Upper Mississippi River Basin Association
Water Quality Task Force Meeting
September 1-2, 2009
Moline, Illinois

Meeting Summary

Participants

Gregg Good	Illinois EPA
Matt Short	Illinois EPA
John Olson	Iowa DNR
Marvin Hora	Minnesota PCA
Mohsen Dkhili	Missouri DNR
Jim Baumann[†]	Wisconsin DNR
Leo Keller[*]	US ACE, Rock Island District
Bill Franz	US EPA, Region 5
Larry Shepard	US EPA, Region 7
Shannan Garretson	Iowa Environmental Council
Peg Donnelly	UMRBA/US EPA Region 5
Dave Hokanson	UMRBA

[*]Attended first day only.
[†]Attended first day only, participated by phone second day.

Call to Order and Introductions

The meeting of the Water Quality Task Force (WQTF) was called to order at 8:00 a.m. by Gregg Good. Good provided an overview of the WQTF meeting and noted that the WQTF members would be attending a meeting of the National Research Council (NRC) as a large portion of the first day's agenda. Introductions of all in attendance followed.

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

Illinois

Good reported that Illinois has submitted its 2008 303(d) list to US EPA Region 5, but that the list has not been fully approved by US EPA. He noted that issues surrounding nitrogen and sediment/siltation were delaying final approval of the full list overall, though these are not Mississippi River-specific issues. Good indicated that work would begin in November on Illinois' 2010 listing and that an integrated report is being planned for 2010, pending feedback from US EPA on the 2008 list. In terms of the content of the 2010 list, Matt Short indicated that it is too early in the process to comment on likely listings for the Upper Mississippi River (UMR).

Missouri

Mohsen Dkhili indicated that Missouri's Clean Water Commission had approved the state's 2008 303(d) list, but no response on the list had yet been received from US EPA Region 7 on the 2008 list (though the combined 2004-2006 list had recently been approved). Dkhili noted that the 2008 list as submitted to US EPA does not include any impairments for the UMR. He added that Missouri's 2010 listing methodology is currently out for comment. Larry Shepard asked whether the interstate minimum assessment reaches had been adopted by Missouri. Dkhili indicated that these had been incorporated into rule.

Minnesota

Marvin Hora reported that Minnesota's 2008 303(d) list had been approved by US EPA Region 5 and that the state's draft 2010 list should be available soon. Hora anticipated that the process should allow for Minnesota to provide its list to US EPA by April 2010.

In preparation for the 2010 list, Hora indicated that Minnesota will review its PFOS listing for Pool 2 of the UMR, as overall declines in fish tissue levels appear to be taking place based on recent data, though there is variability in levels present in fish of different species/sizes. He emphasized that it is not clear whether these observations will lead to a de-listing, rather that there is simply enough potential change demonstrated that a review is needed. Hora also mentioned that discharging facilities could potentially be significantly impacted by a continued listing of Pool 2, and that all major facilities would be examined if a listing stays in place in regard to discharges of PFCs in preparation for a potential TMDL. John Olson asked if a review of facility discharges would take place after a TMDL or before. Hora indicated that this would take place before any potential TMDL.

Shepard asked what benchmark level Minnesota was using to determine PFOS impairment. Hora replied that it is a level of 200 parts per trillion (ppt) in fish tissue, which translates to a 1 meal per month advisory. He added that when there is an advisory to consume one meal per month (or less) in place, the water body is considered impaired by the Minnesota Pollution Control Agency (MPCA). Hora further explained that MPCA is able to derive a site-specific water quality criterion based on the fish tissue value, and that the data available to develop such criteria has been improving.

Short asked whether PFOS or other PFC impairments are likely for other UMR pools. Hora replied that Pool 2 is the only pool where an impairment has been identified to date. Further, Hora indicated that the Pool 2 PFOS impairment is the only UMR impairment listing that appears subject to potential change for the 2010 303(d) list.

Hora indicated that Minnesota's listing more generally (beyond just UMR listings), that the question of quantifying "natural background" is being considered. He described this as a consideration cutting across many pollutant types, but most relevant for dissolved oxygen (DO), as there are certain waterbodies that in their typical function do not maintain levels meeting the state's water quality criteria. Hora mentioned that this consideration is also relevant for naturally-occurring metals such as arsenic and selenium.

Wisconsin

Jim Baumann indicated that Wisconsin had recently submitted its 2008 list to US EPA Region 5 recently for approval, and that Wisconsin expects to have a 2010 list submitted by April 2010. He indicated that it is too early to provide details on likely 2010 UMR listings, but noted that Wisconsin will likely review its PFOS listing and it suspended solids (related to decline in submersed vegetation) listings for it uppermost UMR reach, and consider a nutrient-related listing for Lake Pepin.

Baumann also reported that John Sullivan (WI DNR) has been seeing some of the greatest water clarity in recent history downstream of Lake Pepin. He noted that this increased clarity may be due at least in part to the activity of zebra mussels and that, while clarity and light penetration have improved, primary productivity and DO actually appear to be declining. Baumann commented that this situation may require new ways to think about and measure DO on the UMR. Short noted that a similar effect had been noted on the Illinois River. Baumann concluded by saying that the degree to which this becomes an issue may be determined by the extent to which zebra mussels continue to be present in the UMR.

Iowa

Olson reported that Iowa's 2008 303(d) list has been at US EPA Region 7 since April 2009, and US EPA review/approval has not yet been completed. He indicated that Iowa may soon begin work on the 2010 list.

Olson highlighted that the 2008 list submitted to US EPA had removed the aluminum impairment for the reach between the Wisconsin River and Lock & Dam 11. Dave Hokanson indicated that this impairment would be taken off the UMRBA's comparison chart of UMR listings. Olson further explained that 2 of 15 samples for aluminum had exceeded the chronic standard during the assessment time period for this reach. Short explained that Illinois determines whether a chronic standard is met by taking a running average of sample results and determines whether an acute standard is being met by comparing individual results to the standard. Olson asked whether Illinois uses the binomial method to determine significant difference. Short replied that Illinois does not use this method. Dkhili indicated that Missouri does use the binomial method. Olson indicated that this method can be problematic when data is limited.

Olson noted that Iowa would be adopting new 304(a) criteria for metals and as a result more impairments related to metals are expected in the future and possibly for the 2010 impairment list. Shannan Garretson asked whether new chloride and sulfate standards would affect 2010 impairment listings. Olson replied that this was possible, but that this would not be determined until standards are in place.

US EPA

Good asked US EPA staff whether they had any perspectives to offer regarding the assessment and listing consultation. Bill Franz did not offer any further comments from US EPA Region 5. Shepard indicated that he did not have comments from an assessment/listing perspective, but did observe from a NEPA perspective the issue of metals and legacy contaminants being the primary causes for impairment listings on the UMR – as opposed to nutrients, sediment, or habitat impairment – which are issues more commonly identified as challenges to the health of the UMR in non-CWA venues. Olson re-iterated that the incorporation of 304(a) metals criteria is only going to add to the predominance of metals-related impairments.

Hora asked whether any other states had provisions for "natural condition" in their rules. Dkhili indicated that Missouri had previously had such a provision in its rules, but it had never been used and was subsequently removed. Hora indicated that Minnesota has had this provision "on the books" for years but is just now trying to quantify exactly how to interpret this.

Shepard asked whether all the states now do an integrated 303(d)/305(b) report. All states replied that they do produce an integrated report. Shepard further asked whether, even with an integrated report, a waterbody could be considered "impaired" for 305(b) purposes, but not for 303(d) purposes. Good indicated that such distinctions existed and were made within the integrated report. The other states concurred with this perspective.

Agency Updates

Lake Pepin Update

Hora reported that MPCA is developing a draft TMDL for Lake Pepin for US EPA Region 5's informal review. He noted that US EPA approval of site-specific standards for the UMR from St. Paul through Lake Pepin is needed before the TMDL is finalized. Hora explained that the following are site-specific standards which MPCA is proposing:

- Eutrophication: 100 μg/l total phosphorous; 32 μg/l chlorophyll-a; and 0.8 m Secchi transparency.

- Suspended Solids/Submersed Aquatic Vegetation: 32 mg/l total suspended solids (summer average, as measured at Lock & Dam 2 and Lock & Dam 3); 21% SAV occurrence frequency (for main channel border, measured using EMAP sampling approach).

Hora explained that MPCA is also considering site-specific criteria for areas beyond Lake Pepin. He noted that site specific criteria have also been proposed for Lake Byllesby on the Cannon River (a tributary of the UMR) and this is to a certain extent providing a "test case" for the implementation of site specific standards.

Baumann asked if there was an established timeline for the approval of the site specific standards. Hora replied that it could happen "anytime." Peg Donnelly asked whether the standards had gone out for public notice yet. Hora replied that they had not yet been put out for public notice.

Shepard asked what ambient total phosphorous levels are currently for Lake Pepin. Hora and Baumann replied that they are in the range of 150-180 μg/l.

Hora indicated that MPCA is still working on the process for Lake Pepin TMDL implementation plan, and it is not clear how US EPA will react to plans to aggregate load over tributaries. He ended his remarks by emphasizing the scale of challenges presented by the Lake Pepin TMDL.

Baumann next offered comments on the Lake Pepin TMDL from the Wisconsin DNR perspective. He first thanked MPCA for all of their work on the Lake Pepin TMDL, noting that this has been a huge effort. Baumann then indicated that Wisconsin concurred on the phosphorus and suspended sediment targets proposed by MPCA, and that Wisconsin intends to pursue a site-specific phosphorus standard for Lake Pepin in 2010, using MPCA's work as supporting documentation. He added, however, that Wisconsin was not planning to pursue a site-specific standard for TSS and that Wisconsin DNR will continue to use its narrative criteria in this regard.

Baumann further observed that the 100 μg/l total phosphorous site specific standard being proposed by MPCA for Lake Pepin was actually in line with what Wisconsin has proposed using for its own intrastate rivers – indicating that perhaps Lake Pepin is acting more like a river in terms of nutrients.

Baumann also noted that MPCA is looking at applying site-specific standards in other UMR impoundments, and is considering criteria of approximately 30 μg/l chlorophyll-a and 100-120 μg/l total phosphorous. Hora confirmed that MPCA is working to have nutrient criteria in place for UMR pools 2 through 8 by 2011. Garretson asked if MPCA was looking at Lake Pepin for background data on this effort. Hora replied that Lake Pepin data would be among the data sets considered. Franz asked whether the site-specific criteria would apply to just the main channel. Baumann and Hora replied that the criteria would have general applicability at this time.

Dkhili asked whether an impairment using the site specific criteria would require a failure to meet both criteria or just one. Hora replied that an impairment would be identified only if both criteria were not met, though he acknowledge that this approach could raise "independent applicability" issues. Baumann mentioned that this may prove to be a challenge for Wisconsin from a different perspective, as Wisconsin is only proposing to adopt the site-specific numeric phosphorus criterion.

Hora indicated that beyond just the Lake Pepin process, MPCA would be changing its assessment methodology for 2012 due to the increased availability of data and independent applicability considerations.

Other State Updates

Good noted that Illinois' monitoring program continues to face cutbacks.

Olson commented that US EPA Region 7 is still working on the arsenic TMDL for Iowa's UMR reaches between L&D 13 and the Iowa River, and between the Iowa River and the Des Moines River. He noted that US EPA Region 7 is also working on a TMDL to address the localized bacterial slime (nutrient) impairment on Iowa's UMR reach between Lock & Dam 13 and the Iowa River. Hokanson asked if the content of these TMDLs was known yet. Olson replied that the content of the TMDL was not yet known to him.

Olson also reported on recent Region 7 TMDL meeting, held in August 2009. He indicated that topics of focus at this meeting included nutrient criteria and TMDLs, as well as MS4 and CSO discussions relating to individual vs. general permits.

Olson also indicated that Iowa will likely begin the monitoring of turtle tissue for the presence of PCBs and Mercury, as the result of a recent petition. He noted that this monitoring will take place for 9 lakes in Iowa and that turtles, due to their longevity, can accumulate substantial amounts of toxics in their fat.

Franz noted that US EPA will be hosting a workshop for POTWs in Evansville, Indiana on January 12-14, 2010, which will include a focus on nutrients and energy conservation strategies. He also commented that US EPA's Office of Inspector General had recently released a report critical of the agency's approach in developing nutrient standards, and recommending creation of numeric nutrient criteria, beginning with a focus on "significant waters of national value." Baumann commented that report itself indicates that the US EPA's Office of Water did not concur with all of the report's recommendations. (Note: This report is available online at: http://www.epa.gov/oig/)

Upper Mississippi River Conservation Committee-Water Quality Tech Section

Short reported that the next meeting of the UMRCC-Water Quality Tech Section would be likely be held in October 2009, and that more information would be coming regarding the scheduling of this meeting.

Visions of a Sustainable Mississippi River Conference

Good gave a brief report on this conference, which was held in Collinsville, Illinois from August 10-13, 2009. He noted that several individuals on the WQTF and Water Quality Executive Committee (WQEC) participated in the conference and that the conference was focused on four themes: 1) ecosystem services, 2) floodplain connectivity, 3) biofuels, and 4) clean water. Good and Baumann both commented on the challenges that were faced in communicating with elected officials and other decision-makers during the conference's last day, noting that a presentation more like that given by Alexandra Cousteau (the conference's keynote speaker) might have been more effective in this decisions-makers venue.

Mississippi River Water Quality Collaborative

Garretson noted that WQEC members (Rob Morrison and Marcia Willlhite) and UMRBA staff (Hokanson and Barb Naramore) had participated in a discussion with the Collaborative during their most recent meeting, held April 16, 2009 in St. Louis. Hokanson added that the discussion had been very positive and that the examination of "local" nutrient impacts appeared to be a shared area of interest between the UMRBA water quality work groups and the Collaborative. Garretson noted that the next meeting of the Collaborative will take place September 16-18 in New Orleans.

Garretson also reported that the collaborative is completing its report which reviewed water quality standards in all 10 states adjacent to the Mississippi River. Hokanson requested that the WQTF be provided with a copy of this report when it is completed.

At this point in the meeting, all participants departed to attend the meeting of the National Research Council Panel "Clean Water Act Implementation Across the Mississippi River Basin," which was taking place at a nearby hotel. This meeting featured presentations by several WQTF members. The WQTF meeting itself resumed later in the afternoon at 3:30 p.m.

US EPA Region 7 Nutrient Survey of the UMR and Tributaries

Shepard presented a summary of recent nutrient monitoring conducted on tributaries to the Missouri and Mississippi Rivers, which also included some samples from the main stems of these rivers. Before reviewing the results of the monitoring, he noted that Region 7's primary "big river" focus currently is on the Missouri River, though it is hoped that efforts related to the Missouri will help inform work on other big rivers, including the Mississippi.

Shepard characterized this sampling project as effort to compile information to "ground truth" assumptions about nutrient levels and contributions, and to do so in a fairly quick, efficient, and inexpensive manner. He indicated that this sampling would be done in three different seasonal rounds – spring, summer, and fall – and that the information he was discussing was just from the spring sampling event.

Shepard described the sampling method as primarily shore-based, using apparatus that allowed samples to be collected 2 meters from shore at 1 meter of depth. He did note that, in one case, results from samples collected via this method were compared to results from boat-based sample – and that the methods gave similar results. Shepard next distributed a set of maps displaying results for total nitrogen, total phosphorus, and chlorophyll-a from the spring sampling.

Garretson and Franz asked what the location of the Des Moines River sample had been. Shepard replied that this sample had been taken quite close to the confluence with the Mississippi River and that perhaps it would have been better to take a sample further upstream to get a sense of levels in the Des Moines River.

Olson noted that it would be important to look at flow measurements for the days the samples were taken. Shepard agreed and indicated that this would be part of the followup work on this effort. Franz asked if the maps presented by Shepard could be shared electronically. Shepard replied that this was possible, but that all should keep in mind that these results summaries are just draft at this point.

Good asked whether Region 7 was planning to repeat the sampling beyond this year. Shepard replied that it was Region 7's intent to repeat this sampling. Good also asked why Region 5 did not participate in the project. Franz responded that staffing cuts had lead to Region 5's decision not to participate, but that he was interested in sharing this information within Region 5 to promote future participation.

Hora and Baumann indicated that their states do this type of tributary nutrient monitoring on a monthly basis. Short concurred and added that there is a lot of existing data to which the Region 7 results could be compared.

Good asked whether Shepard could provide a similar update to the WQTF at its next meeting, which would cover the results of the summer and fall monitoring. Shepard replied that this should be possible.

Finally, Shepard commented that the presence of nutrient levels such as those observed in this project could contribute to concerns previously expressed by Missouri regarding the re-introduction of sediment into the Missouri River via Corps restoration projects, as nutrients would be carried along with any sediment introduced to the river.

Reach Objective-Setting Process

Leo Keller of the Corps of Engineers' Rock Island District provided an update regarding the Corps' ongoing work to establish ecosystem goals at the geomorphic reach level for the UMR. He began by describing the relationship between the establishment of objectives (and goals) to management actions, including monitoring and project selection, in the Corps' restoration programs. Keller also emphasized the Corps' openness to working with Clean Water Act (CWA) programs in the objective-setting process.

Keller next described the different spatial scales at which goals and objectives can be set for the UMR, noting that the current effort is focused on the geomorphic river reach level. He then showed maps displaying the UMR system floodplain reaches (Upper Impounded, Lower Impounded, Unimpounded, and Illinois River) and the 12 geomorphic UMR system reaches used by the Corps in the objective-setting effort (10 on the UMR main stem and 2 on the Illinois River as described in a report by WEST Consultants in 2000).

Keller described the relationship between the floodplain reaches, the river geomorphic reaches, and the minimum interstate CWA assessment reaches, noting the "crosswalk" document that has been developed to compare these reaches. He noted that the idea of potentially harmonizing the reaches used by the Corps in objective-setting and the states in Clean Water Act assessments had been raised during the most recent UMRBA quarterly meetings in August 2009. Hokanson concurred with Keller's comment and indicated that the issue had been raised by Jim Fischer of Wisconsin DNR and reflects input to Fischer from John Sullivan of Wisconsin DNR.

Hokanson asked the WQTF if they were interested in possibility of greater harmonization between the objective-setting and Clean Water Act reaches. The WQTF generally expressed an interest, and Good said that assumptions should not be made going into the discussion about which set of reaches might potentially be manipulated. Keller indicated that he would convey this interest back to staff within the Corps.

Keller next described how objectives within reaches are grouped by the following essential ecosystem characteristics – geomorphology, water quality & biogeochemistry, hydrology & hydraulics, habitats and biota. He also provided an outline of the "Reach Objectives Reports" that are being developed for each UMR system floodplain reach and described the components of the 4 year planning cycle under the Navigation and Ecosystem Sustainability Program (NESP). Keller additionally described how reach objectives will help inform restoration project identification and sequencing.

Keller provided a general schedule for reach planning efforts over the next several months, noting the following:

- The river teams (FWWG, FWIC, RRAT and Illinois WG) will be meeting and working on reach planning over the period of August to November 2009.
- The only river team meeting scheduled so far is that of the Fish and Wildlife Interagency Committee (FWIC) which will take place September 15th in Milan, Illinois.
- Draft reach plans will be submitted to the river teams in December 2009 and then sent to the Environmental Management Program Coordinating Committee (EMP-CC) and Navigation Environment Coordinating Committee (NECC) for review and approval at their February 2010 meetings.

In closing, Keller directed any additional questions on reach planning to Dan Wilcox and Chuck Theiling with Corps.

Baumann expressed interest in engaging in the Corps' process, but indicated that it was difficult to determine where exactly water quality perspectives would plug in. Shepard commented that there would be value in participating in the process and using it as means to tap into all the work the Corps has done in researching the UMR.

Hokanson noted that the WQEC has been asked to consider representation to the objective-setting meetings, but was waiting for further information from the Corps in order to make such recommendations. He continued by asking the WQTF whether they saw others in their agency that would be likely to take on this role or whether it was most likely that the WQTF members would be both the best and most likely candidates. The WQTF members responded that they were both the most likely and most appropriate individuals to participate in the process.

Baumann asked the group whether this engagement is something that would be done by the WQTF as a whole or whether individual agencies/WQTF members would make decisions regarding their participation. All were in agreement that participation would be determined by individual agencies/WQTF members.

Biological Indicators for the UMR

Hokanson reviewed the "next steps" excerpt of the recent biological indicators workshop report and asked the group if they had any comments or preferences in regard to these potential next steps.

Hokanson continued by noting that the ad hoc workgroup, if it was pursued, could be seen as a mechanism to help facilitate the implementation of some of the other, more task-specific recommendations. He reported that the UMRBA had endorsed the idea of an ad hoc workgroup and asked UMRBA staff to work with the WQEC, NECC, and EMP-CC to determine the composition of the ad hoc committee. Hokanson noted that the both the UMRBA Board and the WQEC had indicated a preference that the ad hoc committee primarily include scientists as opposed to managers.

Franz commented that if there is an ongoing ad hoc group it would need to have a connection at the managerial level. Short concurred, indicating that there are both science and policy components to work on indicators. Good asked Hokanson what the intended function of the group was. Hokanson replied that its functions would be to provide a forum for the ongoing discussion of how condition goals are set within programs, to provide leadership across programs in the development of biological indicators, and to help make decisions regarding the timing and allocation of resources to various UMR biological indicator-related efforts including the other possible next steps described in the report.

Shepard questioned the value of establishing a new work group, both given the limited amount of time/resources available to participate in such a group and the existence of other forums where these topics could potentially be addressed, such as the reach objective-setting process. Olson concurred, indicating that he felt it would be preferable to first better understand what could be gained in the reach objective-setting process before creating a new work group. Shepard re-emphasized the potential benefit of plugging into the Corps' planning processes.

The meeting adjourned for the day at 5:30 p.m. on September 1, 2009 and reconvened at 8 a.m. on September 2, 2009.

604(b) Project Status

Proposal Status in States

Discussion of the 604(b) project began with an update of the status of the proposal within each of the states' grant processes.

Good reported that Illinois had just sent a contract to UMRBA and that UMRBA should be expecting to receive it shortly. Peg Donnelly asked whether Illinois had submitted a revised 604(b) package to US EPA Region 5. Franz and Good indicated that this had been done.

Hora reported that Minnesota would soon be sending out an RFP and that it allows for UMRBA to be eligible to apply. He added that once the RFP was released that it would take a couple months to reach the contract step.

Dkhili did not have a specific status update, but Hokanson noted that an application had been submitted by UMRBA on August 31 in response to Missouri's RFP. Dkhili indicated that it would difficult to predict a timeline for finalizing an agreement. (Note: Dkhili subsequently confirmed receipt of this application by Missouri DNR.)

Olson asked Hokanson to provide comment on Iowa's status, and Hokanson reported that UMRBA had signed a contract with Iowa DNR on July 29.

Baumann indicated that Wisconsin was still working the UMRBA proposal through its grants process, but expected to have a contract in place in a matter of weeks.

Good asked the group if, in general, it could be assumed that 604(b) funding would be in place in the range of a few weeks to two months. The WQTF members indicated concurrence with this assumption.

RFP for Biological Assessment Guidance

Hokanson commented that, given the status of the proposal within the states, it was timely to begin considering how to craft a request for proposal under the biological assessment component of the 604(b) project. He indicated that although both state and federal grant conditions may ultimately create some constraints on the contracting process, the WQTF at this point should seek to express what it wants to achieve in the project via the RFP, and that UMRBA would assure that all the terms and conditions of the agreements were met in establishing a contract.

The WQTF members asked Hokanson if there were any examples to follow in creating the RFP. Hokanson provided a copy of the RFP distributed by UMRBA in 2004 for work on the fish consumption and sediment criteria projects. He added that this RFP had also been at least in part modeled from RFPs used by MPCA.

Short commented that the RFP should include the following as components of the guidance:

1) IBI selection.
2) Endpoint target.
3) Sampling methodology.

Good asked Short if he thought bugs (macroinvertebrates) should be addressed in the guidance. Short replied that fish and macroinvertebrates should definitely be addressed in the guidance.

The WQTF discussed the emphasis that should be made in the RFP on specific biota to investigate vs. leaving the RFP more open and letting proposal applicants address the issue of which biota to pursue. The consensus of the group seemed to be to provide an emphasis on fish and marcoinvertebrates, while leaving openness to other biota, including vegetation. Vegetation was not identified for specific emphasis due to the fact that it may be limited in geographic applicability.

Franz suggested that Ed Hammer of US EPA be asked to review the RFP. Hora indicated that he would provide UMRBA with examples of biological assessment RFPs that had been produced by MPCA. Garretson indicated that she would check with the Collaborative for any recommendations on RFP

recipients. Franz and Shepard indicated that if proposals indicated a need for greater resources to complete the desired work, that US EPA might be able to provide additional funding.

Good proposed that a draft RFP be provided to the WQTF by October 1 and that the RFP be finalized by November 1.

Hokanson asked the group for examples of who, setting any procedural or logistical limitations aside, they would like to see contracted to do this work. Olson replied that it would need to be a contractor with experience not only on the scientific side but also with working in a water quality standards framework.

Donnelly suggested that different indices of biotic integrity (IBIs) might need to be employed to match differing conditions in the UMR. Short replied that one IBI could potentially be used throughout the UMR and that expectations for the IBI score would simply need to be adjusted for differing reaches. Hokanson commented that EMAP work suggested that only two fish IBIs were need to cover the UMR (i.e, one for impounded and one for unimpounded reaches), so one possible scenario would involve two different IBIs for the UMR with expectations calibrated to match each assessment reach.

Hora asked whether the RFP could convey the sense that the contractor is the leader of state workgroup on the effort. Good replied that he assumed that this would be an expectation of the contractor – that they would work with a designated work group, which could be the WQTF or different group of experts identified by the WQTF.

Short recommended that the RFP should emphasize the application of existing IBIs and not the creation of new IBIs. Olson concurred, but added that there may be a need to adapt existing IBIs for application on the UMR.

Good proposed the following timeline for completion of the RFP and contractor selection:

- Draft RFP to the WQTF by October 1st.
- Review and discussion of RFP by WQTF via October conference call.
- Final RFP by November 1st, followed by distribution of RFP, with 45-60 day for contractor response.
- Review and discussion of applications at January 2010 WQTF meeting.
- Contractor selection by January 2010.

Donnelly commented that ARRA conditions may need to be reflected in the RFP. Hora noted that federal and state conditions would likely be additive, so that all would have to be met. Hokanson replied that UMRBA would review and meet state and federal grant conditions.

Hora observed that the funding level for the biological assessment component may not be sufficient to fund the desired work. He further suggested that Minnesota might consider increasing its contribution to the project. Good and Donnelly asked whether some of the funding under the project's "cross-program collaboration" component might be able to support a meeting under the biological assessment component if it were cross programmatic in nature. Hokanson commented that, for example, a biological condition gradient workshop might fit under both project elements and that he would ask Naramore about this idea.

Designated Use Project

Project Report/First Year Report

Donnelly began her report by highlighting the proposed content of the project report as described in the handout provided to the WQTF, indicating that she was seeking feedback on this outline. Short asked

what level of detail was anticipated in Section 1c on the states' CWA approaches. Hora suggested that this could be a fairly succinct update of what has changed or what is new since the publications of the UMRBA's report on state CWA approaches in 2004.

Hora asked what would be included in Section 2a regarding the motivation for examining use designations on the UMR. Hokanson replied that he expected that this section would highlight driving forces as: 1) greater consistency in use designations, leading to more consistency in CWA outcomes such as impairment lists, 2) providing better definition of the expectations for aquatic life use in the UMR – and that these definitions would fit better with biological metrics, 3) developing uses that address expectations for off-channel areas of the UMR, and 4) improving the ability to communicate about use designations between CWA programs, with other UMR programs, and to the public. Shepard added that there is more than just the "cosmetic value" of using similar definitions and that the effort could lead to improved consistency in UMR CWA programs overall.

Hokanson suggested that a "first year report" on the designated use project include, at minimum, completion of the first three sections of the report as described in the project outline. He added that the data analysis element should either be addressed within the first year report or in a separate document scooping that effort. Good concurred and suggested that the first year report be provided to the WQTF by their next meeting, to be held in January 2010.

State Visits

Donnelly reported that she had scheduled state visits with Illinois (September 17th) and Iowa (September 23rd). Good asked if any other state visits had taken place to date. Donnelly and Hokanson replied that a brief visit with Minnesota had been done in February, along with a Lake Pepin TMDL meeting that had allowed for visits with Wisconsin DNR staff. However, Donnelly indicated that more extensive visits to Wisconsin and Minnesota would be needed.

Donnelly indicated that her next state visit, after Iowa, would be to Missouri. She and Dkhili agreed to set a date for this visit.

Relationship to Ecosystem Objective-Setting

The WQTF briefly discussed the relationship of the designated uses project to the Corps' reach-based ecosystem objective-setting process. Hokanson noted that there could be value in Donnelly attending some of these meetings, but also observed that this could be distracting from the primary missions of project (focusing on state visits, report, and data analysis). Short noted that the Corps' discussions were not like to reach the level of water quality criteria. Shepard observed that there is value, however, in building on the work the Corps has done regarding status and desired condition of the ecosystem.

Data Analysis

Donnelly and Hokanson noted the questions regarding data analysis raised by Donnelly in her handout including: *Priority data sets to examine? Which parameters to focus on? How to begin spatially? Main channel/border only or more?* Olson suggested starting with LTRMP as a priority data set and looking at the study pools. He added that the spatial data query tool can be used to look at LTRMP data. Hokanson asked whether all pools should be addressed at once or a subset initially. The consensus of the group was to look at 2-3 LTRMP study pools initially.

Donnelly asked which parameters she should examine in her effort to find meaningful distinctions between aquatic areas. The WQTF developed the following list of parameters: dissolved oxygen, TSS, pH, phosphorus, chlorophyll-a, nitrate, Secchi transparency, and ammonia.

Hokanson asked whether any biological components should be included in the first iteration of data analysis. The WQTF agreed that the initial investigation should focus on chemical/physical parameters.

Hokanson summarized what appeared to be the data analysis approach proposed by the WQTF:

- Data analysis would focus first on LTRMP study pools, with a subset of 2-3 pools being the focus of the initial investigation.
- The goal of the investigation is to determine where the data demonstrates meaningful differences between aquatic areas that would suggest the need for distinctions in use designations and/or water quality criteria.
- The initial phase of the investigation will be limited to chemical and physical parameters.
- Existing reports from LTRMP and LTRMP tools (e.g. spatial data query tool) will be employed to begin the analysis. Where needed, raw LTRMP data will also be analyzed.
- Other data sets (e.g. EMAP, state and other USGS data) will be brought into the analysis along with LTRMP data. This will allow for understanding how these data sets relate within a pool and possibly how this relationship might be extrapolated to other pools.

Hokanson asked Donnelly whether this initial investigation could potentially be completed by the January WQTF meeting. Donnelly indicated that this could be done.

Work Plan

Hokanson indicated that he would work to revise the project workplan in accordance with the meeting's discussions and would distribute that out to the WQTF. He noted that the work plan would both be shifted to reflect Donnelly's actual start date and would incorporate deliverables as discussed at the meeting today.

UMR Water Quality Poster

Donnelly and Hokanson mentioned that the poster created by Donnelly for the "Visions of a Sustainable Mississippi River" conference was available for review and comment and could be reproduced if desired by the WQTF. The WQTF indicated interest and Good noted his specific interest in getting 2 copies. Shepard indicated interest in obtaining a copy. The poster was then set out during a break in the meeting to allow for discussion and comment by the WQTF. Edits requested by the WQTF included:

- Correcting PFOS (all caps)
- Listing specific impaired reaches on impairment list.
- Showing assessment reached on the map.

Tiered Aquatic Life Use (TALU) Approach and Setting Impairment Thresholds

Olson initiated this discussion which a short presentation regarding the TALU approach. He noted that the recent biological indicators report pointed out that "there are no shared goals or vision for the UMR system" and a lack of "biological goals." Olson stated that the challenge is determining where the UMR stands in regard to impairment thresholds and how to set such thresholds and goals for the river's condition.

Short commented on the process of setting biological thresholds for Illinois' interior waters and noted that best professional judgment characterizations were actually fairly consistent in workshops that were held as part of this effort. Franz asked if these workshops just included water quality staff. Short replied that this was the case.

Shepard observed that the complexity of the system (the UMR) sometimes outstrips our ability to measure it. Short replied that the states have been using fish and macroinvertebrates for years to assess their intrastate waters.

Shepard commented that the UMR might be at a "5" on the biological condition gradient figure shown by Olson, and that perhaps a goal would be to get to a "3" or "4" as a sustainable condition. Olson noted that the UMR has a great resilience and still retains many of its species. Short cautioned that the relationship on the biological condition gradient is not necessarily linear. Good observed that there is a need to establish a shared goal across programs.

Hora provided an update on Minnesota's efforts to integrate tiered aquatic life use framework in their CWA program. He described this as the largest change to the state's water quality standards since they were first developed, and that it could apply to a variety of waterbodies ranging in size from the UMR to drainage ditches. Hora indicated that there have been initial internal and external stakeholder meetings conducted to date regarding the process. He described the timeline for the effort as completion of technical elements by 2011, followed by rule changes, and planning for final adoption by 2014. Hora indicated that some concern had been expressed regarding the ability to develop permits when using tiered aquatic life use approach, but that examples of permits from Ohio were helpful in understanding how permits can be written in this context. Hora indicated that Mike Feist and Will Bouchard are the lead MPCA staff working on the effort and Bouchard could work with the WQTF on UMR discussions.

Olson commented that, while there is awareness of the TALU approach in Iowa, he did not see that it would be adopted in the near future.

Short reported that Chris Yoder has been working in Illinois over the past 3 years or so, in collaboration with the Illinois Association of Wastewater Agencies (IAWA). He observed that keeping IL DNR engaged in the process has been part of the challenge. Good commented that there is interest at IL EPA in TALU, but that staffing limitations are a challenge. Short observed that TALU has broad support among all parties initially, but different groups have differing expectations that are brought out when the details of TALU are addressed.

Dkhili reported that Yoder has evaluated Missouri's program and that Missouri is considering whether to move forward with stakeholder meetings, which would be the next step in the process. He added that he expects Missouri will likely start work on the TALU approach during its next triennial standards review.

Shepard asked whether this discussion fit into the WQTF's biological assessment work (under the 604(b) proposal) or the designated use project. Hokanson replied that this conversation is relevant for the biological assessment guidance work, the designated use discussion, and the followup from the biological indicators workshop – and might speak to the need for the ad hoc workgroup as a forum to consider goals across programs. He added, however, that it seemed the most immediate fit for the biological assessment work under the 604(b) proposal. Olson concurred that this was probably the strongest initial connection.

Long Term Resource Monitoring Program (LTRMP) and CWA Programs

Hokanson initiated the discussion regarding LTRMP by noting three possible themes for the day's discussion:

1) Review state's use of LTRMP data in CWA programs,

2) Considering how states might work with LTRMP to make better use of existing data, and

3) Considering how LTRMP might be able to support CWA needs in the future (through expanded monitoring, outpool sampling, etc.) and what questions need to be asked to determine what is possible.

Hokanson displayed a chart summarizing the state's use of LTRMP data that was created in 2003 and a recent slide used in several UMRBA presentations reflecting a more current understanding of the use of this data. He asked the WQTF to comment on both of these and their use of LTRMP data generally.

Dkhili commented that Missouri does consider other states' data in their assessments and to address interstate disparities in listings, noting language regarding this in the 2010 listing methodology for Missouri. All states indicated that there were not restrictions on their use of out-of-state data per se, though in some cases assessment methodology may limit its usefulness.

In regard to LTRMP data specifically, Short indicated that Illinois uses fixed site data for the main channel. Olson concurred that Iowa uses the data similarly. Hokanson indicated that he would check with Minnesota and Wisconsin on their current utilization of LTRMP data, as they were no longer present to comment. Short commented that differences in analytes used by programs (e.g., suspended solids vs. total suspended solids; total nitrogen vs. Kjeldahl nitrogen) also limits the use of LTRMP data.

Donnelly asked whether, ultimately, a state's own data will be the deciding information in an impairment decision. Olson observed that if no state data is available, data from other sources, including LTRMP, can be used in making an impairment decision. Short noted that the states cannot utilize LTRMP's biological information as they don't have biologically-based standards in place for the UMR. Donnelly asked whether this means that the condition of fish couldn't be considered even if there was noticeable change in those populations. Good and Short replied that there was currently not a mechanism to incorporate this type of biological information as there were no biocriteria established for the UMR.

Hokanson asked whether the data accessibility issues noted in the 2003 summary still presented challenges to the usefulness of LTRMP data. Olson replied that access to the data has definitely improved, but that it can still be challenging to associate data with a physical location. Short observed that, for CWA purposes, the data needs to be extracted and manipulated, and cannot just be taken as provided via the web. Olson and Short indicated that they were the only individuals within their state CWA programs familiar with utilizing LTRMP data.

Short did re-emphasize that differences in methodologies alone should not preclude the use of LTRMP data. Donnelly commented that the issue lag time in serving out data appears to have been addressed by LTRMP. Olson and Short indicated that this was largely true, but that there still can be periods of some lag time.

Hokanson noted that the LTRMP FY 2010-2014 Strategic and Operational Plan had been included in the WQTF packet so that WQTF members could have a sense of how the LTRMP is approaching its work and setting its goals. He added that this document also conveys the importance that LTRMP places on continuity of data sets, and that CWA uses of the data are not an area emphasized in the Plan. Hokanson did note that, in regard to work on indicators, the Plan does mention both the WQTF and the reach objective-setting process. Franz and Hokanson observed that future such plans might provide an opportunity to more fully address CWA program uses of LTRMP data. Franz also commented that, although the states were part of the Strategic and Operational planning process, they were primarily represented by staff from natural resource management programs.

Shepard suggested that a productive next step would be to have LTRMP staff walk through the recently completed "Status and Trends" report to increase the WQTF's understanding of the report specifically

and the LTRMP program more generally. Good and Hokanson suggested that this conference call could then be followed by a more forward-looking discussion with LTRMP staff at the WQTF meeting in January. Hokanson indicated that he would be in contact with LTRMP staff to confirm their availability to participate in these conversations.

Hokanson asked whether there was value in updating the summary of the use of LTRMP data by state CWA programs. All agreed that this would be useful document. Hokanson indicated that he would circulate a draft update incorporating information from the day's discussions and structured as follows: 1) current utilization of LTRMP data, 2) obstacles to utilization of LTRMP data, and 3) possible areas/ways to enhance use of LTRMP data.

Confirming Priorities and Next Steps

The WQTF confirmed the following as priority work tasks;

- Updating the designated use project work plan to reflect WQTF discussions and January 2010 deliverables.
- Developing the RFP for work on the biological assessment guidance component of the 604(b) project.
- Setting up next conversations with LTRMP program staff.

Next Conference Call and Task Force Meeting

A WQTF conference call will be held in early October and will include information from LTRMP staff on the Status and Trends report and time to review draft 604(b) RFP.

A WQTF meeting will be held in January 2010 in Dubuque or the Quad Cities. At minimum, this meeting will include an LTRMP discussion, a report on designated use project and deliverables, and a discussion of contractor selection for 604(b) project.

Hokanson will work with the WQTF to schedule both the conference call and the meeting.

The meeting was adjourned at 2:30 p.m. on September 2, 2009.