

**Summary Minutes of the Joint Meeting of the U.S. Environmental Protection Agency  
Science Advisory Board (SAB)  
and Board of Scientific Counselors (BOSC)  
September 19, 2012**

**Teleconference of the Chartered SAB<sup>1</sup> and BOSC<sup>2</sup>**

**Date and Time:** September 19, 2012, 12:00 a.m. – 3:00 p.m. Eastern Time

**Location:** By Teleconference

**Purpose:** To discuss a draft SAB/BOSC report commenting on the Office of Research and Development's (ORD's) implementation of its new strategic directions for research.<sup>3</sup>

**SAB Members and Liaison Participants:**

SAB Members

Dr. Deborah Swackhamer, Chair  
Dr. George Alexeeff  
Dr. David Allen  
Dr. Ingrid Burke  
Dr. Terry Daniel  
Dr. George Daston  
Dr. Costel Denson  
Dr. Michael Dourson  
Dr. David Dzombak  
Dr. Elaine Faustman  
Dr. John Giesy  
Dr. Jeffrey Griffiths  
Dr. James Hammitt  
Dr. Barbara Harper  
Dr. Kimberly Jones  
Dr. Bernd Kahn

Dr. Madhu Khanna  
Dr. Nancy Kim  
Dr. Cecil Lue-Hing  
Dr. James Mihelcic  
Dr. Eileen Murphy  
Dr. James Opaluch  
Dr. Amanda Rodewald  
Dr. Jonathan Samet  
Dr. James Sanders  
Dr. Gina Solomon  
Dr. Peter Thorne  
Dr. Paige Tolbert  
Dr. John Vena  
Dr. Robert Watts  
Dr. Thomas Zoeller

Members of the BOSC

Dr. Katherine von Stackelberg, Chair  
Dr. Edward Carney  
Dr. Lisa Dilling  
Dr. Henry Falk  
Dr. Charles N. Haas  
Dr. Earthea Nance

Dr. Diane E. Pataki  
Dr. Dennis J. Paustenbach  
Dr. Rosemarie Szostak  
Dr. John Tharakan  
Dr. Russell Thomas  
Ms. Marie Zhuikov

Liaison to the SAB:

Dr. Pamela Shubat, Chair, Children's Health  
Protection Advisory Committee

**DFOs:**

Dr. Angela Nugent, SAB Staff Office, Designated Federal Officer for the Chartered SAB  
Mr. Greg Susanke, ORD, Designated Federal Officer for the BOSC

**Teleconference Summary:**

The teleconference was announced in the Federal Register<sup>4</sup> and discussion generally followed the issues and timing as presented in the agenda.<sup>5</sup>

**Convene the meeting**

Dr. Nugent and Mr. Susanke formally opened the meeting and noted that this teleconference of the SAB and BOSC had been announced in the Federal Register. They briefly described the mission of the two advisory committees and the authorities under which the committees operate. The SAB an independent, expert federal advisory committee chartered under the authority of the Federal Advisory Committee Act (FACA). The SAB is empowered by law, Environmental Research, Development, and Demonstration Authorization Act (ERDDAA), to provide advice to the EPA Administrator on scientific and technical issues that support EPA's decisions. The BOSC was established and operates at the request of the Office of Research and Development under authority of the Federal Advisory Committee Act. It provides advice and recommendations on both the technical and management aspects of ORD and its research programs.

The DFOs noted that the Federal Register notice meeting announcement had provided the public with an opportunity to provide written and oral comment. There was no request for oral comment and no written public comment.

**Purpose of meeting and review of the agenda**

Dr. Deborah Swackhamer, the SAB Chair, welcomed SAB and BOSC members, thanked them, and reviewed the purpose of the meeting. She noted that she and the BOSC Chair, Dr. Katherine von Stackelberg would serve as chair for different parts of the discussion. They agreed to work with the DFOs to copy edit the report and address written comments provided by members.<sup>6</sup> They asked that the teleconference discussion focus on substantive issues.

**Discussion of the draft report**

The SAB and BOSC members discussed the letter to the Administrator and agreed to make the following changes:

- Edit the next-to-last paragraph in page 2 to:
  - Ensure that any mention of ecological risk and non-chemical stressors ties back to topics explicitly discussed in the report or that the language is dropped.
  - Include mention of the social, behavioral and decision science research as an area needing strengthening.

- Page 1, line 47, remove last clause because of circular logic)
- Provide one or two specific suggestions in the letter for priority ways to strengthen the social, behavioral and decision sciences (e.g., ORD workshop to identify priority research in this area to support its six programs; collaboration with the National Center for Environmental Economics).
- Page 2, line 7, edit language to read something like: “there is a need for better communication of the findings, knowledge, and the value (or significance) of that knowledge” generated by ORD research – important to communicate the importance of research to multiple groups.
- Add “need to engage the community in research prioritization and research activities that impact the community.”
- Soften language, line 39-41, to indicate that the Human Health Research Program had more challenges to meet and required a clearer vision. Use substitute language provided by Dr. Gina Solomon.
- More clearly describe what the “sustainability stool” is and its three legs.
- Clarify in letter and/or Section 2 that SAB and BOSC welcome that ORD has a single definition of sustainability, but advise ORD to add specifics about how the concept applies to each research program. SAB and BOSC recommend that the definition of sustainability include human and ecological effects.

In the Discussion of Section 2, the SAB and BOSC members agreed to make the following changes:

- Enhance Section 2.4, page 6, starting sentence, third paragraph to state that “The way that you are on top of an emerging issue is by being a leader in the science. EPA needs to maintain enough research capability to be a leader in environmental health decision making” and to note that a strong extramural program is necessary to cover the breadth of the Agency’s mission. Dr. George Daston agreed to provide language.
- Add a bullet between lines 39 and 42 calling for ORD to seek and support innovative research within communities

In the discussion of Section 3.1, covering the Air, Climate and Energy (ACE) program, SAB and BOSC members agreed to make the following changes:

- Include the call for an explicit mapping of individual projects and outputs to research themes and vision as a major recommendation.
- Include the recommendation regarding leadership for systems integration of energy research made by Dr. Amanda Rodewald in her written comments as a major recommendation.
- Strengthen language on page 13, line 9 to read something like “The sustainability paradigm provides a framework for research on air, climate and energy.”
- Clarify on page 13, lines 17-19 that the “three legged stool” of sustainability includes the environment
- In section 3.1.5, add in the full bullet that the ACE plan should include a plan for energy research that would be integrated with other components of the ACE program.

In the discussion of Section 3.2, covering the Chemical Safety for Sustainability (CSS) program, SAB and BOSC members agreed to make the following changes:

- Page 16, lines 17-22, substitute language on exposure research provided by Dr. Elaine Faustman.
- Page 18, lines 28-29, substitute language on homeostasis with language provided by Dr. Gina Solomon
- Page 19, line 38, change language to read “Define the typical or expected range.”

In the discussion of Section 3.3, covering the Human Health Risk Assessment (HHRA) program, SAB and BOSC members agreed to make the following changes:

- Page 27, line 19, substitute language provided by Dr. Gina Solomon to introduce the paragraph
- Change language, page 27 to characterize the problem of efficiency in responding to comments more fully. Remove language making a recommendation for an independent referee. Provide an example (i.e., the National Academy of Science process) of how other organizations address this problem. Dr. Jonathan Samet will provide language.
- Clarify language on page 23, lines 10-18 to discuss more generally the need to explore additional approaches for developing interim risk values for chemicals of concern. Drs. Gina Solomon and Michael Dourson will provide language.

In the discussion of Section 3.4, covering the Safe and Sustainable Water Resources (SSWR) program, SAB and BOSC members agreed to make the following change:

- Page 32, line 15 and 16 include language recommending EPA encourage community involvement in research prioritization.

In the discussion of Section 3.5, covering the Homeland Security Research Program (HSRP) program, SAB and BOSC members agreed to make the following change:

- Ensure that the HSRP acronym appears correctly
- Clarify why fellowship programs could be helpful in quickly acquiring expertise in the social, behavioral and decision sciences. Dr. Costel Denson will provide language on this point.

In the discussion of Section 3.6, covering the Sustainable and Healthy Communities (SHC) program, SAB and BOSC members agreed to make the following changes:

- Page 36, line 13-14, clarify that the program integrates “human health and ecological health through the ecosystem services concept.”
- Incorporate comments provided by Barbara Harper
- Page 39, line 9, change language to indicate that the SHC program should work in partnership with communities to develop a structure by which communities should engage.
- Change the language on page 37 regarding developing a typology of communities to show more support for ORD’s developing a typology of communities.
- Reference the call for an ORD workshop to develop needed social, behavioral and decision sciences to support ORD programs in the SHC section of the report.

In the discussion of Appendix B, the annotated bibliography on innovation in research, the following action items were identified.

- Drs. Rosemarie Szostak, David Dzombak, Elaine Faustman, and Deborah Swackhamer will send additional citations and annotations.
- Mr. Greg Susanke will follow up with BOSC member, Dr. Susan Cozzens, regarding key sources of information on metrics to evaluate research innovation.

### Next steps

Members agreed to provide promised information and draft language to the DFOs by Friday, September 21, 2012. The DFOs plan to circulate the report on Monday, September 24, 2012, to the program-specific leads for those sections identified for the July 2012 SAB-BOSC meeting for a 24-hour review. The DFOs would circulate the report to SAB and BOSC members primarily as an FYI, with the SAB and BOSC Chairs taking primary responsibility to ensure needed changes were made. The goal is to finalize the report on September 28, 2012, to transmit to the Administrator.

The Designated Federal Officer adjourned the meeting at 2:45 p.m.

Respectfully Submitted:

Certified as True:

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Dr. Angela Nugent  
SAB DFO

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Dr. Deborah Swackhamer  
SAB Chair

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Mr. Greg Susanke  
BOSC DFO

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Dr. Katherine von Stackelberg  
BOSC Chair

NOTE AND DISCLAIMER: The minutes of this public meeting reflect diverse ideas and suggestions offered by committee members during the course of deliberations within the meeting. Such ideas, suggestions, and deliberations do not necessarily reflect definitive consensus advice from the panel members. The reader is cautioned to not rely on the minutes represent final, approved, consensus advice and recommendations offered to the Agency. Such advice and recommendations may be found in the final advisories, commentaries, letters, or reports prepared and transmitted to the EPA Administrator following the public meetings.

**Attachment A**  
**Members of the Agency and the Public Requesting Teleconference Access**

Tina Bahadori, EPA  
Lynn Flowers, EPA  
Maureen R. Gwinn, EPA  
Puneet Kollipara, Inside EPA  
Michael Loughran, EPA  
Matthew L. Magnuson, EPA  
Melissa Mccullough, EPA  
Christopher Murray, U.S. Government Accountability Office  
Julie Palakovich Carr, American Institute of Biological Sciences  
Theresa Pella, Central States Air Resource Agencies (CenSARA)  
Christine Reimer, National Ground Water Association  
Pat Rizzuto, BNA  
Michael Slimak, EPA  
Betsy Smith, EPA  
John Vandenberg, EPA  
Clint Woods, House Science, Space and Technology Committee  
Marshall Yacoe

## Materials Cited

The following meeting materials are available on the SAB website, <http://www.epa.gov/sab>, at the following address:  
<http://yosemite.epa.gov/sab/sabproduct.nsf/a84bfee16cc358ad85256ccd006b0b4b/13e4d166e6bf003a85257a48006101c8!OpenDocument&Date=2012-09-19>

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<sup>1</sup> Roster, Chartered SAB Members and Liaisons

<sup>2</sup> Roster, BOSC

<sup>3</sup> Draft report entitled *Implementation of ORD Strategic Research Plans: A Joint Report (09/17/12 Draft) of the SAB and ORD BOSC*.

<sup>4</sup> Federal Register Notice Announcing the Meeting (77 FR 52022-52023)

<sup>5</sup> Agenda

<sup>6</sup> Compilation of comments provided by SAB and BOSC members.