

## UMRR Analysis Team Agenda January 28, 2016

Wisconsin River Room, UMESC, 2630 Fanta Reed Road, La Crosse, WI

WebEx information:

<https://usgs.webex.com/usgs/j.php?MTID=mc0f415a9a1bba85bfc31cc1e82fcee9b>

Teleconference: 703-648-4848. or 1-855-547-8255 (855-5GS-TALK) from non-DOI locations including cell phones

Conference Security Code 25727 followed by the # sign.

Chair: Shawn Giblin, Wisconsin Department of Natural Resources

### **9 -910 AM-** Introductions and Roll Call, Shawn Giblin

Attendees: Shawn Giblin (WI DNR), Jennie Sauer (USGS), Steve Winter (USFWS), Kristen Bouska (USGS), Jeff Houser (USGS), Andy Casper (IL), John Chick (IL INHS), Mike McClellan (IL DNR), Janet Sternberg (MDC), Dave Potter (Corps), Dave Herzog (MDC), Karen Hagerty (Corps), Kat McCain (Corps), Sara Strassman (WI DNR), Dave Bierman (IA DNR), Jen Dieck (USGS), Marv Hubbell (Corps), Ken Barr (Corps), Jim Fischer (WI DNR), Nate De Jager (USGS)

**910-920 AM-** Time and Place for next meeting- 1-4 PM April 27, 2016, Radisson (Jennie can reserve), La Crosse, WI (prior to MRRC) Keynote is at 6pm

**920-930 AM-** Approval of minutes from October 15, 2015 meeting (Group). Karen will post them to UMRR webpage, Jennie will post them to the A-Team Corner, Steve moved to approve, Janet second, all voting members approve

### **930- 950 AM-** UMRR update, Marv Hubbell, USACE

RRCT meeting was yesterday (RID River Team—focused Corps' Mississippi River projects, activities)., Budget for 2016 (2017 will be released on Feb 9<sup>th</sup>) reminder that everyone has a role to play in support of the budget. \$19,787,000 total; base monitoring covered and add'l research in limited amount, Corps also has ability to put add'l money into programs (based on a "workplan" that includes research and construction requests). Strategic Plan discussed value of all aspects of prgm, this agenda for A-Team reflects the desires to achieve integration of science and restoration. Helps leverage the base monitoring when it informs restoration and measures success of river. We will ultimately have indicators of resiliency. Base monitoring is the foundation of both health and resiliency measurements which underlies our need for accountability to the management. Resiliency will be used to inform HNA, following 9 months will begin HNA2 to inform next gen project

ID/selection. In order to be an official project, there needs to be a factsheet approved through Vicksburg. There will not be a new selection of projects without input from biologists (i.e. traditional process), but these tools provide more additional information to make selections. RID has add'l room for planning with the loss of Boston Bay project for time being. 1-2 projects will be pulled from the existing set of 4 projects (which means there would be no lag between projects). Lag time is usually 5-7 years between project concept and official planning process. There are enough in the queue now, but next generation needs to develop this year in order to avoid a gap once existing projects are completed and new projects are ready to begin planning. Feb 9<sup>th</sup> is FWIC meeting. It is best for St. Paul & St. Louis district to have a minimum of 2 projects within development, 3 for RID.

**950- 1010- AM** Ecosystem resilience update, Jeff Houser/Kristen Bouska, USGS/UMESC, La Crosse

Jeff: There will be more substantial presentation at the Science meeting in a couple weeks. This is meant to be a brief update. Workshop in January (20 participants) was meant to familiarize folks with resiliency concepts and initial discussions of how to apply to UMRS. To prep for that meeting, we are seeking add'l input thru questionnaire (with help of facilitators, Alison & Lance), the questions are meant to collect broad perspective on the topics included. No surprises expected, but value in distilling the information down to fundamental ecosystem aspects that are controlling variables, relationships between variables, which are primarily involved in stability/persistence and how important are they to the public. Those discussions will be covered at the science meeting. Folks who attended workshop (UMRBA, USFWS, Corps, USGS, ILNHS, MN DNR, MDC participated). Science meeting will distill that info in main points and have a draft conceptual model to review. The upcoming science meeting, draft agenda to be distributed next week, presentations on research projects, research frameworks, learning from HREP projects, HNA and resiliency). Science meeting Feb 16-18<sup>th</sup> noon-noon, UMESC conf. Dinner 17<sup>th</sup>.

Kristen: Strategic Plan calling for definition of health & resilience, developing a "resilience assessment" and how to incorporate it into ecosystems, there are slow drivers and shocks that the system must weather to continue to provide ESS, how do we manage for resilience, there are a few existing frameworks (Resilience Adaptation Assessment Framework—3 steps, define, measure and implement). Describing the system will include defining focal scale (UMRS including floodplains), resilience of particular services, resilience to what variables, socioeconomic assessment is minimized for this task; Next step is describing how ecosystem functions and identifying feedback between controlling variables throughout scales. Last step is to combine all steps into a conceptual model to hypothesize how system will change in result to perturbations. Can be tested through some of our data. Visualize a common understanding of how the system works. Questionnaire was distributed to 30-40 people (15 returned), workshop in early January (18 participants).

Responses to questionnaire were similar to workshop.

Q1: what are most important and valued goods? Dominant were clean water, recreation, navigation, nutrient processing, flood storage & reduction, biodiversity, cultural identity was also discussed at workshop

Q2: Key resource issues?: sediment & N loading, flow regime changes, AIS, ag activities, WQ, loss critical habitat, federal trust spp, floodplain connectivity

Q3: ID by stakeholders?: ag producers-drainage, flood mgmt., levee maintenance; nav-trans infrastructure, dredging; F&W agencies-game spp, AIS, rec access; communities-WQ, flood risk redux, econ development

Q4: main drivers for current condition? Nav system, ag land use, floodplain connectivity, flow regime, hydrologic routing, TSS & nutrients, climate change, AIS

Q5: describe current state of system?: almost everyone broke out by floodplain reaches, overall description of upper impounded (excellent to fair), lower impounded (fair to poor) primarily to ag impacts, loss floodplain connectivity, IL River (poor)

Q6: how does current state change over past 10 yrs and what drove it? 100 yrs? Increased WQ in upper reach, reduced TSS, AIS causing shifts in assemblage, forest decline due to increased water levels, loss mussels & habitat-sedimentation, pollution, overharvest, increased flows due to landuse changes, increased SAV in upper river while decreased in lower river—related to water clarity, impacts of sediment in backwaters

100 yrs—fluvial dynamics changed, LD and CARS, sustained altered hydrology, less nutrient transformation, migration of spp (reduced skipjack herring, etc), increased point sources, habitat template changed, increased fertilizer use and loading, invasives from GL

Q7: characteristic services: pollution, wind, channelization, levees,

Q8: what is desired state: Nav wants reliable system, depth 9', expand infr; Rec wants increased access and harvests; Ag wants high commodity prices, levee maintenance, no regulation of nutrients; F&W wants diverse habitat, migration opps, more SAV, deeper bw, more side channels, increased floodplain connection, better forests, multiple uses, smaller impounded areas, reduce financial investments for maintenance, pre-settlement conditions

ID what people care about, what folks feel drivers are, test relationships or ID thresholds, how can we manage for resilience to balance what people want, what does resilience mean? How has it been managed in other systems? Kristen is working on conceptual models and next steps for analyses and will discuss some at the science meeting. There is a 20-page summary to the workshop that will be distributed once cleaned up (hopefully prior to the science meeting)

Any exploratory analysis with the variables? Kristen is presently setting up a table to compile what thresholds might exist and what relationships line up. Shawn thinks the multi-year droughts have been impactful to veg loss and wondered if that could be

analyzed. In relation to climate change, why wasn't river identified as a possible C storage site. What functions are being lost where we lack data—floodplain forest was one possibility. A USGS group from Denver is developing C budgets for UMR to determine if the system is a source or sink and what magnitude of either. Shawn: high water has been weathered well by vegetation, but low water years are hard—what are the mechanisms for impacts from low water? Projects on federal lands are easier procedurally, but also having lots of public land in upper river contributes to health. One challenge has been what level to subdivide the system for management; longitudinally there are the 4 geomorphic reaches, but within those, perhaps 3 different types of areas (lotic-dominant, lentic-dominant and floodplain terrestrial) that can organize the impacts as well as the areas we can affect by change

Jeff welcomes input from others, if you were not invited. Or you can provide feedback openly to Kristen or Jeff. Most people had expansive answers that needed to be distilled.

**1010- 1020 AM-** Fish indicators project update, Kat McCain, USACE

So far, there have been briefings and discussions of direction of indicators. 6 have been developed: BW, migratory, non-native, recreationally harvested, commercially harvested, non-harvested (possible add'l categories side channel, impounded, YOY), Ickes supported the categories thus far. There will be add'l update from Alison at science meeting. Karen: A-Team ad hoc group reviewed indicators in last S&T report, provided recommendations for development of BW, migratory, and main channel fish assemblage indicators, as well as some minor changes to existing non-native, recreationally harvested, commercially harvested indicators. Same methods and data have been used for these development. Shawn: have you looked at trophic levels as a possible indicator? Andy: no, we haven't looked at specific species or guilds, but the recreationally harvested does catch some of these. Jennie: how is this related to Ickes' assessment of guilds and change in community composition over time? Nate: is the purpose to develop a subset of indicators for S&T or are these for monitoring standardization across multiple actions? Andy: these aren't meant to be applied to all possible questions, but Karen: Strategic Plan calls for indicators of health and resilience, S&T can communicate resilience, but this is a higher level summary and can't answer specific questions. So far not looking at individual species, but large scale indicators.

**1020- 1045 AM-** Habitat Needs Assessment, Nate DeJager (USGS) and Tim Eagan (Corps), Sarah Schmucker (USFWS)

Nate: project management plan—developed by 3 agencies and is a Corps document, establishes PDT, also technical group, late 1990s data in last edition, at UMRR mtg they discussed info needs (pg 52—now we have more info that was lacking), add public outreach to the communications team for UMRR-CC's task list, define roles & responsibilities, not

trying to answer how important to region, but rather to manage to create habitat for certain species; USFWS has identified which spp in Habitat Management Plan should be focused upon, draft spp are tundra swan (umbrella for emergent habitat), canvasback, wood ducks, dabbling duck guild (moist soil indicator) are highest priority birds in HMP;

**1045- 1120 AM-** Discussion on Habitat Needs Assessment/Fish Indicators/Ecosystem Resilience (Group)

We need to be aware of all the things that matter, but we should focus on what we can change thru restoration or mgmt. We need to also view each of these elements as parts of a whole.

**1120-1140 AM-** Future direction of A-Team. What do want us to do? What do you want to see? What direction would you like to see the group go?

Technical presentations are key, A-Team can vote or take positions, agencies need to vote on science proposals and likewise on indicators, UMRRC can send down issues for consideration, voting member is usually the one knowledgeable about the budget/agency management needs, we've definitely had previous questions about our role, one responsibility in charter is to review website and provide comments—Dave suggests that we maybe periodically have updates on what the website contains, important for A-team to keep working at the integration element and provide stimulus for research proposals; Jim— notion of H-team was raised and since removed, but ground-level action for integration between restoration and science, perhaps bringing in additional partners to speak to the restoration side of the program; there are some folks already participating with restoration expertise; do folks like the idea of the “half-baked ideas” to present to the A-team for feedback

**1140-1200 PM-** Agency Updates

**MO:** staffing stable and dollars stable for MDC Dave was able to document floodplain use during the large flows that just came through, but they'll use that data for project ideas in future

**IL:** still no budget for state and there is still a stalemate, possibilities of staff retirements on DNR side; IL INHS also has a bleak outlook within the U of I system—there is no funding for state universities in IL for this FY, so cuts are being proposed—strong possibility of 100% cut for this FY to all state universities (all universities have been living on reserve funds, etc); probably followed by deep cut in July FY. Grants and contracts have not been held up, so field station is being supported.

**IA:** none

**WI:** CWA pilot with MN to test monitoring, lab comparisons with MetCouncil, Hg, bacteria, metals, things not captured by LTRM, also will include some macros, Brownsville train

derailment (3<sup>rd</sup> one in 12 months), restoration work could be entirely wiped out by a crude spill that is probably imminent, also sent out recent light dynamics (looking for feedback),

**MN:**

Adjourn