UMRBA Water Quality Executive Committee Meeting

November 18, 2009
Rock Island, Illinois

Meeting Summary

Participants

Marcia Willhite	Illinois EPA
Chuck Corell (1)	Iowa DNR
Mike Wells	Missouri DNR
Todd Ambs	Wisconsin DNR
Tim Henry	US EPA Region 5
Art Spratlin (1)	US EPA Region 7
Gretchen Benjamin (2)	The Nature Conservancy
Mark Gorman (2)	Northeast-Midwest Institute
Greg Swanson (2)	City of Moline
Peg Donnelly	UMRBA
Dave Hokanson	UMRBA
Barb Naramore	UMRBA

(1) Joined the meeting via phone.
(2) Participated in a portion of the meeting.

UMR Reach Crosswalk

The Water Quality Executive Committee (WQEC) briefly discussed the "crosswalk" between UMR reaches used for Clean Water Act (CWA) assessment purposes and the reaches used for ecosystem restoration planning and whether to pursue harmonization between these two approaches to segmenting the river. Dave Hokanson reported that this topic was discussed at the August 2009 joint session of the Environmental Management Program Coordinating Committee (EMP-CC) and the Navigation Environmental Coordinating Coordination Committee (NECC), and then subsequently addressed at the September 2009 Water Quality Task Force (WQTF) meeting, adding that interest had been expressed in both venues for examining differences and potential harmonization. Chuck Corell asked what the motivation was for harmonization and stressed the need to consider whether modifications would result in any particular benefit. Marcia Willhite suggested that the WQTF take the lead in any further conversations on the topic. Todd Ambs concurred and indicated that, from Wisconsin's perspective, there was no need to rush this discussion, as any modifications wouldn't be incorporated into CWA assessments until the 2012 cycle.

UMR Water Quality Efforts and Nutrient/Nonpoint Source Challenge

Willhite noted that, when the states' desire to improve UMR CWA implementation has been presented to US EPA, the reaction has been to acknowledge the value in this "building blocks" approach, but to place a much greater emphasis on the need to take nutrient-specific actions in the near term. Given this consistent response from US EPA, Willhite said the options appear to be to either: 1) stay on the current course (i.e., build a foundation in water quality standards, monitoring, and assessment to improve UMR CWA programs), but risk missing opportunities or being marginalized; or 2) engage more directly and immediately in nutrient and nonpoint source issues, though this also has potential risks in terms of distraction and/or moving away from what the UMR states want to accomplish.

Ambs asked whether US EPA's emphasis on nutrients seemed to be solely in regard to numeric nutrient criteria, or if there appears to be a broader set of interests. Willhite replied that US EPA's interest appears to be broader, including a desire for the states do more collectively on nutrient management. Ambs then observed that the question becomes what the "more" is that could be done. Willhite concurred that this is the question facing the WQEC and suggested that an example of doing more together might be for the states to share and collaborate in regard to USDA's Mississippi River Basin Health Watersheds Initiative (MRBI).

Corell commented that, in implementing the MRBI, Iowa is open to multi-state projects and wants to make sure that no funding for MRBI is "left on the table." He added that US EPA is clearly interested in nutrients, though but not specific on what it wants done. As such, Corell said that US EPA may be open to suggestions from the states on how to proceed.

Willhite suggested that another approach might be for the WQEC to facilitate an exchange of information and policy discussion with the agricultural sector regarding the efforts currently underway in Wisconsin and Iowa to address agricultural nonpoint source pollution. She acknowledged that UMRBA or the WQEC may not ultimately be the right body to facilitate these discussions, but could perhaps act as a catalyst to begin these conversations.

Corell observed that a survey of Iowa producers indicated that their motivation to participate in conservation programs was largely determined by the program's ability to maintain or improve the profitability of their operations. Willhite concurred, noting that nonpoint source efforts are still largely in a "should do" rather than a "must do" category. Corell added that an example of economic considerations is present in the "Iowa Initiative" (discussed at the most recent Hypoxia Task Force meeting), which seeks to combine improved drainage with conservation objectives.

In response to a question from Tim Henry, Willhite said she and UMRBA staff met in March 2009 with Acting Assistant Administrator for Water Mike Shapiro and other Office of Water Office Directors. Henry asked whether state nutrient management strategies under the Hypoxia Action Plan had come up during these discussions. Willhite indicated that this had not been discussed. Henry asked whether there was a role for the WQEC, or UMRBA more broadly, to aid in the process of development of state nutrient plans as described in the Hypoxia Action Plan. Willhite acknowledged that there may be a connection here, but also noted that the State of Mississippi had just spent about $500,000 in federal funding to develop its plan, indicating that perhaps US EPA funding might be a way to encourage these activities.

Ambs asked whether there was a way to match up both the ongoing efforts UMRBA is engaged in and efforts to address nutrient issues, noting that the 604(b) project has already explicitly incorporated a nutrient component. He commented that, in regard to the bioassessment component of the 604(b) project, it will be challenging to come up with a practical, real-world product within the constraints of the project scope and budget. Ambs also noted the importance of identifying a reference condition as part of the bioassessment portion of the project.

Regarding MRBI, Ambs suggested that perhaps UMRBA could put together a summary of what all five states were doing to implement MRBI and, more generally, what all five states were doing regarding nutrient control and nutrient criteria. He suggested that a report providing a snapshot of states' efforts in these areas would be both useful and of interest to US EPA. Willhite concurred that such a report could be beneficial, but noted that MRBI may not be the best fit for interstate collaboration as it is limited to in scope, with the target watersheds necessarily immediately adjacent to the interstate UMR.

Willhite observed that she had not heard in the discussion a consensus on staying the course vs. taking a more prominent role in the nutrient issue. Corell commented that more work needs to be done on the indicators front first. Ambs suggested that at least part of the answer here might include being more explicit about how ongoing work in the following areas is already addressing nutrient issues: 1) designated use project, 2) biological indicators/biological assessment project, 3) MRBI and other projects involving the implementation of BMPs, and 4) other state efforts. Hokanson suggested that one additional avenue might be to further explore how best to utilize the components in the 604(b) project that address nutrients (i.e., the nutrient synthesis report and potentially the cross-program workshops).

UMR Designated Uses Project Update

Peg Donnelly presented an update on her work in support of the UMR designated uses project. She provided information on her background with US EPA, US EPA's Mississippi River team from the 1980s and 1990s, and her engagement in the designated uses project to date under an intergovernmental personnel agreement (IPA) with UMRBA.

Donnelly reviewed some of the major themes of the project, including a focus on aquatic life use designations and a desire to improve both consistency among states and the effectiveness of their use protection efforts. She noted that the project will examine potential sub-categories of aquatic life use designations.

In reporting on her work to date, Donnelly noted that she had spent much of the first months of the project reviewing UMR-related reports, publications, and data. She has also examined approaches used in other large aquatic ecosystems (including the Ohio River, Chesapeake Bay, and Delaware River) and initiated visits with the UMR states' CWA program staff. Donnelly noted that these state visits have not been limited to discussing use designations per se, but have also touched on criteria, monitoring, and assessment. She commented that dissolved oxygen has been a parameter of particular interest during her discussions with states.

Donnelly indicated that she had begun a focused examination of water quality data in three LTRMP study pools to look differences in water quality among strata, and would be reporting out the results of this analysis at the January 2010 meeting of the WQTF. She mentioned that she has also done some work to analyze state water quality and EMAP-GRE data.

Donnelly commented that, in addition to the data analysis results, she would provide the WQTF with a report at its January 2010 meeting, summarizing the activities completed on the project to date. She also noted the relevance of this project to UMR reach planning and biological assessment efforts.

Regarding other geographic programs, Donnelly noted that the level of effort and resource investment in the Chesapeake Bay program is far beyond what is available for the UMR, so that expectations and comparisons to Chesapeake Bay would need to be limited.

Hokanson asked the WQEC members whether, generally, the project appeared to be meeting their expectations. Ambs and Willhite replied that this appeared to be the case.

Donnelly noted that there are limitations in the ability to extrapolate LTRMP data from the study pools to other areas of the river. Ambs replied that part of the documentation of the project would be to note limitations and data gaps. Willhite concurred, commenting that the project should not shy away from highlighting areas of deficiency.

Hokanson asked how much emphasis the WQEC felt should be placed on raw data analysis in the project. Willhite replied that she is comfortable moving forward with limited data and best professional judgment, recognizing that it will never be possible to have all the data that would ideally be available for the analysis. Corell asked Art Spratlin what US EPA Region 7's view of data needs would be. Spratlin replied that he would need to check with the Region's Environmental Services Division on this question. Corell commented that it is important to have the Regions engaged in the process, and that they can draw attention to areas where greater needs for data exist.

Donnelly asked if the WQEC members are concerned that recommended use designations might be developed before there are assessment methodologies in place to assess attainment of these uses. Willhite replied that this situation is not a problem, and is not without precedent. She added that existing uses would remain on the books until new criteria and methodologies are in place. Corell concurred, indicating that it is not unusual for data to be lacking to allow for complete assessment of a waterbody, even though there is a designated use in place. He emphasized the process of developing uses, criteria and methodology is not necessarily linear.

Hokanson distributed a copy of the revised work plan for the designated uses project to the WQEC and encouraged members to provide him with any comments on the work plan.

Biological Indicators and Biological Assessment of the UMR

Hokanson noted that the request for proposals (RFP) for work on the UMR CWA biological assessment guidance document was included in the meeting packet. He indicated that one of the goals of the discussion today is to explore whether the WQEC was comfortable with the approach laid out in the RFP and to see whether it is congruent with the states' other efforts to integrate biological assessment into their CWA programs. Willhite replied that she is relying on Gregg Good to review this and, if Good is confident with the approach, then she is comfortable. Ambs restated his earlier concern that the limited amount of funding for the project may impair the ability to get a quality product out of the process. He also emphasized that the project must be tied into existing work on the UMR and specifically to the work Donnelly is doing on designated uses. Willhite concurred, emphasizing the need for communication and collaboration during the project, and avoiding a "black box" project where a product emerges at the end without sufficient input from the WQTF. Donnelly expressed her hope that the contractor would work in collaboration with her and the WQTF.

Ambs expressed concern that it may be difficult for a single contractor to play both a scientific and facilitation role. He suggested that perhaps a joint proposal could be entertained from two contractors to cover these elements. Willhite commented that this could be mentioned to potential contractors in upcoming conference call. Barb Naramore suggested that perhaps a state or US EPA facilitator could also be engaged to assist with the workshops.

Tim Henry noted that Marvin Hubbell had expressed interest in USACE's participation in the project during the preceding day's UMRBA meeting. He encouraged an invitation to USACE to participate in the project. Willhite asked whether LTRMP and other USACE data would be important to the project. Donnelly indicated that this likely would be the case, and that pre- and post-project monitoring date could be of interest. Willhite asked whether the states typically make a request to USACE for data to be used in 305(b) assessment and 303(d) listing process. Ambs observed that data sharing and data compatibility remain important issues. Naramore observed the habitat rehabilitation and enhancement project (HREP) database should soon be online and may provide access to information of value to the project.

Other UMR Water Quality Efforts and Issues

US EPA Decision Regarding Whole Body Contact Recreation Use in St. Louis Area
Mike Wells commented that Missouri DNR staff had recommended adoption of whole body contact recreation use in the St. Louis area of the Mississippi River, but that Missouri's Clean Water Commission had not agreed with this recommendation.

Willhite noted that the decision is exactly the kind of issue that the WQEC and WQTF need to communicate about and remain ahead of, as they continue efforts to harmonize use designations and other components of CWA programs on the UMR.

Spratlin noted that harmonization of standards is important and that this is definitely a focus of the collaborative UMR activities. He then provided some background details regarding US EPA's recent decision to require a whole body contact designation for the river in the St. Louis area. He said the St. Louis Metropolitan Sewer District (MSD) had been concerned with the potential costs of tunnel construction that could be required to support whole body contact use. Spratlin reported that US EPA Region 7's position is that contact recreation is an attainable use for the UMR in this area and US EPA is not necessarily forcing a particular solution onto MSD. He reiterated that improving interstate consistency was also one of the motivations for this action. Spratlin added that a 2013 deadline for disinfection by treatment plants was in effect for Missouri, regardless of this decision. He also noted that US EPA's Office of Water had been very supportive of the decision.

Ambs acknowledged and gave credit to Spratlin and Region 7 for moving forward on this issue. Spratlin thanked Ambs and indicated that Region 7 looks forward to working with Missouri on a standards resubmittal in response to the decision. He continued by noting that MSD's initial opposition to the use designation cited safety considerations (i.e., that this reach of the UMR was not safe for recreation), and that it was still possible that MSD would raise an objection on economic grounds based on increased rates for low-income residents. Spratlin observed, however, that other communities in similar economic situations had needed to raise rates to make necessary system improvements, and that this should be possible for St. Louis as well.

Ambs said alternative approaches, including non-structural alternatives, can often be successfully used to meet requirements. He emphasized that all of the agencies engaged in the WQEC will need to keep these types of alternative approaches in mind when addressing similar situations.

USGS Engagement in UMRBA Water Quality Groups

Following up on previous WQEC conversations regarding engaging USGS more fully in the WQTF and/or WQEC, Naramore indicated that USGS Regional Executives may be the most appropriate individuals to contact initially. Ambs expressed his support for greater engagement with USGS, and the WQEC generally concurred with initiating communication via the Regional Executives. Ambs commented that Wisconsin DNR works with USGS frequently and Wells noted that USGS has done much of the modeling work associated with efforts to address Gulf Hypoxia. Willhite suggested that it may be best to have USGS participation dependent on the topics to be addressed at specific meetings. Naramore concurred, noting that this would likely be attractive to USGS as well.

Stakeholder Outreach and Collaboration

UMR Water Suppliers
Greg Swanson, Utilities General Manager for the City of Moline thanked the WQEC for the opportunity to participate in its meeting. In addition to representing the City of Moline, Swanson said he is also the

acting Chair of the Upper Mississippi River Water Suppliers Coalition and the District 1 Trustee for the Illinois Section of the American Water Works Association.

Swanson noted that one of the challenges facing water suppliers is public complacency about source water and wastewater treatment. He commented that Moline's citizens are frequently unaware that the UMR is their source of drinking water, and are more likely to think of the UMR in terms of recreation or transportation benefits. Therefore, Swanson stated, simply educating residents about the source of their water, and source water protection, can be challenging. He indicated that his comments today would focus on the source water protection component of supplying water, rather than steps such as treatment in the plant or protection of water quality in the distribution system.

Swanson noted that programs for children, which in turn reach parents and other adults, are often the most effective way of supporting source water protection.

Swanson next provided examples of UMR water suppliers' specific concerns related to source water protection and water quality:

- Taste and odor impacts, which may be dependent on land practices, and affect treatment processes.

- Unusual pH swings in winter, which may be related to roadway de-icing. These changes have a significant impact on lime softening processes.

- The "living" nature of the river and algal blooms in particular as a key challenge. These blooms lead to both taste and odor problems and certain algae species can clog filters, as has happened at the Davenport water plant.

- The presence of personal care products. While the ultimate impact of these compounds is not yet known, water suppliers would prefer to address the issue through reducing discharges, rather than implementing additional treatment.

Swanson indicated that the Illinois AWWA Source Water Protection Sub-Committee is very interested in partnering where appropriate with groups such as the WQEC. He also noted that the UMR Water Suppliers Coalition could benefit from partnership with the WQEC and the identification of issues to pursue that may be in common with the WQEC's interests.

Willhite thanked Swanson for his remarks and agreed that collaboration between the WQEC and water suppliers is both appropriate and mutually beneficial. She noted that the states' CWA programs want to protect designated uses, including drinking water supply, and better understand the impacts of water quality conditions that affect suppliers.

Swanson noted that the expansion and maintenance of the UMR early warning monitoring system continues to be a priority for the water suppliers and that any support that could be provided for the network would be much appreciated. He noted that installations are now in place at St. Cloud (MN), Monticello (MN), and Minneapolis, with additional sites being added. Willhite asked what the typical cost of an installation is. Hokanson replied that the cost of installation, including all equipment and any necessary construction, could be close to $200,000, noting that host utilities had been often been providing some of the installation and operation as an in kind contribution. [*Note: Subsequent inquiries put the typical installation cost of the current configuration closer to $50,000.*]

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Willhite noted that, in trying to quantify the value of clean water, it would be helpful to know the cost of pollution to water suppliers – e.g., the cost of algal blooms and other events. Willhite asked Swanson if

he thought it would be possible to quantify such impacts. Swanson replied that he could work with water suppliers to try to develop cost estimates.

Swanson offered an additional observation that not all the pollution problems facing water suppliers are human-made in origin and said water suppliers also have to address these challenges.

The Nature Conservancy
Gretchen Benjamin provided a background perspective on The Nature Conservancy (TNC) projects in the Mississippi River Basin, emphasizing "proof of concept" projects. She noted work being done in Illinois on the limitations of buffer strips, which have proven effective in reducing phosphorous loadings, but do not address impacts of tile drainage. Benjamin noted that one of the questions being considered was the size of wetlands needed, relative to the size of fields, to be effective in capturing nutrients. She indicated that TNC is also working in Iowa, Minnesota, and Wisconsin with a range of partners including producers. Benjamin noted that farmer participation in the projects has been good. She emphasized TNC's focus on direct outreach to producers and efforts to assist in communication regarding NRCS programs. Benjamin also commented that TNC is very interested in the question of how to scale up from concept to application.

Benjamin observed that USDA's Mississippi River Basin Health Watershed Initiative (MRBI) is a huge project and a great opportunity to provide assistance and collaboration. She indicated that TNC will be working with partners on outreach and monitoring, but that in the future it would be beneficial for NRCS to bring technical resources to the table.

Willhite commented that Illinois will be seeking to focus its state resources on MRBI priority watersheds, applying tools including the 319 program, CREP, and other state conservation practices and programs. She added that Illinois EPA has offered to do some in-kind monitoring of MRBI projects. Willhite also noted that the WQEC and UMRBA Board have been considering how to best work together as states to address nutrient and nonpoint source pollution issues.

Willhite then asked Benjamin if TNC has gained any insight into how much information is needed or wanted by producers when considering changes to practices, and whether they are interested in extensive information about the chain of impacts associated with excess nutrients in waterways. Benjamin responded that TNC's experience has been that producers are interested in being good stewards, but that they need financial incentives so that changes do not result in a net economic loss. She also indicated that producers are interested in the details regarding nutrient impacts, with local impacts being a more compelling motivator than Gulf Hypoxia. Mark Gorman concurred with Benjamin's observations regarding the importance of identifying local impacts and of protecting producers' financial bottom line.

Ambs said part of the challenge is that just one or two bad actors within a watershed can undo a lot of good work. Ambs said he wants to determine what it would take to go into a watershed and "do everything right," including monitoring, so that it would be possible to see the effects that BMPs are really having. Gorman commented that doing monitoring can be very expensive, but agreed that it is of critical importance to assessing outcomes. Benjamin noted that TNC uses a pre- and post- monitoring approach. Ambs suggested that it might be necessary to go to even smaller watershed scale, such as a 14-digit HUC, to really be able to implement and assess BMPs meaningfully. He emphasized his concern that it might be possible to expend all the funds in a program such as MRBI and still not be able to answer questions about the impacts of implementing BMPs.

Regarding producer participation, Tim Henry recalled the presentation to the Hypoxia Task Force by Craig Cox of the Environmental Working Group (EWG), which emphasized "carrots with strings" to induce producers to participate in BMPs. He added that an example of this might be to link eligibility for

crop subsidies with participation in a nutrient control program. Willhite concurred that Cox's presentation was well done and noted that it is now available on the EWG web site.

Gorman noted that US EPA and USDA are seeking to apply approaches from the Chesapeake Bay to other areas of the country. Willhite commented that USDA didn't really bring anything new to the table for the Chesapeake Bay. Henry noted that discussions in US EPA's Council of Large Aquatic Ecosystems have raised questions about how USDA is measuring success in its Chesapeake Bay work.

Benjamin commented that, despite specific concerns, USDA should be publicly praised for MRBI, which represents a step in the right direction and a willingness to target conservation spending. Wells noted that this was not the first time USDA had tried targeted, explaining that prioritization was part of EQIP, but that ultimately there was insufficient data to support targeting decisions. He added that this still appears to be a problem, and it is therefore difficult to select priorities and defend those priorities. Wells also explained that "carrots with strings" was part of the 1986 Farm Bill's erosion provisions, but that creating a tie to water quality was a whole new angle. Ambs concurred that there are definitely different perspectives and considerations for water quality vs. erosion control.

Northeast-Midwest Institute
Willhite next asked Gorman of the Northest-Midwest Institute (NEMWI) to provide his perspectives, including any insights he might have on how to engage the Congressional delegation. Gorman thanked Willhite and indicated that part of his job was to help make connections between state agencies and Congress. He identified the following divides on the Mississippi River:

- Between water quality and water flow/restoration groups/programs.
- Between the Upper Mississippi River and the Lower Mississippi River
- Between government agencies and NGOs.

Gorman emphasized the need to capitalize on opportunities as they arise and to make the River more of a day-to-day priority with a long-term focus. He also noted NEMWI's efforts to reinvigorate the Upper Mississippi River Congressional Task Force. Gorman further explained that the Task Force is still in need of Republican leadership. He also distributed a list he had developed of "Emerging Clean Water Policy Issues."

Willhite commented that it is important for the WQEC and WQTF to maintain communication with the Mississippi River Collaborative. She also suggested that an electronic newsletter could be one way to enhance visibility and share messages regarding Upper Mississippi River water quality.

Benjamin mentioned General Walsh's desire to establish a 200-year vision for the River, including a likely summit in 2010, and possible Executive Order. While acknowledging the limitations of a visioning process, Benjamin observed that it might provide an important opportunity to engage a wider range of players. Willhite observed that whether or not a vision is ultimately established, it is important to maintain some level of ongoing dialogue.

Gorman noted that the House Transportation and Infrastructure Committee has expressed some interest in exploring authorization of programs for large ecosystems such as the UMR, and he highlighted the newly formed Great Waters Coalition, an NGO-based group being led by the National Wildlife Federation.

Priorities and Next Steps

Naramore summarized her understanding of the WQEC's priorities, including:

- Designated use project
- 604(b) project
- Outreach efforts
- Non-point source and nutrient issues (including both what we do and how we communicate)

Ambs observed that good work continues to be done, despite difficulty gaining Congressional attention. He indicated that the UMRBA water quality efforts continue to fill a niche and that it will be important to continue building on the work completed to date. Willhite noted that all of the efforts thus far are part of assessing how we get from the current model to a better one, which still might include an interstate compact.

Willhite asked about the idea of initiating a newsletter. Naramore replied that UMRBA discontinued its previous newsletters due to the time required to produce them and redundancy with other information sources. She said that any new publications would need to be more streamlined and targeted to be effective. Ambs noted that Wisconsin DNR's Water Division is using a blog approach. Willhite suggested that an electronic newsletter to Congressional members might be appropriate.

In regard to NGO collaboration, Naramore said it might be appropriate to try and engage the Mississippi River Collaborative's nutrients work group more directly. Ambs indicated that Gayle Killam of River Network might be good contact point, and indicated that he would follow up with Killam.

Naramore said UMRBA staff would follow up further with Gorman regarding UMR Congressional Task Force. Willhite added that it would be important to sharpen up any future request for UMR water quality funding.

The WQEC members agreed to hold a conference call after the January 2010 Water Quality Task Force meeting and before the February UMRBA quarterly meetings. [Note: This conference call was subsequently deferred and is being rescheduled for late March or early April 2010.]

The WQEC meeting adjourned at 12:20 p.m.