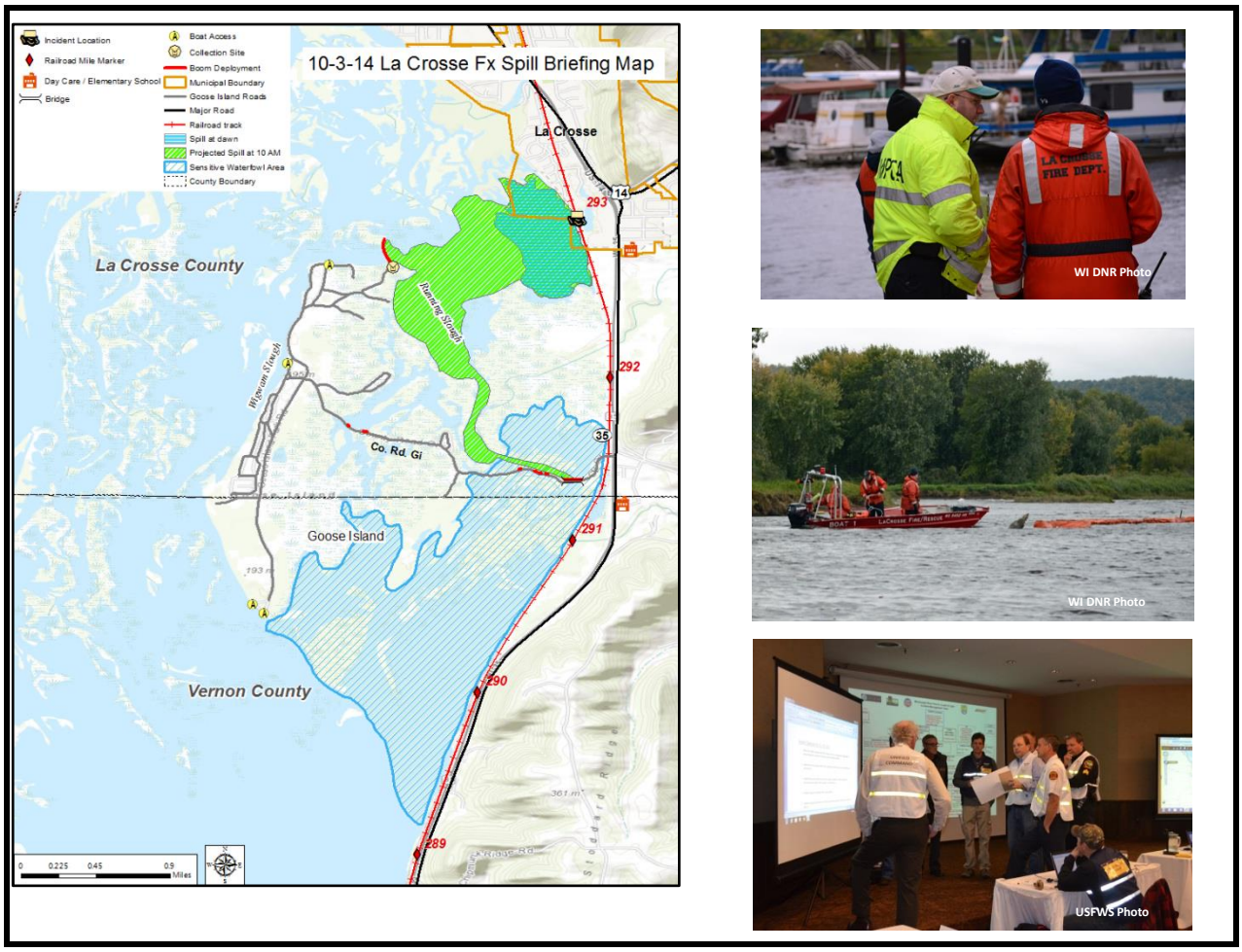

Upper Mississippi River Pool 8/ La Crosse Area Functional Exercise

Exercise Date: October 3, 2014

After-Action Report/Improvement Plan

December 26, 2014

Upper Mississippi River Hazardous Spills Coordination Group

EXECUTIVE SUMMARY

Exercise Description

A crude oil spill functional exercise was held October 3, 2014 at the Stoney Creek Inn in Onalaska, Wisconsin and at a nearby field location in La Crosse, Wisconsin, as part of a three-day spill readiness training and exercise event. It included the operation of a large command post, concurrent on-water deployment of deflection and containment boom, as well as simulated oiled-wildlife collection and rehabilitation efforts by emergency responders and natural resource professionals. The exercise also integrated real-time on-water and community air monitoring and the use of state communications assets. This drill was sponsored by the inter-agency Upper Mississippi River Hazardous Spills Coordination Group and was held in follow-up to a multi-jurisdictional table top exercise in April 2014.

The spill scenario consisted of a Burlington Northern Santa Fe (BNSF) derailment along the Mississippi River releasing 150,000 gallons of Bakken region crude oil into the Upper Mississippi River National Wildlife and Fish Refuge (UMRNW&FR) near La Crosse, Wisconsin. Under this scenario, five cars lost product directly into the water, but there was no major fire associated with the event. The released product flowed into the area adjacent to the tracks in the Goose Island area of Upper Mississippi River Pool 8, potentially impacting a significant population of migratory waterfowl.

125 individuals participated in the exercise and associated training, representing 20 local, state, and federal organizations, 9 private sector partners (including BNSF and CP railroads and contractors), as well as observers from nearby fire departments, state and federal agencies, and area industry. Priority functions exercised included unified command, boom deployment, wildlife branch and environmental unit activities, and communications. The starting point for the response was the implementation and testing of the Pool 8 Geographic Response Plan (GRP) and its associated initial incident action plan (IAP). Outside of priority functions, there was also a considerable effort to practice a joint public information center with staff working with print, broadcast, and online media to inform the public and provide real media information and opportunities for briefings.

Outcomes

Overall, the exercise was very successful in pulling together a diverse group of spill response professionals from local, state, and federal government, as well as the private sector. Priority functions were successfully exercised and valuable, practical training in the implementation of incident command was provided. Additionally, significant local concerns (e.g., protection of high value natural resources, response to a rail-based spill) were addressed in the exercise scenario. Major strengths, and areas for improvement, are described in the following paragraphs.

Major Strengths

- **All priority functions exercised successfully.** All of the pre-identified priority functions were exercised as planned. While areas for improvement were identified, these functions were in large part successfully exercised.

- **Broad participation, interaction, and collaboration.** Numerous and diverse emergency response and planning agencies and organizations were able to demonstrate cohesive, cooperative, and effective collaboration while managing a very significant (simulated) release to a sensitive environmental area. This included strong private sector participation and the mobilization of significant private sector assets.
- **Incident command structure assembled quickly and effectively.** This allowed for priority functions, including unified command, to be tested within the exercise duration. Pre-populating the incident command structure greatly aided in accelerating this process, as did the draft Pool 8 Initial Incident Action Plan.
- **Practical incident command training and mentorship.** Many participants commented on the value of the practical training provided (as opposed to classroom training alone) and the mentoring given by experienced leaders within the command structure.
- **Increased understanding of organizational capacities.** Extensive exposure was provided to a variety of both personnel and equipment assets, increasing participants' understanding of the capacities of partner organizations. Capacities demonstrated included containment and collection (e.g., boom), removal (e.g., skimmers), air monitoring, wildlife hazing and capture, and communications.
- **Communications effectively established.** Effective communications (command post to field post, field post to field units) was rapidly established, following some initial interoperability challenges.
- **Public information/media relations.** While public information was not a priority function, this component was rapidly and effectively developed in response to strong media interest. The exercise received media coverage in the La Crosse and Twin Cities areas, as well as by statewide public radio in both Minnesota and Wisconsin.

Primary Areas for Improvement

- **Coordination and communication within the incident command structure.** While the incident command structure largely functioned effectively, there were challenges in communication and coordination. These may have resulted – at least in part – from the compressed exercise schedule, which reduced the availability of Unified Command/ Section leadership to the Branches and Units of the incident management team (IMT).
- **Incident command system (ICS) readiness.** While most participants indicated having taken at least some ICS training in advance of the event, it became clear that far fewer participants had experienced ICS in applied environment either via an exercise or an actual incident.
- **Utilization of personnel expertise and other assets.** While participation in the exercise was very strong, in some cases not all of the capacity present was fully utilized. This may have been particularly true for the Wildlife Branch, which was extensively staffed as compared to other components of the ICS. Factors contributing to this included coordination issues, weather, limited exercise duration, and media interactions.
- **In-situ burning (ISB) decision-making tools.** ISB was discussed as an option to address a spill such as that described in the scenario. However, limited policies,

protocols, and decision-making tools were available to guide incident commanders, particularly in regard to the application of ISB in the UMRNW&FR. Developing such policies, protocols, and tools for ISB would greatly aid decision-making.

- **Wildlife rehabilitators' permits.** The wildlife rehabilitator participating in the exercise did not have a permit to operate in Wisconsin.
- **Shoreline cleanup assessment techniques (SCAT) expertise.** There are few SCAT-trained individuals in the area that could assist in an incident such as the one described in the exercise scenario.
- **Communications equipment function and interoperability.** While communications were effectively established, a number of specific technical and interoperability issues were identified.
- **Media engagement.** While media response to the event was perhaps one of the highlights of the exercise, the engagement of the media also presented a number of challenges, particularly in the execution of ongoing field activities.

Recommendations

In light of the areas for improvement detailed above, the following are recommendations for action emerging from the exercise:

- **Continued training/exercising in the region to build ICS familiarity and response capacity.** There are numerous needs for continued training and exercising highlighted by this event, including both classroom and exercised-based ICS training (focused on elements such as initial ICS formation, wildlife branch function, etc.), as well as SCAT training. Training is needed on both an intra- or inter-organizational basis. Rail companies in particular should consider the most effective method(s) of developing or bringing in IMT expertise. Entities including the UMR Spills Group, US EPA, USFWS, state and local governments, and private industry should develop or revise training schedules to best address regional needs.
- **Increase exercise design capability/expertise in the region.** In order to meet the training and exercising needs identified above, as well as other regional needs, an increase in exercise design capability/expertise is needed. The development of this exercise revealed that the number of individuals with the experience/expertise to design a multi-function, multi-entity exercise in the region is limited.
- **Develop mechanisms to provide for IMT support.** The implementation of the ICS in the exercise benefitted from the presence of experienced individuals within the IMT, particularly from the federal level. Further effort to ensure deployment of federal, state, and/or private sector IMT help is quickly available to local authorities during an actual incident should be pursued.
- **Consider including ISB strategies in geographic response planning and developing ISB policies and protocols for the UMRNW&FR.** To date, geographic response planning in the region has largely focused on product containment and collection (i.e., booming). This exercise, as well as others, has illustrated the need to also develop ISB strategies to aid decision-making in situations where ISB is being considered. USFWS

may also wish consider the development of policies and protocols for the application of ISB in the UMRNW&FR (in consultation with other partner agencies).

- **Review and finalize Pool 8 Geographic Response Plan (GRP).** Comments were received during the exercise in regard to both the response strategies contained in the GRP and the incident command structure outlined in the Pool 8 initial incident action plan. As such, these comments should be considered and period of final review provided for the Pool 8 GRP.
- **Create pre-scripted media messages.** While informational materials were developed to accompany the exercise there would be benefit in having pre-standing information sheets/media messages for high value resource areas throughout the region. This would aid in the provision of timely, accurate information during future events.
- **Implement technical fixes to communications, along with associated training.** The need for a number of specific technical communication fixes was identified during the exercise and these should be implemented as soon as is feasible. Training of communications equipment operators may need to accompany these technical corrections. These adjustments and associated training would occur primarily at the local level.

EXERCISE OVERVIEW

Exercise Name	Upper Mississippi River Pool 8/La Crosse Area Functional Exercise
Exercise Dates	Functional Exercise: October 3, 2014 Affiliated Training Sessions: October 2 and October 4, 2014
Scope	This was a functional exercise, taking place for one day (October 3, 2014) in Onalaska and La Crosse, Wisconsin as well as in Pool 8 of the interstate Upper Mississippi River. Exercise play was focused on the functions of unified command, wildlife branch and environmental unit activities, boom deployment, communications, and use of the draft Pool 8 Geographic Response Plan, including its initial incident action plan.
Mission Area(s)	Response
Core Capabilities	Operational Coordination Environmental Response
Objectives	Direct and Implement On-Site Incident Management; Establish Incident Command including Unified Command Exercise the functions of a Wildlife Branch within the Operations Section Exercise the functions of an Environmental Unit within the Planning Section Successfully field deploy boom, testing response strategies delineated in draft Pool 8 Geographic Response Plan Test the functionality and interoperability of communications systems Test draft Pool 8 initial Incident Action Plan
Threat or Hazard	Transportation incident – Hazmat (Bakken Crude Oil)
Scenario	Derailment of a southbound BNSF train near rail marker 293 with a release of approximately 150,000 gallons of Bakken origin crude oil into a backwater area along the northeast side of Goose Island. There is no fire or injuries to the train crew or the general public. An estimated 2,200 waterfowl were observed to be congregated in an area of the river southeast of Goose Island in the late afternoon of the day of the train derailment and spill.

Sponsor	The Upper Mississippi River Hazardous Spills Coordination Group, with significant contributions from its state and federal members, as well as local and private sector partners.
Participating Organizations	A total of 125 individuals participated in the exercise and associated training, representing the following entities: Buffalo County Emergency Management, Campbell Fire Department, Houston County Sheriff, La Crosse County Emergency Management, La Crosse Fire Department , La Crosse Police, Monroe County Emergency Management, Onalaska Police Department, Vernon County Emergency Management, Shelby Fire Department, Vernon County Sheriff, Vernon County Hazmat, Iowa Department of Natural Resources, Minnesota Homeland Security and Emergency Management, Minnesota Pollution Control Agency, Wisconsin Department of Natural Resources, Wisconsin Emergency Management, Federal Railroad Administration, National Weather Service, US Coast Guard, US Department of Agriculture – Wildlife Services, US Environmental Protection Agency, US Fish and Wildlife Service, Wisconsin Wing Civil Air Patrol, Bay West, Burlington Northern Santa Fe, Canadian Pacific, Center for Toxicology and Environmental Health, Gundersen Health System, Pinnacle Engineering, Mathy Construction, Midwest Fuels (Petro Energy), Midwest Industrial Asphalt, REI Engineering, Safety Training and Response Strategies, Wenck Associates, West Central Environmental Consultants, Wildlife Response Services, and Xcel Energy.
Point of Contact	Exercise Director: David Morrison, Minnesota Pollution Control Agency, 507-206-2644, david.morrison@state.mn.us

ANALYSIS OF CORE CAPABILITIES

Aligning exercise objectives and core capabilities provides a consistent taxonomy for evaluation that transcends individual exercises to support preparedness reporting and trend analysis. Table 1 includes the exercise objectives, aligned core capabilities, and performance ratings for each core capability as observed during the exercise and determined by the evaluation team.

Objective	Core Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
Direct and Implement On-Site Incident Management; Establish Incident Command including Unified Command	Operational Coordination		X		
Exercise the functions of a Wildlife Branch within the Operations Section	Operational Coordination Environmental Response		X		
Exercise the functions of an Environmental Unit within the Planning Section	Operational Coordination Environmental Response		X		
Successfully field deploy boom, testing response strategies delineated in draft Pool 8 Geographic Response Plan	Operational Coordination Environmental Response		X (morning)	X (afternoon, weather)	
Test the functionality and interoperability of communications systems	Operational Coordination		X		
Test draft Pool 8 initial Incident Action Plan	Operational Coordination Environmental Response		X		

Ratings Definitions:

- Performed without Challenges (P): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws.
- Performed with Some Challenges (S): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. However, opportunities to enhance effectiveness and/or efficiency were identified.
- Performed with Major Challenges (M): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s), but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other activities; contributed to additional health and/or safety risks for the public or for emergency workers; and/or was not conducted in accordance with applicable plans, policies, procedures, regulations, and laws.
- Unable to be Performed (U): The targets and critical tasks associated with the core capability were not performed in a manner that achieved the objective(s).

Table 1. Summary of Core Capability Performance

The following sections summarize performance related to each exercise objective and associated core capability, highlighting strengths and areas for improvement. References relevant to evaluating exercise performance include the Pool 8 Initial Incident Action Plan, UMR Spill Plan, Region 5 ACP/ACP, National Incident Management System, National Contingency Plan, DOI Region 3 Contingency Plan, and State and Local Emergency Plans.

OBJECTIVE 1: Direct and Implement On-Site Incident Management; Establish Incident Command including Unified Command

Core Capability: Operational Coordination

Overall Assessment: Performed successfully, with some challenges.

Strengths

Strength 1:

Incident command, including Unified Command (UC), was established quickly and effectively. Pre-populating incident command system (ICS) structure accelerated the response process so that UC and other priority functions could be tested. Planning meetings were organized and on time, enhancing the effectiveness of incident command. Communication was generally effective within the ICS, though this was also an area for improvement (see below).

Strength 2:

Broad collaborative participation in the command structure, including state, federal, local, and private sector players. Many participants observed that this inter-sector, inter-agency collaboration was a primary benefit of the exercise, particularly in understanding the perspectives of and resources available to other players.

Strength 3:

Practical training resulting from participation in the incident command structure. Placement of experienced individuals in key roles in the ICS allowed for mentorship and training, and the value of this training was noted by a number of participants.

Strength 4:

Development and approval of an incident action plan (IAP) for the next operational period.

Areas for Improvement

Area for Improvement 1:

Communication challenges within the incident command structure.

Analysis: Communication issues within the ICS were noted by several participants. Examples given include: the need for the Unified Command (UC) to communicate with the Operations Section prior to planning meetings; the need for more Unit updates and briefings; lack of updates regarding situational progress; and insufficient direction from the Operations Section to the field location, including lack of clarity regarding when to cease field operations.

One factor contributing to this situation was that, due to the artificially short planning cycle, the UC and Planning Section were often in meetings and not available to the Incident Management Team (IMT). Some members of the IMT also may not have been familiar enough with incident command structure and their role to be comfortable in seeking out information from the UC.

Recommendation: Continue to provide practical training/exercises to build ICS skills among public and private sector entities in the region. For future exercises, ensure that appropriate staff is available to handle ICS duties needed as dictated by the scope of the

exercise. Additionally, there is a need to expand exercise design/planning capacity within the region to facilitate the execution of needed training and exercises.

Area for Improvement 2:
Limited ICS readiness/understanding among some participants.

Analysis: A number of participants expressed unfamiliarity with ICS procedures and the roles of Sections and Branches within command structure; many requested follow-up ICS training. While many participants initially indicated (via a show of hands at the training day) that they had completed ICS training, there was clearly a difference between classroom/online training and the type of practical, hands-on training provided via an exercise. The limited preparedness among some participants likely contributed to other Areas for Improvement identified in this after action report (AAR).

Recommendation: As recommended above, there is a need to provide practical training/exercises to build ICS skills among public and private sector entities in the region; and to scale exercises/training appropriately. This may include both training/exercises such as this event as well as internal agency and private sector training. Rail companies and associated entities may wish to explore most effective ways of bringing qualified individuals to an IMT, whether in a real event or exercise context.

Area for Improvement 3:
Composition of the ICS did not reflect that which would exist during an actual incident.

Analysis: Participant feedback included critiques that the UC and ICS were not necessarily staffed in a manner that would be reflected in a real event. Examples given included limited local entity integration into the ICS, heavy federal presence in the ICS, and failure to include US Coast Guard in the UC. It was also noted that the exercise approach did not allow participants to test "forming up" an ICS in a more organic way.

In order to test UC and other priority functions during this exercise, a decision was made by the exercise planning team to pre-populate the ICS structure in advance, based on RSVPs that had been received prior to the exercise. The team determined that the emphasis of this exercise would be on testing the priority functions, rather than spending time forming the ICS, understanding that there are tradeoffs in this approach. Further, the planning team chose to start the exercise roughly 12 hours into the response (again to better focus on priority functions), which moved the play of the exercise past some of the initial public safety functions typically executed at the local level. Additionally, a decision was made to staff key ICS position with experienced federal staff. While this may have excluded some individuals from these positions, it allowed for training and mentorship, which was highlighted by many as a strength of this exercise.

Recommendation: If there is interest among local and regional parties, another exercise/training could be held in order to spend more time on ICS creation and the process by which representation in the UC and ICS is chosen. This is consistent with earlier recommendations to pursue more focused training/exercise events. Additionally, the specific role of US Coast Guard in a similar incident should be explored in more detail in order to ensure appropriate inclusion in future exercises/incidents of this nature.

Area for Improvement 4:
Limited ability to make decisions regarding the application of in-situ burning (ISB).

Analysis: ISB was discussed as an option to address a spill such as that described in the scenario. However limited policies, protocols, and decision-making tools were available to guide incident commanders, particularly in regard to the application of ISB in the UMRNW&FR and under varying conditions (weather, wildlife presence, etc.). Developing policies, protocols, and tools for ISB would greatly aid decision-making.

Recommendation: Consider including ISB strategies in geographic response planning and developing ISB policies and protocols for the UMRNW&FR. To date, geographic response planning in the region has largely focused on product containment and collection (i.e., booming). This exercise, as well as others, has illustrated the need to also develop ISB strategies to aid decision-making in situations where ISB is being considered. Further, the USFWS may also wish consider the development of policies and protocols for the application of ISB in the UMRNW&FR (in consultation with other partner agencies).

OBJECTIVE 2: Exercise the functions of a Wildlife Branch within the Operations Section

Core Capabilities: Operational Coordination and Environmental Response

Overall assessment: Performed successfully, with some challenges.

Strengths

Strength 1: The Wildlife Branch was well-prepared, organized, and quick to form. The Branch effectively utilized available agency resources and accomplished the following: wildlife reconnaissance field crews organized and deployed, a hotline was established for the public to report oiled wildlife observations, and a wildlife hazing plan was established in coordination with product recovery efforts.

Strength 2: Communication within the Wildlife Branch was effective. There was strong coordination between Wildlife Reconnaissance and Recovery, Wildlife Rehabilitation, and Law Enforcement operations. Communication flowed well up the chain of command. Players were able to engage in situational discussions. However, there were issues in communication among other ICS components outside of the Wildlife Branch (see below).

Strength 3: ICS structure and function utilized by the Wildlife Branch. The ICS process was utilized through inter-agency cooperation and contact; the Wildlife Branch adapted well to problems and issues encountered in the exercise.

Areas for Improvement

Area for Improvement 1: Communication and coordination challenges between Wildlife Branch and the Operations Section/Incident Command.

Analysis: Members of the Wildlife Branch expressed concern regarding the flow of communication from Incident Command, specifically from the Operations Section to the Wildlife Branch. This included an initial lack of direction from Operations in how to proceed in the field as well as the inability to access Operations in order to write an ICS 215 for the next operational period.

In part, this issue reflects the situation identified under Objective 1, where the compressed nature of the planning cycle limited the availability of UC/General Staff to interact with Branches/Units. Further, it may also be somewhat of an exercise artificiality in that the Wildlife Branch was more fully staffed than other components of the ICS. As such, members of the Wildlife Branch may have felt prepared to move ahead before Operations had yet developed its plans. This may in part be due to the relative abundance of resource experts in the area/participating in the exercise, as well as the existence of pre-established response strategies for Pool 8.

Recommendation: In future exercises, as well as actual events in this area, make Operations aware of the existence of pre-scripted response strategies, which can be used as a starting point to help accelerate decision-making, as well as the relative capacity/sophistication/readiness of Wildlife Branch staff. Also, encourage Operations to be more available to interact with the Wildlife Branch (and others).

Area for Improvement 2: Wildlife reconnaissance and recovery capacities were not fully utilized.

Analysis: Wildlife Branch participants observed that operations focused mainly on booming and product recovery, while coordination with natural resource operations (wildlife reconnaissance & recovery, resources at risk) was slow to occur. These participants recommend that natural resource considerations need to be incorporated into Operations from the beginning of an exercise.

This issue is related to the preceding area for improvement as it again reflects that significant resources and expertise were in place in the Wildlife Branch for the exercise, but that the (presumably typical) time associated with the process of decisions-making within the ICS did not facilitate their full usage during the exercise. It may also reflect a more traditional focus on product containment and recovery within Operations, pointing out an ongoing need to determine how best to integrate the Wildlife Branch in this type of exercise.

Recommendation: Similar to preceding recommendation, there is a need to familiarize Operations with Wildlife Branch capabilities. This may also point to the need for training and exercises that allow for more time/focus on the Wildlife Branch in order for it to become more fully engaged/utilized.

Area for Improvement 3: Wildlife Branch activities and field operations were unable to successfully continue while accommodating media presence.

Analysis: Due to strong interest in the transportation of oil by rail, there was a significant media presence at the exercise. The exercise PIO group successfully communicated with the media and organized media events, including a press conference at the field location. However, interaction with the media (e.g., demonstrating response/recovery tactics, engaging in interviews, etc.) effectively led to the end of exercise-focused field activities, both in terms of Wildlife Branch and boom deployment. This is in part an exercise artificiality as limited staff were present and an excellent opportunity was presented for public education/communication that may have overridden other exercise objectives.

Further, while public information/PIO was not a priority function identified for the exercise, it did evolve significantly in the last few weeks before the event, perhaps outstripping the readiness of other aspects of the ICS to incorporate the PIO group/media. In particular, the role of PIO staff serving as exercise event media coordinators (i.e., dealing with media on site for the exercises) vs. their role in staffing a joint information center (JIC) as part of the ICS was not clearly articulated to either PIO staff or exercise participants generally. While this may largely have been an exercise artificiality, effective interaction with the media will also be critical in a real event. As such, more effective mechanisms of working with the media need to be explored, both in exercise and actual event contexts.

Recommendation: Follow-up with exercise PIO group may be helpful in creating plans and procedures (there are other PIO-related issues identified later in this AAR) that meet media needs while minimizing impact on response. It may be valuable to create

resource-specific messages that can be modified as needed to fit the particular circumstances of an incident. Some information of this type already exists in the UMR pool GRPs (i.e., the "About the Pool" documents), but could be adapted to a more media-friendly and response-oriented format.

Additionally, for any future exercises, ensure a JIC is established for the incident (exercise), and that a specific incident (exercise) objective include providing for more controlled media and other select public access to response operations. To the extent that an exercise needs to separately create an event media team to handle real media coverage (as may have been warranted in the La Crosse exercise), then that should be developed by the exercise planning team and carried out in close coordination with the exercise JIC players.

Area for Improvement 4: Wildlife rehabilitation specialist did not have permit needed in order to begin work.

Analysis: The wildlife rehabilitation specialist present at the exercise, and likely to be called upon by private industry in an actual incident, did not have the state permit needed to begin rehabilitation process, though Wisconsin trustees were ready to work to obtain permit. It is not known whether other wildlife rehabilitators are in a similar position, but this issue may occur for others.

Recommendation: Wildlife rehabilitators, as well as the responsible parties who may hire them, must assure permits are obtained where needed and in advance if possible. The specific rehabilitator company involved in this exercise has indicated that it is seeking to obtain necessary permits as an outcome of this exercise.

Objective 3: Exercise the functions of the Environmental Unit within the Planning Section

Core Capabilities: Operational Coordination and Environmental Response

Overall assessment: Performed successfully, with some challenges.

Strengths

Strength 1: Pool 8 Initial IAP was valuable in assigning roles and responsibilities. The structure of the initial IAP helped the Wildlife Specialist Leader cut through the initial chaos and confusion to guide assignments of roles and responsibilities.

Strength 2: Successful initial engagement with the Wildlife Branch. The Resource-at-Risk, Wildlife, and SCAT specialists were able to engage in initial coordination with the Wildlife Branch of the Operations Section, though this diminished over the course of exercise (see below).

Strength 3: Good communication of plume/air monitoring information. Information about plume and air monitoring was communicated within Planning Unit and up to Unified Command.

Areas for Improvement

Area for Improvement 1: Challenges in information flow through the ICS.

Analysis: While initial communication was established successfully (see above), a subsequent lack of coordination and communication with Operations Section was noted. In particular, an inadequate flow of information from the Environmental Unit through the Operations Section to field staff was noted. This area for improvement appears to be related to issues noted previously, namely compressed planning cycle and limited availability of UC/General Staff to work with individual Branches/Units in a timely fashion to facilitate information transfer.

Recommendation: In keeping with previous recommendations, this issue could potentially be addressed by exercises that are either more focused on particular elements or longer in duration in order to avoid a compressed planning cycle.

Area for Improvement 2: Some functions within the Environmental Unit were not fully utilized even though resources were available.

Analysis: Some under-utilization of Environmental Unit capabilities was reported. A particular example is that weather/current specialist expertise was not requested until hours into exercise.

Recommendation: Continuing to expose individuals to ICS training, including practical, exercise-based training, will improve awareness of the assets incorporated into ICS, increasing the likelihood that these assets will be called upon and used effectively both in exercises and in actual events.

Area for Improvement 3: Few individuals in the region/participating in the exercise are trained in Shoreline Cleanup Assessment Techniques (SCAT).

Analysis: In an incident of the type exercised, it will be critical for SCAT evaluations to be done in order to best guide response activities. However, very few individuals in the region are SCAT-trained. A small SCAT group was assembled during the exercise, but its function was limited.

Recommendation: Greater opportunities for SCAT training should be provided in the region, to develop a cadre of trained individuals.

Area for Improvement 4: Restrictions on participating in overflights.

Analysis: Some members of the Environmental Unit (and possibly others in the ICS) were precluded from participating in CAP overflights due to agency restrictions. Although no actual flights were made during the exercise, this limitation became apparent as a constraint for future exercises and incidents.

Recommendation: Should agencies wish for their staff members to participate in CAP overflights, arrangements must be made in advance to identify and address any potential restrictions.

Objective 4: Successfully field deploy boom, testing response strategies delineated in draft Pool 8 Geographic Response Plan

Core Capabilities: Operational Coordination and Environmental Response

Overall assessment: Performed successfully, with some challenges.

Strengths

Strength 1: Boom deployment was well-organized, safe, and effective. The leadership of the field teams deploying boom allowed for well-organized, safe, and effective deployment. Industry and government agencies acted in tandem to deploy response strategies successfully. In particular, strong leadership was provided by the La Crosse Fire Department.

Areas for Improvement

Area for Improvement 1: Initial delays and confusion regarding field activities; as well as role field site roles and responsibilities.

Analysis: Field operations were delayed until a response plan was in place and field teams had to wait an extended period of time before receiving direction from Unified Command to deploy boom. This may largely have been an exercise artificiality as field crews were asked to report at the same time as staff at the command post, meaning that field crews had to wait for briefing to occur and ICS to begin operating before any instructions could be communicated. However, this could also occur in a real incident and maintaining discipline in the ICS (i.e., waiting for instruction from Operations before proceeding) could potentially be a real-life challenge. Additionally, this situation may have seemed particularly problematic given that response strategies have been developed for the area and were to be exercised, so crews may have felt they had a good sense of what they needed to get done.

Recommendation: This area for improvement may be addressed to some extent by continued ICS training in order to build appreciation for the time needed for response plans to be developed/direction to be given by Operations Section.

Area for Improvement 2: The number of strategies actually tested via boom deployment in the field was limited.

Analysis: Though field teams successfully deployed boom and practiced response, they were limited in their ability to test pre-determined response strategies, due to a number of factors, including:

- Limited overall exercise duration, and delay in field deployment (as described above).
- Cold temperatures and strong winds made work more difficult, precluded the deployment of one of the pre-identified strategies (illustrating weather-dependent limitations of pre-identified strategies), and created fatigue for the field crews.
- Demonstration of techniques for the media, while an important outreach opportunity, took time away from the testing of additional strategies.

Some of these factors (delays in field deployment, media presence) could potentially be better addressed in future exercises or actual events. Others (weather) cannot be controlled for in either an exercise or an actual event.

While an additional day of field practice was provided (on Saturday, 10/4) the number of additional strategies tested that day was also limited, primarily due to lower participation and weather conditions.

Recommendation: Additional field testing of strategies may be warranted, if there is interest among local entities, industry, and natural resource managers. This could potentially be part of a more targeted exercise, private sector-local training, or GRP roll-out/training.

Area for Improvement 3: One of the pre-scripted strategies contained in the Pool 8 GRP was found to rely on incorrect assumptions regarding river flow.

Analysis: While the identification of this issue did not arise from field testing, it was called out during the exercise and is related to the efficacy of pre-determined response strategies. In particular, the strategy delineating booming to close off Wigwam Slough in the Goose Island area assumed that flow would come from the backwater toward the main channel. As such, booming was prescribed to prevent spilled product from moving from the incident location to the main channel. However, Wisconsin DNR staff familiar with flows in this area indicated that flow would most likely be in the opposite direction (i.e., away from the channel, toward the backwater), meaning that containment here would not necessarily be needed and certainly would not a priority as implied in the exercise scenario. While every effort is made to include a diversity of participants in the development of response strategies, testing of the strategies in a context such as this exercise affords a valuable opportunity to bring additional scrutiny and expertise to bear.

Recommendation: In the near term, an additional round of review of the Pool 8 GRP and its embedded response strategies is recommended (and has been initiated by UMRBA). There may also be value in additional field testing of response strategies for Pool 8 as well as other GRPs in the region. This could be done on an *ad hoc* basis as local interest dictates.

Objective 5: Test the functionality and interoperability of communications systems

Core Capability: Operational Coordination

Overall Assessment: Performed successfully, with some challenges.

Strengths

Strength 1: Successful communication among field crews, mobile command center, and incident command post. Despite some initial challenges, the flow of communications traffic from field to mobile command center to incident command post went very well. Overall, communications was implemented more successfully than anticipated going into the exercise.

Strength 2: Successful use of documentation to aid communications. The ICS 205 form and radio checkout sheets were valuable tools in tracking communications and ensuring interoperability between different communication systems.

Strength 3: Successful use and testing of State of Wisconsin communications assets. The Wisconsin EM mobile command center and associated equipment, was critical in establishing communications. While there was a learning curve for non-Wisconsin staff in using Wisconsin equipment (see below), these assets were central to the exercise communication system.

Strength 4: Flexibility and adaptability in executing communications. As mentioned above, non-Wisconsin staff became familiar with Wisconsin EM equipment. In another example of flexibility/adaptability, fire units transitioned from Fire Ground Channel to MARC1 after recognition that the former's signal was limited.

Areas for Improvement

Area for Improvement 1: Communications equipment interoperability.

Analysis: Multi-agency/multi-jurisdictional incident response requires advance communications planning with a focus on using standardized interoperable channels. This includes conventional radio frequencies as well as trunked talk groups. For this exercise, advance efforts were made to resolve some of the more easily identified radio communication needs, however several challenges emerged. As an example, the extremely useful deployment of the Wisconsin Emergency Management Communications Trailer provided access to an on-scene emergency radio channel (VTAC36) that could connect responders over a wide geographical area. However, the participating emergency responder organizations did not all have this channel programmed into their radios.

Wisconsin Communications Annex K specifies the standard channels and talk groups, which are required (by grant authorization) to be programmed in any Wisconsin grant-funded radios and also provides national standardized channels which address out-of-state participants. VTAC36, as an example, is listed in Annex K and is a standard national channel. The national plan, similar to Wisconsin's Annex K, is published in the US Department of Homeland Security's National Interoperability Field Operations Guide and also identifies interoperability channels, including VTAC36. Trunking talk groups

are also standardized for Wisconsin-specific use under the Wisconsin Interoperable System for Communications (WISCOM) as are Minnesota talk groups on Allied Radio Matrix for Emergency Response (ARMER), and include cross-system capabilities.

Recommendation: Agencies need to ensure that all of these standardized interoperability channels and talk groups are programmed into their radios, and operators trained to understand what channels and zones are in their radios, how to access them, and their designated use. This is both a technical issue to ensure proper and complete programming and an education issue for radio users.

Area for Improvement 2: Fire Ground Channel signal strength limited.

Analysis: As noted above, fire units determined that Fire Ground Channel signal strength was limited and transitioned to MARC1.

Recommendation: Fire departments should be aware of Fire Ground Channel limitations and be prepared to transition to alternates as needed. This is an educational issue regarding propagation and technology used. Having a Communications Leader (COM-L) in place at the beginning of an exercise/event may help preclude issues such as this from arising (see Area 5 below).

Area for Improvement 3: MARC1 repeater message too frequent.

Analysis: Pre-recorded MARC1 repeater message was set at too frequent of an interval (approx. every 8 minutes).

Recommendation: Repeater automatic identification should be set to the recommended 30 minute interval and set to transmit *without* tone squelch. Mobile users should by default have their radios set to receive channels *with* tone squelch filtering active. Thus the users would not hear the identification unless they have set their radios to monitor the channel without using tone squelch. La Crosse Emergency Management has already made necessary modifications; others may need to as well.

Area for Improvement 4: Radio recording and playback capabilities.

Analysis: Radios at the mobile command center (MCC) did not appear to provide recording and playback function. The ability to playback recorded radio traffic can be essential during disasters, particularly when dispatchers and incident command staff are communicating with unfamiliar voices (state, federal and out of county responders). A post-incident radio communication log could be vitally important when conducting investigations or other actions.

Recommendation: Wisconsin Emergency Management (WEM) may consider adding digital recording equipment on their mobile command vehicle to provide instant playback or post-incident radio log review, though this would incur extra cost and engineering. County public safety dispatch centers may need to determine if mutual aid radio channels likely to be used during incidents along the Mississippi River are being recorded or could be recorded if needed. A low-tech workaround for recording could also be employed, such as via an on-site scanner for key channels/talk groups and a recorder (stand-alone or computer-based).

Area for Improvement 5: Lack of a Communications Leader at the mobile command center slowed deployment of field teams and contributed to initial confusion.

Analysis: A Communications Leader (COM-L) had not been assigned at the mobile command center. This may have contributed to some delays in field team deployment and some confusion at the field location. While this is to a certain degree an exercise issue, it could also occur in the early hours of a real event if communications assets arrive on site before the COM-L. For example, the WEM Mobile Command Center (MCC) is not dispatched with a COM-L and current WEM policy is that the requesting agency must supply a COM-L to the MCC. If this is not done promptly, there may indeed be a period time where the MCC is functioning without COM-L guidance.

Recommendation: In future exercises, as well as actual incidents, a COM-L (and possibly an assistant) should be identified early in the event to ensure their prompt arrival in order to support radio and general communications. Participating agencies must understand their obligations in regard to the provision of a COM-L and WEM may wish to examine the possibility of providing a COM-L with the MCC.

Area for Improvement 6: Insufficient ICS documentation/updates to the Communications Unit.

Analysis: Although some ICS documentation occurred relative to interoperability, an actual incident would have been much more complex, lengthy and difficult to document. In particular, the Communications Unit would have benefitted from more Incident Status Summary (ICS 209) updates from Operations. While this in many ways is a subset of the coordination issues identified under Objective 1, it has some unique communications dimensions.

Recommendation: Mobile Command Posts and mobile communication assets should be well-stocked with appropriate ICS forms. Communication technicians (COM-L) should request frequent ICS communication documents from the Incident Command Post to ensure accurate information exchange as well as to facilitate accurate post-incident reviews.

Objective 6: Test draft Pool 8 Initial Incident Action Plan

Core Capabilities: Operational Coordination and Environmental Response

Overall assessment: Performed successfully, with some challenges.

Strengths

Strength 1: The initial IAP aided in establishment of ICS/determination of roles and responsibilities. Specifically noted was that the Agency General Spill Roles and Responsibilities document and ICS 234 Work Analysis Matrix contributed to the rapid establishment of the Wildlife Branch, and helped the Wildlife Specialist Leader determine personnel roles and responsibilities. More broadly, the Initial IAP was utilized to create the exercise's pre-populated ICS structure.

Strength 2: The initial IAP guided response, helped in setting objectives for next operational period. The Pool 8 IAP ICS 202-Incident Objectives guided the response. Most of these objectives were either addressed or acknowledged for the next operational period.

Areas for Improvement

Area for Improvement 1: Ability to test the IAP was limited due to exercise timeframe.

> **Analysis:** This exercise simulated day two of response and planning for the next operational period. In reality, the Pool 8 IAP would be essential for the first operational period immediately following an incident. As such, the ability to test the Pool 8 initial IAP was somewhat limited during the exercise itself.
>
> **Recommendation:** Additional training/exercises could be held to better test the IAP in the first few hours of response. This could be part of an exercise more focused on "forming up" the ICS, as recommended earlier.

Area for Improvement 2: Having the IAP in place did not prevent some communication issues from arising in the ICS.

> **Analysis:** Despite the IAP providing a template for response, there were several breakdowns in communications, especially at the Section Chief/Deputy Chief level. The ICS protocol regarding individual roles and assignments was not always followed. These issues have also been documented elsewhere in this AAR.
>
> **Recommendation:** Consistent with earlier recommendations, this issue could be potentially addressed by scaling exercises to facilitate improved communication, as well as by additional ICS training in general.

Observations and Recommendations Outside of Priority Exercise Functions

The following do not fit within the priority function areas defined for the exercise, but are certainly worth noting as follows:

Air Monitoring

Observations

- Public safety and responder safety issues will have to be addressed through air monitoring on a major crude oil release in a setting such as this. Exercising this component is not done very often, if ever. It should be included more frequently in training and exercises.
- The exercise safety officer suggested that both evacuation and air monitoring data be better described/detailed as part of briefing for start of exercise, with further monitoring data created as exercise progressed.
- On-water use of Area RAEs and real-time telemetry of data had limitations. Integrated on-water air monitoring could be further practiced on a tactical level.

Recommendation

- Increased emphasis on air monitoring in future training and exercises.

Public Information and Media

Observations

- Public information officer (PIO) group noted that information regarding evacuation was not clearly communicated.
- Significant media coverage of the event was successfully coordinated through the PIO group. However, media presence was a complicating factor in carrying out field work, as noted earlier.
- Need to better integrate PIO group and keep PIO group updated throughout the incident.

Recommendation

- Hold a follow-up conversation with exercise PIO group to explore improvements to media communication strategies and ways to better integrate PIO group in future exercises/events.

General Comments on Exercise Design and Execution

Observations

- Exercise provided an excellent opportunity to bring together public and private sector to better understand each other's roles, expectations, capacities, and needs.

- Training day preceding exercise added value by imparting knowledge and providing orientation to the exercise participants and location.
- Use of ICS 201 form to kick off exercise/guide briefing was effective.
- Having both command post and field groups added to realism of exercise and ability to test communications. However, having all field personnel "pre-deployed" at the onset of the exercise also compounded issues regarding IC instructions for field operations. Future exercises should retain field personnel (or at least Group Leaders) at the IC to receive instructions in-person from their respective ICS section following the initial exercise briefing.
- Locating the exercise play area (for field operations) in a different physical location than that indicated in the exercise scenario was necessary for this exercise (due to hunting in scenario location); however, it created significant difficulties for the exercise players and contributed to communication issues between the IC and the field. Future exercises should ensure field operations take place within the scenario location.
- No restrooms, water, or garbage cans were provided at field location.
- A better system for tracking materials produced during the exercise (e.g., maps) is needed. It was not clear if were requested materials were produced and, when they were, it was not clear if they were distributed to individuals who needed them.
- Need to distribute contact sheets/phone numbers more broadly, beyond just Control Group.
- Have ICS forms readily available, both electronically and in hard copy.
- Real life “injects” occurred during the exercise; boats didn’t work right, players had to leave and be replaced, real emergency calls, real press and media work, players unreachable on checked-out radios (not on, not loud enough, on wrong channel), unknown radio traffic.
- Many commenters expressed an interest in continued, additional training events.

Recommendation

- Incorporate these observations into future training and exercise events.

APPENDIX A: IMPROVEMENT PLAN

The following recommended Improvement Plan (IP) has been developed by the Upper Mississippi River Hazardous Spills Coordination Group (UMR Spills Group) as a result of the La Crosse Functional Exercise conducted on October 3, 2014. ***Note that the final three columns of the Improvement Plan are left blank, so that this Plan can be used a "worksheet" by the various entities listed as they move forward in implementing the recommended actions.***

Priority Function Area	Issue/Area for Improvement	Recommended Action(s)	Primary Responsible Organization(s)	Organization POC(s)	Estimated Start Date	Estimated Completion Date
Incident Command/ Unified Command Implementation	ICS coordination and communication challenges	**Exercises:** Further exercises scaled to support better ICS communication/coordination focus	Participant agencies Private sector/rail companies UMR Spills Group			
		Training: Further ICS training for participants; development/ revision of training schedule	Private sector/rail companies Participant agencies UMR Spills Group			
		Exercise Design Capacity: Improve exercise design capacity region-wide	US EPA Other partner agencies			
	Limited ICS readiness	**Training:** Further ICS training and exercises for participants; development/ revision of training schedule	Participant agencies Private sector/rail companies UMR Spills Group			
		IMT Capacity: Identify preferred approach for rail companies to staff IMT (internal capacity vs. contracting)	Private sector/rail companies			
	Limited tools for ISB decision-making	**ISB Tools:** Include ISB strategies in GRPs and develop ISB policies/protocols for the UMRNW&FR	USFWS US EPA Other partner agencies			

Priority Function Area	Issue/Area for Improvement	Recommended Action(s)	Primary Responsible Organization(s)	Organization POC(s)	Estimated Start Date	Estimated Completion Date
Wildlife Branch Function	ICS coordination and communication challenges	**Exercises:** Further exercises scaled to support better ICS communication/coordination focus, with an emphasis on Wildlife Branch	Participant agencies (particularly natural resource/trustee agencies) Private sector/rail companies UMR Spills Group			
	Under-utilization of Wildlife Branch assets	**Exercises:** Further exercises scaled to support better ICS communication/coordination focus, with an emphasis on Wildlife Branch	Participant agencies (particularly natural resource/trustee agencies) Private sector/rail companies UMR Spills Group			
	Media interaction challenges	**PIO Debrief:** Hold follow-up conversation with PIO group to examine PIO-related issues	UMR Spills Group State and federal PIO staff			
		Resource Messages/Fact Sheets: Develop pre-scripted, resource-specific messages	US EPA USFWS UMR Spills Group			
		JIC Role: In future exercises establish a JIC with specific media control responsibilities (and clarify how this relates to working with real media onsite)	USFWS Other state and federal PIO staff			
	Wildlife rehabilitator permits	**Obtain Permits:** Wildlife rehabilitators need to pursue obtaining permits in advance in areas where they may be called on to work	Wildlife rehabilitators Private sector/rail companies USFWS, Wisconsin DNR, other natural resource trustee agencies			

Priority Function Area	Issue/Area for Improvement	Recommended Action(s)	Primary Responsible Organization(s)	Organization POC(s)	Estimated Start Date	Estimated Completion Date
Environmental Unit Function	ICS coordination and communication challenges	**Exercises:** Further exercises scaled to support better ICS communication/coordination focus, with an emphasis on Environmental Unit	Participant agencies (particularly natural resource/trustee agencies) Private sector/rail companies UMR Spills Group			
	Under-utilization of Environmental Unit assets	**Exercises:** Further exercises scaled to support better ICS communication/coordination focus, with an emphasis on Environmental Unit	Participant agencies Private sector/rail companies UMR Spills Group			
	Lack of SCAT-Trained Individuals	**Training:** Hold SCAT training in La Crosse area to build local capacity	US EPA US FWS UMR Spills Group			
	Overflight restrictions	**Address restrictions:** Identify agencies where restriction may apply, follow-up conversation with CAP and potentially affected agencies	CAP Participant agencies UMR Spills Group			
Boom Deployment/ Testing Pool 8 GRP	ICS coordination and communication challenges	**Exercises:** Further exercises scaled to support better ICS communication/coordination focus	Participant agencies Private sector/rail companies UMR Spills Group			
	Limited number of strategies tested	**Training:** Additional field testing of strategies	Participant agencies (particularly local responders) Private sector/rail companies UMRBA			

Priority Function Area	Issue/Area for Improvement	Recommended Action(s)	Primary Responsible Organization(s)	Organization POC(s)	Estimated Start Date	Estimated Completion Date
	Refine response strategies (e.g., correct flow assumptions)	**GRP Review:** Provide an additional round of review of the Pool 8 GRP	UMRBA			
Communications	Interoperability issues (technical and educational)	**Technical Fixes:** Program in standardized interoperability channels and talk groups; for MARC1, set repeaters and mobile radios properly **Training:** Train operators regarding what channels and zones are in their radios, how to access them and their designated use	Local response agencies Wisconsin EM			
	Radio recording and playback	**Examine Options:** Look at possibilities for integrating these capabilities into MCC, as well as low-tech work-arounds	Local response agencies Wisconsin EM			
	Lack of COM-L assignment	**Emphasize COM-L importance/role:** Ensure that participant agencies understand importance of COM-L and who is responsible for providing COM-L; consider policy alternatives to aid COM-L staffing	Local response agencies Wisconsin EM			

Priority Function Area	Issue/Area for Improvement	Recommended Action(s)	Primary Responsible Organization(s)	Organization POC(s)	Estimated Start Date	Estimated Completion Date
	ICS communication and documentation	**Stock Mobile Command Posts:** Stock mobile command posts and other mobile communications assets with appropriate ICS forms	Local response agencies Wisconsin EM			
Test Pool 8 Initial IAP	Limited testing of IAP	**Exercises:** Further exercises focused on the initial period of response	Participant agencies Private sector/rail companies UMR Spills Group			
	ICS coordination and communication challenges	**Exercises:** Further exercises scaled to support better ICS communication/coordination focus	Participant agencies Private sector/rail companies UMR Spills Group			
Other	Air monitoring	**Training/Exercises:** Increased emphasis on air monitoring in future training and exercising	Participant agencies Private sector/rail companies UMR Spills Group			

APPENDIX B: EXERCISE PARTICIPANTS

Participating Organizations
Local Jurisdictions
La Crosse County Emergency Management
Keith Butler kbutler@lacrossecounty.org
Kim Olson olson.kim@co.la-crosse.wi.us
La Crosse Fire
Jeff Schott SchottJ@cityoflacrosse.org
Beau Liebman liebmanb@cityoflacrosse.org
Kevin Kappauf kappaufk@cityoflacrosse.org
Nick Meinertz meinertzn@cityoflacrosse.org
Jordan Shackleton shcakletonj@cityoflacrosse.org
Gregg Cleveland clevelandg@cityoflacrosse.org
Greg Temp tempg@cityoflacrosse.org
La Crosse Police
Randy Rank rankr@cityoflacrosse.org
Pat Hogan hoganp@cityoflacrosse.org
Vernon County Emergency Management
Chad Buros cburos@vernoncounty.org
Ted Harris tharris@vernoncounty.org
Glen Martin gmartin@vernoncounty.org
Heidi Young hyoung@vernoncounty.org
Vernon County Sheriff's Office
Roy Togerson rtorgerson@vernoncounty.org
Jacob Ludovice jludovice@vernoncounty.org
Vernon County HazMat
Eric Bankes eric_bankes@yahoo.com
Houston County Sheriff
Doug Ely doug.ely@co.houston.mn.us
Onalaska Police Department
Tim Berg tberg@cityofonalaska.com
Jasson Jobe jjobe@cityofonalaska.com
Shelby Fire
Mike Kemp chiefkemp@townofshelby.com
Jerry Roesler
Town of Campbell (WI) Fire Department
Gary Simenson gsimenson@charter.net
Monroe County (WI) Emergency Management
Cindy Struve cindy.struve@co.monroe.wi.us
Buffalo County (WI) Emergency Management and Recycling
Steve Schiffli stephen.schiffli@buffalocounty.com

La Crosse County Board
Maureen Freedland maureenfreedland@gmail.com
State
Wisconsin Department of Natural Resources
Ed Culhane edwardj.culhane@wisconsin.gov
Brenda Kelly Brenda.Kelly@Wisconsin.gov
Tom Kendzierski thomas.kendzierski@wisconsin.gov
Jason Lowery jason.lowery@wisconsin.gov
Tyler Strelow tyler.strelow@wisconsin.gov
Cale Severson cale.severson@wisconsin.gov
Charles Nettesheim charles.nettesheim@wisconsin.gov
Steve Miller stevenm.miller@wisconsin.gov
Wisconsin Emergency Management
Lisa Olson-McDonald Lisa.OlsonMcDonald@wisconsin.gov
Tom Grahak tom.grahek@wisconsin.gov
Todd Nehls todd.nehls@wisconsin.gov
Lacey Donatell lacey.donatell@wisconsin.gov
Civil Air Patrol
Todd Mandel todd.mandel@gmail.com
Iowa Department of Natural Resources
Brett Meyers Brett.Meyers@dnr.iowa.gov
Kurt Levetzow kurt.levetzow@dnr.iowa.gov
Terry Jones terry.jones@dnr.iowa.gov
Minnesota Homeland Security and Emergency Management
Rick Luth rick.luth@state.mn.us
Minnesota Pollution Control Agency
David Morrison david.morrison@state.mn.us
Cathy Rofshus catherine.rofshus@state.mn.us
Jim Stockinger jim.stockinger@state.mn.us
Steve Lee stephen.lee@state.mn.us
Federal
U.S. Environmental Protection Agency
Ann Whelan whelan.ann@epa.gov
Steve Renninger renninger.steven@epa.gov
Jamie Wagner wagner.jamie@epa.gov
Tom Krueger krueger.thomas@epa.gov
Jim Mitchell mitchell.james@epa.gov
Jaime Brown brown.jaime@epa.gov
Eugene Jablonowski jablonowski.eugene@epa.gov
Andy McGuire maguire.andrew@epa.gov
Brian Cooper cooper.brian@epa.gov
Steve Faryan faryan.steven@epa.gov

Joana Bezerra bezerra.joana@epa.gov
Carol Ropski ropski.carol@epa.gov
Andy Maguire maguire.andrew@epa.gov

U.S. Fish and Wildlife Service

Elissa Buttermore Elissa_Buttermore@fws.gov
Kendra Niemec Kendra_Niemec@fws.gov
Jim Nissen james_nissen@fws.gov
Mary Stefanski mary_stefanski@fws.gov
Annette Trowbridge annette_trowbridge@fws.gov
Dave Warburton dave_warburton@fws.gov
Sarah Warner sarah_warner@fws.gov
Wendy Woyczik wendy_woyczik@fws.gov
Tim Yager timothy_yager@fws.gov
Mark Steingraeber mark_steingraeber@fws.gov
Angela Baran angela_baran@fws.gov
Laurel Kullerud laurel_kullerud@fws.gov
Curt McMurl curt_mcmurl@fws.gov
Sabrina Chandler sabrina_chandler@fws.gov
Randy Lilla randy_lilla@fws.gov
Vickie Hirschboeck vickie_hirschboeck@fws.gov
Larry Dean larry_dean@fws.gov
Katie Julian katherine_julian@fws.gov
Larry Dean larry_dean@fws.gov

Federal Railroad Administration

Michael Bennett michael.bennett@dot.gov
Todd "Stu" Swartz todd.swartz@dot.gov
Steve Illich steve.illich@dot.gov
Alan Budleski alan.budleski@dot.gov

National Weather Service Forecast Office (La Crosse)

Mike Welvaert Mike.Welvaert@noaa.gov

U.S. Coast Guard

Dan Ferrell daniel.c.ferrell@uscg.mil

U.S. Department of Agriculture, Animal and Plant Health Inspection Service

Paul Wolf paul.c.wolf@aphis.usda.gov
Jason Suckow jsuckow@aphis.usda.gov
Steve Krueger steven.m.krueger@aphis.usda.gov
Tim White Timothy.S.White@aphis.usda.gov

U.S. Marshals Service

Michael Smith michael.smith2@usdoj.gov

Private Companies/Organizations

BNSF Rail

Ryan Ridson

Derek Lampkin Derek.Lampkin@BNSF.com
Greg Jeffries Gregory.Jeffries@bnsf.com
Amy McBeth amy.mcbeth@bnsf.com
Wildlife Response Services
Rhonda Murgatroyd rhonda.murgatroyd@wildliferesponse.net
CP Rail
Ed Dankbar Ed_Dankbar@cpr.ca
John Giebenhain John_Giebenhain@cpr.ca
Chad Livingston chad_livingston@cpr.ca
Mike Ball mike_ball@cpr.ca
Steve Rohde steve_rohde@cpr.ca
CTEH
Charles Connolly cconnolly@cteh.com
April Mack amack@cteh.com
STARS Training
Matt Stokes mstokes@starstrain.com
Pinnacle Engineering
Matt Lenz mlenz@pineng.com
Jim Holland jholland@pineng.com
Scott Thelen sthelen@pineng.com
Mathy Construction
Tara Wetzel twetzel@mathy.com
Midwest Fuels/ Midwest Industrial Asphalt
Joe Gaspers jgaspers@midwestfuels.com
Neil Molling neil.molling@midwestfuels.com
Petro Energy
Lori Berg Lori.Berg@PetroEnergyLLC.com
West Central Environmental Consultants
Cory Teff cteff@wcec.com
Xcel Energy
Pat Flowers patrick.flowers@xcelenergy.com
Mark Gerlach mark.d.gerlach@xcelenergy.com
Wenck Associates
Jason Coyle JCoyle@wenck.com
Larry Berndt
Paul Hester
REI Engineering
Ken Lassa klassa@reiengineering.com
Bay West
Preston Schrupp preston@baywest.com
NRC ES
Ken Clark kgclark@hotmail.com
CARS (Citizens Acting for Rail Safety)

Alan Stankevitz astankevitz@daycreek.com
VOAO/Great Rivers 211
Barbara McPeak bjmcpeak@gundersenhealth.org
Upper Mississippi River Basin Association
Mark Ellis mellis@umrba.org
Dave Hokanson dhokanson@umrba.org
Matt Jacobson mjacobson@umrba.org