

Fish and Wildlife Working Group (FWWG)
Meeting Notes
August 3rd, 2021, 8:00–12:00

Attending:

* indicates a FWWG representative

Iowa Department of Natural Resources (IA DNR)

Kirk Hansen*
Ryan Hupfeld
Randy Schultz
Kevin Stauffer

Minnesota Department of Natural Resources (MN DNR)

Neil Rude*
Nick Schlessler
Lucas Youngsma

Wisconsin Department of Natural Resources (WI DNR)

David Heath
Jeff Janvrin
Jordan Weeks*

Upper Mississippi River Basin Association (UMRBA)

Andrew Stephenson – a big thank you to Andrew for providing the notes he took!

U. S. Army Corps of Engineers (USACE)

Steven Clark*
Karen Hagerty
Jon Hendrickson
Zachary Kimmel
Marshall Plumley
Dave Potter
Elliott Stefanik

U. S. Fish and Wildlife Service (USFWS)

Sharonne Baylor
Stephanie Edeler
Heidi Keuler
Tim Miller
Mary Stefanski
Steve Winter*
Wendy Woyczik
Tim Yager

U. S. Geological Survey (USGS)

Jennifer Dieck
Andrea Fritts

Navigation and Ecosystem Sustainability Program (NESP) project selection: Steve Winter (USFWS) and other FWWG reps

- The FWWG representatives submitted their agency's ranks of all 19 NESP projects, which was used to determine the composite top 10 ranked projects. There were a couple of instances of tied ranks, but they were resolved and a list of the top 10 ranked projects was forward to the River Resources Forum (RRF) with a recommendation for endorsement. Steve Winter had distributed to the FWWG membership a spreadsheet with 3 tabs: tab 1 had all the info about the 10 projects that was forwarded to the RRF; tab 2 had all the info about all 19 projects that were considered by the FWWG; tab 3 had info about how the tied ranks were resolved.
- After the list of 10 potential NESP projects was unanimously approved by the FWWG representatives, and the list was forwarded to the RRF, the USFWS had further internal discussions and determined it could no longer support either the Probst Lake, Mosiman's, Island 42 project or the Systemic Connectivity - Phase 1 project.
 - Tim Yager (USFWS) asked for the Root River Floodplain Restoration project to be given the #10 rank, replacing the Probst Lake, Mosiman's, Island 42 project, and for the revised list to be forwarded to the RRF with a request for endorsement. Otherwise, Tim wouldn't be able to vote in favor of the current list of 10 when he votes as a USFWS representative to the RRF.
 - Jordan Weeks (WI DNR) asked if the list could be reduced to a list of the top 9 ranked projects, which would resolve the issue of which project should have the rank of #10.
 - All FWWG representatives voted in favor of forwarding the following list of 9 projects to the RRF.
 - 1) Wacouta Bay (Pool 4)
 - 2) Systemic Forest Restoration (Multi-Pool)
 - 3) North-Sturgeon Lake (Pool 3)
 - 4) Johnson Island (Pool 6)
 - 5) Swift and Dead Sloughs (Pool 11)
 - 6) Trempealeau NWR Island Construction (Pool 6)
 - 7) Lake Onalaska Phase II and Sedimentation Science needs (Pool 7)
 - 8) Upper Reno (Pool 9)
 - 9) Systemic Bankline Stabilization and Natural Levee (Multi-Pool)
- Andrew Stephenson noted that the St. Louis District prioritized systemic water level management (WLM) in the list of potential NESP projects they would prioritize.
 - Kirk Hansen also noted that there is a lot of momentum behind systemic WLM in the St. Louis District, and they will likely approach the other districts about potentially prioritizing it across all districts.
 - Given that, Andrew wondered if the FWWG would want to bump its systemic WLM project up in its list of projects that are submitted to the RRF (it is currently #14 in the FWWG's list).
 - Steve Winter noted that the FWWG ranked systemic water level management as #14, and that it might be best to leave it there, and to wait and see if any other district makes a request for all districts to prioritize it.
 - Zach Kimmel agreed with Steve and noted there is a need to answer some questions about how to approach these systemic projects across districts. It will take a little more time to flesh some of these questions out before going down a path that may to be fruitful. Executing WLM in each district is not the same and that may be a factor as well.
 - Steve Clark asked with regards to systemic WLM – what does it mean when we are going to implement it? Individual pools need to manage dredging to do drawdown. Conducting a drawdown in Pool 8 may not make it work better in P9. It's hard to see what the projects are.
 - Steve Clark – the FWWG has been conceptualizing systemic projects as within the St. Paul District, and not going across districts. We may need to chunk systemic projects into multi-pool phases, but systemic projects allow us to address similar issues in multiple pools.
 - Jeff Janvrin – perhaps we rename the FWWG systemic projects as “St. Paul Systemic...”.
 - Steve Clark noted that if the FWWG is ever interested in pursuing WLM with the NESP that it might be better to focus on Pool 8 as opposed to a systemic approach. Steve also clarified that

- he offered that consideration for future reference, not as a suggestion that Pool 8 WLM should be bumped up, so it is in the list of 9 projects submitted to the RRF.
 - The FWWG representatives decided that the FWWG would leave systemic WLM as #14 in the list, and not include it in the list of 9 projects forwarded to the RRF.
 - Marshall Plumley noted that info for the systemic bankline stabilization and natural levee project states there is already an approved UMRR fact sheet for this type of project. Marshall asked if there were substantial differences between what is envisioned with the systemic bankline stabilization and natural levee NESP project that is in the list of 9 projects that will be forwarded to the RRF, and what is planned for in the approved Habitat Restoration and Enhancement Project's (HREP) bank stabilization and natural levee fact sheet. Are there differences in how the work would occur, or differences in how each program might be able to accomplish the work?
 - Kirk Hansen offered that the NESP authority probably makes this type of work more feasible under NESP. A key difference between the two programs is that NESP can work on state-owned lands and waters under the ordinary high-water line. Kirk also noted that the scale of the problem (bankline stabilization) is big enough that a systemic approach is warranted; perhaps it is so big that it can't be addressed solely through one program (NESP vs UMRR).
 - Marshall further noted that HREP can effectively work on USFWS lands and waters. If the NESP project could focus on areas other than USFWS lands/waters, perhaps it would be good to highlight that.
 - Jeff offered that NESP is authorized to conduct work that protects cultural resources, and previous NESP have done that. Two sites near Prairie du Chien were studied for bank stabilization, and archeology work was done. The HREP doesn't have authority to conduct work where a primary objective is protecting cultural resources. Also, NESP is authorized to do work that addresses bankline erosion due to navigation activities (e.g., barges). It is very hard for the HREP to quantify habitat benefits from protecting banklines from erosion, which protects the habitats behind those banklines (e.g. bottomland forests).
 - Zach noted that he appreciates the group has worked hard to develop the list; he knows we don't have answers to all the questions, but hopefully we will receive construction funds.
 - Marshall concluded by stating his appreciation for the additional clarification. He further stated he has no concerns about the NESP bankline stabilization and natural levee project, he's just anticipating that questions will arise later, and he'd like to be well prepared to respond. He thanked everyone for their input on how to respond.

HREP Performance Evaluation Reports: Dave Potter (USACE; presentation slides have been distributed with these meeting notes)

- The St. Paul District evaluates and monitors HREPs in the district. Planned monitoring activities are developed as part of plans and specs in the HREP planning process. Ideally, a springtime meeting is where the district likes to share upcoming monitoring efforts for MVP.
- A Performance Evaluation Report (PER) is a formal evaluation effort to document the success of projects, whether project objectives are being met? If they are or are not, why or why not? Can we consider modifications or active adaptive management?
- PER monitoring is different than adaptive management measures, which relate to areas of uncertainty determined at the beginning of a project due to new methods or features being implemented.
- Passive adaptive management is a documentation of lessons learned from HREPs that can be applied to future project design.
- A total of 14 PERs have been completed (listed on slide #3). Copies of PERs can be downloaded via the HREP story maps (web address provided on slide #4).

- Karen Hagerty commenting via chat on slide #4: You can also go the UMRR web site (www.mvr.usace.army.mil/UMRR) select the Habitat Restoration link on the left, then select Find an HREP Project.
- Upcoming PERs include Trempealeau NWR – the St. Paul District is engaging with USFWS to discuss pump station concerns there. It's subject to commercial user loads and when usage is high the power company can shut off power to Trempealeau NWR pumps. This often results in an inability to use the pumps as intended. There have been discussions about how to improve WQ by using additional flow from Mississippi River via a gravity fed system.
- The Ambrough Slough PER is 90% done. Jesse Ray accepted another position and is now working for the LA District although he will remain physically located in the Rock Island District. Eric Hansen will take over The Ambrough Slough PER tasks.
- The Long Meadow Lake PER is 90% done. The district is waiting for operations data from USFWS and USACE biologist Leanne Gromski is working on that.
- Megan McGuire has been working on the Lansing Big Lake PER and it is close to being finished. Leanne is working on it for the time being while Megan is on maternity leave. Dave asked if the USFWS has been able to review the draft PER for Lansing Big Lake.
 - Sharonne said the USFWS hasn't reviewed it yet and that Angela Dean has indicated to her it's ok if that task was put on the back burner while the USFWS addressed some other critical tasks first such as construction that is occurring at other HREPs.
 - Jeff Janvrin and Kirk Hansen via chat: Wisconsin and Iowa haven't seen the PER yet either. Dave responded that he would get it to them.
- Kyle Bales has been working on the Pool Slough PER and may try to get a site visit scheduled.
 - Kirk Hansen asked if the site visit would occur this year. Dave replied that he wasn't sure, that Angela was still looking at funds available for that and other projects. Kirk offered that, absent high water a site visit could occur at any time of the year, but this September might be ideal.
- Megan McGuire has been working on the Polander Lake PER.
- There isn't much to report on for the Long Lake PER.
- The Pool 8 Islands PER will be a big effort. Dave noted that he had heard from Andy Meier that a graduate student will work there in 2022. Dave believes the student will do terrestrial vegetation work, and that information may be useful for the PER.
- Returning to Lansing Big Lake for a more in-depth discussion (slides #6–9), Dave noted there has been increased hydrologic connectivity in the side channels and that they're enlarging over time. The Upper Iowa River is likely contributing sediment to the site. Closing structures and rock liners were constructed in 1995. During moderate flows, there was an initial reduction in flows into backwater in 1995, but 7-8 after that flows increased again. Looking across individual closing structures, at site 1 (Big Slough) flow was reduced initially, but then returned to pre-project conditions 7-8 years later.
 - Jon Hendrickson noted that there is one more set of discharge measurements from 2011-2012, which isn't shown on the slides, and was from when they first worked on a PER. Those measurements show that flows have not continued to increase, the condition was more like what was measured during from 1995 to 2003 – in 2011 the bars in the graph would be the same, indicating flows into the backwater have stabilized. That's a positive given what was previously occurring in those backwaters.
 - Steve Clark asked if all of the measurements indicating increased flows through some of the time periods depicted in the slides were for moderate flows and were not reflecting increased river flows in general.
 - Jon Hendrickson replied that for each year, they used the same discharge. They develop a rating curve for each data point and time period, and the plot shows what the rating curves are telling them.
- Returning to Ambrough Slough for a more in-depth discussion (slides #10–11) Dave described the features displayed on slide #10. Dredging – included some areas that were dredged deeper than "normal". Initially, deeper areas had been created but some areas are filling with sediment and aren't meeting

needs for overwintering habitat. Preliminary analyses show that the amount of sedimentation varies across the different dredging depths – sedimentation seems to be greater in 2-m deep cuts than in 1-m deep cuts.

- In the Upper Doubles Lake portion of the project, the 2-m dredge cuts are long and narrow – there’s a suspicion that calving from the sides of the cuts is occurring. This may be an explanation for why deeper cuts have a greater amount of sedimentation. These might be lessons to be learned for future HREP projects.
- Karen Hagerty commented via chat: In the Rock Island District, we generally see higher sedimentation rates in deeper areas compared to shallower areas.
- 10 years post-project, the deeper areas remain in each of the lakes where habitat dredging occurred. The contours in the area generally follow the dredge cut outlines. However, sedimentation has clearly occurred. Whenever we have an elevation specific objective it should be tied to water surface levels.
- Jon Hendrickson noted that Jim Rogala has previously suggested that deeper parts of the floodplain will convey the most water and thus the most sediment. We’ve seen sediment deposition in backwater dredging areas but there is always some uncertainty with post-project monitoring. It seems to be a real process and something we need to think about for backwater dredging projects in the future.
- Moving on, Dave noted that the St. Paul District looked forward to monitoring activities at 6 HREPs: Reno Bottoms, Capoli Slough, Conway Lake, McGregor Lake, Lower Pool 10 Islands, and Harpers Slough.
 - At the Harpers Slough HREP, damage from high water to constructed features has happened multiple times and Dave doesn’t feel we have a fully-functional project yet. This is part of the reason why a formal monitoring phase has been initiated on this project. The USACE has up to 10 years to initiate monitoring once the project is completed (and functioning). Dave has tried to update accordingly the monitoring plan that was written. There’s a heavy lean on partners for collecting the monitoring data and he would like to work with partners on further updates of that plan.
 - Jon Hendrickson noted that flow analyses on various channels at the Capoli Slough HREP have been done.
 - Mussel surveys are planned for Reno Bottoms, need to be sure proposed features aren’t placed on significant mussel beds.
 - At the end of September mussel surveys will focus on areas in Lower Pool 10 that are marked with yellow hatching on slide 13 to get pre-construction data. This project has an objective addressing mussels and there will also be post- construction data collection. Divers will sample within quadrats, allowing a quantitative analysis of the data, and this is planned to be done at 5- and 10-years post-construction.
- We’ve completed 14 PERs, 4 in the near term, 5 in the longer term. However, completing site assessments under COVID has been challenging, so completing PERs has also been a challenge.

Chevron/rock work done at Albany Island in Pool 14 as part of the Beaver Island HREP: Kirk Hansen and Ryan Hupfeld (IA DNR; presentation slides have been distributed with these meeting notes)

- Albany Island is a small island next to Beaver Island, between Clinton, IA and Albany, IL. A lot of the banks of Albany Island are vertical, with lots of trees falling off the banks.
- The Beaver Island HREP planned to do bankline stabilization here and a typical action for the top (the upstream end) of an island like this would be to just bullnose the top of the island. The HREP team decided to instead try a chevron at the top of the island. This type of feature had only previously been used for navigation purposes before.
- It was already known that significant mussel resources were in the area. The HREP team wanted to maintain island and side channel habitats for mussels as well as protect forest habitat on the island; a considerable amount of forest had been lost due to erosion.

- The original design was to place riprap on the lower part of island where it was thinner, and erosion would degrade structure and function of the island sooner, as well as the chevron at the top of the island. Features were constructed in early 2019, and then substantial flooding occurred and additional erosion was seen between the chevron and the lower part of the island. Rock was still available in the contract so additional rock was added to the lower part of the island.
- The chevrons Kirk has had experience with through CARS were not attached to islands, whereas this one is. Scott Gritters (IA DNR) suggested leaving a 50-ft notch in one side for ingress and egress of turtles, fish, and boats, and that was done. Three acres of river washed stone were placed for mussel substrate - other HREP projects helped inform rock size selection for this. Future evaluations will determine which areas have the best colonization of mussels.
- The habitat model used to quantify benefits was the walleye model. The HREP team wanted to maintain mussel resources and forests but needed to use the walleye model to show a gain in habitat units (there isn't a mussel model, and the project wouldn't result in a gain of forest acres); the gain was significant according to this model.
- When high flows go over the top of the chevron it creates a scour zone inside the chevron, below it's upstream edge. At this chevron a 10–12 ft hole has developed. The deposition zone from this scour is near the island.
- This chevron used a larger size of rip rap because the HREP team liked the interstitial spacing that would result, which should benefit fish and invertebrates. It's hoped that similar-sized rip rap can be used in another HREP location downriver.
- Ryan Hupfeld talked about the monitoring that has occurred with this project.
 - Four different sites were selected for monitoring: two control sites where no rock was placed (one on the side of Beaver Island adjacent to Albany Island; one on the side of Albany Island adjacent to the main channel) and two sites where rock had been placed (one along the outside edge of the chevron and one along the lower half of the island).
 - Sampling was conducted in 2018 (pre-project), 2019–2021 (post-project), and 2021 (data/results not available for this presentation).
 - Sampling occurred at least once during each LTRM period using day electrofishing methodology.
 - Catch per unit effort (CPUE) was compared using one-way ANOVA.
- There were substantial increases in CPUE for many species from pre-project to post-project in the rock placement sites. For example, bluegill CPUE increased from 17.1 to 67.9, channel catfish CPUE increased from 2.3 to 19.0, flathead catfish CPUE increased from 1.3 to 24.0, and smallmouth bass CPUE increased from 2.1 to 23.5. Similar increases were seen when data was analyzed at the scale of individual sites.
- Fish immediately began using the rocks following placement. These features follow the diverse bankline contours and provide a diverse array of habitats for numerous species at different water levels. There is potential to for fish communities to continue improving as the HREPs overwintering habitat within Beaver Island also develops.
- Sampling will continue in the summer of 2021. Anecdotally, we're seeing similar results with the 2021 sampling that has occurred so far. Additional analyses will look at length frequencies and catch rates of more species.
- We always see anglers fishing the chevrons and rocks, that's a good indicator the fish are there.
- We'd like to continue to experiment – the mussel habitat was placed last year and we're interested in how various sized rocks, and possibly large boulders, would help as well.
- Lucas Youngsma asking via chat about slides 10, 14, 15, and 19: The photos of the riprap around the island have the appearance of differing finished elevations. Was this an intentional design consideration?
 - Kirk Hansen replied that the photos may be giving a misrepresentation of what's out there. He doesn't recall a huge elevation difference there. Where there are trees, it may be higher though.
 - Sharonne Baylor added that the top elevations were constructed very similarly, tying into ground with humps where trees could be tipping over.

Agency Updates:

Iowa

- Ashley Johnson will be the new LTRM Water Quality lead at the LTRM Bellevue field station. Ashley had previously worked for the Missouri Department of Conservation and the Illinois River LTRM field station.

Minnesota

- Employees have the optional to work from home right now until early September, anticipate being back in the office then. Email is the best way to get a hold of us.

Wisconsin

- Scott Walter has moved on to Kickapoo Valley Reserve. Jim Fischer's group is working on hiring a river planner.

UMRBA

- The UMRR will distribute a strategic planning survey to the partnership in the next month or so.

USACE

- Employees are planning to start working in the office again in mid-September.

USFWS

- The La Crosse District Visitor Center is open with limited hours: Monday, Wednesday, and Friday from 10:00–2:00.
- Casey Bryan is the new Wildlife Biologist in the La Crosse District.
- Dustin Schelling will be the new Federal Wildlife Officer in the La Crosse District.
- Jacob Hernandez will be the new Private Lands Biologist working out of the La Crosse District office.
- Bruce Henry is a USFWS Regional Forest Ecologist who is working out of the La Crosse District Office.
- Kendra Pednault will be the new District Manager in the McGregor District, with an expected starting date in late August or early September. Kendra has most recently been at the Eastern Virginia Rivers National Wildlife Refuge Complex, but before that she was the Deputy District Manager in the La Crosse District of the Upper Mississippi River National Wildlife and Fish Refuge.
- The refuge was awarded \$188,000 for surveillance and control of flowering rush by the USFWS Early Detection Rapid Response funding program.
- The refuge's Closed Area Evaluation has been completed and distributed to partners and the public. It identifies administrative and regulatory changes to the refuge's system of closed areas, no hunting zones, and sanctuaries that will begin in 2021. Some ongoing conversations are taking place with the IA DNR about some of these changes.

Open discussion, additional items

- Jeff Janvrin said he'll send out an email very soon with information about next week's UMRCC Harpers Slough aquatic vegetation sampling effort.
- Kirk Hansen said he would send out a similar email about the Lower Pool 10 aquatic vegetation sampling effort later in the week.