

Third Party Science Neutral Support to Establish an Independent Science Advisory Panel for the Missouri River Recovery Program

Approved by MRRIC on July 21, 2010

I. BACKGROUND AND INTRODUCTION

The US Army Corps of Engineers (Corps) - Missouri River Recovery Program (MRRP) are engaged in large scale ecosystem management on the Missouri River, with significant efforts to restore ecosystem functions and recover threatened and endangered species. 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), a group of 69 members representing various interests, tribes, and agencies, assists these efforts by developing recommendations for the agencies implementing the ecosystem management efforts.

The desire and need for well thought out science and independent scientific advice and recommendations to support decisions and directions taken by the Corps has increased, and is also desired by the MRRIC. As a result, the MRRP Integrated Science Program (ISP) is working to ensure the quality, completeness, and application of scientific information in use, and is following the Office of Management and Budget's "Final Information Quality Bulletin for Peer Review" (2005). This approach is also consistent with Corps civil works review policy guidance EC 1165-2-209.

This document describes the Corps' intent to establish a standing independent Science Advisory Panel for the MRRP and the MRRIC, utilizing the Third Party Science Neutral (TPSN) contracted by the US Institute for Environmental Conflict Resolution (USIECR), as a lead advisor for the management of scientific advisor selection, panel processes, and panel products.

General support tasks of the independent Science Advisory Panel could include but are not limited to the following:

- Synthesis of all available information on a specific topic which may include meetings with scientists, agency personnel and stakeholders and culminates in a written report providing independent advice and recommendations to the Corps or MRRIC.
- Scientific or technical services to gather, evaluate, and synthesize the best available information/data on a scientific topic resulting in a report to the Corps. Providing independent opinion and recommendations on the topics presented.
- Evaluation of scientific proposals and making recommendations on how to proceed.
- A standing program of independent opinions and recommendations for the overall MRRP-ISP.
- Assessment of documents (models, data, monitoring plans, management plans, and recovery actions) for contextual clarity and their application to a specific project planning effort, resulting in a letter report to the Corps.
- Responding to scientific questions from the Corps, USFWS, or MRRIC.

II. MRRP SCIENCE ADVISORY PANEL

1. A standing panel of up to 6 science advisors who will meet at least annually (and more often in the initial stages of setting up the panel and as required by specific scope of tasks). This panel will be charged with overall independent science support and technical oversight of the ISP program. In addition, the panel will be charged to provide advice on specific topics as needed. The general disciplines of expertise desired on the standing panel will be from the following areas of science including:
 - a. Aquatic/Riverine Ecologist: Expertise in energy flow dynamics; flora and fauna community assemblages; river/floodplain dynamics; and knowledge of biological/physical drivers and processes.
 - b. River Hydrologist/Geomorphologist: Expertise in dynamics of river and associated landforms; sediment dynamics/transport; large dryland river physical processes; and flow modeling.
 - c. Least Tern/Piping Plover Specialist: Ornithological expertise in least tern and piping plover population dynamics; 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.
 - d. Sturgeon Specialist: ichthyological expertise in scaphirhynchus sturgeon population dynamics; ecological threats; habitat, energy, and security requirements; knowledge of the current understanding of life history needs; and status of population and productivity within the pallid sturgeon range.
 - e. Quantitative Ecologist/Statistician: Expertise in biostatistical methods, analytical tools, and the interpretation of ecological data sets; mathematical modeling; and presentation of complex analysis.
 - f. Conservation Biologist: Expertise in ecological community interactions with emphasis on large river form and function; restoration and recovery at the population/landscape scale.
2. Ad hoc specialists may be added to the standing panel, as needed, to provide expertise not represented by standing panel members for a particular topic. These individuals would serve only for the duration of the topical study for which they are selected. The type of expertise needed may be identified by the Corps or MRRIC as they develop questions to be considered by the standing panel, or by the standing panel itself if it convenes around a topic and determines additional expertise is needed. In either case, the TPSN would select a candidate and potential alternates qualified in that expertise for the panel following the criteria and selection process for the standing panel.
3. Standing panel members are expected to commit to a three year term, renewable upon review by the TPSN.

III. SELECTION OF SCIENCE ADVISORS

1. When selecting science advisors, 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 establish a panel of science advisors that demonstrates:
 - a. Expertise. Varied knowledge, experience and skill.
 - b. Balance. A diversity of scientific perspectives.
 - c. 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.
2. The TPSN shall undertake a structured search process whereby they shall select science advisors that represent a broad spectrum of scientific expertise within their discipline and that have established high-caliber scientific credentials including:
 - a. Widely recognized by peers for expertise in their field
 - b. Strong publication record or record of scientific leadership
 - c. Willingness to participate with objectivity and professionalism
 - d. Track record of fair and unbiased, yet constructive, criticism
 - e. Ability to function within a team and an interdisciplinary setting
 - f. High standard of scientific integrity, independence, and objectivity
 - g. Demonstrated ability to forge creative solutions to address identified topics or problems
 - h. Knowledge and understanding of adaptive management process and application (represented in at least some members)
3. The TPSN will provide a proposed list of panelists for each position to the full MRRIC. The ISP Work Group (and any other MRRIC members who choose to participate), Corps, and USIECR will have the opportunity to review and collaboratively provide input (through a joint facilitated conference call or meeting) on the proposed panelists. All MRRIC members will also have the opportunity to provide comments to the ISP Work Group Points of Contact to bring into the conversations. The TPSN will select the standing panel members representing the general disciplines using the criteria identified above.
4. The TPSN shall recognize and provide clear direction to prospective panel members that the independent science advice/reviews required are scientific in nature and that decision making and policy interpretation are left to the Corps after consideration of any consensus recommendations from MRRIC.

IV. HOW THE INDEPENDENT SCIENCE ADVISORY PANEL WORKS

1. Task Orders/Charge Questions: Topics for the Science Advisory Panel may originate from either the Corps or MRRIC (or collectively). For each topic, initial charge questions will be drafted by the proposing entity for review and discussion. If the Corps develops the initial questions, MRRIC members will have an opportunity to provide questions they would like addressed through the ISP WG for consideration as part of the initial questions to be presented to the Science Advisory Panel for their evaluation. Ideally, the ISP WG and the

Corps will agree on the questions to be delivered to the TPSN. Where there is not agreement, both the ISP WG and Corps have the option to provide questions to the TPSN.

2. Charge Description: The description of the charge to the Science Advisory Panel shall be developed as follows:
 - a. The TPSN shall expeditiously develop a proposal containing specific instructions to the science advisors including:
 - i. Description of topic.
 - ii. Expected products and ground rules for operation.
 - iii. How panel deliberations will be conducted, either sessions open to the general public and/or restricted to only the panel; and how findings will be presented.
 1. The TPSN shall make the science advisors aware that key agency staff and members of MRRIC are available to provide input as necessary when requested by the panel.
 2. A panel chair (and/or the full panel if desired) shall present findings to MRRIC via video teleconference or at a regularly scheduled meeting.
 - iv. Schedule/timeline.
 - b. The ISP WG, USACE, and USIECR will review and collaboratively provide input on the TPSN proposed description of the charge.
 - c. The TPSN will provide the final charge description to the MRRIC, USACE, and USIECR.
3. Implementation: In coordination with the Corps and the ISP WG, the TPSN shall schedule the review and coordinate all logistical issues associated with carrying out the panels' charge including, but not limited to, travel, facilities, equipment, facilitators, panelists, arranging for transcription of panel discussions (if necessary), and public access (as necessary).
4. Panel Chair: A panel chair will be chosen to ensure consideration of all technical matters amongst panelists and coalesce a final report. The method for choosing the chair 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 topic, a chair for the full period of time, and a rotating chair.
5. Facilitation: The TPSN will facilitate selection of panel chair, all panel deliberations, external panel interaction, and report preparation and dissemination. The TPSN will also provide other project management duties including ensuring product completion per schedule and budget.
6. 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 Science Advisory Panel members and the Corps, MRRIC, and other interested parties including the public. The TPSN may add to or refine these in certain situations as necessary (see How the Independent Science Advisory Panel Works, 2.a.ii. above).
 - The TPSN will coordinate all contact between candidate or selected panelists and interested parties.

- There will be no direct communication between interested parties and candidate or selected panelists, except as invited by the Science Advisory Panel through the TPSN.
 - All communication regarding the topics under consideration, between the Corps, MRRIC members, and candidate or selected panelists, will be coordinated through the TPSN. Communications between the Corps and/or MRRIC members and the candidate or selected panelists outside of the MRRIC process are inappropriate.
 - Questions or information received after the initial questions have been delivered to the Science Advisory Panel (including from the Institute's Independent Science Advisory Panel web site) will be routed to the Institute and TPSN. The Institute and TPSN will assess the information/ questions received. The TPSN will forward to the panel information and questions determined pertinent to the proceedings. To ensure the transparency of the process the Institute and TPSN will inform the Corps and ISP Work Group and MRRIC of any information/questions received and the disposition of these items.
 - During their deliberations, science advisors may access and reference any peer reviewed literature in their review deliberations and report(s). They also may reference other information that the panel deems credible, and include a copy of the other information with their report(s).
 - The panel may make on-site visits to gain understandings in topics being addressed and to see, first-hand, the challenges and successes.
 - During their deliberations science advisors may (through the TPSN) invite presentations and/or request information through the Institute from MRRIC including member agencies, Corps, or any source that they believe may be of value to their deliberations. The presenters and content of the presentations or information received will be included with their report(s).
 - Science advisors may recommend the need for ISR.
 - It is anticipated that the Science Advisory Panel will meet with the ISP WG and the Corps periodically during the advisory process and in some cases the MRRIC. These meetings will be open to MRRIC members and the public. Additional questions may be agreed to by the ISP WG/MRRIC and the agencies as the process iterates.
7. Interaction with MRRIC: The Science Advisory Panel will interact directly with the MRRIC at the beginning (soon after the charge is given to the Advisory Panel) of their work on a particular topic and when they are ready to present their draft report and recommendations. The presentations and panel interaction with MRRIC will occur at a regular MRRIC meeting.
8. MRRIC Input/Recommendations: Once the Advisory Panel recommendations are final MRRIC will have the opportunity to develop recommendations on: 1) implementation of the Advisory Panel recommendations; and 2) the socio/economic and Tribal impacts from implementing the recommendations/alternatives presented by the Advisory Panel.

The MRRIC, Corps, the public, the Institute, TPSN, and candidate and selected advisory panelists will follow the above ground rules and communication protocols. The Institute 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 Institute and TPSN will assess the situation and act accordingly and then the 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.

V. FINAL REPORT

The Panel Chair shall be responsible for writing and editing any initial, draft, and/or final reports that are required under the task order. The TPSN should ensure that the report addresses all task order requirements, is thorough, and is understandable.

The TPSN shall deliver a final report. In general, the final report for each task order shall:

1. Summarize the goals and objectives of the charge to the panel, the process undertaken to select any additional advisory panel participants, the participants selected, a brief summary of their qualifications, the information considered by the panel, the exercises completed as part of the process, 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 independent opinions and recommendations regarding each task request or question as assigned.
4. Accurately present the views of the entire panel.
5. Be delivered in electronic format as a text selectable "pdf" file (portable document format created with Adobe Acrobat) within the dates established in the task order schedule.

VI. 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. Available online at: <http://www.whitehouse.gov/omb/memoranda/fy2005/m05-03.pdf>