

# MISSOURI RIVER RECOVERY PROGRAM

MRRP

BiOp/Mit Efforts

MRRIC

MRERP

Search MRRP

Home

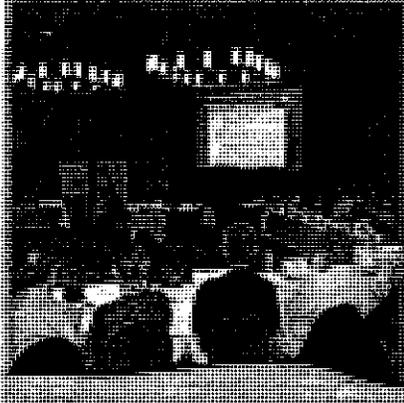
MRRIC Meetings

MRRIC Recommendations

MRRIC Documents

MRRIC Members

MRRIC Contacts



## Missouri River Recovery Implementation Committee (MRRIC)

### Overview

The Missouri River drains one-sixth of the United States, encompassing over 529,350 square miles, the river flows 2,341 miles through seven states. The basin is also home to 28 American Indian Tribes. There are many diverse non-governmental stakeholders with lives and livelihoods linked to the river (e.g., farmers, waterway industries, hydro and thermal power, and outdoor recreationists, and many more).

Established in the fall of 2008, the Missouri River Recovery Implementation Committee (MRRIC) serves as a basin-wide collaborative forum to come together and develop a shared vision and comprehensive plan for Missouri River recovery.

### Purpose

Authorized by Congress in Section 5018 of the 2007 Water Resources Development Act (WRDA), the Committee is to make recommendation and provide guidance on: 1) a study of the Missouri River and its tributaries known as the Missouri River Ecosystem Recovery Plan (MRERP), and 2) activities in the existing Missouri River recovery and mitigation program (MRRP).

MRRIC is exempt from the Federal Advisory Committee Act (FACA).

### Background

By signing the Implementation Guidance for Section 5018 of the Water Resources Development Act (WRDA) of 2007, John Paul Woodley, the Assistant Secretary of the Army for Civil Works, approved the Charter for MRRIC and established the Committee in July, 2008.

Prior to the formation of MRRIC, the Committee

### MRRIC Members

The Missouri River Recovery Implementation Committee has nearly 70 members who represent a wide array of local, state, tribal, and federal interests throughout the Missouri River Basin.

The Committee has 28 stakeholder members who represent 16 non-governmental categories. Stakeholder representatives, and their alternates, are selected by the US Army Corps of Engineers with input from the US Fish and Wildlife Service. Stakeholder members serve for three year terms.

Organizations and entities interested in representing one of the interest categories on the Committee are invited to submit a member application. Applications are due July 15 of each year and appointments are made by the US Army Corps of Engineers by October 1 of each year.

In addition to the stakeholder members, eight states, 18 American Indian Tribes and, 15 federal agencies appointed representatives to the Committee.

To learn more about the Committee members and the interests, organizations and governments they represent, see the MRRIC Roster.

The Committee is chaired by Michael Mac.

For more information on the purpose and scope of the MRRIC as well as the duties and responsibilities of its members, please read the MRRIC Charter. Stakeholder representatives, and their alternates, are selected by the US Army Corps of Engineers with input from the US Fish and Wildlife Service. Stakeholder members serve for three year terms.

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### Missouri River Independent Science Advisory Panel

Assisting the Missouri River Recovery Implementation Committee and the U.S. Army Corps of Engineers in the application of the best available scientific information is the Missouri River Independent Science Advisory Panel. The Panel is led by a Third Party Science Neutral and comprised of up to six science advisors who meet annually and provide advice on specific topics.



### What's New

#### Record of Decision Issued on Final Programmatic Environmental Impact Statement for Emergent Sandbar Habitat

The U.S. Army Corps of Engineers has issued a Record of Decision (ROD) on the Final Programmatic Environmental Impact Statement (EIS) for the Mechanical and Artificial Creation and Maintenance of Emergent Sandbar Habitat on the Riverine Segments of the Upper Missouri River (May 20, 2011). A news release was made on August 30, 2011.

A full disclosure of comments received during the Final comment period, and Corps responses, is in an errata sheet, made available concurrently with the ROD. The Final PEIS (May 2011), the ROD, the errata sheet, and an updated Final PEIS which incorporates the ROD and the errata items (August 2011) are available at on this site's MRRP Documents page and through links on our Emergent Sandbar Habitat page (under BiOp Mitigation Efforts).

#### Cottonwood Management Plan - Complete

The U.S. Army Corps of Engineers, Omaha District has completed the Cottonwood Management Plan / Final Programmatic Environmental Assessment (CMP/EA) and Finding of No Significant Impact (FONSI). As part of the Missouri River Recovery Program (MRRP), the CMP/EA will be used to guide management actions along the Missouri River to protect and restore cottonwood forests.

The CMP/EA may be viewed and downloaded from the MRRP Cottonwood Forest Page.

### Next Meeting

- October 2011 MRRIC Meeting



This Web site is the Corps of Engineers' online news and information guide for the overall Missouri River Recovery Program.

Charter was drafted by a basin-wide multi-stakeholder group facilitated by the US Institute for Environmental Conflict Resolution (<http://www.ecr.gov>).

For more information on the Charter drafting process, please visit:  
<http://missouririver.ecr.gov>.

**2011 MRRIC Work Plan**

The 2011 MRRIC Work Plan, approved by the Committee on February 17, 2011 in Denver, Colorado.

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*Banner Photo: Nebraska Land Magazine/Nebraska Game and Parks Commission*

<http://projects.ecr.gov/moriversciencepanel>

## Missouri River Independent Science Advisory Panel

[Home](#)

[What's new?](#)

[Recovery Program Integrated Science Program](#)

[Third Party Science Neutral](#)

[Independent Science Advisory Panelists](#)

[Panel Topics Under Review](#)

[Panel Meetings](#)

[Independent Science Advisory Panel Reports](#)

[Background Materials](#)

[Public Meetings](#)

[Videos](#)

[US Institute](#)

[Contact Us](#)

### Missouri River Independent Science Advisory Panel

The US Army Corps of Engineers (Corps) - Missouri River Recovery Program is 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 thoughtful science, 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 Corps' [Integrated Science Program](#) and MRRIC are working to apply the best available scientific information to the issues faced by the Missouri River Recovery Program. The Integrated Science Program achieves this by engaging with a [Third Party Science Neutral](#) who manages an Independent Science Advisory Panel.

The [Independent Science Advisory Panel](#) comprises up to six science advisors who meet at least annually. This panel is charged with independent science support and technical oversight by providing advice on specific topics. Topics for the Independent Science Advisory Panel originate from the Corps and/or MRRIC. The general disciplines of expertise on the standing panel include the following areas of science: Aquatic/Riverine Ecologist, River Hydrologist/Geomorphologist, Least Tern/Piping Plover Specialist, Sturgeon Specialist, Quantitative Ecologist/Statistician, and Conservation Biologist.

For comments or questions about the Independent Science Panel, please contact: [TPSN@ecr.gov](mailto:TPSN@ecr.gov). This page was last updated 2/14/2011.

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# MISSOURI RIVER RECOVERY PROGRAM

- [MRRP](#)
- [BiOp/Mit Efforts](#)
- [MRRIC](#)
- [MRRRP](#)
- [Home](#)
- [Science](#)
- [Adaptive Management](#)
- [Emergent Sandbar](#)
- [Shallow Water](#)
- [Mitigation](#)
- [Cottonwood Forest](#)
- [Flow Mod](#)
- [Yellowstone Intake](#)
- 

**BiOp Efforts**

- **Science**
  - Science Process
  - Project Information
  - Protected Species
  - Important Links
- **Adaptive Management**
  - Process & Guidance
  - AM Strategies
  - Models & Monitoring
  - Documents
- **Emergent Sandbar Habitat**
- **Shallow Water**
- **Mitigation**
  - Mitigation Sites
  - Environmental Impact
  - Land Acquisition
  - Mitigation Documents
  - Mitigation Meetings
- **Cottonwood Forest**
- **Flow Modification**
  - Drainage Monitoring
  - Groundwater Monitoring
- **Yellowstone Intake**

## Science

Stakeholders involved in the Missouri River Recovery Program are using the best science available to learn more about the basin. Particularly, how management of the river, the habitats and the threatened and endangered species are influencing basin ecosystems.

### Issue

Incomplete knowledge and understanding of a complex river system that spans a large, diverse landscape creates challenges for making good recovery decisions.

### Goal

Ensure that management decisions are based on the best available science by planning, conducting and communicating an integrated science program.

General Science Questions & Key Findings - Draft



Additional information about science efforts within the Missouri River basin can be found through the following links. To view current Monitoring and Research actions, navigate to Current Actions and then select either Monitoring or Research. Select the appropriate link to the left or below to review MRRP science activities.

<b>Science Process</b>	Visit this link to learn about the science processes used by the MRRP to collect information and make informed decisions.
<b>Project Information</b>	MRRP's science program strives to understand and enhance the knowledge of our complex river system to ensure that management decisions are based on the best available science. To complete this mission, the science program has many efforts and projects that have been and currently are being undertaken to promote ecosystem recovery. A brief synopsis of all the programs is available through this page and in their corresponding Project Information Sheets (PINs).
<b>Protected Species</b>	The ecosystem of the Missouri River provides habitat for a wide variety of wildlife, including three species under federal protection; the endangered least tern, the threatened piping plover, and the endangered pallid sturgeon. Visit the Protected Species page to learn more about them and their habitat.
<b>Important Links</b>	Visit this link for a list of important links to other pertinent science efforts.



<http://projects.ecr.gov/moriversciencepanel>

## Missouri River Independent Science Advisory Panel

[Home](#)

[What's new?](#)

[Recovery Program Integrated Science Program](#)

[Third Party Science Neutral](#)

[Independent Science Advisory Panelists](#)

[Panel Topics Under Review](#)

[Panel Meetings](#)

[Independent Science Advisory Panel Reports](#)

[Background Materials](#)

[Public Meetings](#)

[Videos](#)

[US Institute](#)

[Contact Us](#)

### Third Party Science Neutral

Dr. Robert Turner of Oak Ridge Associated Universities was recommended by the MRRIC to the U.S. Institute to serve as the current Third Party Science Neutral (TPSN).

The TPSN is responsible for managing the Independent Science Advisory Panel, including liaising between the panel and MRRIC. TPSN responsibilities range from coordinating with MRRIC on the selection of panel members to delivering final Panel reports to MRRIC.

MRRIC and/or the Corps work with the TPSN, to develop topics and questions to be addressed by the Independent Science Advisory Panel. This charge includes instructions to the panelists regarding the topic, expected products, how panel deliberations will be conducted, and the timeline for completing their task. The TPSN facilitates all panel deliberations and keeps the panelists on track. All communication regarding the topics under consideration, between the Corps, MRRIC members, and candidate or selected panelists, are coordinated through the TPSN.

The TPSN ensures 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 Independent Science Advisory Panel members and the Corps, MRRIC, and other interested parties.

For more information about the approach, structure, and ground rules for the Independent Science Advisory Panel process click [here](#).

For comments or questions about the Independent Science Panel, please contact: [TPSN@ecr.gov](mailto:TPSN@ecr.gov). This page was last updated 1/12/2011.

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<http://projects.ecr.gov/moriversciencepanel>

## Missouri River Independent Science Advisory Panel

[Home](#)

[What's new?](#)

[Recovery Program Integrated Science Program](#)

[Third Party Science Neutral](#)

[Independent Science Advisory Panelists](#)

[Panel Topics Under Review](#)

[Panel Meetings](#)

[Independent Science Advisory Panel Reports](#)

[Background Materials](#)

[Public Meetings](#)

[Videos](#)

[US Institute](#)

[Contact Us](#)

### Independent Science Advisory Panelists

#### Current Independent Science Advisory Panel Members

- Margaret A. Palmer, Ph.D. – Aquatic/Riverine Ecologist
- Martin W. Doyle, Ph.D. – River Hydrologist/Geomorphologist
- Adrian H. Farmer, Ph.D. – Least Tern/Piping Plover Specialist
- Christopher S. Guy, Ph.D. – Sturgeon Specialist
- Steven M. Bartell, Ph.D. – Quantitative Ecologist/Statistician
- Dennis D. Murphy, Ph.D. – Conservation Biologist

To review biographical information on the panelists, [click here](#).

#### How Members are Selected

When selecting science advisors, the TPSN complies 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 strives to establish a panel of science advisors who demonstrate:

- 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.

Standing panel members are expected to commit to a three-year term, renewable upon review by the TPSN, and contingent on available funding.

#### Areas of Expertise

The general disciplines of expertise on the standing panel include the following areas of science:

- 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: Ichthyologic expertise in Scaphirhynchus sturgeon population dynamics; ecological threats; habitat; food/forage; and cover/predation 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.

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.

For comments or questions about the Independent Science Panel, please contact: [TPSN@ecr.gov](mailto:TPSN@ecr.gov). This page was last updated 2/14/2011.