

A-Team Minutes 10-29-15

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Water quality studies at Rock Creek & Shrickers Slough in Iowa. Dave Bierman, Iowa DNR/LTRM, Bellevue:

- Shricker's Lake Pool 14 RM508 – LTRM fixed site monitoring in early 90's showed elevated levels of TN and NH3-N
- Tributary stream Rock Creek empties directly into Shricker's Lake; Rock Creek highly elevated levels of TN and NH3-N due to flowing through property of a former Nitrogen fertilizer manufacturing plant
- Iowa DNR (LTRM, Wildlife, and Contaminated Sites Section) in conjunction with PCS Nitrogen, a local private landowner and several NGO's worked to fund and construct an 80-acre wetland on lower portion of Rock Creek below PCS Nitrogen plant
- Wetland constructed in spring 2000, since then TN in lower Rock Creek has decreased 36% and NH3-N has decreased 65%

- Since wetland construction TN in Shriker's Lake has decreased 20% and NH₃-N has decreased 37%
- Iowa DNR Bellevue Field Station is the only entity providing ongoing monitoring at these locations and it is critical that we continue to do so. Private landowner is looking to expand the size of the wetland in the future because contamination is still a serious issue here.

Overwintering fisheries dynamics within Iowa backwaters. Scott Gritters, Iowa DNR, Bellevue:

Scott Gritters gave a presentation on overwintering centrarchid habitat use. He covered a myriad of studies conducted by the Iowa DNR dating back to the middle 1980's. By and large the take home message was that centrarchids can show extremely long distance migrations into backwater areas, when late fall water temperatures approach 43 degrees Fahrenheit. Prior to that centrarchids can be found in various habitat types including the main channel border and flowing side channels. Once ice conditions settle in, the fish utilize extremely rare habitats that have no flow, are deep enough to not freeze to the bottom and with hope have enough oxygen to make it through the winter periods.

What is your backwater doing at 3 in the morning? The use of continuous dissolved oxygen/temperature data to optimize connectivity within selected UMR backwaters (Pools 6-9). Shawn Giblin, Wisconsin DNR, La Crosse:

- Hydraulic connectivity is a central element of large river ecology and represents one of our best tools to improve ecological outcomes in a cost effective manner.
- Some areas are in need of increased connectivity, while others are in need of reduced connectivity- continuous temp/DO loggers are an excellent tool to optimize connectivity.
- Case studies were presented for areas that have or could benefit from increased connectivity (Wing Lake- Goose Island Pool 8, Pettibone Lagoon, Pool 8, summer) or decreased connectivity (Johnson Island Pool 6, Pettibone Lagoon- winter).
- Capoli Slough HREP (Pool 9) water quality was examined in detail under winter and summer conditions. Based on analysis of the continuous data, this project appears to strike an adequate balancing between winter and summer water quality. This project speaks to the need for complexity of dredged channels for future projects to ensure diverse available habitat.
- A fish kill resulting from suspected gas bubble disease in Lake Onalaska during December 2014 was examined. It is suspected that curlyleaf pondweed is playing a role in oxygen supersaturation under early ice conditions.

- Lake Onalaska (Pool 7) continuous temperature/DO data was presented with special emphasis on the poor water quality conditions in Sailboat Bay. This area could benefit, along with Wing Lake (Pool 8), from a habitat enhancement project. It is believed both projects would have a high likelihood of success and would be embraced by the public.

Time and Place for next meeting:

January 2016, possibly in conjunction with the science meeting. Based on feedback received related to staff limited time and travel- this meeting will most likely be a WebEX meeting.

UMRR update, Marv Hubbell, USACE: Marv gave an update regarding the budget outlook and UMRR updates. Final FY16 appropriation is \$19,787,000. Additional funding through the Corps work plan looks possible - no details yet.

Approval of the Minutes from July 28, 2015 meeting (Group):

David Potter objected to the statement on page 3 reading "North & Sturgeon HREP is good example of how we might apply these thresholds. Mean TSS for P3 main channel is 36mg/L. There could be huge benefits along the gradient. Prairie Island Indian Community samples fixed sites for WQ, one fixed site above the cuts that bring in main channel water has TSS in the 17 mg/L range, versus the sites below the cuts which fall into the 30 mg/L range. Wisconsin had suggested we may want to close down the cuts to North Lake to immediately reduce TSS and achieve vegetation goals. As a program, we might need to reflect more closely on analysis like this, particularly if we set objectives that relate to this type of threshold. Cutting off those cuts is included as an adaptive management measure, but the design process was not modified in response to the data, which seems counter to our goal of program integration and better utilization of science data. "

This was edited to "North & Sturgeon HREP is good example of how we might apply these thresholds. Mean TSS for P3 main channel is 36mg/L. There could be huge benefits along the gradient. Prairie Island Indian Community samples fixed sites for WQ, one fixed site above the cuts that bring in main channel water has TSS in the 17 mg/L range, versus the sites below the cuts which fall into the 30 mg/L range. Wisconsin had suggested we may want to close down the cuts to North Lake to immediately reduce TSS and achieve vegetation goals. As a program, we might need to reflect more closely on analysis like this, particularly if we set objectives that relate to this type of threshold. Cutting off those cuts is included as an adaptive management measure."

Chuck Theiling motion to approve, Nick Schlessler second.

Upper Miss Refuge Inventory and Monitoring: Assessment of Past Efforts and Planning for the Future. Steven Winter USFWS, Winona:

- The refuge reduced the amount of fall aerial waterfowl survey efforts in 2014 and suspended fall aerial waterfowl survey activities conducted by the FWS in 2015. Aerial waterfowl surveys are still being conducted during 2015 by partners in Pools 7-11 and Pool 13.
- The suspension of FWS fall aerial waterfowl surveys was triggered by concern about three issues: safety, staffing, and scientific rigor. Consideration of the full depth and breadth of these issues resulted in the Refuge Manager not being able to attest to the aerial surveys being both mission critical and the only available method of obtaining information about the resource of interest.
- Going forward, the refuge will strive to conduct waterfowl inventory, monitoring, and research activities in a manner that identifies clear objectives, utilizes the best methodologies available to address those objectives, and prioritizes the collection of information that is critical to the management of priority resources of concern.

Ecosystem Resilience. Jeff Houser, USGS/UMESC, La Crosse: Jeff gave an update on the status of the ecosystem resilience work. He touched on how alternative stable state theory pertains to the resilience of the UMR ecosystem and how LTRM data can be leveraged to improve ecological outcomes and create a more resilient system to external stressors.

Let there be light: A data driven approach to siting habitat projects on the Upper Mississippi River, Shawn Giblin, WI DNR, La Crosse:

- Underwater light plays a central role in ecological outcomes in all aquatic ecosystems. Therefore, it needs to be carefully considered during project planning.
- The relationship between TSS and underwater light climate is non-linear and changes dramatically as TSS is reduced- especially less than 20 mg/L TSS.
- A longitudinal survey of light climate in WI Waters was presented revealing that previously hypothesized light goals (TSS < 17 mg/L) are not being met upstream of Lake Pepin and in Pools 9-11.
- The areas not meeting current light goals are excellent candidates for habitat projects to improve underwater light climate (e.g. large island construction projects in the impounded areas of Pools 9 and 11).

Fish indicators project update, Andy Casper, IL:

- This project is based on the ad hoc indicator report and is meant to identify indicators categories (that are not species level trends)
- Presented some additional fish indicator categories (commercially harvest, recreationally harvested, non-harvested)

- Presented a format (moving averages with standard deviations) to improve interpretation
- Initial work confirms the common wisdom that there are can be very large differences between the response of indicators between pools and for several indicators with a pool
- Next steps: prepare draft figures for categories recommended by the A-team in the ad hoc report (backwater, migratory, etc.) as well as additional categories

Agency Updates:

Here is an update for IL –

Illinois state government is still under a budget impasse with no clear prediction as to when the situation may be resolved. The impasse could easily continue through the end of the calendar year and rumors have indicated that it could even go as long as March before an agreement is met. This has had serious impacts for IDNR and the Fisheries Division as we are unable to execute contracts with the universities that provide research projects for us, either via state grants or DJ grants. Many universities have continued on with their work as we all assume that once the budget is resolved, they will receive the back payment for their contracts. We are fortunate to have the LTRM and the four field stations that cover waters associated with Illinois. It is imperative for IL specifically that this program continue given the uncertainty with our budget and many retirements looming that may not have staff replacement for some time – our internal efforts towards monitoring areas of the Mississippi and Illinois Rivers could be diminished.

Pertaining to looming retirements –

For those who have not heard, long time IDNR Fisheries Biologist Ken Russell experienced an issue with his heart back in April of this year. He has been out of commission since and is still under care. In his absence, Rob Hilsabeck has and will be taking over Ken's duties pertaining to the Mississippi River for the counties of Henderson and Mercer.

Ken Clodfelter, who has also been with the Department for many years, will be retiring December 31, 2015. David Wyffels, who recently came over to the fisheries management side of things from the Asian Carp Program, will be taking over Ken C's duties on the Mississippi River for the counties of Jo Daviess, Rock Island, and Whiteside.

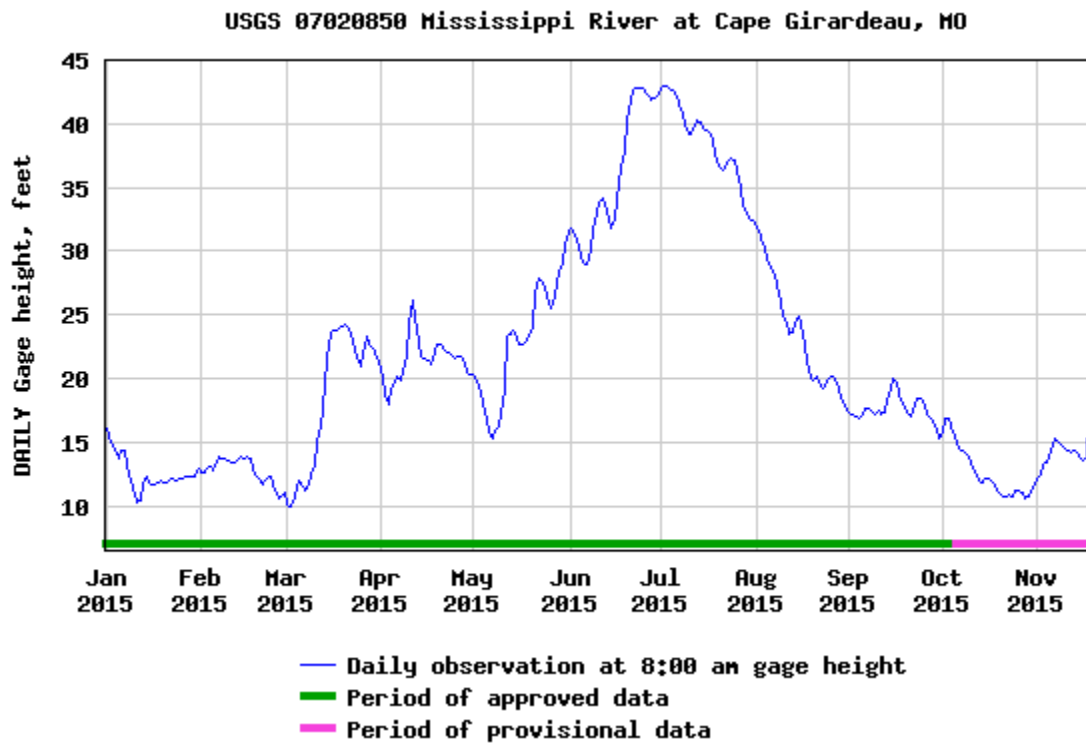
Karen Rivera is currently the Streams Biologist that coordinates various activities in the northern Mississippi River portion of Illinois, specifically in Carroll County.

Wisconsin Department of Natural Resources Updates

- Wisconsin is working with MPCA and Metropolitan Council to implement the Pilot Clean Water Act Monitoring Strategy beginning in May 2015. Sample splitting was conducted on Nov. 17th to compare lab results between WI, MPCA, and Met Council.
- The Burlington Northern train derailment near Alma, WI (Lower Pool 4) has resulted in large workload. About 20,000 gallons of denatured ethanol entered the Mississippi River on Nov. 7-8, 2015. Follow-up biological and water quality sampling are being conducted. Long-term monitoring plans are being developed.
- An outbreak of water lettuce and to a lesser extent, water hyacinth, occurred in Lake Onalaska (Pool 7) this fall. WDNR, USFWS, and volunteers have successfully collected and disposed of >99% of the plants. Greater than 1000 volunteer hours have been logged on this effort to date.

Missouri Department of Conservation Water Quality agency update

- LTRM Water Quality data collection continues for Stratified Random Sampling and fixed site samples. River stage fluctuated over 10 m in 2015 with a later than 'normal' spring rise.



- A recent publication was completed by AP Braun, MJ Sobotka, and QE Phelps. 2015. Fish Associations among Un-notched, Notched, and L-head Dikes in the Middle Mississippi River. River Research and Applications: (available upon request from the authors).
- Molly Sobotka attended the International Society of River Science meeting and presented Ecosystem metabolism in off-channel habitats of the Middle Mississippi River.
- The mid-summer flood pulse postponed LTRM fish sampling for a few weeks during July. During this time field station staff sampled fish and ecosystem productivity on the floodplain and along the river/floodplain border in order to assess floodplain inputs to the riverine system.

For the Corps of Engineers, St. Paul District:

- 1) The Harpers Slough HREP is 27% complete and is shut down for winter.
- 2) The North-Sturgeon Lake Feasibility Report should be completed next spring.
- 3) The Conway Lake Feasibility Report should be completed next fall.
- 4) We will begin to work on McGregor report next quarter.
- 5) The Capoli Slough HREP will have a dedication ceremony next spring.

FWS updates in staffing could be included:

- Michelle Barrett is the new Wildlife Biologist at the Winona District
- Tim Miller is the new District Manager at the La Crosse District
- Wendy Woyczic, formerly the Wildlife Biologist at the La Crosse District, is now the Assistant District Manager at the McGregor District