

**Upper Mississippi River Basin Association
Water Quality Task Force
January 16-17, 2008
Davenport, Iowa**

Meeting Summary

Participants

Gregg Good	Illinois EPA
John Olson	Iowa DNR
Marvin Hora	Minnesota PCA
Mohsen Dkhili	Missouri DNR
Carl Wakefield	Missouri DNR
Jim Baumann	Wisconsin DNR
John Sullivan	Wisconsin DNR
Holly Arrigoni	U.S. EPA Region 5
Bill Franz	U.S. EPA Region 5
Ed Hammer*	U.S. EPA Region 5
Dave Pfeifer*	U.S. EPA Region 5
Larry Shepard	U.S. EPA Region 7
David Bolgrien	U.S. EPA Office of Research and Development
Barry Johnson*	USGS Upper Midwest Environmental Sciences Center
Ken Lubinski*	USGS Upper Midwest Environmental Sciences Center
Dave Hokanson	UMRBA
Holly Stoerker	UMRBA

*January 16th only.

Call to Order

The Water Quality Task Force (WQTF) meeting was called to order by Jim Baumann, WQTF Chair, at 8 a.m.

General Agency Updates

Each agency present provided updates on matters other than 305(b) assessment and 303(d) listing, as assessment and listing were to be discussed during the interstate consultation on January 17th.

Wisconsin

Jim Baumann reported on Wisconsin's recent work to development nutrient criteria and promulgate new rules, indicating that these items would be presented at an advisory panel meeting in February. He also noted that there is a new Secretary (agency head) and Deputy Secretary at the Wisconsin DNR, clarifying that Todd Ambs, DNR Water Division Administrator, as well as UMRBA Board and Water Quality Executive Committee member, would be staying in his position.

Illinois

Gregg Good noted that most of his comments would be focused on assessment and listing work, to be discussed later in the meeting. In addition, he commented that results of PFC monitoring (also to be discussed later in the meeting) were of interest to Illinois. Finally, Good highlighted the upcoming SWiMS conference to be held by U.S. EPA Region 5 in Chicago, noting that he and other Illinois EPA staff would be giving presentations as part of the conference.

Iowa

John Olson reported that Iowa continues to move toward finalization of its 2006 impairment list. Also, he added that Iowa is working on nutrient criteria, currently focusing on criteria supporting primary contact recreation use in lakes, and then moving to aquatic life use in lakes and eventually to criteria for streams and rivers. Olson noted that Iowa is re-working its chloride criteria, moving away from a criterion associated with total dissolved solids and towards separate criteria for chloride and sulfate.

Minnesota

Marvin Hora reported that Minnesota had just completed its triennial standards review, which included: nutrient criteria for lakes, a revised mercury criterion for fish tissue, and new criteria for the pesticides acetochlor and metolochlor. He noted that Minnesota's mercury TMDL implementation plan, which aims for a 90% reduction of mercury by 2015, should be ready in approximately three months. Hora commented that power companies are working the MPCA in working to achieve the goals for mercury reduction. Finally, he noted that MPCA would be participating in an endocrine disruptors monitoring effort that would include sites on the Mississippi River.

Missouri

Mohsen Dkhili reported that the Missouri Clean Water Commission had recently approved Missouri's methodology for the development of the 2008 303(d) impaired waters list, noting that the methodology is available on the internet (see <http://www.dnr.mo.gov/env/wpp/waterquality/documents/2008-methodology.pdf>). He added that Missouri also continues to work on nutrient criteria for lakes. Dkhili also noted that Missouri DNR is very busy with use attainability analysis (UAA) work at this time, explaining the focus of this work is on small streams less than a meter in depth, where Missouri DNR's position is that whole body contact recreation is not an attainable use in these cases.

U.S. EPA Region 5

SPARROW Model: Bill Franz highlighted the upcoming web conference regarding SPARROW modeling of Mississippi River Basin nutrient loading, which is scheduled for January 24, 2008. He noted that the SPARROW model currently breaks out nutrient contributions by 8-digit HUC watersheds, a total of 842 watersheds, and that in the future it will break out to 12-digit HUC watersheds. Good asked Franz how U.S. EPA intended to use the results of SPARROW modeling. Franz replied that U.S. EPA will seek to work the USDA Natural Resource Conservation Service (NRCS) to target conservation program investment toward the watersheds making the greatest contribution to nutrient loading.

Early Warning Monitoring: Franz also commented on U.S. EPA's effort to establish early warning monitoring stations on the Upper Mississippi River. He reported that he and Joel Allen (U.S. EPA-ORD, Cincinnati) have collaborated with the Minneapolis Water Works to establish the first station on the UMR which incorporates conventional parameter monitoring (using a YSI multiparameter probe), UV-based monitoring for hydrocarbons (using a scan spectrometer) and a biological monitor (which measures mussel gape response). Franz added that he and Allen are working to place additional stations at St. Cloud, Minnesota, Muscatine, Iowa and possibly Coon Rapids, Minnesota within the next year. Finally, he noted that the Iowa DNR is also seeking to establish a station at Lock and Dam 14.

SWiMS Conference: Holly Arrigoni provided additional information regarding the 7th Annual Region 5 SWiMS meeting to be held in Chicago March 18-20, 2008. She encouraged anyone who has an interest in the meeting to contact her (see also <http://www.epa.gov/region5/water/wqb/swims.htm>).

U.S. EPA Region 7

Upcoming Conferences: Larry Shepard informed the group that the Missouri River Natural Resource Conference would be held February 26-28 in Nebraska City, Nebraska. He added that the EPA 2008

Wetlands and Watershed Conference (see <http://www.08wetlandswatershed.com/>) will be held April 7-11, 2008 in Kansas City, Missouri.

Missouri River Water Quality Issues: Shepard briefly described an effort by U.S. EPA Regions 7 and 8 to bring together a water quality work group for the Missouri River. He added that this effort is being driven by the development of nutrient criteria for the Missouri River, but noted that progress has been limited due to the size of the basin and associated logistic and cost issues.

Shepard next elaborated on a situation he mentioned at the September 2007 meeting of the Task Force, where a habitat restoration effort resulting in the introduction of soil into the Missouri River as part of an excavation to restore side channel habitat. He noted the Missouri Clean Water Commission had objected to the introduction of sediment, and associated nutrients, to the Missouri River resulting from this project, and that U.S. EPA Region 7 had become involved because of the potential connection to hypoxia as a result of nutrient introduction. Shepard explained that the U.S. Army Corps of Engineers had agreed to stop the introduction of soil pending the outcome of a National Academy of Sciences (NAS) study. Finally, he noted that all of this activity was taking place in the context that the lower Missouri River currently carries approximately 25% of its historic sediment load. Ken Lubinski asked Shepard why the NAS has become involved in this issue. Shepard responded that it was likely that NAS' work here would be similar to the recently completed effort regarding the Mississippi River and that it would probably be largely a review of existing data, but might incorporate an examination of downstream impacts of the soil introduction. He added that Dave Soballe (USACE), who was on the NRC panel for the Mississippi River report, was also to be involved in the NAS work on the Missouri River.

Missouri River Ecosystem Restoration Issues: Shepard mentioned the formation of the Missouri River Recovery Implementation Committee (MRRIC) and its efforts to develop a mission statement, charter, and other formative documents. He added that the group is seeking to determine whether its mission is limited to the recovery of threatened and endangered species, or is possibly broader in nature in regard to ecosystem recovery generally (see <http://missouririver.ecr.gov/> for details). Shepard also noted the Missouri River Ecosystem Recovery Program, which he described as an attempt to take a "NESP-like" approach to navigation and ecosystem restoration on the Missouri River.

U.S. EPA Office of Research and Development

David Bolgrien reported that the EMAP program had received more funding than previously anticipated for FY 08 and that EMAP would be able to carry out more activities than it had anticipated for the current year. He also noted that the National Survey of Rivers and Streams would be going forward this year; with training to take place in March 2008 (more details about the Survey were provided during Bolgrien's presentation on January 17th to the Task Force).

Upper Mississippi River Conservation Committee-Water Quality Technical Section

John Olson noted that the upcoming annual meeting of the Upper Mississippi River Conservation Committee (UMRCC) would be held March 18-20, 2008 in Collinsville, Illinois. He also reported on the recent meeting of the UMRCC-Water Quality Technical Section in Alton, Illinois which was attended by representatives of all five states, including staff from 4 of the states' Clean Water Act agencies. Olson noted that topics addressed at the Tech Section included: effects of drought on Pool 26 (presentation by Ben Lubinski), effects of August 2007 rains on Pools 6-11 (presentation by Terry Dukershein), a discussion of pesticide monitoring on the UMR, a report on UMRBA water quality activities including the Governors' joint statement on UMR water quality, and the UMRCC's draft statement on climate change. He added that the meeting included a tour of the Mel Price lock and dam.

Upper Mississippi River Basin Association (UMRBA) Board and Water Quality Executive Committee
Dave Hokanson provided a summary of UMRBA water quality activities undertaken beyond the WQTF, primarily by the UMRBA Board and the UMRBA Water Quality Executive Committee (WQEC), which had occurred since the last occurred since the last meeting of the WQTF.

Response to NRC Panel Report: Hokanson reported that the UMRBA Board and the WQEC had discussed the recent NRC panel report on the Mississippi River and the Clean Water Act during the November 2007 joint meeting of the Board and the WQEC. He explained the Board decided to draft a response to the report, in collaboration with the WQEC, which would be transmitted to the U.S. EPA and to Congress. Hokanson distributed a copy of the response letter that was transmitted to EPA Administrator Stephen Johnson and Assistant Administrator Benjamin Grumbles on December 13, 2007. He noted that the response largely concurred with the NRC panel's identification of the water quality challenges facing the River, but in addition emphasized the importance of interstate efforts such as those being undertaken by the UMRBA in addressing UMR water quality. Hokanson added that a similar letter, presented in a modified format, was sent in January to members of the Congress representing UMR states.

Hokanson and Baumann asked whether the WQTF members had any other comments on the NRC panel report. Baumann noted that UMRBA was held up as model for collaboration, but observed that much still needs to be done on the UMR. He added that Wisconsin DNR had received some media inquiries at the time the report was released. Shepard commented that the Region 7 Administrator John Askew had personally replied to a media inquiry regarding the report, but that the resulting news story was quite brief. He added that he was not anticipating that U.S. EPA would make any formal comment on the report.

Comments on Draft 2008 Gulf Hypoxia Action Plan: Hokanson explained that the UMRBA Board had also decided to work with the WQEC in making comment on the draft 2008 Gulf Hypoxia Action Plan. He described the main points of the UMRBA's December 31, 2007 comment letter as: highlighting the need for additional and dedicated funding to address hypoxia, noting that targeting of resources is reasonable but is not a substitute for an overall increase in investment, emphasizing the need for state programs to focus on their primary mission of protecting "local" water quality, and clarifying UMRBA's potential role in regard to water quality data sharing.

Hokanson added that the UMRBA had also been asked to speak with the Hypoxia Task Force during their meeting in Cincinnati on October 29, 2007, as the Hypoxia Task Force had an interest in the recent Governors' statement on UMR water quality and the UMRBA's water quality activities in general. Hokanson related that he had represented the UMRBA at this meeting and provided an overview of the UMRBA and its water quality efforts to the Hypoxia Task Force.

WQEC Confirmation of Designated Uses as Priority Project: Hokanson reported that, during its November 2007 meeting, the WQEC had re-affirmed that the designated uses examination should be the priority project for the WQTF to address.

Outreach to U.S. EPA Regions: Hokanson reported that he and Baumann had met with U.S. EPA Region 5 staff on November 6, 2007 to discuss UMRBA water quality efforts generally and get feedback on the designated use project specifically. Both Baumann and Hokanson described the meeting as successful. Hokanson noted that he and Chuck Corell (WQEC Chair) would be making a similar visit to U.S. EPA Region 7 on January 22, but that this visit would also include a meeting with Regional Administrator Askew. Franz commented that Askew had sought Region 5 Administrator Mary Gade's support in categorizing the Mississippi River as an "aquatic resource of national significance."

Potential U.S.EPA Support of UMRBA Work: Hokanson reported that he had been working with Bill Anderson, Water Policy Staff Director for EPA Assistant Administrator Grumbles, regarding opportunities for U.S. EPA support of the UMRBA's water quality work. Among the possibilities discussed, Hokanson noted that the opportunity for an interagency personnel agreement (IPA) was currently being pursued and that the UMRBA had sent a request to initiate an IPA to U.S. EPA on January 14, 2008.

Finally, Hokanson commented that recent activities had both raised the profile of UMRBA's water quality work and potentially raised the stakes associated with this work being successful.

UMRBA Designed Use Project Overview and Summary

Hokanson gave a presentation reviewing the rationale for UMRBA's investigation of designated uses on the Upper Mississippi River and the history of the project since its initiation as a work area in November 2006. He noted that the focus of today's discussions grew out of need identified by the WQTF in their September 2007 meeting to learn more about UMR habitats before continuing any further into the potential development of habitat-specific aquatic life use subcategories.

Sullivan asked what the trigger had been to look into habitat-specific subcategories. Hokanson replied that the most specific trigger had been the presentation by Rich Batuik of the Chesapeake Bay Program to the WQTF and WQEC in May 2007. He added that one of the primary tasks of this meeting was for the WQTF to evaluate how to move forward with considering habitats in the framework of designated uses, even if the ultimate approach ended up being different from what was done for the Chesapeake Bay.

Hokanson noted that the WQEC has seen the designated uses project as a "foundational" approach, and one that can help improve consistency in the states' Clean Water Act programs on the UMR. He elaborated that examining designated uses could potentially address both issues in consistency and improve the overall protection of the resource, particularly in regard to aquatic life. Hokanson observed that it is possible to be consistent without providing the optimal protection of the resource, and therefore considerations of both consistency and protection were important to keep in mind. He described potential issues in consistency and (aquatic life) protection as follows:

Consistency Issues (All Uses)

- **Terminology:** All the states apply the "big three" designated uses (aquatic life, contact recreation, and drinking water) to the UMR. However differing language is employed in each state to describe these uses, and is not intuitive for the non-expert observer to glean that similar use designations may in fact be in place.
- **Fish Consumption:** Generally, protection for fish consumption is provided in the implementation of the designated uses. However, protection for fish consumption is not made explicit in all states' uses.
- **Drinking Water:** The drinking water use is applied in two states to the entire UMR reach within those states, applied to specific portions of the UMR in one state, and is not applied in two states.
- **Recreation:** In the reach of the UMR south of the confluence with the Missouri River, Illinois applies a contact recreation use, but Missouri does not.
- **Criteria:** Diverse descriptions of uses may contribute to the differences in the states' criteria applied to protect uses.
- **Communication:** While much of the issue regarding designated uses may be about the communication of their protection intent, this is not an insignificant or unimportant area to address.

Protection Issues (for the Aquatic Life Use Specifically)

- Do the uses address the River's geographic diversity and condition as a partially impounded waterway?
 - Do use assignments take into account non-main channel areas?
 - Specifically, are the uses appropriate for backwaters and side channels? Do they lead to the criteria these areas need for protection?
 - Are the existing uses appropriate descriptors for the main (navigation) channel?
- What is really the protection intent of the aquatic life use? Does it include:
 - Fish/fisheries?
 - Fish consumption?
 - Habitats?
 - Vegetation?
 - Other species (waterfowl, etc.)?
- Do the uses aid seasonal application of criteria (when needed)?

Having reviewed potential issues in consistency and protection, Hokanson next provided a summary of the rationale behind investigating designated uses and the potential benefits of refining designated uses. He noted that this summary was drawn from earlier conversations with the WQTF and WQEC, as well as his own reflection on the issues. Hokanson's summary of the rationale behind and potential benefits of refining designated uses was as follows:

Rationale for/Potential Benefits of Refining Designated Uses (All Uses)

- An opportunity to jointly revisit projection goals for the UMR under the CWA. Allowing the states speak with a unified voice on protection goals.
- An opportunity to start with a "blank slate" and look at the system as a whole at the most basic level of the CWA.
- Improved consistency in the characterization of the river (uses), goals for water quality (criteria), assessment (monitoring), and evaluation (305(b) assessments & 303(d) listings).
- Adapting standards to the unique nature and diversity of the river, leading to better protection of the resource.
- May build base for comprehensive monitoring efforts and helps facilitate data sharing.
- Better ability to address off-main channel areas such as backwaters.

Rationale for/Potential Benefits of Refining Designated Uses (for the Aquatic Life use specifically)

- Better ability to communicate to the public about natural resources being protected by the CWA.
- Better ability to communicate among states about protection goals for aquatic life.
- Identifying key species and key criteria, including explicit criteria to protect key species.
- Facilitate geographic and seasonal applicability of criteria (such as for SAV protection).
- Refine and target monitoring and assessment by focusing on key criteria at key times in key places.
- Build connections to ecosystem restoration efforts and data collected under these efforts.
- Improved understanding of the River's habitats and its diversity among CWA program staff.

Hokanson next briefly reviewed the approach taken for the Chesapeake Bay, where: 1) habitats were identified and delineated, 2) designated uses were developed to match these habitats, and 3) criteria were developed to be protective of the refined designated uses.

Having completed the review of the designated use project, Hokanson presented the goals for this meeting of the WQTF as follows:

Meeting Goals

- Learn as much as possible about UMR habitats (and associated water quality characteristics). Ask questions of river scientists to gather this knowledge. Use this information to help assess the applicability of a Chesapeake Bay-style approach to UMR aquatic life uses.
- Determine what can be applied from existing river programs (LTRM, EMAP) in considering designated use refinements.
- Obtain input and guidance from EPA regional staff regarding the potential refinement of UMR designated uses.
- Develop a work plan to continue progress in examining designated uses (not only aquatic life, but other uses including recreation, drinking water and fish consumption).

UMR Habitats Primer

Ken Lubinski of the USGS' Upper Midwest Environmental Sciences Center (UMESC) gave a "UMR Habitats Primer" to the WQTF, providing background information to the group regarding habitat concepts, dynamics, and considerations relevant for the UMR. The following were highlighted during Lubinski's presentation:

Habitat Concepts

Habitat can be challenging to define. Approaches to habitat definition include:

Species approach. However, this does not deal well with thresholds or the needs species may have to occupy different habitats during different life stages and/or seasons.

Landscape approach. In this approach, boundaries are drawn without considering individual species, but in light of landscape characteristics.

Sampling strata. Habitats in this approach are considered as sampling strata. This concept is more in line with the landscape approach than the species approach.

Landscape Characteristics and Dynamics

Significant considerations regarding the dynamics of the river and associated landscapes include:

- In the impounded portion of the UMR, the elevation gradient is not as steep as in other areas of the river. This reduces the amount of energy carried by the river.
- Changes in the river over time and with glacial dynamics have led to a relatively flat transverse channel (bluff-to-bluff). This "flatness" of the river is important because a relatively minor change in overall discharge can result in significant areas of flooding or draining, dramatically changing the associated habitat classification in affected areas. Also, high elevation points along the main channel are significant as they are natural banks that provide some limitation to flooding and draining.
- The flood zone of the river is very important in terms of ecological value.
- The current state of the river is altered and not sustainable. Over time, it is likely that more delta formation in channels will take place.

- There has been a decline in bathymetric diversity in the river post-impoundment.
- In the lower portions of the UMR, most water – both historically and currently – flows in a single channel.
- The presence of the National Wildlife Refuge on the upper UMR has limited the construction of levees in this area.
- Sediment discharge has increased on the UMR from historic levels. However, sediment discharge on the Missouri River is lower than historic levels.
- Each pool (on the impounded reach) has roughly 8000 hectares of open water.

Lateral Features

Lubinski's description of lateral features of the UMR included the following observations:

- The structure of the main channel and secondary channels can be quite similar.
- Tributary channels are important to river morphology.
- Habitat distinctions are best described as a gradient (rather than sharp divisions). Distinctions are also greatly impacted by dynamics. Even isolated backwaters, the most unique distinction, are strongly affected by river flow.
- Water quality characteristic gradients, such as those for turbidity and dissolved oxygen, can be reversed depending on flow condition.
- Under certain circumstances, primary production in the main channel can rival that in the backwaters.

Discussion

Following Lubinski's presentation, the WQTF further discussed UMR habitat classifications and considerations, as described in the following paragraphs.

Baumann commented that the Knox's geomorphic reach designations for the UMR were largely terrestrial in nature, and asked Lubinski to describe aquatic breakpoints on the UMR. Lubinski described the five "natural" aquatic breakpoints on the UMR as Saint Anthony Falls, Lake Pepin, Rock Island Rapids, Keokuk, and Thebes. However, he added that it may be worth considering tributaries which contribute significant amounts of sediments and/or nutrients as breakpoints, referencing Meade as a resource on this type of approach. Lubinski also noted that the Long Term Resource Monitoring Program (LTRMP) considers the UMR in three primary reaches: upper impounded, lower impounded, and unimpounded reaches.

Olson asked whether, in LTRMP study pools, all the aquatic areas (sampling strata) had been defined and mapped. Lubinski replied that this had been done. Olson commented that putting the available information into practice now appeared to be the challenge. Lubinski offered that it may not be necessary to try and categorize the entire river, but rather to look for key areas – such as those to important to the support of submerged aquatic vegetation.

Sullivan observed that Clean Water Act assessment of the River hadn't really moved beyond the main channel. He then asked whether the LTRMP will be developing indicator(s) of backwater quality – to indicate whether a backwater is "good" or "bad." Lubinski replied that any such effort would need to take into account the values stakeholders see in the backwaters.

Sullivan added that EMAP sampling has been longitudinal, while LTRMP sampling has had a lateral component. Barry Johnson commented that EMAP was developing indices for the main channel. David Bolgrien noted that EMAP's most specific focus was the "main channel border" habitat.

Sullivan commented that multiple habitats can exist within a single aquatic area. Lubinski concurred, adding that seasonal conditions can affect the habitats present in an individual aquatic area. Baumann followed up on the idea of seasonal variability, asking which of the aquatic areas was least likely to experience seasonal variability in habitat characteristics. Lubinski answered that the main channel is the most stable and uniform, while isolated backwaters are more variable.

Olson commented that, from a Clean Water Act program perspective, it is frustrating to see all of the LTRMP data being collected, but be unable to integrate it into the CWA assessment process within the state. He added that, if habitat-specific subcategories were developed, it would imply that separate assessments would be needed for these subcategory types. Olson also asked if the LTRMP had attempted to develop biological indices.

Lubinski responded that an initial effort in this direction had been made in the 1998 Status and Trends report, and that NESP objective-setting may also address biological indices. Johnson noted that, generally, the LTRMP is working to make its data more amenable to management applications. Lubinski also noted that Brian Ickes of UMESC is working on the development of a fish IBI.

Good observed that the five states have differing designated uses and assessment approaches that apply to the UMR. He characterized the current effort as an attempt to better assess the aquatic life use on the UMR and asked the group whether the approach would be to "build the boxes" ... such as 13 longitudinal and 4 lateral areas... to do the assessments. Baumann concurred, but added that no conclusion had yet been reached on the number or formation of the "boxes".

Good asked what the scale of sediment accumulation is on the UMR. Lubinski replied that backwaters have filled in 6 to 8 feet in some areas since impoundment.

Good also asked how the UMR compared with other major rivers in terms of its characteristics. Lubinski answered that the Ohio River is different from the UMR in that it has little or no floodplain. He added that the Missouri also differs significantly from the UMR.

Johnson asked the group whether the material presented so far by UMESC has been on target for the WQTF needs. The group indicated that it had been very helpful, with Baumann indicating that this question was important and should be revisited at the close of the day.

Water Quality Characteristics of UMR Habitats

Barry Johnson of USGS-UMESC next provided a presentation regarding the water quality characteristics of UMR habitats. The following were highlighted during his presentation:

- Johnson presented UMR aquatic areas as follows: main channel, side channel, impoundment, and backwaters. He noted that the proportion present of each of these areas changes along the run of the river from upstream to downstream, with main channel area generally increasing and impounded areas generally decreasing along the run of the river.
- Spatial heterogeneity is affected by river stage and it may be most straightforward to make distinctions between aquatic areas under low flow conditions.

- Variability in a large river ecosystem is driven by a number of factors, including precipitation, temperature, land use, geomorphology, tributary contributions and biological processes.
- Some water quality trends on the UMR are as follows:
 - Longitudinal Trends
 - TSS generally increases from upstream to downstream. There is a correlation between TSS and total watershed area.
 - Chlorophyll is relatively consistent.
 - There is not a strong trend in nutrient concentrations from upstream to downstream.
 - Lateral Trends
 - There is greater denitrification in backwaters, less denitrification in main channel.
 - Generally, there is more phosphorous in backwaters. However, this pattern may be reversed at high discharges.
 - Overall, backwaters have the greatest range of conditions.

Good asked how retention time in a backwater is calculated, noting that some standards - such as phosphorous standard for lakes - are dependent on retention time. Johnson replied that retention times can be calculated, but that much data is needed for this calculation.

Sullivan asked whether the importance of backwater plants in denitrification had been determined. Johnson replied that this had not yet been calculated, but that it is an important question.

Johnson next gave an example of DO levels under high flow and low flow conditions on Pool 8, noting that, in developing criteria, it will be important to consider whether criteria should represent an optimal habitat condition or fluctuate to reflect natural variability. Dkhili asked when LTRMP DO data was collected. Johnson replied that it was collected between 9 a.m. and 3 p.m. He added that, in winter, DO in backwaters may fall as low as 2 to 3 mg/l and that low DO concentrations may in some cases be part of the system's natural functioning.

Olson noted that low backwater DO concentrations demonstrate that "one size does not fit all" for DO criteria expectations. He also commented that some backwaters are important for fish overwintering, while others are not. Johnson commented that there is some debate about how much DO is needed and where it is needed. He also observed that low DO would not be expected in the main channel.

Baumann observed that DO flux is definitely of interest, and that it may be important to look at daily DO flux, both for the backwaters and the main channel. Bolgrien cautioned that individual results should not be emphasized in attempting to assess the resource, and those site-specific questions were not a primary focus when attempting to assess the resource at a larger scale.

Johnson made a number of additional observations regarding UMR habitats' water quality as follows:

- Local effects of tributaries should be considered.
- Short term events, such as floods, can have dramatic impacts on water quality parameters such as temperature and DO.
- DO declines as the depth of snow and ice cover increases.
- Turbidity and water level fluctuation have the greatest impact on aquatic vegetation occurrence.

Johnson revisited the four main UMR reaches used by the LTRMP: 1) upper impounded reach, 2) lower impounded reach, 3) open (unimpounded) river, and 4) Illinois River. He stated that LTRMP has not seen enough biological difference to consider any further longitudinal distinctions.

Johnson made the following concluding observations:

- Various factors contribute to differences in water quality on the UMR.
- There are distinct longitudinal patterns in the concentrations of water quality parameters.
- Lateral distinctions in water quality exist between channel and off-channel areas, and lateral distinctions are most evident at low flow conditions.
- Backwaters demonstrate the greatest range of variability in water quality characteristics, and the range of values found in the backwaters encompass the values found in the main channel.

Following Johnson's presentation, the Task Force engaged in further discussion of water quality and habitat areas on the UMR.

Hokanson highlighted Johnson's observation that aquatic areas appear most distinct under low flow conditions, then asked Johnson what the potential disadvantages might be to drawing boundaries based on these conditions. Johnson replied that this might not be desirable as it may not take into account conditions that are needed for biological success most generally.

Baumann noted that more than one larger river IBI may be needed, and that a separate IBI for backwaters may be necessary.

Good asked how often samples are taken at LTRMP fixed sites. Johnson responded that samples are taken every two weeks April-June, and then monthly in all other months except December.

Bolgrien asked whether much would be gained by increasing sampling frequency to level such as 5 samples per month. Johnson replied that there might be some benefit, particularly in catching short term events, but added that if increased monitoring was being considered the greatest benefit would come from continuous monitoring. Shepard commented that single, short-term events were not the focus of the Clean Water Act, and it is more important to get a sense of the status of the resource overall.

Johnson noted that there are differing approaches available, either to measure water quality parameters directly or let the organisms integrate the water quality and measure the status of the organisms. He added that in the biological approach, a decision would need to be made whether to use a mobile or fixed organism.

Long Term Resource Monitoring Program Overview

Johnson next gave an overview of the USGS' Long Term Resource Monitoring Program (LTRMP), focusing on data collection methods and use of LTRMP data. He described the use of the six study pools by the LTRMP (Pools 4, 8, 13, 26, Open River, and Illinois River), as well as the use of both fixed site and stratified random sampling. Johnson noted that five strata are employed for stratified random sampling and that data were collected by staff of USGS-funded, state-staffed field stations.

Johnson described the components of the LTRMP as: 1) aquatic vegetation, 2) water quality, 3) fish, 4) macroinvertebrates, 5) terrestrial vegetation, 6) land use/land cover, and 7) water level, bathymetry, and sediment. He added that the macroinvertebrate component had been dropped from the program following 2004. Johnson also noted that component data are summarized in 10-year reports and then integrated into Status and Trends reports.

Johnson further explained that LTRMP was not designed to evaluate the success of individual habitat rehabilitation and enhancement projects (HREPs) but rather to collect information at the pool and strata

scale. He did note, however, that in some cases the LTRMP data can be useful in considering HREP success, such as the Pool 8 islands construction project.

Baumann asked whether LTRMP data gave an indication of the historic occurrence of submerged aquatic vegetation (SAV). Johnson replied that did not appear to be historic occurrence in the open river reach, but there is evidence of occurrence in both the upper and lower impounded reaches, although its extent has not been quantified.

Johnson concluded the LTRMP presentation by discussing the availability of LTMP data online and gave an example of the use of the graphical data browser available on the UMESC web site. He encouraged the Task Force to use the data available there at <http://www.umesc.usgs.gov/ltrmp.html>.

US EPA Environmental Monitoring and Assessment Program

David Bolgrien of US EPA (ORD-Duluth) next presented information regarding US EPA's Environmental Monitoring and Assessment Program (EMAP). He made an initial observation that EMAP is a research program, while the WQTF is in the position of trying to take research and use it to better manage the River.

Bolgrien stressed that bioassessment is critical and is needed on the UMR, noting that it is both workable and that tools are available to move forward with UMR bioassessment. He characterized the obstacles to implementing bioassessment on the River as:

- Sampling logistics (which he described as challenging, but possible to overcome)
- Defining reference condition (which he described as nonfatal)
- Method/data issues (again, he described as nonfatal)
- Institutional stovepiping (which he described as potentially fatal)

Bolgrien also provided a summary of ORSANCO's approach to implementing bioassessment on the Ohio River, highlighting the following:

- An issue with fish populations was recognized.
- Extensive monitoring was conducted.
- An IBI was developed.
- Substrate was used as a "habitat" definition.
- One gear (nighttime electro-fishing) employed.
- Fifteen fishing sites were identified per pool, and used to assess the health of the pool generally.
- Pools "pass" if more than 75% of samples meet the IBI.
- The program is now at the point where diagnoses of fish population problems can be made.

Bolgrien emphasized that, in considering a habitat-based approach to aquatic life uses on the River... "if you can define and delineate it, you can assess it", adding that EMAP assessments are compatible with the intent of designated uses.

Bolgrien described EMAP as a habitat-specific bioassessment, explaining that EMAP had made a choice to just look at the main channel, and main channel border most specifically. He further described the following elements of EMAP:

- EMAP reference conditions are existent, rather than historical or ideal, conditions.
- EMAP is focused on ecosystem assessment (as opposed to human health considerations)
- EMAP looks at the resource extensively rather than intensively, single measurements are not key to the EMAP approach.
- EMAP chooses methodological consistency over specificity.

Bolgrien noted that EMAP's work (in sampling the main channel) had essentially identified two meaningful longitudinal reaches in the river: 1) the impounded reach and 2) the unimpounded reach. He next discussed the value of abiotic metrics, noting that single abiotic measures are not satisfactory in assessing the condition of a waterbody. He described a potentially more valuable approach as using a combination of abiotic measures assembled into a water quality index. Dkhili asked how the measures were combined in this approach. Bolgrien replied that they were normalized and then aggregated. He further described how the abiotic index scores were then fed into a stressor gradient and, as result, separate statistical fits were identified for impounded and unimpounded reaches. Finally, Bolgrien explained that the multi-metric abiotic stressor score could be used as a method to test biotic data.

Bolgrien stressed the need to be able to be explicit, to map and clearly define areas when considering monitoring and assessment. He further noted that EMAP has mapped and defined the main channel of the UMR. Good asked if EMAP's main channel definition matched that of USGS. Bolgrien replied that it did not and that NHDPlus was used make this definition.

Comments from US EPA Region 5 Water Quality Standards Staff

Baumann thanked Dave Pfeifer and Ed Hammer (water quality standards staff from US EPA Region 5) for coming to the meeting and invited them to comment on the Task Force's designated use effort.

Pfeifer made the following observations regarding designated uses:

- Use categories should capture and accommodate for natural variability.
- Not all areas that appear to be different at first may actually be different in terms of water quality.
- It is possible to "jump ahead of the data" and create category boxes that cannot be filled with data.
- If parts of a system behave differently and support different biology, it may be appropriate to proceed in making distinctions. For example, it may be important to determine whether backwaters respond to stressors in a different way than the main channel.
- Integration of uses with criteria may be difficult. Often, the chemistry cannot provide the same level of distinction as the biology.
- A lot of variability can exist in individual data points, particularly with parameters such as dissolved oxygen and temperature. It is important to consider whether that is relevant and it is important not to rush to a change in criteria simply because variability in a parameter is observed. For dissolved oxygen in particular, more is known now about its variability than when criteria were first developed.
- It is not clear yet whether a Chesapeake Bay-style approach is appropriate for the UMR.

Baumann concurred that it is important not to jump directly to changes in criteria and emphasized that the Task Force is approaching this effort very intentionally and is not near the point of revising criteria at this time. He suggested that Minnesota's approach to classifying lakes may offer an example of how the Task Force may proceed in examining UMR designated uses. Baumann explained that the Task Force is beginning by looking the parts of the UMR first and then evaluating how this may affect standards/criteria approaches. He noted that impounded vs. unimpounded may be one potential distinction and that main channel vs. backwater areas may be another distinction.

Pfeifer commented that any potential additional use categorizations need to be helpful in implementing the Clean Water Act, and not confounding.

Hokanson asked whether the terminology of "tiered aquatic life use" was appropriate to use in describing the effort the WQTF is engaged in. Pfeifer acknowledged that there is confusion about the meaning of the term, but that generally: 1) aquatic life use subcategories are used to capture natural variation, and 2) tiered aquatic life uses are applied when human disturbance has changed what is expected/possible for a waterbody. Stoerker asked whether a distinction between impounded and unimpounded reaches would

therefore be a tier. Hora commented that tiered aquatic life uses allow for better protection of high quality waters and more realistic goals for lower quality waters.

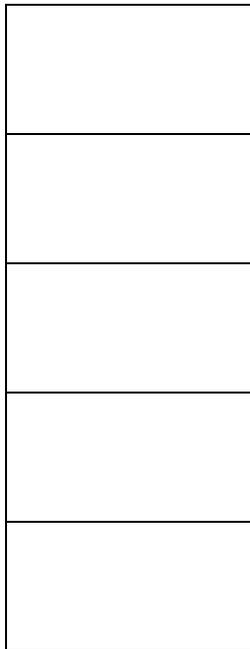
Larry Shepard of US EPA Region 7 offered the following perspectives as a followup to Pfeifer’s comments:

- He generally concurred with the observations made by Pfeifer.
- EPA Regions may be concerned that a review of standards may be a way to pursue less stringent criteria. He added that this was not the intent of WQTF, but that their work could be perceived in this way.
- He suggested that the upcoming Clean Water Act-Ecosystem Restoration Workshops may be a venue where this conversation can continue, and that the re-consideration of uses may allow for greater incorporation of LTRMP data into the state’s Clean Water Act programs.

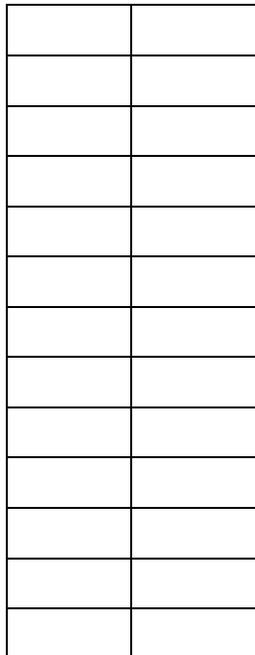
Task Force Discussion of Designated Uses/Reaction to Information Presented

Good commented that the Task Force should proceed in considering approaches to model the structure of the River, rather than attempting to compile all existing data before making an attempt to explore structure options.

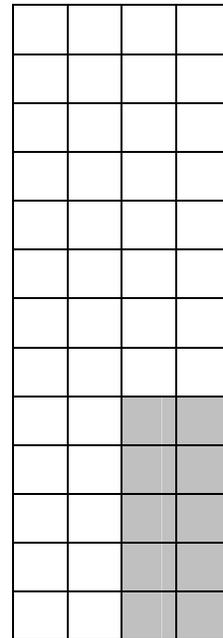
Lubinski offered potential conceptual approaches for considering subdivisions of the River for Clean Water Act purposes. He gave the following examples:



Five systems, divided by state lines.
(Similar to CWA approach before consensus reaches.)



One system, thirteen reaches.
(Use of consensus assessment reaches.)



One system, thirteen reaches, up to four lateral strata. Lateral strata only applied where appropriate.
(Possible future approach.)

Lubinski posed the choices as:

- 1) Fewer cells, with higher standards to protect more broadly.
- 2) More cells, with more specific standards, where higher standards only apply in specific cells.

He posed the question to be decided as which approach protects the River most effectively.

Pfeifer reiterated that divisions should only be made when areas actually behave differently. He noted that data would not need to be collected in all strata if one strata is indicative of all.

Baumann noted that having separations may, for example, allow for the better application of SAV protection criteria. Sullivan commented that the UMRCC intended to apply the SAV protection criteria throughout the main channel, and that this would result in protection of the backwaters.

Baumann observed that even if a subdivision is not adopted, it is important to consider the lateral relationships between aquatic areas on the River.

Bolgrien noted that EMAP was working on two fish IBIs for the UMR, one for the impounded reach and one for the unimpounded reach.

Johnson and Lubinski encouraged the group to move forward with the data available, Lubinski indicating that there was unlikely to be more information regarding variability available in the near future. Good concurred that moving forward at this time, with the data currently available, was appropriate.

Sullivan asked whether the Navigation and Ecosystem Sustainability Program (NESP) had any information to offer regarding the development of indices, particularly through their work on goals and objectives. Lubinski responded that the Science Panel is working on this, but that NESP is not that far ahead in working on such questions.

Bolgrien observed that the WQTF is appropriately taking a more simplified approach than that under NESP or the environmental management program (EMP), with the WQTF likely focusing on IBIs and other indices/measurements.

(Meeting adjourned for the day at 5:00 p.m., reconvening at 7:30 a.m. on January 17th)

Continued Discussion of Designated Uses

Hokanson began the second day of the meeting by recalling the Water Quality Executive Committee's request to the WQTF to look into the possibilities for refining designated uses, stressing that the Executive Committee had encourage the Task Force to start from a "blank slate" and think broadly about the most appropriate way to employ designated uses for the UMR.

Good noted that it was helpful to have the aquatic habitat categorizations in mind, and know that these are defined and mapped. He noted that one of the challenges now appeared to be whether to use 2, 3, or 4 lateral categories in addition to the 13 assessment reaches, adding that it is clear that the complexity of the approach is increasing. Hora concurred that there appeared to be much complexity to address, and that much supporting data would be needed. He also commented that getting any changes into water quality standards would be challenging and that the process would take a minimum of three years. Stoerker added that a goal of the Task Force should be to capture a complex situation with a relatively simple approach. Hora added that he perceived the biggest challenge as determining how states would incorporate any new approaches into their rules.

Baumann observed that it is not yet clear where the discussions will lead in terms of making distinctions regarding UMR habitats, but that there are many options available. He offered that there may end up being 13, 5, or 2 longitudinal divisions and 2, 3, or 4 lateral divisions, emphasizing that the challenge would be in determining the appropriate level of aggregation.

Franz suggested that EMAP's longitudinal separation (impounded vs. unimpounded) could be used as a starting point and further distinctions added on as needed.

Baumman suggested that a working hypothesis needed to be placed on the table to push forward the development of alternatives.

Sullivan characterized the "grids" offered the previous day as follows:

- Five longitudinal boxes = political (along state lines)
- Thirteen longitudinal assessment reaches = hydrologic
- Thirteen longitudinal assessment reaches, plus 2-4 lateral distinctions = hydrologic and geomorphic

He added that biology also needed to be considered in the development of categories, whether there were differences in biology between different categories. Sullivan also noted that EMAP has broken down the UMR main channel into just two longitudinal categories for purposes of IBI development.

Baumann asked Bolgrien to clarify the "breakpoint" for EMAP's IBI development efforts. Bolgrien replied that it was a simple impounded vs. unimpounded division, with the breakpoint being the last dam on the UMR. Sullivan noted that it was possible a different IBI would be needed for side channels vs. the main channel.

Baumann observed that, generally, there is a recognition that some divisions are needed. He noted that Wisconsin is, in a sense, making similar divisions as it is looking at categorizations of its intrastate water bodies.

Holly Arrigoni asked whether the group still intended to address other uses, in addition to the aquatic life use. Baumann replied that the Task Force's intent was to also address these uses as part of its efforts.

Good asked whether the states were relying largely on chemical data and numeric criteria in making impairment determinations for the UMR. Olson responded that Iowa primarily used chemical data and numeric criteria, except for the case of a "slime" impairment at specific, facility-related site. Sullivan answered that Wisconsin primarily relied on numeric criteria and chemical data, but that narrative criteria were also employed. Good observed that moving to a fish IBI-based approach would be significantly different and possibly difficult to implement, but would be more similar to ORSANCO's approach.

Sullivan asked what boundaries would be applied in using a possible UMR fish IBI. Good replied that it would be for the main channel, at least initially.

Hora noted that most states currently have an applicable narrative criterion at minimum, and that perhaps an IBI could be used as numeric translator for these narrative criteria. Baumann cautioned, however, that states are still being pressed to have numeric criteria in standards and that any guidance not put into rule may be challenged. Dkhili commented that this approach may not be feasible in Missouri, as Missouri DNR is limited in its ability to use numeric translators for narrative standards. Baumann added that Wisconsin DNR has been challenged in cases where it has sought to use narrative criteria in enforcement, adding that it appeared a UMR assessment methodology is needed.

Sullivan emphasized that an opportunity was present to move forward interstate acceptance of an IBI applicable to the UMR, and that it is important to consider that states' ability to commit to doing future biological assessments in cooperation. Good replied that "that's what we are here to do."

Hora asked Bolgrien when the EMAP IBI recommendation would be available. Bolgrien replied that it was going to be put forward at the UMRCC meeting in Collinsville, Illinois in March 2008. He added that the IBI will report on the relative condition of the fish assemblage in the main channel. Baumann requested that Bolgrien draft a one page summary of the EMAP IBI approach to be available at the next meeting of the WQTF.

Regarding IBI development, Sullivan noted that he had previously spoken with LTRMP staff about their development of an IBI, adding that LTRMP has not developed an IBI. He further observed that it may be possible to protect off-channel areas through the use of criteria applicable to the main channel.

Sullivan asked whether any of the states are using an IBI to determine impairment. Hora and Good replied that their states (Minnesota and Illinois) are using IBIs to determine impairment on streams within those states.

Good commented that developing “boxes” to capture various river habitats is a helpful step. Hora suggested that as IBIs are developed, they could be plugged into “boxes” as determined appropriate. Hokanson concurred, noting that the conceptual boxes could be developed first, and then the tactical approaches to working the concepts into standards, etc. could be decided upon. Good raised the question of whether the EPA regions would be willing to support the use of IBIs in assessing the UMR.

Stoerker suggested that it is important to get options on the table at this time to be considered by the Task Force.

Bolgrien asked whether there is a public perception that a differentiation needs to be made, such as a specific focus on backwater protection. He further suggested that the Task Force should work forward from the already-existing agreement regarding 13 assessment reaches.

Sullivan noted a specific case regarding discharge into a backwater, noting that the backwater was treated uniquely in that case and in that sense differentiation is already being practice, if not formalized in other ways.

Baumann suggested that the current objective for the Task Force is gather ideas for possible approaches, to determine potential ways to address the diversity of the River’s habitats within the Clean Water Act framework. Sullivan asked whether one option might be for Wisconsin to designate the River as an “outstanding resource water”, noting that Wisconsin has classifications for “outstanding resource waters” and “exceptional resource waters.”

Sullivan commented that the Navigation and Ecosystem Sustainability Program (NESP) is also exploring options for “subdividing” the River with regarding to ecosystem goals and objectives. He further emphasized that it will be important for the Task Force to maintain a connection to those working on NESP as these concepts are explored.

Olson suggested that an EMAP-like approach to assessment might be possible for the UMR. Bolgrien emphasized that an EMAP-like approach would mean assessing habitat types as a unit, rather than focusing as much on individual areas (such as single backwaters). He stressed to the Task Force that they are not limited by data or science in making decisions regarding the UMR.

Baumann asked how it would be best to visualize the potential “boxes” to apply to the UMR, emphasizing the importance of “putting something on paper” that could be evaluated by the Task Force.

Sullivan offered to provide a more detailed description of the four aquatic areas presented by Lubinski the previous day.

Good emphasized that it is important, when drafting options for “boxes”, that the appropriate number of longitudinal divisions also be considered, noting that 2, 5, and 13 have all been suggested as options for the appropriate number of longitudinal categories.

Bolgrien suggested that the EMAP program could help develop a sampling methodology to accompany any subdivision approach decided upon by the Task Force.

Plans for Other Designated Use Categories

Stoerker stated a working assumption that the Task Force also plans to address other designated use types, such as those for recreation and drinking water, but will pursue work on the aquatic life use first. Baumann concurred and asked the group to consider whether there are other uses, beyond aquatic life, recreation, and drinking water that the Task Force may eventually wish to address.

Sullivan asked whether a change in the drinking water use designation would require a change in rules. Hora replied that a rule change would be required. Baumann added that providing a city permission to withdraw water for drinking water is a different issue than the use designation per se. He noted that EPA has previously suggested to Wisconsin that a drinking water use designation is needed for their portion of the UMR, even if Wisconsin does not have any drinking water intakes, presumably for the purpose of protecting downstream uses. Shepard concurred that a consistent drinking water use designation along the UMR has been a goal for EPA.

Hokanson noted that any distinctions made for habitats/potential aquatic life use subcategories may be independent of distinctions made for other use categories.

Hora suggested that the WQTF members provide an update to their WQEC representatives regarding the status of the project. He requested that Johnson and Lubinski’s slides be made available to assist in this. Baumann and Hokanson indicated that they would supply information to the WQTF that could be used to help brief the WQEC members.

National Survey of Rivers and Streams (National Flowing Waters Assessment)

Bolgrien gave a brief update regarding the National Survey of Rivers and Streams (also known as the National Flowing Waters Assessment) that will be conducted in 2008 and 2009. He described the Survey as an opportunity to collect samples for major parameters at approximately 1800 sites nationwide. Bolgrien reported that 224 sites are located in UMR states and 16 of these are Upper Mississippi River sites specifically. He added that, beyond these sites, more sampling locations have been identified in the study design and that states could sample at these additional locations.

Sullivan asked whether the “base” unit for the assessment is the state level. Bolgrien confirmed that states are the base assessment unit for this study.

Arrigoni noted that many states are opting for contractors to do the sampling work, rather than state staff. Bolgrien concurred that some states are opting out of the work on large rivers. He added that it is possible that non-wadeable waters would be completed in 2008 and wadeable waters would be completed in 2009. Bolgrien highlighted that training for samplers would likely take place in March 2008. He also emphasized that one of the main considerations is that new data will be coming out of the Survey that can be used by the WQTF.

Good asked what the main outcome of the Survey would be, noting that the similar lakes survey provided information regarding areas such as trophic status and fish populations. Bolgrien responded that the Survey could address the swimming and consumption uses for the waterbodies, likely including a biological assessment and information regarding fish tissue contaminants.

UMR PFC Sampling

WQTF members discussed results of PFC sampling that took place in the summer of 2007. Hora noted that, generally, the MPCA has found PFCs in a number of areas beyond just the 3M plant. He indicated that MPCA was interested in further work with US EPA to collect additional PFC samples this year.

Sullivan noted that PFC levels were relatively high in Pool 3 and suggested that there might be local source(s) contributing to this pattern. He also concurred that additional PFC sampling in 2008 would be beneficial.

Good agreed that there was benefit in additional sampling, indicating that Illinois would like to also collect further samples on the Illinois River.

Arrigoni indicated that she would investigate the possibility of incorporating PFC sampling into the National Survey of Rivers and Streams.

Baumann asked how the public in Minnesota had reacted to the detections of PFCs. Hora replied that public interest had been very high, but had tapered off somewhat. However, he noted that public interest is rekindled every time PFCs are detected in a new area.

Hokanson indicated he would convey the states' interest in resuming sampling to Andy Lindstrom at US EPA-RTP. He asked whether UMRBA staff should be involved in helping coordinate the next round of sampling. WQTF members indicated that this would be helpful. Hokanson also asked if Iowa or Missouri had any reservations or objections to continued PFC monitoring. Olson and Dkhili indicated that they had no objections to further sampling.

Good indicated some interest in running split samples, to compare results obtained from EPA versus those from a private lab. Hora noted that MPCA had done some of this split sampling and found the results to be very close. Sullivan added that Wisconsin was also running split samples, in this case comparing EPA to the Wisconsin state laboratory (but that the state lab results were not yet available).

Hokanson indicated that he would arrange a conference call with the WQTF and EPA RTP to plan for sampling in 2008. Hora and Good noted that this type of collaboration demonstrated the value of the WQTF.

Interstate Consultation Regarding 305(b) Assessment and 303(d) Impairment Listings

Wisconsin

Baumann commented that, while Wisconsin had not yet proposed a draft 2008 impairment list, the following were possible outcomes regarding UMR listings for the 2008 cycle:

- 1) Addition of an impairment associated with suspended solids and degradation of SAV from the St. Croix confluence to Lake Pepin.
- 2) Listing associated with PFOS in the two most northern assessment reaches of the UMR.
- 3) Deferring listing related to nutrients until the 2010 cycle.

Baumann noted that Wisconsin's draft 2008 list should be released soon, with the possibility of a press conference to announce its release on January 22, 2008. He explained that release of the list would be followed by a 30-day comment period, with a list likely being sent to EPA in May 2008.

Sullivan asked whether fish consumption advisories would begin to be issued using the 13 interstate assessment reaches, rather than on a pool-by-pool basis. Hora and Baumann replied fish consumption advisory staff were committed to the current approach and it was unlikely that advisories would be changed to be issued on the basis of the 13 assessment reaches.

Minnesota

Hora described that, generally, in Minnesota's draft 2008 impairment list, many waters were moving from category 5 (impaired) to category 4 as TMDLs are being completed. He also noted that there are 40 new listings in Minnesota's "lower" Mississippi River Basin. Hora confirmed the presentation of Minnesota's draft 2008 listing on the UMRBA "map-chart", noting that the PFOS listing in Minnesota runs from the St. Croix River to the Chippewa River.

Iowa

Olson reported that US EPA Region 7 has not yet approved Iowa's draft 2006 impairment list. He described the issue holding up the approval of the list as Region 7's position that exotic species, specifically common carp that stir up sediment and increase turbidity, be considered a "pollutant." Olson noted that Iowa DNR's position is that this situation is best described as a "non-pollutant stressor". Hora commented that he had not encountered this type of issue regarding exotic species. Baumann suggested that this issue may be part of a larger discussion of how exotic species should be addressed in the Clean Water Act framework. Olson commented that, given the delay in approval of the 2006 list, a 2008 list for Iowa is likely a long way off.

Additionally, Olson noted that the recent issuance of a mercury-related fish consumption advisory for Pool 12 will likely be reflected in the 2008 list (rather than the 2006 list). He also reported that US EPA is working on a TMDL for the localized bacterial slime problem at the ADM plant on the River in the reach between Lock & Dam 13 and the Iowa River.

Illinois

Good reported that all eight of Illinois' UMR assessment segments would remain impaired for fish consumption related to PCB levels. He indicated that Matt Short is currently working on Illinois' assessments and will be reviewing the fecal coliform, manganese, and sulfate listings for the River.

Good also reported that Illinois had suspended ambient monitoring on the River (and elsewhere) due to budget reductions and lack of staff to conduct monitoring. He indicated that some monitoring may eventually be restored, but that the situation had reached a critical point in Illinois.

Dkhili asked whether it was possible for Illinois to remove its listing for PCBs, since Missouri now had an approved TMDL in place for PCBs on the other side of the River. Hora suggested that this could only be done if Missouri's TMDL had taken into account Illinois sources of PCBs. Arrigoni indicated that Illinois would need to adopt the Missouri TMDL. Both Arrigoni and Baumann noted that the waste load allocations in the Missouri TMDL had been set to zero. The group expressed an interest in further review of Missouri's approved TMDLs for PCBs and chlordane.

Good asked Dkhili about the status of Missouri's contact recreation designation for the area of the UMR south of St. Louis. (This question lead into Missouri's consultation report.)

Missouri

Dkhili characterized the use designation on the UMR below St. Louis as an ongoing discussion between Missouri (Clean Water Commission), US EPA Region 7, and the Metropolitan St. Louis Sewer District (MSD). He described the relative preferences of each group as EPA preferring a contact recreation designation for the entire UMR, the Commission as preferring to not have a contact use designation for a 30 mile stretch of the River, and the MSD as preferring not to have contact use designation for a larger portion of the reach below St. Louis. Shepard indicated that US EPA Headquarters is now addressing the issue, but has not reached a conclusion and is concerned about the precedent that may be set.

Hokanson stated that his understanding is that, until a further decision is reached, there is not a contact recreation use designated for the UMR in Missouri south of St. Louis and that UMRBA materials reflect that status. He added that this issue has come up in conversations with senior US EPA staff at the regional and headquarters level in the context of the UMRBA's designated use project.

Dkhili reported that US EPA has partially approved Missouri's 2004-2006 list, including the Mississippi River portion. He did not anticipate any changes for the Mississippi River in Missouri's 2008 list, noting that the state's 2008 listing methodology had recently been approved.

Dkhili also reported that the UMR consensus assessment reaches are now included in rule revisions that will be going before the Missouri Clean Water Commission in June. He also clarified that, in Missouri's case, these reaches must be specified in state rules

Other Assessment and Listing Topics

Hokanson commented that, as the states consult and exchange information, there is general progress towards consistency, but occasionally the sharing of data can actually lead to disparate listings, such as in the case of Iowa using Illinois data to list the UMR for aluminum (where Illinois does not have an aluminum criterion). Baumann added that Wisconsin also does not employ an aluminum criterion. Hokanson further observed that one of the inconsistencies noted in the NRC panel report no longer exists, as Minnesota no longer lists for turbidity on the reach from the Root River to the Iowa border. Sullivan added that more accurate (LTRMP) data led to Minnesota's decision to remove the listing.

Hokanson also mentioned that he had been in contact with Gail George of Iowa DNR, who is working on EPA-funded project to improve the sharing of assessment data. He noted that this had not yet reached the level of interstate information sharing, but that he planned to check in with George as the project progressed and bring to the attention of the WQTF as needed. Olson observed that he has been in conversations with George and has suggested that the effort be less focused on data per se and more focused on the exchange of assessment outcomes and interpretations. Baumann noted that George had contacted WI DNR when she was working on the grant application.

Approval of September 2007 Meeting Summary

Good motioned to approve the summary of the September 2007 Water Quality Task Force meeting. Hora seconded. Summary was approved by voice vote.

Next Task Force Meeting and Upcoming Events

Hokanson reminded the Task Force of the workshops taking place in Dubuque on April 16-17 and June 11-12, 2008 to examine interconnections between the Clean Water Act and Ecosystem Restoration activities on the UMR. He suggested that a joint meeting of the Water Quality Task Force and Water Quality Executive Committee could be held on June 10-11, preceding the second of these workshops. Hokanson also suggested it was likely that a conference call would be needed before the June meeting to address other ongoing business.

Stoerker noted that UMRBA Board and WQEC members would be having an informal meeting with members of the McKnight-sponsored Mississippi River Water Quality Collaborative on February 19th (prior to UMRBA Board meeting in St. Louis). Also, she noted that Board and WQEC members would be traveling to Washington, DC the week of March 3rd to meet with Congressional staff, EPA, and USACE officials regarding ecosystem and navigation improvements on the UMR, as well as the UMRBA's water quality efforts.

(The meeting was adjourned at 11:45 a.m. on January 17th.)