC was exercised in SONS by Illinois, Indiana, and Ohio. Lauder added that Indiana staff assisted during the exercise by responding to a pipeline break in Illinois. Davis commented that, during Hurricane Katrina, there were problems in including OSCs from other states in the response. Whelan concurred and indicated that there has been some consideration of making these OSCs temporary federal employees. Weathers added that the draft after-action report for the exercise pointed out the need for national resource tracking. Whelan noted that the SONS after-action report would be placed online when it was ready for general consumption.

Martin asked whether pollution, as opposed to search-and-rescue, was a priority in this exercise and whether it would be a priority in a real event. Weathers replied that this exercise, as a spill of national significance, was by its nature focused on the response to spills/pollution. Whelan added that, in the event of an actual New Madrid earthquake there would not be evacuation before the event (as had happened in Katrina) so that spills and other environment releases would more likely be an immediate health hazard.

U.S. EPA (Joe Davis, Steve Faryan, Ann Whelan, Jim Silver): Davis noted that Region 7 used SONS as a way to test facility response plans (FRPs). Faryan commented on his work in the field with one of the participating facilities (Conoco-Phillips Wood River refinery). He commended the work of the private sector participants and noted that the UMR response DVDs, St. Louis response strategies, and inland sensitivity atlas maps were all used in the exercise. Faryan added that one challenge in the exercise was a lack of information sharing between US EPA Regions 5 and 7, which resulted in a decrease in awareness of hazards originating in other regions. Davis concurred and added that it is important for an experienced responder to handle phone calls in order to best direct and use incoming information.

Faryan added that a single command for the UMR may have been a more effective approach and should be considered for the future. Davis added that boundaries were actually being re-drawn during the event. Weathers indicated that senior officials in US EPA Region 5, US EPA Region 7, and the Coast Guard were drawing close to establishing an integrated area command when the exercise ended. Whelan commended US EPA Region 7 and USCG-Sector UMR for correcting problems with the exercise design during the exercise itself. Whelan did caution, however, that the Ohio River venue was run as a single command for the exercise and that this arrangement also created a number of concerns among participants, indicating that there may be more than one “right answer” for a command approach. Davis commented that logistics was not thoroughly exercised, as a result of the exercise design.

Silver reported on his work with individual facilities during the exercise, commenting that mapping and aerial-photo driven approaches were incorporated. He noted that an ftp site was created “on the fly” to facilitate the exchange of information, and that this functioned better than email exchanges, as it allowed large files to be transferred quickly and easily.

USACE (Frank Catalano): Catalano asked if logistics were further discussed in the Response and Recovery Workshop. Whelan replied that there had been some further discussion in this setting. Catalano added that the temporary closure of navigation on the UMR as part of the exercise

would have impaired response to a certain extent. Lauder added that the reality of likely aftershocks would potentially discourage agencies from sending responders into the earthquake zone.

Catalano asked whether the exercise had been successful in raising awareness of how catastrophic an event such as this would be. Davis noted that counter-flow out of the affected area would probably be a large problem in a response. He added that the artificial news casts created as part of the exercise were very well done. Whelan commented that she agreed these were effective and noted that they were done at a much lower cost than similar clips produced for TOPOFF exercises.

Hokanson asked whether the UMR Spill Response Plan had been used as part of the SONS 2007 exercise. Catalano replied that it had been used at Conoco Phillips. Lauder observed that there is a general recognition that the plan is not designed for an event on the scale of a New Madrid earthquake.

Hokanson asked Catalano to comment further on impairment to navigation as a result of the scenario. Catalano replied that Lock 27 had been closed due to damage to the lock, and that this would have prevented response equipment from coming up the river. He added that he was not sure whether the lock was ever re-opened during the course of the exercise but observed that, in reality, such damage would be difficult to repair in a short time. Weathers observed that bridge collapses would be a very significant obstacle to the movement of resources. Whelan added that there would also be significant effects from changes in river course.

#### *Implications of SONS Exercise for Planning and UMR Plan*

Whelan commented that, in general, one of the items that will be addressed in the after-action report is that existing plans did not completely address this type of multi-state situation, and that the exercise raised a number of jurisdictional issues. She added that the plans do not necessarily contain the detail that some expect in regard to specific response elements.

Davis commented that the UMR plan is still valid, and that there is a need for individuals to be familiar with its contents. He added that the response strategies and inland sensitivity atlases all provide good information. Whelan replied that the plan is indeed useful as it stands, but that more detail could perhaps be added. Weathers commented that there is an effort to develop a New Madrid national plan, and that this may address the catastrophic event scenario – and so it may be appropriate to leave the UMR plan at its current scope. Whelan agreed, but suggested it might be possible to add a page to the UMR plan which addresses a large scale event. Weathers agreed this might be possible as an addition to the UMR plan.

#### *Need for Continuing Exercises and Training*

Weathers asked if the UMR Spills Group could drive some events or exercises that would help examine cross-cutting issues. Davis agreed that this was a possibility, and suggested that one place to start might be a training exercise, possibly next summer. Weathers concurred that this would be a valuable step. Whelan asked when this event would happen. Davis suggested mid-summer 2008. Tucker suggested the Quad Cities as a location, noting the possibilities for local cooperation.

### *Summary Comments Regarding SONS 2007 Exercise*

In summarizing the benefit of the SONS 2007 exercise, Whelan commented that a primary intent was to give responders and decision makers an experience to draw on should a New Madrid event take place. She noted that many decision-makers involved in the response to Hurricane Katrina cited their experience in SONS 2004 as a reference point. She observed that SONS 2007 was designed to overwhelm the system and force individuals to contemplate the scale of response that would be needed in such an event. Dave Fritz concurred, indicating that a scenario was needed that would create a major event and test response capability in such a situation.

Whelan commented that, in retrospect, it may have been best to start the exercise on Day 3 or Day 5, rather than Day 1 in the scenario. She added that, as compared to other large-scale exercises, SONS 2007 was completed at a relatively low cost (\$4 million for SONS 2007 vs. \$40 million for TOPOFF). Catalano asked if there was a major New Madrid exercise also being developed for 2010. Whelan replied that this was possible, though it actually may not take place until 2011 or 2012.

### **Minnesota Response Report: I-35W Bridge Collapse and Southeast Minnesota Flooding**

Dave Morrison of MPCA provided presentations regarding two recent events in Minnesota and resulting response efforts: the collapse of the I-35W bridge and flash flooding throughout Southeastern Minnesota.

#### *I-35W Bridge Collapse*

Morrison commented that his presentation came from the perspective of the MPCA and so therefore did not focus on search & rescue or recovery, but rather the elements of environmental response related to the event. From this perspective, he noted the following in his presentation:

- There was one tanker truck on the bridge during the collapse, but it contained only dry goods.
- Wakota CAER boom caches were moved upstream closer to the area of the collapse (but did not end up being used)
- There is a Superfund site at one of the bridge, which will be a consideration both in cleanup and bridge reconstruction
- Although there was concern that rail cars crushed in the collapse may have contained hazardous materials, it was determined that the materials they carried were not of concern
- Air tests were also performed for a total of five days
- Boom was not deployed for oil containment, but boom was used for debris containment

Haden asked whether there was any responsible party that could be identified in this event. Morrison replied that there was not yet and it was not clear that there would be a responsible party identified for this type of event. Martin asked whether there was enough product release to justify any booming. Morrison replied that, in terms of oil, there were only sheens – which would not have been effectively captured by booms in any event.

#### *Southeastern Minnesota Flooding*

Morrison provided an overview of the flash flooding that took place in southeastern Minnesota during the later part of August 2007. He described MPCA's response to the events, and also

focused on some of the wastewater issues associated with the floods. Morrison also commented on the extent and duration of work for response staff created by this event.

Following the presentation, Davis asked if US EPA had been involved in the response effort. Morrison indicated that US EPA had not played a role. Davis also asked if there had been a FEMA disaster declaration for the event. Morrison answered that the declaration was made on Thursday of the week in which the flooding occurred. Additionally, Davis asked if ESF-10 had come into play during the flooding. Morrison, along with Whelan, replied that it had not. Whelan asked whether previous responses in the area (to tornados) had provided any useful experience for the responders. Morrison indicated that the staff involved were very experienced due to these types of previous responses. Finally, Morrison commented that he personally probably should have done more delegation of authority during the response.

### **Region 7 Response Activities**

Joe Davis provided a set of presentations regarding recent response activities in US EPA Region 7, including the petroleum spill at a Coffeyville, Kansas refinery, Region 7's role in SONS 2007, and a recently conducted spill response training session.

#### *Coffeyville, Kansas Flooding and Spill*

Joe Davis provided a presentation regarding the flooding and associated petroleum spill that took place in Coffeyville, Kansas. Davis began his presentation by concurring with Morrison's observation that this scale of response can be demanding on responders and it is important to delegate duties and hand over command as needed in order to not exhaust individuals. Regarding the Coffeyville spill, Davis noted that approximately 500 homes and businesses were impacted by the spill. He added that the responsible party (Coffeyville Resources) was leading the cleanup effort and was planning to buy out approximately 300 of the impacted homes.

Whelan asked whether Coffeyville Resources had any reason to envision the potential impact of a leak at their facility. Davis responded that this was not known. Morrison asked what the role of the state (Kansas) had been in this response. Davis replied that the state had opted out of the response and that the responsible party, along with US EPA, was leading the cleanup.

#### *SONS 2007 from Region 7 Perspective*

Davis provided some additional perspectives about SONS 2007 from his experiences and those of Region 7 during the exercise. He noted that single, fixed facilities in the St. Louis area were treated as unified commands during the exercise. Davis further described how responsibilities in the St. Louis area were divided into five areas: St. Louis, North, Southwest, Cape Girardeau, and the Boot Heel. He noted that working together with other agencies and organizations was a highlight of the exercise. In particular, Davis commented that there had been successful collaboration with the U.S. Coast Guard. He suggested that in a large-scale response, it would be very important to have experienced responders handling incoming phone calls, as they would have the ability to understand the information presented and take appropriate steps in response. Weathers concurred, noting that it is critical to be aware of the expertise level of the individuals involved in a response. Davis agreed and replied that one way to build more expertise is to continue to have more exercises.

### *Oil Boom Training*

Davis described an oil boom training event held in Omaha, Nebraska on August 29-31, 2007. He described this course as also addressing on-land techniques for spill containment, such as underflow dams and weirs. Davis suggested that this type of training could be done on the UMR, and suggested that the Quad Cities could be host to a training event in the summer of 2008 (as he had mentioned in the SONS 2007 discussion earlier in the day). He added that industry should be included in this event as part of the Spills Group's "outreach to industry". Davis indicated that he would be sending out an email to interested individuals to begin work on the training event. He further noted that it may be preferable to target the training for either late spring or early summer.

Whelan asked whether the training would be limited to the Quad Cities or could potentially be expanded to other locations. Davis replied that other locations could be considered after the Quad Cities. Whelan suggested potentially adding in techniques such as the use of barges as booms and staging areas during a response on the UMR.

### **Agency Updates**

#### *US EPA/NRC Report*

Faryan presented the group with an updated NRC report list for the UMR, covering the period from January 2000 to September 2007. He noted that the report had been corrected to include Iowa and Missouri-originating spills, as these had been omitted from the version he had distributed in April. Group members noted that the spills reported from June 19-21, 2007 were likely associated with SONS. Faryan indicated that he would provide an electronic copy to Hokanson, who would then distribute to the group.

#### *Missouri DNR*

Rick Gann reported that Missouri was having problems with product loss at a specific chain of truck stops. He noted that it was difficult to quantify the amount of product being lost, due to the large volumes being sold. Tucker concurred that Iowa DNR was encountering similar issues with the same chain.

#### *Illinois EPA*

Lauder reported that an evacuation plan had been developed for the City of Chicago and that there had been a recent drill to test delivery of the National Pharmaceutical Stockpile. He further indicated that SONS 2007 had been a major focus for his program during recent months. Lauder finally offered to add any interested persons to his distribution list regarding shipments of neutralized VX nerve agent.

*Due to time constraints, other agencies did not offer updates beyond what had been previously discussed.*

### **UMR Plan Updates and Changes**

Hokanson distributed updated pages of the UMR Spills Response Plan, which reflected that the primary U.S. Coast Guard contact point in the notification list is Sector UMR in St. Louis (rather than the Eighth District in New Orleans). He noted that this did not affect the Eighth District's status as signatory to the plan or as official member of the UMR Spills Group. Hokanson indicated that, if further comments or corrections were not received in approximately two weeks, these changes would be made in the version of the plan provided online and the Emergency Action Field Guide would also be updated accordingly. He further added the Emergency Action Field Guide would be reproduced (approximately 300 laminated copies) once it had been updated.

Whelan suggested that it might be beneficial to look at protection strategies in the St. Louis area, downstream of oil facilities. She added that one approach might be to map out oil infrastructure in the area and then determine where oil might end up in 6 to 12 hours from release. Silver concurred that more work on response strategies in the St. Louis area would be valuable.

### **Outreach, Drills, and Training**

Hokanson suggested that many of the Group's goals for outreach and training could be met in the next year by working together with Davis in organizing the proposed training event for the Quad Cities in the summer of 2008. Haden and Davis added that targeted outreach to industry in the area would be an important part of a training approach. Weathers indicated that Martin could obtain a list of industries in the Quad Cities area.

Hokanson noted that conducting a notification drill would be one way of building familiarity with the plan in advance of any training events. Tucker agreed to work with Hokanson in organizing a notification drill for the UMR Spill Response Plan. Lauder indicated that there had been interest by the UMR Water Suppliers' Coalition in participating in a notification drill.

Tucker offered information regarding the upcoming TRANSCAER tour and provided brochures to the group.

### **Next Meeting**

The next meeting of the UMR Hazardous Spills Coordination Group was scheduled for April 1-2, 2008 in the Quad Cities.

*The meeting adjourned at noon on Thursday, October 4, 2007.*