

**Upper Mississippi River Basin Association
Water Quality Task Force Meeting
September 19, 2012
Davenport, Iowa**

Meeting Summary

Participants

Gregg Good	Illinois Environmental Protection Agency
Matt Short	Illinois Environmental Protection Agency
John Olson	Iowa Department of Natural Resources
Mary Skopec	Iowa Department of Natural Resources
Tom Wilton*	Iowa Department of Natural Resources
Will Bouchard	Minnesota Pollution Control Agency
Mike Feist	Minnesota Pollution Control Agency
Glenn Skuta	Minnesota Pollution Control Agency
Mohsen Dkhili	Missouri Department of Natural Resources
John Ford	Missouri Department of Natural Resources
John Sullivan	Wisconsin Department of Natural Resources
Ed Hammer	US Environmental Protection Agency, Region 5
Linda Holst	US Environmental Protection Agency, Region 5
Chris Yoder	Midwest Biodiversity Institute
Barb Naramore	Upper Mississippi River Basin Association
Dave Hokanson	Upper Mississippi River Basin Association

**Participated by phone*

Call to Order

Chair John Olson called the UMRBA Water Quality Task Force (WQTF) meeting to order at 1:05 p.m.

Debrief of UMR CWA Monitoring Strategy Work Session

The WQTF began its meeting with followup discussion emerging from the UMR CWA monitoring strategy work session completed earlier in the day.

Number of Sites Needed per Reach

John Sullivan said Wisconsin has used US EPA's EMAP-GRE results to successfully determine attainment on UMR reaches. Mike Feist added that he is not convinced that 30 sites per reach are needed and that a lower number of sites, similar to ORSANCO's 15 per pool, could be used on the UMR. Chris Yoder replied that statisticians will say the greater number is needed, and that ORSANCO's lower number is supported by a rarefaction study, something which we do not have in hand for the UMR. He added that, unless sites are randomly selected, statisticians will argue that the results cannot be extrapolated to the population (i.e., the reach).

Yoder said a gradient of confidence in results exists, dependent on the number of sites selected. Gregg Good concurred, adding that US EPA has stated 50 sites are needed for a 90% confidence level, but there

is no required confidence level established by the CWA. As such, he said, it is up to the WQTF to decide what level of confidence it seeks to achieve.

Independence of Sample Sites/Water Quality Changes and Effects of Point Sources

Sullivan said sample size requirements assume that the sites are independent but in reality river sites are not independent, especially those in close proximity. Glenn Skuta said that on a large river such as the UMR, it is unlikely there will be great changes in water quality over a short distance and that water quality is not likely to be tied to a single point source. Good said he did not see minor NPDES dischargers as likely having much effect on water quality in the main stem. Yoder replied that not all minor dischargers were kept in the stressor inventory, only those considered most likely to potentially impact water quality.

Monitoring Design Preferences

Feist said he would like to see alternatives besides the probabilistic and pollution survey options currently being considered, perhaps some hybrid of the two approaches that would support both 305(b) and 303(d) functions. Olson asked Feist whether he is advocating this because of resource constraints or because it provides a better overall design. Feist replied that the pollution survey has a lot to offer, but the reality of resources constraints means other options need to be considered. Linda Holst asked how an assessment might be conducted under the type of approach Feist suggests. Feist said he felt a 13-reach level assessment could be supported, as there is unlikely to be a lot of variability within a reach. He said a percent of samples in compliance per reach might be one likely way to conduct an assessment.

Sullivan said he is comfortable with a probabilistic approach that utilizes a percent of samples complying per reach in order to determine attainment. Skuta said he would simply like to see more options discussed in the draft strategy, such as reductions in the number of sampling sites within the different probabilistic options. John Ford said it remains important to identify the approach the WQTF would ideally like to see, as well as other options that may be pursued if resources limit what can be done.

Goals – Near Term and Long Term

Good asked the group what they see as goals for the monitoring strategy project and the WQTF in the next five years. Sullivan said, at minimum, the states should be using similar assessment methods and incorporating biology into their assessments. He said that consistent listing would follow, but the starting point would be consistent 305(b) processes. Good said he agrees with consistent 305(b) as the near term goal and consistent 303(d) as a longer term goal. Sullivan then asked what US EPA's perspective is on this question. Holst replied that US EPA would rather not wait 10 years to see consistent 303(d) listings for the UMR. Sullivan said the WQTF will need to discuss developing listing guidance to share among the states.

Good asked whether more than one biological assemblage is really needed to assess the UMR. Will Bouchard said one assemblage (i.e., fish) could be sufficient to conduct an assessment.

Holst suggested that a hybrid design might have promise, one that combines reach-wide probabilistic sampling with some sampling targeted to known stressors. Mary Skopec said she sees merit in a slightly different hybrid – a systematic “per mile” approach with targeted sites added for known stressors. She added that it will also be important for the WQTF to establish priorities for the next 1 to 5 years for UMR monitoring.

Feist asked whether the shared goal of the WQTF is to produce assessments at the 13 reach level. Good said that this is his goal for UMR assessment. Sullivan said it may be necessary to step back to assessment at the four major reach level as identified in the ALDU report.

UMR CWA Assessment Methodology Development

Hokanson asked whether the WQTF wanted to see development of an assessment methodology proceed now or await completion of the monitoring strategy project. Olson said this work should proceed now, as it will help inform choices made in the monitoring strategy project. Others concurred that there is value in starting assessment methodology work in the near term. Hokanson said he could begin work on this by looking at states' existing methodologies and those of other river basin groups, such as ORSANCO.

Macroinvertebrate Comparison Study

Bouchard said interest in a comparison study emerged from lingering concerns about the EMAP-derived UMR macroinvertebrate index (GRMIN), as well as questions regarding the potential applicability of artificial substrate methods on the UMR. He said Minnesota and Wisconsin are planning to move forward with a study and want to determine whether other UMR states are intending to participate, as there is benefit in carrying out the investigation along the full longitudinal extent of the UMR. Bouchard said the planned timeline for the study is to have a proposal in place and standard operating procedures determined by March 2013, with monitoring conducted between July and October 2013.

Tom Wilton said Iowa DNR is interested in participating at some level, dependent on the number of sites targeted and associated costs. Bouchard said he envisions that 10 to 30 sites should be sampled downstream of the Minnesota-Wisconsin section of the UMR. Good said that he and Short would give further consideration to Illinois EPA's ability to participate.

Bouchard called the WQTF's attention to the draft proposal he had provided and invited comment on this draft. He said he is in particular looking for input on the selection of sampling locations, with the use of a subset of EMAP-GRE locations as one possible approach. Bouchard also noted that one of the key learning objectives in doing the artificial substrate sampling is simply to determine how many samplers are lost. Yoder concurred, saying it will be important to set out enough samplers so that loss of individual rigs will not compromise the ability to draw conclusions from the study. He added that NRSA data may also offer an opportunity for comparisons to be made.

Wilton asked whether Metropolitan Council gear is most likely to be used for the artificial substrate sampling. Bouchard confirmed that this appears to be the most likely choice of gear, though he added he would need to confirm with Brian Weigel of Wisconsin DNR that this gear is compatible with the IBI Weigel has developed.

Hokanson suggested that it may be most effective for Bouchard to identify a date by which states need make a determination regarding whether and how they plan to participate in this study.

With no further business, the WQTF meeting adjourned at 3:02 p.m.