

TO: AM Ad Hoc Group and MRRIC

FROM: Independent Social Economic Technical Review (ISETR) Panel

RE: ISETR Evaluation of AM Governance in Draft AM Plan v4

DATE: March 11, 2016

NOTE: This memo responds to questions from the AM Ad Hoc Group seeking thoughts from the ISAP and ISETR regarding "...what is needed (or would be beneficial for the AM Ad Hoc Group and by extension MRRIC) to assist the AM Ad Hoc Group in developing recommendations at the March 16-17 meeting." The February 25, 2016 "Questions for ISAP-ISETR Regarding V4 AM Governance v4" are repeated, with the ISETR panel's responses, below.

AM Ad Hoc Product to date

- 1. The AM Ad Hoc Group has developed some preliminary 'elements' for the AMP [see AM Governance Pillars v8.pdf]. Do they resonate? Are they valuable? Would you change or add to them?*

The preliminary elements for the AMP are very useful in providing some high level principles or goals for what is important to the AM Ad Hoc Group. To be operational the elements need to be described specifically enough so that that a determination can be made (perhaps by consensus) whether the principle was adhered to or the goal was met. It may be useful for the AM Ad Hoc Group to think in terms of creating indicators that can be used to operationalize the elements listed. For example, what would providing transparent, timely, and relevant information at all levels of decision making look like? Does transparent mean that MRRIC has access to the models used to inform decision making? What would the annual science updates include (e.g., status of species, results of hypothesis tests for pallid sturgeon) and the format of such science updates (e.g., possible frequency of updates, whether written, oral—webinar, in-person)? How would the annual updates also include changes in the status of key human considerations metrics attributed to the management actions and balanced or traded off with the species benefits?

It may be helpful to think in terms of who needs to know what, in how much detail, and what will they do with that information, in thinking about what are the structural engagement requirements. The elements include mention of a dispute resolution process. This is critical but it has not yet been properly addressed in the AM plan. The elements also mention flexibility and timeliness. It may be a challenge to achieve these objectives given the rules governing the USACE and MRRIC itself. Can new rules or processes be created to meet the new needs? Are all of these objectives required for the success of the AM plan? What happens if the objectives cannot be met?

v3 comments reflected in v4

2. *Given ISAP/ISETR input on draft AMP v3 Governance Chapter, where does draft AMP v4 fall short in addressing ISETR comments?*

AMP v4 does go further than AMP v3 in discussing how MRRIC will have the opportunity to participate in AM management. It would be helpful for HC updates (e.g., monitoring results of HC metrics and assessment of those against decision criteria) to be comparable to what is proposed for the species science in governance of adaptive management. Also, it may be helpful to flesh out how to include MRRIC in annual decision processes and how MRRIC will participate in the planning process to determine decision triggers where the timeframe is less than 1 year.

Human Considerations (HC) monitoring is important because it may justify adjusting the magnitude of the management action. If the actual HC effects are more than was predicted, then the agency may want to reduce magnitude of action. If actual HC effects were less than predicted, then the agency may want to increase magnitude of action. It is advisable to compare model results and proxies with actual damages. If proxy metrics cross thresholds, then look at final performance metrics. As ISETR discussed in both Kansas City (February 2016) and Rapid City (November 2015) it would be appropriate to include 3rd party measurements of metrics in assessment of HC impacts. It is fitting to include validated estimates from stakeholder input. Further clarification of how MRRIC will participate in the analysis and interpretation of the results of HC metrics monitoring is warranted.

One of ISETR's concerns had been the need to evaluate cost effectiveness of all three types of bird habitat. We had encouraged comparing cost of in-channel, reservoir and off-channel habitats, obtaining data on cost of off-channel habitat and calculating the bird productivity of each dollar spent instead of bird productivity of each acre. Further, there may be some opportunity to adapt the COE's cost effectiveness/incremental cost analysis planning tool to provide some insights on least costly ways to provide the amount of habitat required to meet bird population targets. While not included in draft AMP v4, there was discussion at the February 2016 Kansas City MRRIC meeting of exploring the cost effectiveness of off-channel habitats. Ultimately this analysis will need to be an ongoing one in the context of AM for the species. Active adaptive management provides opportunities to "experiment" with bird response and success rates to the three different types of habitat to learn more about the cost effectiveness of the three types of bird habitats. Governance mechanisms selected should facilitate this type of active adaptive management.

The agency AM planning and implementation teams that are to develop and incorporate HC monitoring metrics and decision criteria into the AM process need expertise to match the requirements of HC monitoring and assessment, including statistical, socio-economic, accounting, and big-data analysis capability. Participants skilled in developing and communicating knowledge of HC status and trends will be crucial for effective AM governance.

Changes to Advisory Panels

3. *AMP v4 combines ISAP and ISETR into one advisory panel for several reasons (resourcing, number of interactions, etc.) [see section 2.3.5.3 on page 69 of MRAM Draft v4.pdf].*
 - a. *Can a single panel mixing expertise of the ISAP and ISETR be effective and efficient?*

Yes, a panel with a range of natural/economic and social science expertise could work quite well in principle. In fact there are advantages of a single advisory panel rather than having two separate panels (ISAP, ISETR) that do not interact in any formal way. There are often “cross-cutting” opportunities where collaboration between physical, biological and social scientists might be able to identify more effective ways to meet some biological goals. The often repeated goal of MRRIC to “...recover the species while minimizing the impact to human considerations...” suggests integration of physical, biological and social perspectives might be able to provide some insights that separate natural and social sciences panels may not be able to provide. For example, answering the question as to how many monitoring samples are sufficient for decision making might benefit from an interdisciplinary (natural and social science) advisory panel’s answer to that question rather than recommendations from two independent panels.

- b. *If only one panel exists for the AMP, what thoughts do you have on the expertise and size as proposed?*

What will be important is for the panelists to be able to reach, and be comfortable in reaching, across disciplines and to be quick studies in understanding the salience and value of content outside their own areas of expertise and the necessary synergy required across disciplines. It would be wise not to have five natural scientists plus one non-natural scientist as the composition of the single panel. That one non-natural scientist all too readily could become marginalized as the ‘token’ non-natural scientist. In the same way there is no expectation one natural scientist could have the depth of expertise to cover birds and fish, it is equally unrealistic to have one non-natural scientist cover all of the salient social, policy, and economic sciences. ISETR is content to defer to ISAP about the most appropriate specializations to represent when it comes to the natural sciences. On the non-natural sciences side, we have seen the benefit of having economic expertise at the table, especially when it comes to discussing the Human Consideration metrics and the economic models on which the Corps is basing its decisions. At the same time, it is valuable to have expertise on board about best practices in social science approaches to investigating human considerations and governance and policy processes. The latter is especially important given the emphasis on making sure MRRIC members will be engaged appropriately in the implementation of adaptive management.

- c. *Please provide any comments on the details around panel roles and interactions [see sections 2.3.5.3 and 2.3.5.4 on pages 69-71 of MRAM Draft v4.pdf] in this section.*

In addition to the panel providing independent science support and technical oversight, the panel can play a role in helping non-experts ask appropriate questions of agency staff experts. This is

another reason it will be valuable to have more than one non-natural scientist on the panel. The panel has an important role in helping stakeholders understand the significance of the evidence-based results presented to them, and in assessing the validity of the processes through which the results have been generated. Given this role, it would be valuable for the panel to interact more frequently than annually with the SAM work group or other MRRIC designated groups. It would be helpful if these group members had an established protocol for tapping the expertise of the panel when they needed knowledge to keep up with expert agency staff.

In sections 2.3.5.3 and 2.3.5.4 it would be worth clarifying in the headers who is interacting with the Independent Advisory Panel and MRRIC. Who determines what form and how much communication is sufficient? When and under what circumstances will the AM Implementation and Management Teams provide information to MRRIC? What is involved in initiating communication? For example, if a member of MRRIC has a concern about the implementation of the AMP what is the protocol for conveying that concern? When and under what circumstances will the AM Implementation and Management Teams provide information to MRRIC? Will MRRIC concerns be addressed more frequently than at the annual meeting?

The question of the Independent Advisory Panel providing a collective opinion may be worth revisiting in light of the range of expertise of the Panel. There may well be issues which benefit from all members weighing in. There may also be issues where it may be more appropriate for a subset of experts to provide their opinion based on their substantive knowledge of the issue.

With regard to Section 2.3.5.4 ISETR and ISAP could act (individually, or as proposed as a single advisory panel) as an informal peer review process *before* empirical results are finalized and shown to MRRIC members in a plenary annual monitoring workshop presentation. It should be possible to do this as individual monitoring results become available. ISETR's concern is that the current practice of making empirical results available to ISAP and ISETR at the same time they are presented to a plenary group misses the opportunity for a productive interaction between those performing the research and ISAP and ISETR. It could be that some result that appears alarming could be avoided, mitigated, or justified with review by an advisory panel prior to presentation at an annual workshop.

AM Decision Process

4. *Regarding the decision criteria articulated in Chapters 3 and 4 (and Appendix C) – does the use of pre-approved decision criteria match or couple well with the Governance structure and processes detailed in Chapter 2? Too much predetermined? Not enough?*

The concept of predetermined decision criteria is an excellent one. It provides MRRIC with an understanding of why and when changes will be made and, in this sense, it reduces the uncertainty that many feel about the adaptive management process. However, it will take time to define these criteria, to explain the criteria, and the way these criteria were determined.

ISETR defers to ISAP as to the fit between decision criteria for plovers, terns and pallid sturgeons and the appropriateness of using pre-approved decision criteria for them. As

mentioned above and at the past two MRRIC meetings, ISETR looks forward to seeing more fleshed out decision criteria regarding changes in HC metrics that impact HC objectives. What is not clear is whether the governance structures and processes detailed in Chapter 2 are nimble enough to deal with time sensitive interventions in species management and concomitant potential time sensitive implications for HC objectives.

5. *Given the decisions being made by different teams/at different levels, how do we document decisions so that the causal chain of decision making is evident and science-based (i.e., how we got from there to here)? Would a summary document be sufficient? Who should prepare any documentation? [see section 2.4.1-2.4.3 on pages 74-93 of MRAM Draft v4.pdf]*

What would be helpful is for the different teams at different levels to agree on a communications strategy, including a general format for documenting decisions in writing and when to release documentation relative to a decision. In the interest of learning from the adaptive management process, and for transparency and understanding by those not able to attend meetings or conference calls, it would be helpful if, to the extent practicable, each management action decision would be accompanied by a brief “decision rationale document.” These documents would include the evidence base for the decision and the reasoning used to arrive at the management action chosen. ISETR believes such a document is necessary and should be a stand-alone document. It would only be sufficient if the basis for the decision and the supporting information was provided in an attached appendix (for credible unpublished information) or a publication reference. The documentation should be prepared by paid agency staff who have been engaged in, or were at least present, in the salient decision making process. The documentation should be posted prominently and in a timely manner on the planned Missouri River Adaptive Management web site.