# Third Party Science Neutral Support to Establish an Independent Science Advisory Panel (ISAP) for the Missouri River Recovery Program Approved by MRRIC on Thursday, May 24<sup>th</sup>, 2018

# I. PURPOSE OF THIS DOCUMENT

This document updates and replaces a document of the same name (approved by MRRIC on July 21, 2010) and attachment entitled "ISP WG Involvement in ISAP Information/Presentation Requests" (approved by MRRIC February 17, 2011). It is intended to:

- ➤ Describe the intent of the Lead Agencies¹ and MRRIC to obtain the services of a Third Party Science Neutral (TPSN) and establish a new Independent Science Advisory Panel (ISAP) for the Missouri River Recovery Program (MRRP) as part of implementing the Record of Decision for the Missouri River Recovery Management Plan (MRRMP) and the associated Science and Adaptive Management Plan² (SAMP);
- Outline the process for Agency and MRRIC engagement with the ISAP; and
- ➤ Identify key aspects of the Panel, including composition.

#### II. BACKGROUND AND INTRODUCTION

The U.S. Army Corps of Engineers - Missouri River Recovery Program (MRRP) implements USACE's responsibilities under the Endangered Species Act, including restoration of a portion of the Missouri River ecosystem and habitat for fish and wildlife, while maintaining the congressionally authorized uses of the river. This effort relies on collaborations with a wide range of governmental, academic, and private organizations that are working to deliver products, including extensive scientific analyses and syntheses. The Missouri River Recovery Implementation Committee (MRRIC) assists these efforts by developing recommendations for the agencies implementing the ecosystem management efforts. MRRIC was authorized by Congress in Section 5018 of the 2007 Water Resources Development Act and has nearly 70 members who represent a wide array of local, state, Tribal and federal interests throughout the Missouri River Basin.

The MRRP Integrated Science Program (ISP) works to ensure the quality, completeness, and application of scientific information upon which the MRRP is based. The ISP follows the Office of Management and Budget's "Final Information Quality Bulletin for Peer Review" (2005). This approach is also consistent with the Corps' civil works review policy guidance EC 1165-2-209. As part of ensuring that the ISP is based on sound science, the Lead Agencies and MRRC seek access to an independent source of scientific review, advice and recommendations to consult on an as-needed basis, consistent with procedures described in this document.

## III. THIRD PARTY SCIENCE NEUTRAL

In order to provide MRRIC and the Lead Agencies with high-quality, neutral scientific and technical analysis to support effective implementation of the MRRMP and SAMP, the TPSN will:

- Form and manage the ISAP and ISAP operations; and
- Facilitate and coordinate development of ISAP work products.

The "ISAP" refers collectively to: a) a standing panel; b) an ad hoc pool of panelists with additional types of expertise likely to be needed, but less frequently than the expertise embodied by the standing panel; and c)

http://moriverrecovery.usace.army.mil/mrrp/f?p=136:70:0::NO:::

<sup>&</sup>lt;sup>1</sup> The use of the term "Lead Agencies" in this document refers to the US Army Corps of Engineers and the US Fish and Wildlife Service.

<sup>&</sup>lt;sup>2</sup> The current version of the Science and Adaptive Management Plan can be accessed online at:

new experts who can offer unanticipated types of expertise when needed. The TPSN is responsible for identifying and subcontracting with members of the standing panel. The TPSN also is responsible for identifying ad hoc panel members and establishing a mechanism (e.g., a letter agreement identifying rates) that allows timely access to ad hoc panel members. In situations where MRRIC and/or the Lead Agencies determine that an unanticipated form of expertise is needed to address a particular charge, the TPSN is responsible for identifying and subcontracting with appropriate experts, consistent with the USIECR / TPSN contract and operating guidelines elsewhere in this document. The TPSN will make the final decision on choice of panelists.

The TPSN is generally expected to attend the annual Fall Science Meeting, the Adaptive Management (AM) Workshop, and all MRRIC plenary meetings. The TPSN will provide updates to standing panel members so that they may effectively follow MRRIC deliberations, remain "up to speed", and undertake assignments with little lead time. The TPSN shall coordinate all communications regarding the charge under consideration between the candidates or selected panelists and the Lead Agencies or MRRIC members.

The TPSN will establish charge-specific panels, drawing panelists from a, b, and c above, consistent with operating procedures detailed elsewhere in this document. The TPSN is responsible for facilitating and coordinating the ISAP, panels, and panel members' work in responding to specific charges. The TPSN shall work with ISAP to ensure that the products address all charge requirements, are thorough and understandable, and are delivered on time and within budget.

When the TPSN is given a new charge question (or set of questions) from MRRIC and/or the Lead Agencies to the TPSN through USIECR, the TPSN will formulate a charge description (topic, desired work products, type of expertise needed, charge-specific panelists, and schedule). MRRIC and its relevant Work Groups and/or Ad Hoc Groups, USIECR, and the Lead Agencies will have a review and comment opportunity on each charge description, in a manner specified elsewhere in this document. As with selection of members of the standing and ad hoc panels, and new panelists to provide unanticipated forms of expertise, the TPSN will make the final decision on choice of charge-specific panelists. The TPSN transmits final panel work product(s)to MRRIC and Lead Agencies (through USIECR) intact.

The services of the TPSN will be accessed under contract to the U.S. Institute for Environmental Conflict Resolution (USIECR). USIECR will manage the TPSN contract, coordinate between the TPSN and MRRIC on new requests for TPSN / ISAP services, and ensure that the work of the TPSN is within the mandates and scope of the SAMP, as well as consistent with the USIECR / TPSN contract and available resources.

# IV. MRRP INDEPENDENT SCIENCE ADVISORY PANEL PURPOSE, TASKS, AND PRODUCTS

#### A. Panel Purpose

The purpose of the ISAP is to provide independent scientific review, advice, and recommendations in relevant natural sciences, social sciences, and native sciences<sup>3</sup> to support effective science-based decision-making and direction-setting for the MRRP. As the MRRP moves into implementation of its Adaptive Management (AM) Plan, areas in which ISAP input is likely to be needed include monitoring plans, monitoring and assessment results, research proposals, AM implementation, program adjustments, and strategic plans.

#### B. Panel Tasks and Products

The panel may provide its review, advice, and recommendations face-to-face and/or via webinar, telephone, written reports, memos, Power Point presentations, summaries of discussion at meetings, recorded verbal

<sup>&</sup>lt;sup>3</sup> The term, "native science," is used hereinafter to encompass Native American traditional ecological knowledge and knowledge related to methods of cultural resource protection.

feedback, and panel-initiated written feedback. Tasks 1-4 outlined below are considered formal engagements, which require specific charge questions and result in formal, written products such as a memo or report. Tasks 5 and 6 are considered "informal" engagements, which do not require specific charge questions to initiate; they typically will be documented in informal ways, such as in a meeting summary. General support tasks and expected products of the Independent Science Advisory Panel could include, but are not limited to, the following:

#### Formal tasks:

- Synthesis of relevant information on a specific topic. This may include meetings with scientists,
  agency personnel, and stakeholders providing independent advice and recommendations to the Lead
  Agencies and MRRIC. These tasks culminate in a written report, and often a presentation. The 2011
  ISAP Report on the Spring Pulse and Adaptive Management is an example of the product associated
  with this type of task.
- 2. Evaluation of potential MRRP-relevant research proposals. This may include recommendations to the Lead Agencies and MRRIC on the study design, possible alternative approaches, and likelihood for value to decision making. The MRRP undertakes many research efforts each year. Need/priority for ISAP review will be based on the complexity of the work, potential importance to decision making, potential for controversy/disagreement regarding the topic or results, and cost. These tasks culminate in a presentation and/or written report to the Lead Agencies and MRRIC.
- 3. Assessment of documents (typically in draft) for contextual clarity, scientific accuracy and rigor, and their applicability/value to a specific project planning effort or decision-making need. Types of documents include models, monitoring plans (biological, physical, and human considerations/socioeconomic and cultural impacts), and annual adaptive management reports. These tasks culminate in a presentation and/or written report to the Lead Agencies and MRRIC.
- 4. Evaluation of the implementation of the MRRP Science and Adaptive Management Plan for consistency with best practices in adaptive management, including periodically reviewing progress on execution of AM Program steps. This will involve, but not be limited to, the design and implementation of decision criteria (trigger points) that use learning from evaluation of research and monitoring results to reduce uncertainty and inform decisions for continuing a management action, adjusting it, or selecting a different management action to realize Program objectives. These tasks could culminate in a presentation, report, and/or memo.

## Informal Tasks:

- 5. "Discuss-and-provide-feedback" engagements where MRRIC members and agency personnel interact directly with ISAP members via webinar or face-to-face. These engagements will typically occur during the development of products (e.g. monitoring plans, models, new information evaluations) to allow for discussion, clarification, and initial reactions from the ISAP on general direction and progress. "Discuss-and-provide-feedback" engagements may reduce, but do not preclude, the need for evaluations of final products. Products resulting from these tasks may include limited written feedback in the form of a PowerPoint, short written memo, or summary email of individual panel member feedback. Documentation of the exchange during the calls / meetings / webinars will be provided through meeting summaries.
- **6.** Responses to scientific questions from the Lead Agencies and/or MRRIC. This typically occurs informally, in person at MRRIC meetings or on webinars -- often as follow-up to tasks completed by the ISAP. Documentation of the exchange during the calls / meetings / webinars will be provided through meeting summaries.

Panel members -- under the guidance of the panel chair(s) and TPSN -- shall be responsible for writing and editing any work products. The TPSN will work with the ISAP to ensure that the products address all charge requirements, are thorough, and are understandable. The TPSN can suggest edits. However, TPSN edits, as well as findings and recommendations reported in deliverables, are solely the responsibility of the panel members. To protect the independence of the ISAP, the TPSN should not change the intent of the deliverable or product.

## C. Expectations for Panel Products

In general, panel products shall:

- 1. Summarize the goals and objectives of the charge to the panel, the process undertaken to select standing members and any additional ad hoc panelists, the participants selected, the information considered by the panel, a summary of panel discussion and the results;
- 2. Include an analysis of the findings, including observations of the strengths and weaknesses of the findings and any dissenting opinions;
- 3. Provide clearly-identified independent opinions and recommendations regarding each task request or question assigned;
- 4. Accurately present the views of the entire panel;
- 5. Be delivered in electronic format as a "pdf" and Word document when a written product is requested or as a "pdf" and PowerPoint presentation for a PowerPoint product (typically using the "Notes" section of the slides to document the explanations associated with bulleted information in the slides); and
- 6. Be delivered within the dates established in the task order schedule. Should unforeseen issues or challenges arise that would compromise the delivery of the best product possible within the originally agreed-on due date, the ISAP may request an extension of the due date.

# V. MRRP INDEPENDENT SCIENCE ADVISORY PANEL STRUCTURE AND COMPOSITION

The ISAP will be comprised of up to seven standing members, whose expertise may be augmented when needed for a specific task by drawing upon ad hoc panelists as described below. Scientists whose disciplinary expertise is anticipated to be needed, but less frequently than the disciplines of standing members, may be pre-identified and retained by letter agreement or other mechanism to ensure panelists' timely availability to consult on an ad hoc basis. Additional ad hoc members may be added if it becomes apparent that other disciplinary expertise is needed. Further details on these points are provided below.

A specific task may require the expertise of the full standing panel, a subset of the standing panel, or a combination of standing panel and ad hoc panel members. As such, panel size will vary between reviews/engagements as different disciplines are required. However, at least one standing member must be on the panel for each task, and the panel assigned to a particular task may not exceed ten individuals. The size and composition of the ISAP, as well as their role and level of engagement, should be periodically reviewed and updated to ensure maximum benefit to the Program.

## A. Standing Members of the ISAP

Standing panel members are expected to commit to an initial two- or three-year term, renewable for up to three years upon review by the TPSN with input from the Lead Agencies and MRRIC. It is encouraged that no more than two consecutive terms be served by any individual standing panel member. The TPSN

will determine staggering term limits for panelists with the intent to retain a degree of institutional memory on the panel while new positions are filled.

Standing panel members are expected to follow MRRIC's deliberations and remain "up to speed" through a combination of meeting attendance and TPSN updates so that they can undertake assignments with little lead time.

The disciplinary expertise desired on the standing panel is described below. It is possible that an individual member may fulfill more than one of the areas of expertise below, with the intent to achieve an efficient approach to the panel. Several Panel members should have experience in the science and application of natural resource Adaptive Management programs within their area of disciplinary expertise.

- 1. Large River Ecology/Conservation Biology. Expertise in some or all of the following: energy-flow dynamics; flora and fauna community assemblages (including aquatic invertebrates); water quality (including contaminants), river-floodplain interactions; knowledge of bio-physical drivers and processes, threats to biodiversity and preserving the biologic and genetic diversity of native biota with an emphasis on large river organisms; conservation, restoration and recovery at the species, community and ecosystem scales.
- **2.** Large River Hydrology/Geomorphology. Expertise in the physical dynamics and processes of large rivers and associated landforms; hydrology, eco-hydraulics, sediment dynamics/transport, and hydrologic-hydraulic modeling.
- 3. Sturgeon Biology/Ecology. Expertise in Scaphirhynchus sturgeon population dynamics and/or other North American riverine sturgeons; ecological threats to sturgeons; sturgeon habitats and their use; current understanding of life-history needs (including age-0); population augmentation, genetic integrity and status of populations and productivity within the pallid sturgeon's range.
- **4. Quantitative Ecology/Statistical Methods.** Expertise in biostatistical methods, experimental design, decision analysis, analytical tools, and the interpretation of ecological data sets; mathematical modeling; presentation of complex analyses for decision makers.
- 5. Resource Economy/Sociology. Expertise in some or all of the following: monetizing goods and services, including social and ecosystem values, understanding quantitative tools for comparing diverse interests (including, but not limited to: agriculture, navigation, hydropower production, municipal and industrial water uses, Tribal concerns, outdoor recreation, etc.) and alternatives to meet those interests, and the study of social behaviors in relation to complex river systems.
- **6. Tribal Cultural Knowledge.** Expertise in Traditional Cultural Properties (TCPs), traditional ecological knowledge, cultural resource management, and natural resource management, specifically water.
- 7. **Least Tern / Piping Plover Expertise.** Expertise in least tern and piping plover population dynamics (including source-sink metapopulations); ecological threats; habitat, energy, and security requirements; and status of population and productivity within the interior population of least tern and Great Plains population of piping plovers. (If one person does not embody expertise related to both least terns and piping plover, the plover expert should be included in the standing panel and the least tern expert on the ad hoc panel.)

#### B. Ad Hoc Members of the ISAP

Disciplines whose expertise is currently expected to be needed on an ad hoc basis include, but are not limited to:

- 1. Fish conservation genetics;
- 2. Water quality- aquatic contaminants;
- 3. Collaborative adaptive management and decision analysis of natural resources;
- 4. Commodity economics;
- 5. Recreation economics;
- 6. Energy economics;
- 7. Transportation economics;
- 8. ;
- 9. Riverine larval fish dispersion; and
- 10. Flood and drought risk analysis.

#### C. Adding Unanticipated Ad Hoc Members to the ISAP

The need for additional expertise may be identified by the Lead Agencies and/or MRRIC as they develop questions to be considered by the standing panel, or by the TPSN in assembling panelists to respond to a particular charge.

## VI. SELECTION OF ISAP MEMBERS

#### A. Selection Principles

When selecting panel members, the TPSN shall comply with the National Academy of Science's "Policy and Procedures on Committee Composition and Balance and Conflicts of Interest for Committees Used in the Development of Reports" (2003) and the Office of Management and Budget's "Final Information Quality Bulletin for Peer Review" (2005). The TPSN shall strive to ensure that panelists are qualified to respond to the charge, pursuant to panel operating procedures described elsewhere in this document, and demonstrate:

- 1. Expertise. Varied knowledge, experience and skill;
- 2. Balance. A diversity of scientific perspectives; and
- **3. No Conflict of Interest.** No financial or other interest that impairs the panel's objectivity or gives an unfair competitive advantage to a person or organization.

## B. Establishing ISAP

The TPSN shall undertake a structured search process whereby he or she will select science advisors for the ISAP that represent a broad spectrum of scientific expertise within their respective disciplines and that have established high-caliber credentials, including:

- 1. Wide recognition by peers for expertise in their field;
- 2. Strong publication record or record of science or social science leadership;
- 3. Willingness to participate with objectivity and professionalism;
- 4. Track record of fair and unbiased, yet constructive, criticism;
- 5. Ability to function within a team and an interdisciplinary setting;
- 6. High standard of professional integrity, independence, and objectivity; and
- 7. Demonstrated ability to forge creative solutions to address identified topics or problems.

In seating the initial panel and when vetting candidates for ad hoc seats, the TPSN will provide a proposed list of panelists for each position to MRRIC. MRRIC members, Lead Agencies, and USIECR will have the opportunity to review and provide input on the proposed panelists. The TPSN will select the panel members representing the needed disciplines using the criteria identified above.

The TPSN shall recognize and provide clear direction to prospective panel members that the independent advice/reviews required are scientific or technical in nature and that decision making and policy interpretation are left to the Lead Agencies after consideration of any consensus recommendations from MRRIC. The Lead Agencies will provide information to MRRIC and members of the ISAP to assist them in distinguishing the difference between policy and science.

## VII. HOW THE INDEPENDENT SCIENCE ADVISORY PANEL WORKS

#### A. General

The ISAP is a panel of scientists with a broad range of expertise, brought together through a contractual relationship, to provide expert advice to MRRIC and the Lead Agencies. It will be managed by a TPSN, under contract to the USIECR.

The ISAP should attend the annual Fall Science Meeting and the Adaptive Management (AM) Workshop and meet with the full MRRIC at least once annually; the TPSN is generally expected to attend these meetings and all MRRIC plenary meetings.

Given the varied nature of the tasks described in Section III above, the ISAP may be asked to provide advice either formally or informally on specific topics as needed.

The interaction with the ISAP must be within the scope of the TPSN's and ISAP's contracts. Based on communication from USIECR about the anticipated topic(s) and specific type of task(s) and product(s) desired, the TPSN will determine the composition of the specific panel (e.g. whether it will be the Standing Panel or some combination of Standing and Ad Hoc panel members) and propose a timeline for the engagement to ensure interactions with the ISAP meet the contractual requirements and are documentable.

# **B.** Initiating Tasks

- 1. Panel-Initiated Communication. If the ISAP considers a topic of sufficient relevance in their role of reviewing and providing independent scientific advice on the MRRP and/or on draft products regarding implementation of ISAP recommendations or MRRIC proposed actions, they may propose such topics for consideration through the TPSN to USIECR to ensure appropriate scope and available resources. USIECR and the facilitation team that supports MRRIC will coordinate to convey topics for consideration to the appropriate MRRIC body and to the Lead Agencies for review, suggestions and clarifications, and concurrence as appropriate consistent with the approach to defining tasks in VI.B.2 below.
- 2. MRRIC/Agency-Initiated Tasks. The suggested topic(s), the type of task (see Section III above), the requested expertise, and product desired generally will be identified through the appropriate MRRIC Work Group / Ad Hoc Group or in MRRIC plenary meetings. The Lead Agencies will provide information to MRRIC and the TPSN to assist Panel members in understanding the problem being addressed, the options being considered, and the final decision to be made.

# C. Formal Engagements

Tasks III.B.1-4 above are considered formal engagements, with specific charge questions and formal written products. These engagements will include the following components.

- 1. Charge Questions. Topics may originate from either the Lead Agencies, relevant MRRIC Work Group / Ad Hoc Group, or may originate collectively. For each topic, initial charge questions will be drafted by the proposing entity for review and discussion. If the Lead Agencies develop the initial questions, relevant MRRIC Work Group /Ad Hoc Group members will have an opportunity to suggest edits to the Lead Agencies' questions and provide separate questions they would like addressed. Similarly, if the relevant MRRIC Work Group / Ad Hoc Group develops the initial questions, the Lead Agencies will have an opportunity to suggest edits to the Work Group /Ad Hoc Groups' questions and provide separate questions they would like addressed. Ideally, the relevant Work Group /Ad Hoc Group and the Lead Agencies will agree on the questions. Where there is not agreement, both the relevant Work Group / Ad Hoc Group and Lead Agencies have the option to provide questions to the TPSN. ISAP members will be provided with an opportunity to review proposed questions, provide input, and ask clarifying questions before the charge questions are finalized. This interaction may occur on a call with the relevant Work Group / Ad Hoc Group, or via email. Draft questions are then distributed to the full MRRIC for comments. Once the questions are finalized, they are delivered to the TPSN through USIECR.
- **2. Charge Description.** The description of the charge to the ISAP for a product shall be developed as follows:
  - a. The TPSN shall expeditiously develop a proposal to USIECR including:
    - i. List of desired types of expertise and associated panel members who will be involved in the review or engagement;
    - ii. Short description of topic;
    - iii. Expected products; and
    - iv. Schedule/timeline.
  - b. The relevant Work Group / Ad Hoc Group, Lead Agencies, and USIECR will review and collaboratively provide input on the TPSN-proposed description of the charge.
  - c. The TPSN will consider feedback and provide the resulting charge description to the MRRIC through USIECR for review and comment.
  - d. The TPSN will consider any feedback provided by the MRRIC and provide the final charge description to the MRRIC, Lead Agencies, and USIECR for informational purposes. The TPSN has the authority to make the final selection of panelist, provided that USIECR deems the TPSN's actions consistent with the USIECR / TPSN contract.
- 3. Implementation. In coordination with others as needed, the TPSN shall arrange all logistics associated with carrying out the Panel's charge including, but not limited to, travel, facilities, equipment, panelists, and arranging for transcription of Panel discussions (if necessary). The TPSN will ensure that the panel has adequate institutional knowledge of the MRRP to complete the charge.
- 4. Panel Chair. A chair or co-chairs will be chosen for each panel assembled to address a particular charge to ensure consideration of all technical matters amongst panelists and coalesce a final product. The method for choosing the chair(s) will be determined by the panel members with the assistance of the TPSN. Possible options include, but are not limited to, a different chair for each product, a chair for the full period of time, and a rotating chair. At least one chair in every task must be a member of the standing panel. The TPSN cannot be a panel chair or panel member.

5. Facilitation. The TPSN will facilitate selection of panel chairs, all panel deliberations, external panel interaction, and product preparation and dissemination. The TPSN will also provide other project management duties, including ensuring product completion per schedule and budget. The TPSN will ensure full consideration of multiple perspectives on the issues and a structured process that guarantees the integrity of an independent review, avoids bias, and guides communications between ISAP members, the Lead Agencies, MRRIC, and other interested parties.

- 6. Interaction with MRRIC and Lead Agencies. The ISAP will interact directly with the relevant Work Group / Ad Hoc Group and Lead Agencies at the beginning of their work on a particular topic and when they are ready to present their products. Presentations and panel interaction involving the full MRRIC will occur at regular MRRIC meetings or by webinar or conference call as agreed on by all parties.
- 7. Standing Ground Rules. To facilitate consideration of multiple perspectives on the issues, a structured process has been developed to avoid bias and guide communications between ISAP members, the Lead Agencies, MRRIC, and other interested parties, including the public. The TPSN may add to or refine these in certain situations as necessary. The following restrictions do not apply to casual conversations between ISAP members and MRRIC or agency personnel during MRRIC function breaks or social gatherings.
  - a. A clear schedule will be distributed to Lead Agencies and MRRIC prior to the start of all reviews and engagements. Any changes to the schedule will be communicated to all parties as soon as possible.
  - b. Any interactions between ISAP and the Lead Agencies and MRRIC should be transparently detailed in the schedule.
  - c. All communication regarding the charges under consideration, between the Lead Agencies, MRRIC members, and candidate or selected panelists, will be coordinated through the TPSN. The TPSN may arrange panel consultations with subsets of MRRIC members and Agency personnel if needed, but these consultations should be disclosed to all MRRIC members proactively, with the option to participate. Communications between MRRIC members, Agency personnel and the candidate or selected panelists outside of the MRRIC process are inappropriate (example: phone calls between individual panelists and MRRIC members or Agency personnel) except as noted in VI.C.7.g. below.
  - d. Questions or information received after the initial charge questions have been delivered to the ISAP will be routed to the USIECR and TPSN. The USIECR and TPSN will assess the information/ charge questions received. The TPSN will forward to the panel information and charge questions determined pertinent to the proceedings. To ensure the transparency of the process, the USIECR and TPSN will inform the Lead Agencies and relevant Work Group / Ad Hoc Group and MRRIC of any information / questions received and the disposition of these items.
  - e. During their deliberations, panelists may access and reference any information they consider relevant to their review, deliberations and report(s). Where possible, their reference to documents should include URL access information<sup>4</sup>. They also may reference other information that the panel deems credible.

<sup>&</sup>lt;sup>4</sup> Example of citation including URL information: Jacobson, R.B., Parsley, M.J., Annis, M.L., Colvin, M.E., Welker, T.L., and James, D.A., 2015, Science information to support Missouri River *Scaphirhynchus albus* (pallid sturgeon) effects analysis: U.S. Geological Survey Open-File Report 2015–1226, 78 p., http://dx.doi.org/10.3133/ofr20151226.

f. The panel may make on-site visits to gain understanding of topics being addressed and to see first-hand related challenges and successes.

- g. During their deliberations, panelists may communicate with Technical Team members and/or the Points of Contact for the Bird, Fish, and Human Considerations Work Groups, and may request information from the Lead Agencies, MRRIC, or any source that they believe may be of value to their deliberations. The content of the information received will be included with their product(s).
- h. If the panel cannot agree on findings and/or recommendations, then diverse or divergent viewpoints can be expressed and transmitted to MRRIC and the Lead Agency.
- **8. Transmittal of Final ISAP Engagement Products.** Once the panel for a particular charge deems its work product complete as communicated by the panel's chair, the TPSN will transmit that final work product intact to MRRIC and the Lead Agencies through USIECR.
- 9. MRRIC Response to ISAP Engagement Products. Once ISAP product(s) from engagements are final, MRRIC will have the opportunity to develop recommendations on: 1) implementation of the ISAP's recommendations; and 2) the socio/economic and Tribal impacts from implementing the recommendations / alternatives presented by the Panel.
- 10. Lead Agency Response to Formal ISAP Engagement Products. For each product of a formal ISAP engagement, MRRIC requests that the Lead Agencies respond in writing to ISAP and MRRIC (via Work Groups / Ad Hoc Groups, as appropriate) as to how they will or will not address ISAP and MRRIC recommendations and incorporate them into the SAMP. The Lead Agencies should collaborate with MRRIC via Work Groups / Ad Hoc Groups in this process, as necessary.

The MRRIC, Lead Agencies, the public, the USIECR, TPSN, and candidate and selected panelists will follow the above ground rules and communication protocols. The USIECR and TPSN should be alerted to possible violations of the protocols, or to other undue biases or influences immediately. When the violations are related to a panel member's conduct, the USIECR and TPSN will assess the situation and act accordingly and then report back to MRRIC on disposition of the issue. If the violations are related to the MRRIC, the Charter and Operating Procedures will be used to address the situation.

# D. Informal Engagements

Informal tasks -- either to "discuss and provide feedback" (Task III.B.5) or to provide "responses to scientific questions" (Task III.B.6) may occur through the appropriate Work Group / Ad Hoc Group, MRRIC, or the AM Teams.<sup>5</sup> Members of the Agency Technical Team and/or the Points of Contact for the Bird, Fish, and Human Considerations Work Groups may interact directly with the Panel on a "scientist-to-scientist" basis, and MRRIC will be informed about the substance of these discussions when/if they occur.

The applicable planning group, where appropriate, will discuss the objectives and agenda for these engagements and circulate these to work group or team members for review and comment. These documents also will be available to the full MRRIC.

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<sup>&</sup>lt;sup>5</sup> The AM Teams, each of which consists of USACE and USFWS representatives and the members of the MRRIC Fish, Bird, or Human Considerations Work Groups, assesses the strategic direction of the MRRP through participation in the science and strategic planning processes as outlined in the SAMP.

Interaction during meetings (web, conference call, or face-to-face) will be informal, with Panel members asking questions and providing verbal feedback (e.g., initial reactions, and/or a general sense of direction and progress). Lead Agencies will consider the feedback and then apprise the TPSN and MRRIC (or appropriate Work Group / Ad Hoc Group) as to how the feedback was used. Panel members' verbal feedback should be considered informal and does not necessarily represent a consensus statement from the Panel unless a TPSN concludes that a consensus statement by the panel is warranted.

## VIII. LITERATURE CITED

National Academy of Sciences, 2003. Policy and Procedures on Committee Composition and Balance and Conflicts of Interest for Committees Used in the Development of Reports. May 2003. Available online at: http://www.nationalacademies.org/coi/index.html.

Office of Management and Budget, 2005. Final Information Quality Bulletin for Peer Review. December 16, 2004.