



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON D.C. 20460

OFFICE OF THE ADMINISTRATOR  
SCIENCE ADVISORY BOARD

July 29, 2013

**MEMORANDUM**

**SUBJECT:** Formation of Science Advisory Board (SAB) Panel for the Review of EPA's Water Body Connectivity Report

**FROM:** Thomas M. Armitage, Ph.D. */signed/*  
Designated Federal Officer (DFO)  
EPA Science Advisory Board Staff Office (1400F)

**THRU:** Wanda Bright */signed/*  
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**TO:** Christopher S. Zarba  
Acting Director  
EPA Science Advisory Board Staff Office (1400F)

The EPA's Office of Research and Development (ORD) has developed a draft report synthesizing the peer-reviewed scientific literature pertaining to biological, chemical, and hydrologic connectivity of waters and the effects that small streams, wetlands, and open waters have on larger downstream waters such as rivers, lakes, estuaries, and oceans. ORD has asked the SAB to conduct a peer review of the agency's draft report.

This memorandum addresses the set of determinations that were necessary for forming the SAB Panel for the Review of EPA's Water Body Connectivity Report:

- (A) The type of review body that will be used to conduct the review, and the nature of the review;
- (B) The types of expertise needed to address the general charge;
- (C) Financial conflict of interest considerations, including identification of parties who are potentially interested in or may be affected by the topic to be reviewed;

(D) How regulations concerning “appearance of loss of impartiality,” pursuant to 5 C.F.R. § 2635.502 apply to members of the Panel; and

(E) How individuals were selected for the Panel.

#### **DETERMINATIONS:**

(A) The type of review body that will be used to conduct the review, and the nature of this review.

An *ad hoc* panel composed of subject matter experts will provide advice and recommendations through the SAB to EPA on the scientific soundness of its draft report titled *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence*.

(B) The types of expertise needed to address the general charge.

The SAB Staff Office announced to the public through a *Federal Register* notice published on March 8, 2013 (78 FR 15012) that it was soliciting nominations of recognized experts in one or more of the following disciplines to serve on the Panel: (a) hydrologists, geologists, and fluvial geomorphologists with expertise in the hydrology and formation of large rivers, small streams, wetlands, surface-groundwater interactions, sediment transport, or hydrologic connectivity of waters; (b) ecologists with expertise in stream ecology or wetland ecology, particularly with respect to freshwater stream-wetland connectivity, or wetland ecosystem function; (c) biologists with expertise in population dynamics and dispersal of freshwater organisms, fisheries, aquatic entomology, amphibian biology, or the biologic connectivity of freshwater systems; and (d) water chemists and biogeochemists with expertise in nutrient dynamics or pollutant fate and transport in watersheds.

(C) Financial conflict of interest considerations, including identification of parties who are potentially interested in or may be affected by the topic to be reviewed.

(a) Identification of parties who are potentially interested in or may be affected by the topic to be reviewed: The principal interested and affected parties for this topic are those involved with the interests of private or public organizations that may be affected by policies or regulations developed using information in EPA’s report about the connectivity of streams and wetlands to downstream waters.

(b) Conflict of interest considerations: For Financial Conflict of Interest (COI) issues, the basic 18 U.S.C. § 208 provision states that: “An employee is prohibited from participating *personally or substantially* in an official capacity in any *particular matter* in which he, to his knowledge, or any person whose interests are imputed to him under this statute has a *financial interest*, if the particular matter will have a *direct and predictable* effect on that interest [emphasis added].” For a conflict of interest to be present, all elements in the above provision must be present. If an element is missing the issue does not involve a formal conflict of interest; however, the general

provisions in the appearance of impartiality guidelines must still apply and need to be considered.

(i) Does the general charge to the SAB Panel for the Review of EPA’s Water Body Connectivity Report involve a particular matter? A “particular matter” refers to matters that “...will involve deliberation, decision, or action that is focused upon the interest of specific people, or a discrete and identifiable class of people.” It does not refer to “...consideration or adoption of broad policy options directed to the interests of a large and diverse group of people.” [5 C.F.R. § 2640.103 (a)(1)]. A particular matter of general applicability means a particular matter that is focused on the interests of a discrete and identifiable class of persons, but does not involve specific parties [5 C.F.R. § 2640.102(m)].

The SAB Panel for the Review of EPA’s Water Body Connectivity Report will address the charge to provide advice on the scientific soundness of EPA’s draft report on the connectivity of streams and wetlands to downstream waters. This activity qualifies as a *particular matter of general applicability* because the resulting advice will be part of a deliberation, and under certain circumstances the advice could involve the interests of a discrete and identifiable class of people but does not involve specific parties. That group of people constitutes those who are involved with private or public organizations facing regulatory decisions that may be affected by information in the report about the connectivity of streams and wetlands to downstream waters.

(ii) Will there be personal and substantial participation on the part of the Panel members? Participating personally means direct participation in this review. Participating substantially refers to involvement that is of significance to the matter under consideration. [5 C.F.R. § 2640.103(a)(2)]. For this review, the SAB Staff Office has determined that the *SAB Panel members will be participating personally in the matter*. Panel members will be providing the agency with advice and recommendations on the scientific soundness of a report on the connectivity of streams and wetlands to downstream waters. *Therefore, participation in this review will also be substantial.*

(iii) Will there be a direct and predictable effect on SAB financial interests of members of the SAB Panel for the Review of EPA’s Water Body Connectivity Report? A direct effect on a participant’s financial interest exists if “...a close causal link exists between any decision or action to be taken in the matter and any expected effect of the matter on the financial interest. ...A particular matter does not have a direct effect ...if the chain of causation is attenuated or is contingent upon the occurrence of events that are speculative or that are independent of, and unrelated to, the matter. A particular matter that has an effect on a financial interest only as a consequence of its effects on the general economy is not considered to have a direct effect.” [5 C.F.R. § 2640.103(a)(i)] A predictable effect exists if, “...there is an actual, as opposed to speculative, possibility that the matter will affect the financial interest.” [5 C.F.R. § 2640.103(a)(ii)]

The SAB staff office has determined that the work of this SAB Panel will not have a direct and predictable financial effect on any Panel member’s financial interests.

(D) How regulations concerning “appearance of a loss of impartiality ,” pursuant to 5 C.F.R. § 2635.502, apply to members of the Panel

The Code of Federal Regulations at 5 C.F.R. § 2635.502(a) states that: “Where an employee knows that a particular matter involving specific parties is likely to have a direct and predictable effect on the financial interest of a member of his household, or knows that a person with whom he has a covered relationship is or represents a party to such matter, and where the person determines that the circumstances would cause a reasonable person with knowledge of the relevant facts to question his impartiality in the matter, the employee should not participate in the matter unless he has informed the agency designee of the appearance problem and has received authorization from the agency designee.” Further, § 2635.502(a)(2) states that, “An employee who is concerned that circumstances other than those specifically described in this section would raise a question regarding his impartiality should use the process described in this section to determine whether he should or should not participate in a particular matter.”

Candidates for the Panel were evaluated against the 5 C.F.R. 2635(a)(2) general requirements for considering an appearance of a loss of impartiality. Information used in this evaluation has come from information provided by potential advisory committee members (including, but not limited to, EPA 3110-48 confidential financial disclosure forms) and public comment as well as their responses to the following supplemental questions (included on the EPA 3110-48 confidential financial disclosure form):

1. Do you know of any reason that you might be unable to provide impartial advice on the matter to come before the panel/committee/subcommittee or any reason that your impartiality in the matter might be questioned?
2. Have you had any previous involvement with the review document(s) under consideration including authorship, collaboration with the authors, or previous peer review functions? If so, please identify and describe that involvement.
3. Have you served on previous advisory panels, committees or subcommittees that have addressed the topic under consideration? If so, please identify those activities.
4. Have you made any public statements (written or oral) on the issue that would indicate to an observer that you have taken a position on the issue under consideration? If so, please identify those statements.

As a result of a review of all relevant information including financial disclosure, the responses to the four questions above, and public comments, the SAB Staff Office has determined that there are no conflicts of interest or appearances of a loss of impartiality for the members of this Panel.

(E) How individuals were selected for the Panel

The SAB Staff Office identified 128 experts to be considered for the Panel. On May 17, 2013 the SAB Staff Office posted a notice on the SAB website inviting public comments by June 7, 2013

on the list of candidates for the Panel. The SAB Staff Office received comments on this list of candidates from the following members of the public.

- Ted Brown, Biohabitats
- Christopher P. Carlson, U.S. Department of Agriculture Forest Service
- Eric Christensen, Kittson County Board of Commissioners (Minnesota)
- Jeanne Christie, Association of State Wetland Managers
- Willliam Creal, Michigan Department of Environmental Quality
- Deidre G. Duncan, Hunton and Williams LLP, Counsel for Waters Advocacy Coalition
- Marshall Gannett, U.S. Geological Survey
- Richard Gupton, Agricultural Retailers Association
- Lorene Hanson, Lake of the Woods County Board of Commissioners (Minnesota)
- Dudley Hoskins, Responsible Industry for a Sound Environment
- Gary Kiesow, Joint Counties Natural Resource Board (Minnesota)
- Kay Mack, Beltrami County Board of Commissioners (Minnesota)
- Emily McDougall, Clearwater County Board of Commissioners (Minnesota)
- Dale Moore, American Farm Bureau Federation
- Jeff Pelowski, Roseau County Board of Commissioners (Minnesota)
- William Stack, Center for Watershed Protection
- Keith Underwood, Underwood & Associates
- Lee A. Vierling, University of Idaho
- Pamela J. Whitted, National Stone, Sand, and Gravel Association

The SAB Staff Office Director makes the final decision about who serves on the SAB Panel for the Review of EPA's Water Body Connectivity Report, based on all relevant information. This includes a review of the member's confidential financial disclosure form (EPA Form 3110-48), the responses to the questions above, public comments, and information independently gathered by SAB Staff. For the SAB Staff Office, a balanced committee or panel is characterized by inclusion of candidates who possess the necessary domains of knowledge, the relevant scientific perspectives (which, among other factors, can be influenced by work history and affiliation), and the collective breadth of experience to adequately address the general charge. Specific criteria used to evaluate an individual committee member include: (a) scientific and/or technical expertise, knowledge, and experience; (b) availability and willingness to serve; (c) absence of financial conflicts of interest; (d) absence of an appearance of a lack of impartiality; (e) skills working in committees, subcommittees and advisory panels; and (f) for the committee as a whole, diversity of scientific expertise and viewpoints.

On the basis of the above-specified criteria, the membership of the Committee for this review is as follows:

**Dr. Amanda Rodewald**, Cornell University (NY), Chair  
**Dr. Allison Aldous**, The Nature Conservancy (OR)  
**Dr. Genevieve Ali**, University of Manitoba (Canada)  
**Dr. David Allan**, University of Michigan (MI)

**Dr. Lee Benda**, Earth Systems Institute (CA)  
**Dr. Emily Bernhardt**, Duke University (NC)  
**Dr. Robert Brooks**, Pennsylvania State University (PA)  
**Dr. Kurt Fausch**, Colorado State University (CO)  
**Dr. Siobhan Fennessy**, Kenyon College (OH)  
**Dr. Michael Gooseff**, Colorado State University (CO)  
**Dr. Judson Harvey**, U.S. Geological Survey (VA)  
**Dr. Charles Hawkins**, Utah State University (UT)  
**Dr. Lucinda Johnson**, University of Minnesota (MN)  
**Dr. Michael Josselyn**, Wetland Research Associates (CA)  
**Dr. Latif Kalin**, Auburn University (AL)  
**Dr. Kenneth Kolm**, Hydrologic Systems Analysis (CO)  
**Dr. Judith Meyer**, University of Georgia (GA)  
**Dr. Mark Murphy**, Geosystems Analysis (AZ)  
**Dr. Duncan Patten**, Montana State University (MT)  
**Dr. Mark Rains**, University of South Florida (FL)  
**Dr. Ramesh Reddy**, University of Florida (FL)  
**Dr. Emma Rosi-Marshall**, Cary Institute of Ecosystem Studies (NY)  
**Dr. Jack Stanford**, University of Montana (MT)  
**Dr. Mazeika Sullivan**, Ohio State University (OH)  
**Dr. Jennifer Tank**, University of Notre Dame (IN)  
**Dr. Maurice Valett**, University of Montana (MT)  
**Dr. Ellen Wohl**, Colorado State University (CO)

Concurred,

*/signed/*

7/29/13

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Christopher S. Zarba.  
Acting Director  
EPA Science Advisory Board Staff Office

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Date