

“Discuss and Feedback” addressing the revised outline for the 2021 Adaptive Management Compliance Report

Independent Science Advisory Panel

5 November 2021

Introduction

The Independent Science Advisory Panel (ISAP) was tasked with reviewing the draft Revised Outline for the *2021 ESA Adaptive Management Compliance Report for Endangered Species Act Compliance, Adaptive Management Implementation, and Fish and Wildlife Mitigation* (AMCR) in a memo from the USACE (Corps). The review material included a revised AMCR outline. The enabling memo from the Corps offered six questions to guide ISAP comments and feedback on the revised outline. The questions address whether the revised outline reflects previous recommendations and suggestions from the ISAP concerning the organization and content of the upcoming AMCR. The USACE provided an opportunity to discuss the revised outline during a virtual meeting on 26 October 2021 that was facilitated by the National Center for Environmental Conflict Resolution (NCECR). Here the panel presents the questions and its responses.

Charge questions and responses

- 1. Does the AMCR outline respond adequately to the ISAP’s previous recommendations for AMCR structure and content (per the attached ISAP work product, particularly page 11)?**

The revised outline addresses some, but not all, of the concerns previously expressed by the panel in relation to the structure and content of AMCRs. The outline’s proposed reduction in page numbers aligns with ISAP’s previous recommendation for the 2021 AMCR to be more concise. However, a strict page limit seems unnecessary for a report that should focus on content. The emphasis in the outline on reducing document page number under each header is laudable, but at the same time the Corps should ensure that topics focus on the essential elements of the adaptive management (AM) process.

In several respects, the current outline falls short of ISAP's suggestions on page 11 of the prior year review of the AMCR. The revised outline indicates a focus on documenting the activities that were carried out during 2021 (sections X.3 and X.4). The outline would benefit from a section that summarizes the monitoring data for the reporting year. The Model Predictions sections seem to be stand-alone, with less obvious connection to the prior sections on Management Actions, and importantly with relationships to key metrics used to guide the selection of future management actions. The outline should indicate content placeholders that will relate AM decisions and actions for specific population metrics as supported by monitoring. The outline would also benefit from greater attention to linking management actions to Strategic Planning (section X.6). The ISAP is hopeful that the revised report will provide a better balance between compliance and AM reporting than previous reports, which emphasized the former.

Following up on recommendations from the 2020 AMCR review, information in the next report should effectively and comprehensively present information on the following topics as they relate to management activities:

- a) Current status of affected populations
- b) Recent trends in those populations
- c) Management actions that were considered and implemented
- d) Management actions that, based on newly gathered monitoring data and specific population criteria, are planned for the next year and future years

The commitment to responding to specific panel requests is difficult to assess at the outline stage. The outline appears to continue to emphasize compliance reporting, with less attention directed towards adaptive management.

2. Does the outline specify adequately the essential adaptive management information that will be included in the AMCR?

In its review of the 2020 AMCR, the panel recommended that future AMCRs evolve towards concise, stand-alone reports that emphasize the key points of adaptive management (from the SAMP) and should include:

- Summary of candidate management actions that were considered for implementation, with justification of managements actions undertaken to achieving management objectives
- Quantitative summary of species status and trends, particularly in relation to management objectives and associated metrics
- Quantitative estimates of expected outcomes of management actions selected for implementation during the reporting year, with those estimates reported in agreed upon units for the associated population metrics

- Presentation of monitoring results based on execution of sampling designs that (unequivocally) relate species responses to management actions
- Discussion of future management actions based on results of monitoring for actions implemented during the reporting year, including decision criteria and decision points

The AM topics specified in the revised outline (Overview, Status and trends, Management actions) begin to address these essential AM elements that need to be concisely presented.

Relatedly --

Will the adaptive management information incorporate Indigenous Knowledge?

The revised outline for the upcoming AMCR does not directly identify opportunities for including Indigenous Knowledge.

If so, how will Indigenous Knowledge be incorporated?

The outline would benefit from a section describing a plan for engaging MRRIC Tribes to become more familiar with the AM process. Correspondingly, previous discussions that have addressed Tribal concerns regarding IRC's could be usefully framed within the context of AM.

3. Does the outline include the specific benchmarks by which the success of AM actions will be evaluated?

The revised outline falls short in highlighting specific benchmarks for pallid sturgeon recovery, although this information will likely appear somewhere in the report. A summary of specific benchmarks could be presented in Section 3.2 "*Status and Trends of Pallid Sturgeon*" as they relate to population metrics, including reproduction (spawners and age-0 fish), recruitment (age-1), number of adults (effective population size), and link them to management actions. Corresponding benchmarks and metrics for piping plovers should be included in a revised reporting format.

Annual progress toward identified benchmarks is essential and the presentation of progress should be easily accessed and readily understandable in the revised AMCR.

4. Does this AMCR structure make the essential adaptive management and compliance information accessible to the multiple audiences interested in the document (e.g., management agencies, MRRIC, ISAP, technical scientists)?

The revised outline would appear to provide greater accessibility by a broader audience, but it's left to be seen if the 2021 AMCR meets that challenge. The outline suggests that management agencies and less technically inclined MRRIC members might find the report more accessible. The issue of communicating essential AM (and compliance) information can be achieved

through shortening and streamlining the document; brevity will hopefully result in increased accessibility. Again, the answer will be found in the execution of the full report.

The outline does not provide detail on what is going to be included in the Appendix and whether it will provide material technical information to MRRP participants interested in the analysis of monitoring data, changes if any in the achievement of benchmarks, and other key aspects of adaptive management.

While the Panel understands the challenges of communicating technical information to a broad audience, it is essential that resource managers, agency biologists, and researchers can access it. While efforts to make the AMCR more concise in reporting information is appreciated, it should not come at the cost of effectively conveying program progress in meeting the AM elements that are front and center in the AMCR.

Additionally, to facilitate access to information supporting the AM reporting, the AMCR authors should make certain that the AM links are in the main report, rather than relegated to the Appendix.

5. Does the ISAP have additional recommendations that could make the AMCR a more effective disclosure document (that is, serve as a comprehensive annual report on the status and progress of adaptive management under the MRRP conservation program)?

The revised outline for the AMCR, as presented, provides a reasonable order of topics and an overall macro-structure. The Panel might have been able to provide additional feedback from an outline that was more fully developed. There is no reason why the AMCR should be more than 30-50 pages of main body text and the current outline has the potential to guide the production of a more concise AMCR.

To perhaps follow up on Charge Question 1, the outline should make clear the interconnections among the sections, thereby providing guidance/recommendations for the Strategic Plan toward proposed management actions – making the AMCR responsive to what was learned in the data collection and resulting updated modeling and analyses during the reporting year.

Related to Charge Question 3, a separate section is needed describing analyses of monitoring data to determine if the AM actions during the reporting year have met benchmarks in a manner that informs the Strategic Planning in Sections 2.6 and 3.6 for piping plovers and pallid sturgeon.

Related to the response for Charge Question 4, the content of the Appendix should present the monitoring results and analysis that clearly demonstrate whether the effects of the management actions have statistically significant impacts on key metrics and benchmarks. That content should inform whether the current management actions should be continued, modified, or dropped altogether.

The Appendix also needs to include a synopsis of any referenced literature used to support the AM process during the reporting year, with links to the key reference documents. Merely providing links is not sufficient.

6. Does the ISAP have further suggestions to enhance the proposed new structure for the AMCR?

The outline, more importantly the report, should accommodate Level 1 and 2 information that may not correspond in form and content to actual implemented AM activities. Level 1 and 2 “scientific” activities are valuable contributions in support of AM, but are not in and of themselves AM. Reporting of Level 1 and 2 activities might address the following:

- How the Level 1 or Level 2 work contributes to the mechanistic (causal) understanding of management actions in relation to specified management objectives
- How the work helps to develop management-response functions that can inform the anticipated outcomes of management actions
- How the work assists in developing the sampling designs necessary for monitoring outcomes of implemented management actions
- How the work can assist in interpreting the results of monitoring in relation to metrics and specific management objectives

The outline might indicate how the AMCR’s form and content could be adjusted in relation to resources available and committed to production of the report by conveying that:

- Implementation of AM assumes some level of reliable support in time and resources for producing the AMCR
- There is some threshold level of support is required for a “fully developed” AMCR
- When funding is less than a necessary threshold, the AMCR might be correspondingly adjusted into a “bare bones” presentation of only (absolutely) necessary tables and figures, with brief narrative describing the presented data and information

In previous ISAP reviews, the Panel recommended that it meet with the report authors to advise them concerning the design, content, and format of (future) AMCRs, with particular emphasis on the AM components of the report. That recommendation and the offer remain active.