Upper Mississippi River Basin Association
Water Quality Executive Committee (WQEC)
and Water Quality Task Force (WQTF)
Joint Meeting

June 12-13, 2018
Grand Harbor Resort
Dubuque, Iowa

Highlights and Action Items Summary

January 31-February 1, 2018 WQTF Highlights and Actions Meeting Summary

- The WQTF approved the draft highlights and actions summary of the January 31 –February 1, 2018 meeting as-written. Members requested to receive draft meeting summaries as early as possible (rather than in the next meeting packet) and agreed that the format of highlights and action summary is helpful (rather than detailed minutes).

CWA Program Updates

- *Illinois* – Gregg Good said Illinois' 2018 CWA report will be available to public on the ILEPA website on June 15th. There is no new TMDL update for Illinois.

- *Iowa* – Dan Kendall reported that USEPA approved Iowa's 2016 CWA report. Iowa anticipates having the 2018 update completed by the end of 2018, and that it will be largely consistent with previous reports. No TMDL updates were discussed.

- *Minnesota* - Lee Gauske said USEPA approved Minnesota's 2014 CWA report. Minnesota PCA has submitted its 2018 draft to USEPA for review. The 2018 report provides no new updates for the Mississippi River.

  The Lake Pepin TMDL update will be published soon for public comment. While the problem source is primarily agriculture runoff, there is particular focus on point waste load reduction. The report also integrates eutrophic listings on the Minnesota River and upstream segments of the Mississippi River.

  In response to a question from Albert Ettinger, Shannon Lotthammer explained that Minnesota and Wisconsin differ in that Minnesota uses a stressor response value for phosphorous and Wisconsin uses a straight value. Regardless of the difference in standards between the two states, Lotthammer assured attendees that TMDL's are always coordinated between the two states.

- *Missouri* – John Hoke explained that the Missouri 2018 CWA report was approved by a citizen committee in January 2018. However, state statute requires six public notifications of proposed CWA updates. Ultimately, only five were published requiring the state to re-employ the review process entirely. Missouri anticipates submitting its 2018 CWA report to USEPA in October 2018. Relative to TMDLs, Hoke explained that Missouri is working on non-point source monitoring for bacteria as well as point source monitoring in the upper part of the state for bacteria.

- *Wisconsin* – Greg Searle said Wisconsin's 303(d) and 305(b) lists were submitted March 31, 2018 to USEPA for its 2018 CWA report. It is expected to take one year for approval. The only change from the 2016 report was the total phosphorous threshold for reaches five and six.

  Searle provided additional TMDL updates, adding that there is a new Wisconsin DNR TMDL coordinator for the Wisconsin River, extending to the Prairie Du Sac Dam. Wisconsin is initiating point source work by coordinating with Minnesota on Lake Pepin, developing on St. Croix TMDL, and implementing the Rock River TMDL. Searle added that there is demonstrated success in applications of cover crops through no till and healthy soil initiatives as farmers are seeing the economic benefits in such practices.

2018 – 2022 Strategic Planning

- Kirsten Wallace provided an overview of the 2018-2022 UMRBA Strategic Plan, focusing on water quality strategies. This version focuses on topical priorities for the five states in comparison to the 2012-2017 UMRBA Strategic Plan. In part, it reflects substantial work by UMRBA over the past five years to further refine its position statements on various issues. Within the next month, UMRBA will seek input on the draft plan from the state members that serve on various committees and work groups. Once that is complete, a revised plan will be distributed to UMRBA's distribution list for review.

- Jim Fischer reflected on the important role of the UMRBA in the facilitation of discussion and coordination between member states. The Association keeps the states focused on pertinent issues and provides a valuable opportunity to have five states speak as one.

Advocacy and Communications

Draft UMR Water Quality Improvement Act Measure

- Kirsten Wallace provided background and context for the draft UMR Water Quality Improvement Act legislature framework as provided in the meeting packet. UMRBA began considering this legislation when Rep. Ron Kind asked for UMRBA's perspectives on a UMR sediment and nutrient monitoring and modeling network that he initially raised in the early 2000s. Recognizing the substantial advancement in nutrient reduction strategies since then by federal and state governments and the private sector, the proposed framework expands the legislation to also provide federal investment in reduction measures.

  The legislation framework includes five major titles: 1) sediment and nutrient monitoring network, 2) modeling and research, 3) sediment and nutrient runoff reduction, 4) communications strategy and 5) authorization of appropriations and related matters. Based on WQEC/WQTF input, the title focused on reduction will be moved to the first title to signify it is the highest priority. The legislation will also include a provision establishing a USEPA national program office on the Mississippi River.

  UMRBA will formally request input from the WQEC in June and create a plan for stakeholder engagement before developing the legislature text further. Wallace emphasized the importance of involving agricultural leaders and other river interests early in the process. The costs associated with implementing the measure will need to be determined. [Note: Subsequent to the meeting, UMRBA sent a June 26, 2018 email to the WQEC requesting input on the draft legislation by July 13, 2018.]

WRDA 2018 Priorities

- Kirsten Wallace explained that she is scheduled to be in Washington, DC multiple times this summer and fall. She asked WQEC and WQTF members for one to three concise "asks" per federal agency that UMRBA can advocate for while meeting with Congressional and Administration members and staff in Washington, D.C. Wallace said asks can be financial or policy-related- e.g., expansion of Section 319 eligibility, USFWS's Landscape Conservation Cooperatives, and a UMR USEPA program similar to the GLRI.

Communication

- Kirsten Wallace explained that UMRBA staff are working to update the UMRBA website and will be sending out a communication survey to gather feedback from members. It was noted that there is a general lack of awareness of the UMRS by the public. The new website and social media presence will be designed in ways to engage interested audiences and the general public. Communications was a strong focus of the UMRBA Board in all of its 2018-2022 Strategic Plan issue areas.

CWA Pilot Updates

MN/WI CWA Monitoring Pilot

- The Pilot Project Evaluation Report and the Water Quality Condition Assessment is currently being reviewed by agency leadership in both pilot states. Wisconsin DNR anticipates that its agency leadership will approve the two reports by July 2018. Minnesota PCA said its agency leadership are also reviewing the reports.

  WQEC and WQTF members directed UMRBA staff to develop a one or two-page document that shows the value of the MN/WI pilot and why a southern pilot is essential for moving forward. It would explain how the southern pilot is the next step in establishing a CWA Monitoring Plan for the entire Upper Mississippi. **UMRBA staff will work with Minnesota and Wisconsin on a 2-page summary document that highlights the importance of the pilot.**

  WQEC and WQTF members agreed that a UMR CWA Monitoring Plan 2.0 should wait to be drafted until a potential southern pilot is complete**. However, they directed UMRBA staff to create an addendum to the UMR CWA Monitoring Plan in consultation with Minnesota and Wisconsin, that outlines the MN/WI pilot's major diversions from the original recommended plan as well as fiscal considerations that were procured in the finalization of the MN/WI pilot.**

Potential Southern CWA Pilot

- The implementation of a southern pilot was agreed upon as the next logical step for the CWA Monitoring Plan and WQEC and WQTF members agreed to pursue a southern pilot unanimously.

  Illinois, Iowa, and Missouri are interested in working together on the pilot and requested UMRBA to facilitate discussions regarding feasibility and resource needs. For example, the states do not have the staff available to carry out the monitoring program and would need to contract workers which will require significant financial and organizational efforts. No agreement has been made on a location for the pilot. A first task is to better estimate the resource and financial needs.

  The WQEC and WQTF members directed UMRBA staff to convene a conference call in July to discuss the potential for a southern UMR CWA Monitoring Plan pilot. [Note: Subsequent to the meeting, UMRBA staff facilitated a phone call regarding a southern UMR CWA Monitoring Plan pilot on July 13, 2018.]

Harmful Algal Blooms

Hypoxic Task Force (HTF) Update

- Adam Schnieders reported on the leadership changes at the HTG. Notably David Ross of USEPA is a new co-chair. Ross hired former Wisconsin dairy farm lobbyist Anna Wildemann as the Deputy Assistant Administrator for the Office of Water. Iowa is serving as the co-chair for the September meeting in Baton Rouge. Schnieders noted that the size of the hypoxic zone is reduced from last year from 8,776 to 5,780 square miles.

  Schnieders added that the HTF Coordinating Committee is currently working on loading metrics and a new point source report. With help from USGS, USEPA and Tetra Tech, estimated point source baselines will be determined and will be sent to each state. Also, the Progress Report on Coordination for Nonpoint Source Measures in Hypoxia Task Force States was recently released detailing a framework for nonpoint sources. Schnieders said this report showcases the HTF's significant progress. HTF is partnering with SERRA46, an organization of the 12 HTF states' land grant universities that supports the HTF with research. Overall, the HTF is now focused on implementation of HAB reduction guidelines as all 12 states have submitted plans.

  WQEC and WQTF members agreed that having regular HTF updates at subsequent meetings would be helpful. Members also expressed an interest in developing an app for HAB advisories, similar to severe weather, that alerts the public to potentially dangerous HAB events.

Cyanobacteria Update

- Shawn Giblin presented on a recent WIDNR study on cyanobacteria present in the Mississippi River system. Giblin noted that phosphorus levels seemed to be most limiting factor when it came to cyanobacteria abundance. The perfect conditions for HABs are when phosphorus levels are high and nitrogen levels are low. Next steps include integrating a new dataset created in 2017 to illustrate the full gradient of lateral connectivity on the river.

State HAB Updates

Missouri – John Hoke reported that Missouri is working on outreach and education. It recognizes that beach monitoring is ineffective and that it is more beneficial to focus on educating the public than just reporting.

Illinois – Gregg Good said that Illinois currently does 250-300 samples per year using the ELISA method. However, sampling only occurs in response to a detection. This does not serve the whole state effectively. Illinois EPA would like to do more public monitoring at beaches, encouraging the public to call in occurrences.

Iowa – Dan Kendall said that Iowa currently monitors weekly for HABs. This year, Iowa detected over 20 sites that were above the 1-2 µg/L threshold for microcystin whereas last year only detected five. There are two ongoing projects run by the State Health Lab at University of Iowa and Iowa State University working to characterize and identify HABs.

Minnesota – Pam Anderson reported that Minnesota PCA currently has a randomized testing system for HAB areas and partners with the Department of Health with a lake monitoring program for drinking water. They are working with other state agencies to reach out help the public become informed about HABs.

Wisconsin – Shawn Giblin said that Wisconsin DNR is currently focused on a HAB education campaign. They also developed an app that monitors HABs based on visual reporting for an area including 30 beaches.

Chloride

Illinois Chloride Management Study and TMDL Implementation

- Stephen McCracken, The Conservation Foundation, detailed various methods that can be practiced to reduce the amount of chloride that reaches watersheds. The methods particularly focused on road salt application techniques and equipment. Suggestions included reducing the clean street threshold (i.e., not cleaned to the bare pavement), calibration of application equipment, vehicle speed, salt treatment, and ice control chemicals. These efforts also help reduce cost. Calibration ensures correct amounts of salt are being applied and vehicle speed determines how much salt bounces off the road. A Michigan DOT study showed that, at 35 mph, 25 percent of salt is lost to the side of the road. While vehicle speed is the number one factor, pre-wetting the salt also reduces bounce and scatter. Another cost saving method is using anti-icing chemicals preemptively before storms to help reduce the amount of salt that needs to be applied.

Wisconsin Monitoring and Analysis Results

- Shawn Giblin, WIDNR, detailed the unsustainable path to chloride pollution and the degrading effects to freshwater. He cited a 77% increase in chloride concentration at L&D 9 since 1982.

  Improving BMP practices was recommended as the most viable solution as it relates to the permitting side, but that it would be helpful to have an understanding of chloride standards in each state, including assessments and MPDs - It was unclear when USEPA would revise their chloride standard from 1988 - Albert Ettinger noted that people are working on chloride issues without having an updated standard number and, as such, do not yet have an established goal.

  Giblin also mentioned that Wisconsin was doing blood draws from young eagles to screen them for emerging contaminants. It was a longitudinal study and an impressive method. The data collected could provide a snapshot that would resonate with the public. **WQTF members agreed that a presentation on this study at a future meeting would be beneficial.**

Action Items

- **UMRBA will work with states to compile chloride strategies into a single document for comparison.** It was agreed this was needed in an effort to share information and lessons learned with each other.

  WQEC and WQTF members directed UMRBA staff to work with them in developing a policy position statement on chloride. UMRBA will facilitate a conference call with WQTF members prior to the September 25 – 26, 2018 meeting to discuss the content of such a statement.

Nutrient Reduction Strategies (NRS)

- *MNPCA NRS Cost Model* – David Wall from the MNPCA discussed tools that the University of Minnesota had recently developed to aid in planning efforts when trying to reduce cropland nutrients getting into watersheds. It calls for best management practices (BMPs) that emphasize economic efficiency, multiple benefits, landscape suitability and farmer acceptance. A Nutrient-Phosphorous BMP spreadsheet tool can then be used to determine how many acres of each practice is needed and what is the cost to implement.

- *McKnight Presentation on NRS Priorities* – Mark Muller from The McKnight Foundation discussed ways it supports UMR and Midwest sustainable agriculture. This includes broadening the conversation to include all of the Mississippi River impacts, making water issues more inclusive, driving sustainability in supply chains, and investing in research, technology, and policy for regenerative agriculture.

- *Mississippi River Basin/Gulf Hypoxia Initiative Precision Conservation Blueprint* – Kelley Myers from USFWS identified multiple needs when thinking about NRS/HTF activities, as well as some solutions and processes. With a lack of assessment tools in the Midwest, their needs to be a comprehensive approach that works across sectors. This can be done through a multi-partner approach and regional conservation planning through landscape conservation cooperatives.

State NRS Updates

Missouri – John Hoke reported that Missouri is putting forth efforts to revamp their 2014 NRS plan. Following significant staff turnover since 2014, Missouri DNR plans to bring in fresh ideas that separate the NRS strategy from existing efforts in other Missouri agencies.

Minnesota – Shannon Lotthammer said MNPCA implements a monitoring and outreach program that is focused on nutrient reduction. However, it has been operating apart from the state NRS. They are working on connecting the dots back to the NRS program. There has been over a 70 percent reduction in point source phosphorus in Minnesota's lakes and the Mississippi River Basin due to the state's decades old NRS program and the 2014 eutrophication standards. Minnesota is working on permitting discharge requirements for all applicable facilities relative to nitrogen.

Wisconsin – Greg Searle reported that an 11.4 percent reduction in phosphorus was achieved from 2013-2015 through adaptable management and water trading. However, a new update is needed. Wisconsin is considering revisiting the state strategy and is working with a number of partners on implementing a TMDL program with a strong focus on point sources. In terms of the non-point sources, Wisconsin is working with counties and agriculture groups to help farmers increase profit by using sustainable practices.

Additionally, in Dane County, a program called "Suck the Muck" has been implemented where settled sediments are dredged out of lake system rivers and streams. This is necessary because the settled sediments make it impossible to meet the nonpoint standards. The ultimate goal is to meet criteria and reduce the amount of alga blooms. There was significant interest at the meeting in hearing more about this program through a presentation at a future WQTF meeting.

Iowa – Adam Schnieders said Iowa has seen success in following the logic model: human change – land changes – water changes. After five years of implementation they are starting to receive information. While they do not have any numbers on phosphorus and nitrogen, they currently have received over 26,000 samples from 125 different plants and have completed new aerial photography. In terms of non-point data, Iowa has built 88,000 terraces and 114,000 ponds and has recently completed a mapping project with Iowa State that compares todays conditions with 1980 and 2010 as baselines. This along with trading and outreach programs, Iowa expecting to see evidence of significant progress that will be described in the five-year update that will be released soon. There has also been improvement in monitoring as eight nitrate monitors have been implemented across the state and 88 percent of the states watershed are under a real-time turbidity network. Overall, the year five update will have a lot of valuable information and is expected to show that the state's efforts are effective.

Illinois – Gregg Good reported on a collaborative effort called the Nutrient Science Advisory Committee (NSAC), which is made up of five different subgroups of the Illinois NLRS Policy Working Group. The NSAC will propose state nutrient reduction targets within the next few months after they recently were unable to determine a stressor response and may have to revert to referenced standards. In terms of monitoring, there are currently eight super gages that measure phosphorus and nitrogen leaving the state. A ninth super gage will soon be completed south of Chicago.

Additionally, Albert Ettinger explained how heavy urbanization in Illinois leads to a point source focus and having set numbers makes it easier for agreement and collaboration. In non-point sources, progress is being made in agriculture outreach. Ettinger pointed out that a small tax on fertilizer in the state has contributed significant funds to research. Overall, Good says Illinois needs a concise ask to bring to the state legislature for the program.

- *Action Items*

  WQEC and WQTF members requested that UMRBA staff provide a template for each state to populate with its NRS updates. **UMRBA will send a draft template to the states to gather information and then will compile all updates into one document.**

Administrative Items

- The next WQTF meeting is scheduled for September 25-26, 2018 in Dubuque, IA.

- UMRBA staff will coordinate with the WQEC to schedule a conference call in late August/early September.

Attendance

Gregg Good	Illinois Environmental Protection Agency
Adam Schnieders	Iowa Department of Natural Resources
Daniel Kendall	Iowa Department of Natural Resources
Shannon Lotthammer	Minnesota Pollution Control Agency
Lee Ganske	Minnesota Pollution Control Agency
Pam Anderson	Minnesota Pollution Control Agency (phone)
John Hoke	Missouri Department of Natural Resources
Chris Wieberg	Missouri Department of Natural Resources
Greg Searle	Wisconsin Department of Natural Resources
Jim Fischer	Wisconsin Department of Natural Resources
Shawn Giblin	Wisconsin Department of Natural Resources
Madeline McGee	Wisconsin Department of Natural Resources (phone)
Karen Hagerty	US Army Corps of Engineers, Rock Island District
Ed Hammer	USEPA Region 5 (phone)
Kelley Myers	USFWS (phone)
Mark Muller	McKnight Foundation (phone)
Albert Ettinger	Mississippi River Collaborative
Ted Kratschmer	National Great Rivers Research and Education Center
Stephen McCraken	The Conservation Foundation
Kirsten Wallace	Upper Mississippi River Basin Association
Josh Ney	Upper Mississippi River Basin Association
Josh Coulombe	Upper Mississippi River Basin Association