

**Upper Mississippi River Basin Association
Water Quality Task Force Meeting
September 21, 2010
Rock Island, Illinois**

Meeting Summary

Participants

Gregg Good	Illinois EPA
Roy Smogor	Illinois EPA
John Olson	Iowa DNR
Tom Wilton	Iowa DNR
Will Bouchard	Minnesota PCA
Shannon Lotthammer	Minnesota PCA
Mohsen Dkhili	Missouri DNR
Bill Franz	US EPA, Region 5
Chris Yoder	Midwest Biodiversity Institute
Peg Donnelly	UMRBA/US EPA, Region 5
Dave Hokanson	UMRBA
Nat Kale	UMRBA
Barb Naramore	UMRBA

Call to Order and Introductions

The meeting of the UMRBA Water Quality Task Force (WQTF) was called to order at 10:05 a.m. by Gregg Good. Introductions of all in attendance followed.

Corrections to Previous Meeting Summary

Dave Hokanson asked whether there were any corrections to the summary of the May 4, 2010 WQTF meeting. No corrections were requested.

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

Hokanson distributed updated 2008-2010 UMR impaired waters and approved TMDL comparison chart, noting that preliminary information on Iowa's 2010 impairment listings was added subsequent to the initial distribution of this document via the meeting packet.

Illinois

Good said that Illinois' 2010 integrated report is not yet final, but there are no known issues with the draft report. He reminded the WQTF that Illinois' 2008 303(d) list is still only partially approved by US EPA, but that the issues preventing full approval are not UMR-specific.

Minnesota

Shannon Lotthammer said that Minnesota's 2010 303(d) list has been submitted to US EPA Region 5 for approval, and that no changes had been made since the WQTF had last discussed the list. She added that US EPA approval was expected by the end of October 2010.

Wisconsin

Hokanson said that while Wisconsin DNR staff are not able to attend this meeting, he had spoken with Jim Baumann in regard to Wisconsin's list. He stated that while the information on the chart is an

accurate reflection of Wisconsin's draft list as made available to the public, both Baumann and John Sullivan had expressed reservations about the PFOS listing in UMR Reach 2, as well as the removal of water-related PCB listings and fish tissue-related mercury listings. Hokanson said that Baumann was looking into these listings further.

Iowa

John Olson reported that US EPA Region 7 had approved Iowa's 2008 impairment list on August 4, 2010. He said that Iowa's 2010 list is still under construction, but would likely include new impairments, as reflected in the comparison chart. These new listings are an aluminum impairment in UMR Reach 5 and cadmium impairments in Reaches 7 and 8. Olson said that the new impairments result from the comparison of data collected by Illinois to Iowa's recently revised metals criteria.

Hokanson asked why Illinois does not have metals-related listings comparable to those in Iowa. Roy Smogor replied that Illinois does not have an aluminum criterion and that Illinois' cadmium criterion is likely higher than Iowa's. Bill Franz asked if Illinois EPA could check and see whether their cadmium criterion was such that Illinois should also be listing impairment.

Olson added that a TMDL to address the localized nutrient "slime" impairment on UMR Reach 7 has been approved. Smogor asked whether the "slime" impairment was related to a particular compound. Olson replied that it was not necessarily a particular compound, but rather the outcome from processes used at the ADM plant at this location.

Missouri

Dkhili reported that Missouri's 2008 impairment list had been approved by US EPA Region 7 on December 16, 2009. He stated that Missouri's Clean Water Commission had recently approved both Missouri's 2012 listing methodology document and its 2010 impairment list. Dkhili said that the impairment list approved by the Commission did not include any UMR listings and will be submitted to US EPA Region 7 shortly.

Dkhili explained that the localized lead and zinc impairment at Herculaneum was being proposed for delisting because data now indicated that the applicable criteria are met. He added that the TMDL addressing the previous exceedance was still proceeding and would address discharges from the Doe Run smelter at this location. Dkhili noted that the TMDL had just been through public comment, with only one comment received.

Dkhili also noted that Missouri was working on a new data management system that would allow online access to water quality data. He said that he would distribute to web link to the WQTF once the system was up and running.

US EPA

Hokanson provided brief comments on behalf of US EPA Region 7, which had been forwarded to him by Larry Shepard. These included a summary of Missouri's proposed 2010 listings, as had been described by Dkhili and confirmed the establishment of the TMDL for the localized "slime" impairment described by Olson. Franz offered no additional comment from the perspective of US EPA Region 5.

Discussion

Peg Donnelly asked about Illinois' inclusion of new impairments on UMR Reach 13, pointing out that Illinois does not have a TSS criterion. Good and Smogor replied that while there is not a directly applicable TSS criterion, when an impairment is identified, in this case for iron, other pollutant data is examined and even single exceedances will show up, though these are guidelines rather than standards.

For TSS specifically, Good explained, a listing is made when the 85th percentile value is over the guideline. Dkhili commented that Missouri uses a guideline, rather than a standard, for metals in sediment.

Olson said that Iowa DNR is in the process of putting data out to US EPA's ATTAINS database, and that Iowa is a test case for migrating assessment results to the US EPA database. He said that one difficulty so far has been that US EPA attaches impairments to causes, which drives entire database, but that Iowa uses a different approach. Good said that it appears that the ATTAINS database is only updated through 2006. Olson replied that Iowa working on putting out 2008 data, but that each state may be at a different point, so that the currency of the available data may vary by state.

UMR TMDL Updates

Lake Pepin TMDL and Related Efforts

Lotthammer reported that the site-specific total suspended solids (TSS) standard of 32 mg/l for the "South Metro Mississippi River" (Pools 2, 3 and Upper Pool 4) was approved by the MPCA Citizens' Board on June 22, 2010. She added that MPCA is currently awaiting the Minnesota Attorney's General approval of the administrative process, and that the standard would then be sent to US EPA for approval. Lotthammer said that MPCA is hopeful that US EPA approval can occur by the end of 2010.

Lotthammer said that MPCA also continues to work on riverine nutrient standards, though these are not specific to the Lake Pepin TMDL per se. She reported that technical support documents for these standards are currently being reviewed at US EPA Region 5. Dkhili asked Lotthammer to further describe the details of MPCA's approach. Lotthammer replied that it includes a focus on phosphorus, as well as response variables including chlorophyll-a, dissolved oxygen flux, and biological oxygen demand. She added that a nitrate toxicity standard is also included in Minnesota's approach, although this is dependent on upcoming research results from US EPA, and depending on timing may not make it into the current triennial standards review.

In regard to the phosphorus standard, Dkhili asked whether a reference condition would be used. Lotthammer replied that reference condition was considered, but several other factors were part of the standard development. Dkhili further asked how backwaters would be addressed under this approach. Lotthammer replied that this would be considered in future implementation.

Tom Wilton asked if there was a stream size threshold for the applicability of the standards. Will Bouchard replied that there is no cutoff in applicability due to stream size. Good asked if it was the case that the phosphorus standard would only apply if response variables indicated a problem. Lotthammer replied that this was correct.

Chris Yoder observed that US EPA Regions have been comfortable with approaches similar to what Minnesota is taking, but that US EPA Headquarters may offer objections. Smogor asked if Minnesota's approach took into account downstream impacts. Bouchard replied that Minnesota's approach will be protective of downstream uses. Lotthammer added that TMDL and permitting tools are also available to protect downstream uses. Smogor said that US EPA Headquarters has been pushing for the protection of downstream uses, but that guidance on doing this has not been provided.

Good asked why total nitrogen was not addressed in Minnesota's approach. Lotthammer replied that nitrogen is not an issue in regard to eutrophication in Minnesota waters, though a toxicity-related standard is being pursued, as had been previously mentioned. She added that Minnesota is willing to consider the effect of nitrate levels on downstream waters, but is looking for guidance from US EPA on how to do this.

Dkhili asked whether a single response variable could trigger a nutrient exceedance under Minnesota's approach. Lotthammer replied that a nutrient (phosphorus) exceedance plus one of the response variables could trigger.

Missouri Lead and Zinc TMDL

Dkhili described the current draft TMDL to address elevated lead and zinc levels near Herculaneum on the Mississippi River. He explained that the TMDL had been developed by US EPA Region 7 staff and that the public notice period for the draft TMDL had ended on September 15, 2010. Dkhili said that the assessment reach where the lead and zinc impairment had been identified is the 195.5 length between Lock 27 and the Ohio River. However, he emphasized that in only five miles of this reach had elevated levels of lead and zinc been measured and that the source of the contaminants is the smelter located at Herculaneum.

Dkhili explained Missouri's lead and zinc standards, noting that they are formula-based and hardness-dependent. He commented that for aquatic life protection there are separate acute and chronic values for lead, while for zinc the acute and chronic criteria are identical. Dkhili said that, prior to 2009, the criteria were more stringent, but had contained a calculation error which required correction. He noted that Missouri's standards now match the national recommendations for aquatic life protection.

Dkhili continued by describing the watershed in which the impairment is identified and the land use within this watershed. He also reviewed the data used and methodology employed in development of the TMDL, including the use of load duration curves. Dkhili explained that all loads in the TMDL are attributed to waste load allocation, as the TMDL assumes no natural background lead or zinc concentrations. He added that the margin of safety for the TMDL is implicit, and incorporates a conservative approach in its assumptions.

Dkhili said that US EPA and Doe Run, the smelter's owner, have a consent decree in place and are looking at ways to reduce pollution, including revisions to the NPDES permit for the facility. He noted that the 2010 CWA assessment of water quality data does not identify impairment and that as a result the segment may be delisted. Dkhili also displayed estimated outfall reductions for proposed permit conditions.

Lotthammer asked why it appears that an increase in lead is actually allowed at one of the outfalls. Hokanson asked if this might be the case because discharge at another outfall was being completely eliminated.

Hokanson asked whether the current lack of impairment was due to a change in observed values, or due to a change in calculations. Dkhili replied that it is due to change in observed values. Good asked whether the permit numbers will still apply without a current impairment listing. Dkhili answered that both the TMDL and the revised permit requirements would still apply. He added that US EPA is working with Doe Run to ensure that levels will be reduced to meet, or even be below, what is required by the TMDL.

Iowa Arsenic TMDL

Olson said that US EPA Region 7 has decided not to finalize the draft arsenic TMDL for two segments of the UMR in Iowa. He explained that no direct link existed to the timeline requirements of the *Sailors, et al. v EPA* consent decree and that US EPA's attempt to relate the impairment to sediment and nutrient impairments was also not successful. Olson said that as a result of this lack of linkages, US EPA had chosen not to move forward at this time with the TMDL.

Olson said that the arsenic impairments will stay on Iowa's 303(d) list, though he noted that an increase in Illinois EPA's detection limits to 4.5 µg/l makes it difficult to determine compliance with Iowa's criterion of 0.18 µg/l, as Iowa has used Illinois' data to determine compliance. He said that this issue may ultimately affect the listing, though he felt it is unlikely the US EPA will allow delisting solely due to the problem with detection limits.

Hokanson noted that the WQTF meeting packet included UMRBA's comment letter on the draft TMDL, which had pointed out a number of technical issues with the TMDL and urged US EPA not to pursue the TMDL and rather to engage in cross-agency dialog. Olson thanked UMRBA for sending the letter and said that it may have been influential in US EPA's decision. He also asked if UMRBA staff knew how the letter had been received by US EPA.

Hokanson noted that comment letters had also been submitted by other states, including Minnesota, Iowa and Illinois. Barb Naramore said that, before the letter was drafted, the Water Quality Executive Committee had held a conference call and that Art Spratlin of US Region 7 had expressed openness to the states engagement regarding the draft TMDL.

Hokanson noted that US EPA's response letter leaves open the potential to pursue the TMDL in the future. He added that the WQEC has continued to discuss some of the issues that were raised because of this TMDL and has developed a plan for conversations to explore these issues over the next 2-3 months. He noted that a description of this effort is included in the WQTF meeting packet and added that 604(b) cross-programmatic workshop could potentially be another way to further explore these issues.

Other Agency and Organization Updates

Illinois

Good reported that Illinois EPA is spending quite a bit of time on nutrient issues and on 2008 and 2010 impairment listings, including responding to US EPA Region 5's questions regarding the 2008 list. He said there is also substantial time being invested into tiered aquatic life use (TALU) development, including engagement with Illinois DNR and wastewater utilities regarding TALU. In terms of policy questions, Good mentioned that issues regarding weight of evidence and independent applicability continue to be important. Finally, he noted that funding and hiring constraints continue to impact the agency.

Minnesota

Lotthammer echoed Good's remarks, saying funding constraints continue to affect MPCA's programs. She said that MPCA continues to make progress on TALU development statewide and is currently developing indices of biotic integrity (IBIs) for cold water streams. Lotthammer said that MPCA's triennial standards review will include replacing the existing turbidity standard with a TSS standard, where the TSS number will be adjusted for different regions of the state and different types of streams. Will Bouchard further explained that exceeding the standard more than 10% of the time will constitute a violation. Smogor asked whether the standard makes a link to aquatic life response. Bouchard replied that it does, that there is a causal association and that multiple lines of evidence will be considered.

Iowa

In regard to 303(d) listing issues, Olson said that he proposed not using a single sample bacteria maximum for listing, as US EPA had said in a 2006 guidance document that a geometric mean should be used. He stated that, to date, US EPA Region 7 has not agreed with the geometric mean approach, but that he intended to continue investigating this possibility. Lotthammer and Smogor commented that single-sample exceedances tend to be the trigger for the majority of impairment listings. With regard to

chronic criteria for toxics, Olson noted that US EPA has indicated that it may no longer allow use of a threshold of 10% of values above the criteria before an impairment is identified. Smogor commented that Illinois has followed an approach of allowing up to one value in exceedance every three years, with the assumption that streams can recover from this type of infrequent exceedance.

Olson said that Iowa DNR has proposed nutrient criteria relating to recreation use for lakes, which is based on chlorophyll-a and Secchi depth. He noted that an earlier attempt to move forward with these criteria was not successful, but that this time a larger number of lakes – including any lake with a beach – is being included. Olson further explained that no criteria for total phosphorus (P) or nitrogen (N) is included in the proposal, but the expectation is that if an impairment is identified by measuring chlorophyll-a or Secchi depth, then a TMDL would be developed that would likely address N and/or P. Wilton commented that, in most cases, P would likely be the focus a TMDL. He continued by saying the target date for recommendations from technical committee for nutrients is March 2011. Olson said that US EPA appears to be comfortable with an approach for recreation that includes just chlorophyll-a and Secchi, but that it will likely want to see P and N number for aquatic life protection.

Missouri

Dkhili reported that Missouri DNR Director Templeton had left the agency for a new position. He also said that John Madras has been named to lead the DNR's Water Protection Program, replacing Scott Totten who had been serving in this position on an acting basis. He also noted that the state legislature did not renew DNR permit fees and that existing fees will end January 1, 2011, but that a few new staff have been hired nonetheless.

Dkhili said that Missouri DNR has a technical committee for nutrient stream criteria, which includes US EPA involvement. He noted that USGS has data that show correlation between N and algae in Ozark streams, but it is not clear how this will figure into the criteria development effort. He said that DNR continues to look for US EPA to develop large river nutrient criteria.

In regard to bacteria criteria, Dkhili said that DNR is working on the definition of a single sample maximum. He explained that DNR current has a geometric mean criteria, but there is no minimum number of samples associated with this, so that it can be calculated with one or one million samples, and that there can be quite a bit of variability in the time period in which samples are collected.

US EPA

Franz said that US EPA will be asking states to include nutrient data collection as part of permit renewals and that the agency is moving toward technology-based limits for nutrients. Naramore asked which constituents would be subject to the monitoring requirements. Franz responded that it would be for N and P.

Franz mentioned the SPARROW model webinar that had been held the preceding week and said that Dale Robertson would now be focused on SPARROW modeling of nutrient loading at the 12-digit HUC level. Franz said that a decision support system (DSS) based on SPARROW was also in development and that this DSS should be available in about one year and will allow for manipulation of land use within the model. He said that another SPARROW webinar would take place soon, likely in January 2011.

Smogor asked what the Gulf endpoint goal for nutrient reduction is. Franz said that the goal has been established by the Hypoxia Task Force as a 45% reduction in N and P from 2005 levels, in order help reduce the size of the hypoxic zone. Smogor asked if there is any legal requirement forcing the attainment of these reductions. Franz said that there is currently no legal requirement, though the establishment of a TMDL could create such a legal mandate. Donnelly said that an Executive Order, as

had been done for the Chesapeake Bay, is another tool that could be used to establish a legal requirement, although that did not appear likely in the near term for the Mississippi River.

Illinois

Good reported on the Nutrient Summit held by Illinois EPA on September 13-14, 2010. He said that approximately 150 individuals attended and that constructive discussions took place. Smogor noted that it was particularly helpful to hear US EPA's perspective, which was provided by Ephraim King. Good said that the materials from the summit will be placed on the Illinois EPA website, but that there were not specific next steps identified, aside from a likely next meeting.

Good also said that Illinois EPA's work on nutrients has not been demonstrating strong correlations between nutrient levels and impacts, though US EPA has been strongly hinting that a particular range of total nitrogen levels should be established in state water quality standards.

Wisconsin

Hokanson said that he and Nat Kale had spoken with Jim Baumann regarding Wisconsin's nutrient criteria and would provide a brief update on Wisconsin's behalf. Hokanson explained that Wisconsin's new total phosphorus criterion of 100 µg/l is applicable to the UMR main channel and side channels of all UMR pools adjacent to Wisconsin. He said that one reason Wisconsin had chosen a consistent number across pools was address concerns about protection of downstream uses.

Hokanson said that the rule including this criterion has completed legislative review and that only procedural steps, including the establishment of an effective date, remained and that no substantive changes were expected. He reported that Baumann had said one consideration in setting an effective date is to try and synchronize it with permit renewals, as well as the possibility for a gap time between state implementation and US EPA approval. Donnelly said it was unlikely that a state would go ahead with permits until US EPA had approved the standards. Hokanson said that his understanding from Baumann was that the rules had not yet been submitted to US EPA for approval.

Upper Mississippi River Conservation Committee-Water Quality Tech Section (WQTS)

Olson said that John Sullivan is the new chair of the WQTS and that the WQTF will next meet October 19-20, 2010 in Muscatine, Iowa. He noted that macroinvertebrates will be a primary focus of this upcoming meeting and that the subsequent meeting of the WQTS will be in March 2011 as part of the UMRCC annual meeting.

Aquatic Life Designated Uses (ALDU) Project

Donnelly reviewed the timeline for the completion of the ALDU project report, noting that the revised draft of the report would be provided to the WQTF in December 2010 for discussion at the January 2011 WQTF meeting, and that the report would be finalized by the end of the intergovernmental personnel agreement in February 2011.

Donnelly next gave an overview of the components of the draft project report, which had been sent out to the WQTF for review prior to the meeting. Donnelly emphasized that one area where the states' review was needed was in the portrayal of their existing uses, criteria, and assessment methodologies in Chapter 2 of the draft report.

Hokanson and Donnelly noted that they were unsure whether to include fish consumption as part of Table 2-9 summarizing the attainment of the aquatic life use on the UMR, as it appears that some states may include fish consumption as part of their aquatic life use. Good said that Illinois does not "embed" its fish consumption use in its aquatic life use, as the draft report current states. Bouchard said that in

Minnesota, the uses are defined together but assessed separately. Smogor observed that part of the confusion in issues such as this is that aquatic life use has not been clearly defined, though he indicated that his understand of the scope of the project was to focus on biological integrity, not fish consumption. Hokanson said Baumann had indicated that the uses were assessed separately in Wisconsin, even though fish consumption is not defined in rule as a separate use. Dkhili and Olson indicated that their states had completely separated out fish consumption from aquatic life.

Hokanson asked Olson whether it would be acceptable to send his comments on the draft report along to the full WQTF. Olson said that this would be fine. Naramore encouraged the WQTF to use “reply all” when making comments, so that all members could benefit from the input. Donnelly indicated that this was essentially a “last call” for comments on Chapters 1-3 of the report.

Donnelly said that Chapter 4 gives a summary of data and literature reviewed and that much of it had been previously communicated to the WQTF, but it is now compiled and internal summaries are provided. She noted that the discussions address longitudinal, lateral, and temporal variation.

Donnelly distributed a summary of EMAP data and acknowledged that the “above or below” language used here and in Chapter 4 to compare data to threshold values is not ideal, but that it did not seem appropriate to use the term “violation” in the context of this data analysis. Good asked what values had been used for the comparisons. Donnelly replied that in some cases these are existing or proposed criteria, while in other cases they are recommended values. Olson suggested adding language to qualify any discussion about violations. Smogor suggested using the terms “met” and “not met.”

Lotthammer proposed removing the comparison from a regulatory context entirely, and placing more emphasis on identifying where there are differences in observed values, rather than comparison to standards. She added that comparisons to single values may imply a consistency that doesn’t actually exist on the UMR. Dkhili concurred, suggesting that a statistical analysis of differences would be a more appropriate approach than the threshold comparisons, and that standards should not yet be part of the discussion.

Naramore suggested that perhaps table notes are needed that explain the origin of the thresholds used for comparison. Hokanson suggested it might useful to simply have a separate table explaining the threshold values selected. He recalled that one of Baumann comments on the report was that it needed to be more compelling in regard to “what are we trying to fix” and that the comparison to threshold values can help demonstrate what Baumann had described as areas of potential over- or under-regulation of the UMR’s water quality. Therefore, Hokanson said, a primary value of retaining the threshold comparisons is in the problem definition, though he agreed that statistical analysis of data may be more important in developing solutions.

Olson said that he favored the idea of having a separate table to describe the threshold values used. He also supported the use of alternate language to describe the threshold comparisons. Donnelly said that part of her uncertainty was in selecting threshold values to use (e.g., should temperature be 30° C or 31° C?). Hokanson emphasized that, since the numbers were just being used for comparative purposes, any reasonable choice could be employed, as long as it is appropriately explained.

Lotthammer reiterated that the report should not seek to be an assessment and, as such, there was not great benefit to the threshold comparisons. Donnelly pointed out that an additional problem is the interrelationship between variables, so that the value of single-parameter comparisons may be limited.

Smogor said that, in regard to the EMAP data summary tables, if the point is just to illustrate variability, it is not necessary to “color in” the highest and lowest values in order to observe longitudinal variation. Donnelly replied that the EMAP tables are the first data set that gets all 13 assessment reaches. She said

her goal in assembling the tables was to illustrate where there may be breaks between assessment reaches; where the UMR should potentially be treated differently under the CWA. Donnelly said that one of her goals is to give the WQTF enough information to make an informed decision and to highlight longitudinal variation. Smogor reiterated that if the goal is to show longitudinal variation, the colored areas on the chart aren't needed. Donnelly replied that the coloring helps to highlight "clumps" or breakpoints in the data.

Bouchard requested that the data be portrayed in graphs with box plots. Donnelly said that this could be done, though graphs have previously been provided to the WQTF and that US EPA would want to see "numbers" to justify decisions.

Good asked Donnelly and Hokanson what they needed to keep moving forward on the project. Hokanson replied that the report has gone as far as summarizing available data and that staff need input on the ideas in Chapter 5 regarding which option(s) the WQTF would like staff to investigate further.

Olson said he didn't think that the WQTF was as far off track as the discussion might suggest. He said that the report has looked at both lateral and longitudinal differences, and that we need to know if the UMR states should modify their aquatic life uses to measure off channel areas.

Dkhili commented that the group should not be limited by what is done under current assessment approaches and that the data should inform decisions about where breakpoints should be. He also said that a more specific focus, such as concentrating on aquatic life use in the main channel in the near term, may facilitate progress.

Donnelly recalled comments made by Sullivan that the observation of differing water quality in backwaters indicate a need for different uses to be assigned in protecting backwater areas. She said that other national programs have made distinctions based on longitudinal and lateral variations, and that the project is going in this direction, but added that she needed input from the WQTF in how to proceed. Good said that is important that clear recommendations be made in the report.

Donnelly replied that the states need to realize that they will likely need to live with any recommendations that come out of the report, and as such feedback from the WQTF at this point is important. She asked that the WQTF review the report over the next few weeks and provide feedback. Donnelly also offered that a longitudinal division into 13 separate segments was not something she would recommend. Good concurred that division into 13 was not a desirable outcome. Donnelly observed that choices could be made both on what is emergent in the data and on approaches being taken in other programs, such as the geomorphic reaches used in restoration planning. Hokanson said that the type of feedback Good had provided (i.e., there is not interest in looking at 13 separate longitudinal classifications) is helpful as staff does not need to spend a lot of time looking at options that the WQTF will not ultimately support.

Bouchard said he is actually more interested in programmatic differences, such as how different the use definitions are between states and if states will need to work to bring assessments in line with each other. Donnelly observed that there is little point in putting out new uses if there is not an accompanying assessment methodology and criteria in place to determine attainment of the use. She added that a next logical step is a monitoring program and that all the components – use, criteria, monitoring, and assessment – will need to match up.

Bouchard asked if the current aquatic life uses in the states are very different. Donnelly replied that none are extremely specific about what aquatic life use attainment means. Lotthammer said that many of these use definitions were written before we had the tools to actually measure and characterize

aquatic life. She suggested perhaps thinking about the project more iteratively, with a need to periodically revisit use definitions.

Olson said that the report needs to provide the rationale and justification for identifying distinctions laterally and longitudinally as its main focus, providing the basis for future work. He said that he thought the project is headed in the right direction.

Donnelly stated that the group has done a good job of defining the project, and that there are some similarities in the comments made during the discussion. She asked the WQTF to look through the report in detail, beyond the summaries. She noted that one of Baumann's comments indicated that classifying for lateral diversity may not be necessary, as this not typically done for different portions of Wisconsin lakes. Therefore, she emphasized a need to be clear in stating why the WQTF might see a need to protect certain areas, such as backwaters, in a unique fashion.

Smogor said that he thought that the reason Yoder is looking at biological assessment in the main channel is because the WQTF had already decided to focus its work on the main channel. Hokanson replied that the two projects are related, but separate, as Yoder's work is in response to a recognition that, under any classification structure, there is a need to have better tools to assess aquatic life attainment on the main channel. He continued by saying that the aquatic life designated use project is concurrently better defining the aquatic classes where tools such as bioassessment would be applied.

Good observed that it is confusing to talk about "uses" when, to his understanding, what is really being discussed is one aquatic life use, with subclasses for the impounded areas, side channel areas, etc. Hokanson replied that the question might then become not uses per se, but how the states separate out subclasses within the aquatic life use and if they use the same mechanism. Donnelly said that states use different approaches to accomplish this.

Dkhili said that it is possible for the use and the use's name to be unchanged, but for accompanying criteria to be different. Donnelly said that one way to accommodate for diversity is just to change the criteria for each "zone," though in Chesapeake Bay different uses have been assigned for each zone. She continued by saying that not changing uses is one of the options that staff put forward in the draft report. Good said that leaving uses in place but changing criteria looked promising. Hokanson asked whether it would be necessary to create an umbrella UMR aquatic life use definition or whether states' aquatic life use definitions as they exist now could be left in place.

Smogor asked whether the Chesapeake Bay bases their uses on a gradient of "naturalness" within a biological condition gradient (BCG) construct. Yoder replied that the BCG has several parts and in this (the aquatic life use) project, the WQTF is doing natural classification; while another part is the level of attainment/ecological attributes. He continued by saying that, in this case, you start by looking at natural characteristics (ecotypes) – for example, you see that main channels have different assemblages than backwaters – then develop a natural classification structure. Yoder offered the example that Minnesota has seven different classes of streams, and each of these classes then has tiers within it.

Bouchard suggested that Minnesota could add another category to its current seven to accommodate the UMR. He continued by saying that this doesn't require redefinition of aquatic life and therefore seems like the most practical approach. Yoder said that the UMR has obvious natural distinctions that need to be treated differently, but that in making distinctions it's important that each are different enough to require a different "yardstick" for measurement. Smogor said that his preference would be to do tiering first, and then separation into classes. Yoder and Bouchard replied that classifying first is preferable in terms of creating a structure within which to further examine data and establish tiers. Bouchard added that the process is likely to be iterative, where a first cut is taken at classification and tiering, but can be revisited with additional data and understanding.

Good suggested that one appealing approach is to make distinctions between the upper and lower parts of the UMR, and a distinction between the main channel, side channel, connected backwater, and impounded areas – resulting in eight subtypes.

Franz said that from his perspective the report is a good start, but also tells us we have a ways to go. He stated that it is clearly important to recognize the diversity in the system and also to be able to communicate the choices made to the public. Franz added that we need to be careful that we don't convey that the upper UMR is "good" and the lower UMR is "bad," but rather that the ecosystems are different. Smogor agreed, citing the example that people think that a natural swamp is "worse" than a natural stream.

Dkhili said that it is important to not let current criteria or methodology cloud the WQTF's thinking in coming up with breaks on the river. He suggested running a statistical model to come up with how to break things up longitudinally. Dkhili added that dealing with multiple lateral classes might be overwhelming at this point. He suggested maintaining focus on aquatic life use in the main channel at this time, and then eventually expanding out to other aquatic areas and other uses (e.g., human health).

Good said that he was not sure exactly what types of comments to get back to Donnelly. Franz suggested sending in any comments to Donnelly and Hokanson, then determining whether a conference call might be needed. Naramore suggested that comments on the report be sent in by October 8, 2010 and then that a conference call be held in mid-October.

Nutrient and Nonpoint Source Pollution Issues

Missouri's Implementation of the Mississippi River Basin Healthy Watersheds Initiative (MRBI)

Dkhili provided an update on Missouri's MRBI program implementation. Before Dkhili began his remarks, Good noted that Illinois had three 8-digit hydrologic unit code (HUC) scale watersheds in MRBI, plus a shared watershed with Indiana. Olson commented that Iowa also had three 8-digit HUC watersheds, plus one shared with Minnesota, resulting in 20 12-digit HUC watersheds in the program overall for the state. Dkhili noted that, in sum, the MRBI included 41 8-digit HUC watersheds and that 18 of these are in the UMR basin.

Dkhili reviewed the primary objectives of MRBI, which are to help producers voluntarily implement conservation practices that:

- Avoid, control, and trap nutrient runoff,
- Improve wildlife habitat, and
- Maintain agricultural productivity.

He further explained that the MRBI is funded at a level of \$80 million dollars in the years FY 2010 through FY 2013, with funding being provided through three existing conservation programs – the Cooperative Conservation Partnership Initiative (CCPI), Wetlands Reserve Enhancement Program (WREP), and Conservation Innovation Grants (CIG).

Dkhili said that monitoring and evaluation under MRBI is to take place at three levels: 1) field scale/edge of field, 2) small watershed scale (12-digit HUC), and 3) large watershed scale (8-digit HUC).

In regard to Missouri's MRBI implementation, Dkhili said that the state has projects in twelve 8-digit HUC watersheds, which encompass a total of 59 12-digit HUC watersheds. He explained that these projects have durations of 4.5 to 5 years, with federal funding of \$6 million over the first three years.

Dkhili said that data collection associated with Missouri's MRBI implementation includes USGS stream flow monitoring, ongoing water quality monitoring, and edge of field (EOF) monitoring. He added that the EOF monitoring is the landowner's responsibility.

Dkhili described Missouri DNR's collaboration with local Soil and Water Conservation Districts in implementing MRBI. He said that this has included assistance with applications, a \$0.5 million matching fund for cost share and incentives, and technical support such as data analysis and modeling.

Good asked how EOF monitoring is proceeding. Dkhili replied that this is a challenge for the program, noting that one landowner has engaged a university to do monitoring, but that others are still looking for ways of getting this done. Good asked whether a quality assurance project plan (QAPP) is required for EOF monitoring. Dkhili replied that a QAPP is not required and that it is not clear yet how EOF monitoring will play out in the program.

604(b)-Funded Nutrient Project

Kale gave an update on the status of the 604(b)-funded nutrient project. He reviewed the primary components of the project report and gave a brief description of the status of each of these elements. Kale said that one of the immediate next steps will be the distribution of a survey to UMR water suppliers and he provided copies of the survey for review and feedback from the WQTF. He said that a draft report would be given to the WQTF and other project participants in December, per the schedule in the 604(b) project work plan. Good asked whether the data to be used in the report is UMR-specific. Kale replied that basin-wide data will be included, but that UMR-specific information will be pulled out from the basin-wide data.

604(b)-Funded Cross-Programmatic Workshops

Hokanson reminded the WQTF that the 604(b) project included funding for two cross-programmatic workshops to be completed by September 30, 2011. Naramore added that the workshops will be accompanied by reports and that some travel funding is available associated with these workshops. Hokanson said that the time is now here to consider topics for these workshops and asked the WQTF for topic suggestions.

Good offered that MRBI and human health use/arsenic discussions could be potential topics. In regard to human health/arsenic issues, Dkhili said that one of the considerations is how to handle background data, in cases where it's higher than the recommended/required concentrations. Good offered that revisiting ecosystem restoration-Clean Water Act workshops could be an option. Franz suggested that emerging contaminants as a potential topic.

Naramore said that other topics could include collaboration with specific groups (e.g., NGOs, industry, water suppliers) and nutrients, potentially including hypoxia and state nutrient reduction plans. Franz commented that US EPA will be holding workshops for states regarding nutrient reduction plans. Good asked whether US EPA would be providing funds for the development of state nutrient reduction plans. Franz said that US EPA funds would not be available. Naramore asked whether the workshops would be state-based and Good asked who would be running them. Franz replied that workshops would be state-based and that Tom Davenport is leading the effort.

Next Steps

Hokanson summarized two immediate action steps arising from the day's discussions:

- 1) Comments on the draft aquatic life designated use report are due by October 8, 2010 and a conference call will follow.
- 2) Comments on the water suppliers' survey are due by September 29, 2010.

Hokanson also mentioned that the second work session for the UMR CWA Biological Assessment Guidance Document project would be taking place over the next two days.

Adjournment

The WQTF meeting adjourned at 5:15 p.m.