

**Joint Meeting of the UMRBA Water Quality Task Force
and UMRBA Water Quality Executive Committee**

**May 3, 2007
Rock Island, IL**

Meeting Summary

Participants

Toby Frevert	Illinois EPA
Gregg Good	Illinois EPA
Matt Short	Illinois EPA
Chuck Corell	Iowa DNR
John Olson	Iowa DNR
Marvin Hora	Minnesota PCA
Gaylen Reetz	Minnesota PCA
Mohsen Dkhili	Missouri DNR
Rob Morrison	Missouri DNR
Todd Ambs	Wisconsin DNR
Jim Baumann	Wisconsin DNR
Bill Franz	U.S. EPA Region 5
Larry Shepard	U.S. EPA Region 7
Art Spratlin	U.S. EPA Region 7
Holly Stoerker	UMRBA
Dave Hokanson	UMRBA

Call to Order

The combined meeting of the Water Quality Task Force (WQTF) and Water Quality Executive Committee (WQEC) was called to order by Chuck Corell at 8:30 a.m.

Recognition of Marvin Hora

On behalf of the UMRBA Board, Todd Ambs thanked Marvin Hora for his service as chair of the Water Quality Task Force and presented Hora with a certificate of recognition from the UMRBA Board.

Designated Uses for the Upper Mississippi River

Opening Comments

Corell began the discussion with some observations regarding the effort to examine designated uses for the Upper Mississippi River (UMR). He stated that the goal of the effort is to better manage the UMR as a single resource, adding that designated uses are the place to start addressing this within the water quality standards framework.

Rob Morrison commented that it will be important not only to be able to identify existing differences in approach, but also to understand and explain why the differences exist. Corell concurred, noting that the UMR is not a homogenous resource.

Gaylen Reetz observed that this type of effort would need to develop incrementally, with goals set along the way, and an overall expectation of 5 to 10 years until completion.

Mohsen Dkhili asked if it would be important to understand why the differences exist between current uses before moving forward in attempt to make uses more compatible. Marvin Hora commented that there is currently a good deal of consistency between the States in their assignment of designated uses, but that differences arise in how the protection of these uses is implemented. He noted that all States have a warm water aquatic life use applied to the UMR, but also observed that not all States had a drinking water designated use in place for the UMR.

Report from the WQTF to the WQEC Regarding Designated Uses

Jim Bauman provided a report to the WQEC summarizing the discussions that had been held by WQTF to date regarding designated uses. His report included the following comments:

- The goal of today's discussion is for the WQTF to consult with the WQEC regarding the possibilities for addressing designated uses and, if there is agreement, jointly develop a work plan addressing the following project elements:
 - Scope
 - Expected level of effort, and
 - Pace of activity
- There is currently some interstate consistency on certain designated uses – such as the assignment of aquatic life uses – but that the categorizations may be outdated and in need of refinement. There is an opportunity to take a more current approach to designated uses on the UMR.
- There is a potential for subcategories to be used, such as one for submerged aquatic vegetation.
- More consistent UMR designated uses are a necessary foundation for applying more consistent UMR water quality criteria.
- Potential benefits of this effort, as identified by the WQTF include:
 - Improved communication both between States and with the public.
 - Improved consistency between states in regard to: fish consumption advisories, drinking water use assignment, and biocriteria development.
 - Better “fit” for a large river ecosystem through the application of aquatic life use subcategories.
- Possible obstacles facing this effort include:
 - Time and resource intensive nature of the project.
 - Lack of “political will” among involved agencies to make the project succeed.

U.S. EPA Perspective on Designated Uses

Baumann asked Larry Shepard to review the perspectives from U.S. EPA he had previously shared with the WQTF. Shepard provided a brief summary including the following observations:

- States have the authority to set designated uses for their waterbodies, but these must include “fishable” and “swimmable” uses.
- Elements of designated use revisions that U.S. EPA would encourage States to address include:

- A shift in focus from sport fishery-based to ecosystem-based aquatic life use protection.
- Explicit protection for fish consumption
- Consistent protection of whole body contact recreation.
- Protection of the drinking water use for the entire UMR.

Bill Franz added that, in general, U.S. EPA would like to see a shared waterbody such as the UMR addressed as a single resource, rather than through independent State-by-State approaches.

Designated Uses Case Studies

Chesapeake Bay

Rich Batiuk, Associate Director for Science with the U.S. EPA Chesapeake Bay Program Office gave, via conference call and presentation slides, a summary of the process by which habitat-specific designated use subcategories were developed for Chesapeake Bay.

Batiuk first provided an overview of the Chesapeake Bay and the Chesapeake Bay Program. He described the Chesapeake Bay watershed as covering approximately 64,000 square miles and including portions of six States, noting that the Bay is also characterized by a fairly shallow overall depth, but with a deep channel running down its center. The Chesapeake Bay Program was described by Batiuk as having 75 FTEs, 1/3 of which are EPA staff, with the remainder coming from the Program's other partners, including States, universities, and basin commissions. He added that there are over 1650 local jurisdictions which fall within the Chesapeake Bay.

In regard to designated uses, Batiuk described the effort to refine designated uses as critical to the Chesapeake Bay Program, as it allowed for a common vision to be developed among the six States for the implementation of the Clean Water Act in the Bay. He noted that before the effort commenced, 90% of the Bay and its associated tidal rivers were listed as impaired (in the 1998 impaired waters list), States' water quality standards as applied to the Bay were different, and the threat of lawsuits was apparent.

Batiuk stated that the Chesapeake 2000 agreement sought to restore and protect key species (rockfish, oysters, and crabs), critical habitats, and water quality. He further described three steps set out by Chesapeake 2000 as: 1) measure the existing water quality in the Bay, 2) determine what level of pollution reduction is needed to restore the Bay, and 3) identify actions necessary to achieve reductions in pollution levels, with a goal of achieving many of the desired improvements by 2010.

Batiuk said the water quality standards that were applied by the States to the Bay were not only different, but did not appear to be attainable, even under "natural" conditions and that updated science needed to be applied in revisiting use designations for Bay. He added that the process of revising designated uses began by looking at the habitats to be protected in the Bay.

Batiuk described the outcome of the designated use effort as developing "local zoning" for the Bay to protect key species and habitats. He noted that the habitat-specific use categories developed for the Bay were:

- 1) Migratory fish spawning and nursery use
- 2) Shallow water bay grass use
- 3) Open water fish and shellfish use
- 4) Deep water seasonal fish and shellfish use
- 5) Deep channel seasonal refuge use

Batiuk added that dissolved oxygen criteria were developed for all of the use categories, except for the shallow water bay grass use, for which a clarity criterion was established. (There is also a chlorophyll *a* criterion established for the open water use.) He added that some uses/criteria only applied seasonally and noted that a jointly-developed criteria document was also completed for the Bay and its refined designated uses.

Batiuk described some of the advantages of the refined designated uses as follows:

- Improved communication to the public about how the Clean Water Act is tied to the protection of key resources.
- Adapted uses and criteria to seasonal conditions and species' needs.
- Allowed for explicit protection of bay grasses via a clarity criterion.

Batiuk next provided an overview of a “six-State use attainability analysis” that was completed to both demonstrate that previously assigned uses and criteria were not attainable even under “pristine” conditions and that the revised uses and criteria would be protective of the Bay’s aquatic life. He also noted that the habitat-specific aquatic life uses were designed as subcategories of the States’ overall aquatic life use designation, rather than a replacement for this designation.

In addition to the incorporation of the refined uses into State water quality standards, Batiuk noted that the States also developed an agreement on their approach to 303(d) listings for the Bay. He added that a basin-wide approach to permitting was also an outgrowth of this effort.

Rob Morrison asked how the dissolved oxygen (DO) criteria were developed and, in particular, how a level of DO associated with an “anthropogenic-free environment” was identified. Batiuk replied that both research on conditions existing before development and observation of existing healthy ecosystems provided reference points for estimating pre-settlement DO levels.

Morrison asked what the expenses were in carrying out research for the Chesapeake Bay effort. Batiuk replied that much of the research had already been done, so there was not a great need to pay for original research. He noted that the UAA was done through a contractor and that \$1-3 million is spent on monitoring each year at 167 monitoring stations. Batiuk emphasized that staff shared by partner organizations were critical to making progress, and that a few motivated individuals were central to the project moving forward.

Morrison asked how changes to the Chesapeake Bay standards were achieved, noting that Missouri has been instructed not to take economics into consideration in standards revision. Batiuk replied that the criteria were developed on a science-only basis, but the selection of where the criteria applied in the Bay was made on an attainability basis.

Corell asked whether the States amended their standards narrowly for applicability of uses/criteria just to the Bay, or whether changes to standards were more broadly applicable.

Batiuk replied that the changes have only applied to the Bay so far, but that the changes made for the Chesapeake Bay raised the issue for States about taking similar approaches for other waterbodies.

Gregg Good asked whether there had been any work in the Chesapeake Bay regarding primary contact recreation uses and/or fish consumption advisories. Batiuk responded that a Toxics Subcommittee has been working on issues related to fish consumption advisories, but less progress has been made regarding primary contact recreation use.

Holly Stoerker asked what initiated work on the project. Batiuk replied that it was the possibility of a basin-wide TMDL, along with a recognition of the inconsistencies between States that spurred action. Additionally, he noted that the States moved forward together, providing “strength in numbers” and that this eventually led to relatively smooth adoption of changes to States’ water quality standards.

Hora asked what the administrative structure was that supported this effort. Batiuk answered that there was a Water Quality Steering Committee composed of water quality administrators from the States who gave direction to a shared staff that was performing this work.

(At this point, the call with Batiuk ended and was followed by a discussion among the WQTF and WQEC of the material presented by Batiuk.)

Discussion of Chesapeake Bay Approach to Designated Uses

Stoerker noted that a goal was first identified for the Chesapeake Bay, which then empowered specific subsequent action. Morrison added that they had a threat looming, a basin-wide TMDL, that motivated action. Toby Frevert concurred, observing that there is not a similar driver on the UMR at this time, in terms of the resource itself or potential regulatory/legal action. Franz observed that, if a similar effort were to be pursued for the UMR, it would be important to mutually decide on the resources to be protected.

Corell observed that the holistic approach taken for the Chesapeake Bay could be beneficial on the UMR as well. However, he cautioned that it would be a very long process to reach conclusion and that it is important to focus on what can be accomplished in the next 5 years, at a minimum maintaining coordination between the States.

Hora commented that taking this approach on the UMR would essentially mean applying “tiered aquatic life uses” to the River.

Stoerker asked the group how they wanted to proceed, whether they wanted to simply continue coordinating on designated uses or undertake the broader effort to define a unique set of uses for the UMR.

Frevert commented that an effort to examine unique uses would, at minimum, develop a better understanding by State Clean Water Act staff of the resources to be protected on the UMR.

Morrison suggested that there should also be consideration of how recreational uses would be applied to the UMR in a more coordinated fashion.

Corell asked the group where effort should begin, realizing that there are limited resources to implement activities.

Reetz proposed an approach including:

- 1) Improved communication by the WQEC and WQTF regarding their goals, obstacles, and progress made to date,
- 2) Continuing coordination of States' programs, and
- 3) Development of "tiered aquatic life uses" for the UMR.

Missouri's Use Designations for the UMR

Morrison provided an overview of the use attainability analysis (UAA) that has been conducted for a segment of the UMR in the St. Louis metro area. He described the process where the uses assigned to the UMR from the Missouri River to the Ohio River had been reviewed in light of the potential need for disinfection to be added to the treatment of St. Louis' waste water in order for the whole body contact recreation use to be protected. Morrison noted that the UAA had been conducted by the Metropolitan St. Louis Sewer District. He added that the Missouri Clean Water Commission had initially recommended the removal of the whole body contact use from nearly 200 miles of the UMR from St. Louis to the Ohio River, but had subsequently revised the change to removal of the use on a 30-mile long segment from the St. Louis to the Meramec River. Morrison reported that the UAA is currently being reviewed by US EPA Region 7.

In regard to interstate coordination on the UAA, Morrison commented that Illinois' decision regarding the Sauget, Illinois treatment plant had been considered by Missouri in the UAA process, but that otherwise Illinois was not specifically consulted.

Art Spratlin commented that the issue is focused around whether or not the Metropolitan St. Louis Sewer District will be required to disinfect. Corell asked whether disinfection would still be required if the use was changed to secondary contact recreation. Morrison indicated that disinfection would not be required in that case. Spratlin commented that cost estimates for disinfection in St. Louis are approximately \$750 million. Frevert added that there is a similar situation in Chicago where approximately \$1 billion would need to be spent on three treatment plants to install disinfection.

Morrison observed that it might be possible to consider "tiered recreational uses" that are analogous to "tiered aquatic life uses."

Franz noted that restoration plans are being developed for the UMR in the area that is the subject of this discussion.

Frevert commented that a complicating factor here is that questions have been raised regarding EPA's bacterial criteria guidance.

WQTF/WQEC Approach to Designated Uses

Corell commented that the WQTF and WQEC appear to have an endgame in mind – the development of tiered aquatic life uses for the UMR, but that the question is how that goal is to be reached. Baumann concurred, adding that it is important to consider how this effort will be pursued as a priority in relationship to other water quality work efforts.

Reetz suggested that the goal should be defined regardless of resource constraints, and then resources should be identified/leveraged to meet that goal. He noted that it might be possible to identify a contractor to work on tiered aquatic life uses.

Frevert commented that there is inherent value in understanding the river better, regardless of whether uses are adopted into State rules. John Olson commented that investigating tiered aquatic life uses for the UMR is appealing. Matt Short added that LTRMP and EMAP programs have existing resources that can be referenced in such an effort.

Frevert noted that any outcome must be defensible and communicated to the public. Olson suggested that refined use classifications may help target impairment identifications.

Baumann noted that if progress is to be made in this area, it will be important to engage other individuals/institutions who can provide information and experience. He suggested that the first year of any project to address refining designated uses may simply be able to answer the question of whether a full effort is feasible and likely to be successful.

Water Quality Task Force Report to the Water Quality Executive Committee

Baumann next provided a report to the WQEC from WQTF covering those areas other than designated uses that the WQTF has been addressing, including fish consumption advisories (FCAs), sediment-related water quality criteria, assessment/listing consultations, and perfluorochemicals (PFCs).

Fish Consumption Advisories

Baumann reminded the group that one of the main objectives of the WQTF's FCA work has been to improve consistency between States' advisories in order to help improve consistency in States' impairment listings. He noted that since the 2005 WQTF report on FCAs, progress had been evidenced by Iowa's changes to become more compatible with neighboring States. However, Baumann reported that it has been challenging to move forward on the 2005 report's recommendation identified by the WQTF as a logical next step – the development of a minimum sampling approach for the UMR States. He noted that a January conference call with State FCA staff brought out several obstacles limiting further progress, including: resource/funding constraints, Clean Water Act outcomes as outside the scope of work of State FCA programs, north-south UMR FCA consistency not being seen as a high priority by State FCA staff, limited empowerment of FCA staff to make changes necessary to improve consistency, multiple agencies within a single State needing to coordinate on FCAs, and the strong allegiance to Great Lakes Protocol in some States that may prevent State FCA staff from considering any potential changes to protocols.

Baumann characterized options for further action as:

- No action.
- Facilitating “steps in the right direction”, including:
 - Comparing existing protocols (Great Lakes, RAFT, and ORSANCO).
 - Encouraging and improve data sharing.
 - Hosting an annual meeting of UMR FCA experts.
 - Working to develop consistent UMR-wide messages regarding fish consumption.
 - Addressing emerging issues such as PFCs.

Baumann stated that the WQTF needed feedback from the WQEC on:

- The opportunities for encouraging coordination between States and within States on FCA work.
- How to address the other obstacles facing further progress on FCAs, and
- What priority the WQEC sees for this effort versus other ongoing water quality efforts.

Corell commented that it is important to have another area, aside from designated uses, where progress is being made in coordination. He also asked the group what the connection point(s) were between FCAs and water quality standards.

Baumann replied that in Wisconsin there is not a link in standards explicitly, though FCAs are considered in the assessment & listing process (via narrative water quality criteria). He noted that EPA's recent methyl mercury criteria guidance document also helps establish a more direct link. Hora commented that Minnesota also makes the linkage via their narrative criteria in assessing the "fishability" of waterbody. He added that Minnesota will be adopting the methyl mercury criteria by the end of the year. Corell noted that Iowa is creating a "human health" use that may help make the connection.

Good described Illinois' approach by stating that an FCA is viewed as an advisory, but not a violation. Frevert expanded on this, explaining that the advisory is considered a method of measuring attainment of a use, but not a violation of a standard. He added that it was unlikely that advisories would be incorporated into Illinois' standards.

Spratlin asked whether it was possible for WQEC members to approach State health directors in pursuit of a UMR-specific approach to FCAs. Frevert commented that this was not likely to be a priority for State health departments.

Sediment-Related Water Quality Criteria

Dave Hokanson provided a brief summary of the status of the sediment-related water quality criteria project, noting that the final "issue paper" for the project had been completed in February 2007 and had included the following three recommendations for further action:

- 1) Development of a guidance document for sediment-related water quality criteria on the UMR, focusing first on suspended sediment in the upper portion of the UMR,
- 2) Drafting of a white paper to more thoroughly investigate issues related to sedimentation, and
- 3) Completing a research needs list to identify areas where further information is needed to support progress in developing sediment-related water criteria.

Baumann suggested options for further action as including:

- Preparing a research needs list/research recommendations.
- Encouraging States to move ahead with impairment listings related to sediment as they see appropriate.
- Working on sediment criteria in conjunction with the designated use effort.

Interstate Consultation on 305(b) Assessment and 303(d) Listing

Baumann summarized the most recent consultation, held at the previous day's WQTF meeting, noting that consistency seems to be increasing over time as the result of increased

communication, that States are moving toward an integrated reporting approach, and that further progress is likely to be limited by differences in States' water quality standards.

Hokanson noted that the "map chart" of impairment listings maintained by UMRBA, while valuable in summarizing impairments, does not necessarily capture the progress that has been made in improving consistency between States.

Corell asked whether the utility of the consultations has "peaked" in terms of their ability to encourage consistency and if a new approach was needed to improve the effectiveness of the consultations. Shepard commented that the designated use effort may open up new areas for cooperation. Olson added that continued conversation is likely to lead to continued improvements in consistency. Baumann noted that there are "peaks and valleys" in the consultation process. Shepard observed that differences in timing of assessment/listing between states also make the consultation more challenging.

Perfluorochemicals (PFCs)

Hora provided background information on PFCs, including the following:

- PFCs were used in the production of many substances, including pesticides and Scotchguard.
- At one point, up to 80,000 pounds of PFCs were discharged annually to the Mississippi River in Minnesota.
- PFCs are virtually indestructible in the environment.
- As a result of the presence of PFCs in fish tissue, consumption advisories have been issued for the Mississippi River (to Pool 6) and Lake Calhoun.
- It is possible that the fish consumption advisories may lead to associated impairment listings for the Mississippi River in Minnesota.
- Higher concentrations of PFCs have been found in small bluegills, a pattern opposite of that seen for other compounds.
- MPCA now has a 26-person team working on PFCs.
- PFCs are likely to be very prevalent in the environment, so that "if you look for it, you will find it".
- There is currently limited lab capacity for PFC fish tissue analysis, with only two labs currently doing the analysis. Analyses are also relatively expensive.

Todd Ambs thanked Baumann for the report, encouraging the WQTF to keep working in areas where there have been successes and encouraging all to "tell the story" of the progress being made in interstate cooperation on the UMR. He suggested that materials could be developed for distribution which summarize the efforts and successes of UMRBA's water quality programs. Good concurred, suggesting the development of a fact sheet noting successes to date.

Travel Reimbursement Policy

Stoerker reviewed the travel reimbursement policy for UMRBA water quality committees, as adopted by the UMRBA Board, which limits reimbursement to those States who have paid their "water quality assessment" in the current or preceding fiscal year.

Adjournment

The joint meeting of the WQTF and WQEC adjourned at 12:15 pm.