

**To:** Robb Turner and the Independent Science Advisory Panel  
**From:** USACE Management Plan Team  
**Re:** Response to ISAP Draft Evaluation of Effects Analysis Deliverable 2b  
**Date:** July 3, 2014

Thank you for the draft evaluation of Deliverable 2b (draft evaluation). The draft evaluation has been discussed within and among the Management Plan and Effects Analysis (EA) Teams. The EA Pallid team lead provided a written response to the ISAP addressing comments and recommendations made in the draft evaluation. Some of the information in that document will be referenced and expanded upon in this response.

Again, the US Army Corps of Engineers (USACE) appreciates the ISAP's acknowledgement of the EA schedule constraint and their improved understanding of this with every engagement. This understanding is essential so that our interactions can continue to be focused on the most critical technical issues while recognizing the iterative nature of the EA process. We appreciate your ability to be flexible as we all strive to achieve a scientifically valid outcome. Below is a general summary of the recommendations from your draft evaluation.

- EA teams should make best use of available data and focused laboratory and field studies to reduce knowledge gaps and inform the modeling
- As practical, the pallid EA team should include reserve hypotheses in the Phase 1 modeling
- Consider smaller scale implementation of management actions to characterize efficacy, while reducing risks to stakeholders
- Consider analysis of previous expert panel results by an independent group of experts
- Emphasize the importance of species performance measures as principal metrics for assessing success

Use of available data and focused lab and field studies is consistent with our desires and expectations. As noted in Dr. Jacobson's response, articulation of the process for revisiting the hypotheses placed in reserve belongs to the agencies. The final step of the hypotheses "filtering" process to arrive at the "initially modeled" hypotheses was conducted by the USACE and the US Fish and Wildlife Service (USFWS). The results were shared with the EA Teams for documentation. The criteria used by the agencies in this step are described in the Alternative Development Methodology/Decision Analysis Approach document that was shared with the ISAP and the full Missouri River Recovery Implementation Committee (MRRIC) prior to the May MRRIC meeting. These criteria were developed to focus potential management actions on those which could be implemented consistent with the scope of the USACE's existing authorities. If other hypotheses are found to be important through the next phases of the EA, the USACE will work with the USFWS to identify suitable mechanisms for potential implementation.

The Adaptive Management (AM) Concept document is currently under development and will provide further description of the process for revisiting the hypotheses in reserve. That document is scheduled to be shared with the ISAP/SPA on July 11, 2014. We have titled it "AM Concept" purposely as we look forward to discussion and refinement of this product with the ISAP and MRRIC. The steps taken by the EA Teams to process hypotheses are described in their respective 2b deliverables and further

clarification is provided in Dr. Jacobson's response to your draft evaluation. Through your recommendations, we better appreciate the importance of providing clarity on this process and have reprioritized the development of the AM Concept document to address it sooner rather than later (as had been originally scheduled).

The ISAP concern regarding filtering of hypotheses and potentially missing the inclusion of an environmental stressor within the model framework is an important issue. As Dr. Jacobson mentioned, the topics listed in your draft evaluation were not overlooked and he will clarify how they were addressed in the report. Further consideration of hypotheses and environmental stressors will be addressed through multiple pathways as described in the AM Concept document. In Phase 2 further review of existing data (loop 2) will be conducted and if substantive information is identified the need to revise the modeling framework will be assessed. In Phase 3 continuous monitoring and assessment of hypotheses will provide insight on path forward regarding initially modeled and reserve hypotheses implementation. For now, the EA Teams are focused on meeting the agency's near-term decision needs in Phase 1. We again appreciate your understanding of the importance of completing Phase 1 in a timely manner and the limitations this places on what can be initially modeled within Phase 1. As mentioned above and as time allows, the EA and AM Teams will revisit hypotheses and model parameters to ensure the highest quality and most important components are addressed in the species models and products. It is our expectation that the ISAP will continue to be involved in a similar advisory manner and will provide important technical review during the next EA phases.

Focused lab studies and field studies to reduce uncertainty are consistent with our AM Concept. Discussions between the USACE and USFWS are already underway on how such learning activities could be included as a component of an alternative or alternatives.

We view the ISAP as the independent review body referenced in the recommendation on avoidance of potential perception of bias in the modified Delphi process used by Dr. Jacobson. The value of another expert panel reviewing the results of an expert panel does not make sense in the light of the ISAP's role here. If there is a perceived bias please highlight it and the team can look into it and have further discussion with the ISAP about it and how to address it.

Our goal is to continue to emphasize the importance of species performance measures. The USFWS is working to provide the best fundamental objectives for the species. As you know, for the pallid sturgeon we do not have the information to develop a robust population model. The efforts of the pallid EA Team are focused in the near-term on developing biologically defensible habitat definitions and will continue to refine the models in Phases 2 and 3.

The other recommendations made in your report are noted and will be followed up on as appropriate during the development of our AM Concept and the process moving forward. We appreciate and value the feedback of the ISAP and look forward to further engagement. If you have questions regarding this response please call Craig Fleming at (402) 667-2880 or Mark Harberg (402) 995-2554.