

**Summary Minutes of the United States Environmental Protection Agency (U.S. EPA) Joint  
Teleconference of the Science Advisory Board (SAB) and  
Board of Scientific Counselors (BOSC)  
January 13, 2015**

**Date and Time:** January 13, 2015, 3:00 p.m. to 5:00 p.m.

**Location:** By teleconference only.

**Purpose:** To finalize a draft SAB/BOSC report on Office of Research and Development (ORD) strategic research planning for 2016-2019.

**Meeting Participants:**

**SAB Members (See Roster<sup>1</sup>)**

Dr. David T. Allen, SAB Chair  
Dr. George Alexeeff  
Dr. Joseph Arvai  
Dr. Sylvie Brouder  
Dr. Ingrid Burke  
Dr. Costel Denson  
Dr. Michael Dourson  
Dr. Joel Ducoste  
Dr. David Dzombak  
Dr. Elaine Faustman  
Dr. Cynthia Harris  
Dr. Robert Johnston  
Dr. Kimberly L. Jones  
Dr. Catherine Karr  
Dr. Madhu Khanna  
Dr. Francine Laden

Dr. Kristina Mena  
Dr. Surabi Menon  
Dr. James R. Mihelcic  
Dr. H. Keith Moo-Young  
Dr. Eileen Murphy  
Dr. James Opaluch  
Dr. Richard Poirot  
Dr. William Schlesinger  
Dr. Gina Solomon  
Dr. Daniel Stram  
Dr. Peter Thorne  
Dr. Jeanne VanBriesen  
Dr. John Vena  
Dr. Elke Weber  
Dr. Charles Werth  
Dr. Dawn Wright

**BOSC Executive Committee Members (See Roster<sup>2</sup>)**

Dr. Katherine von Stackelberg, Chair  
Dr. Viney Aneja  
Dr. Kenneth Reckhow  
Dr. Robert Richardson  
Dr. Sandra Smith

Dr. Sandra Smith  
Dr. Ponisseril Somasundaran  
Dr. Paula Olsiewski  
Dr. Tammy Taylor  
Dr. John Tharakan

**DFOs:**

Dr. Angela Nugent, SAB Staff Office, Designated Federal Officer for the Chartered SAB  
Mr. Thomas Carpenter, SAB Staff Office  
Mr. Tom Tracy, ORD, Designated Federal Officer for the BOSC Executive Committee

**Other Attendees:** Names of those who requested the teleconference call-in number are provided in Attachment A.

**Meeting Materials:**

All materials for the meeting are available on the SAB webpage at:  
<http://yosemite.epa.gov/sab/sabproduct.nsf/a84bfee16cc358ad85256ccd006b0b4b/00af90007c523dba85257daa006c6b0a!OpenDocument&Date=2015-01-13>

**Meeting Summary:****Convene the meeting**

Dr. Nugent called the roll and stated that she had learned that a member of both the SAB and the BOSC, Dr. Edward Carney, had died the night before the teleconference. She acknowledged his contributions to the SAB generally and to the draft report that was the subject of the teleconference deliberations.

Dr. Nugent and Mr. Tracy then formally opened the meeting and noted that this joint federal advisory committee meeting of the SAB and BOSC had been announced in the Federal Register.<sup>3</sup> They briefly described the mission of the two advisory committees and the authorities under which the committees operate. The SAB is an independent, expert federal advisory committee chartered under the authority of the Federal Advisory Committee Act (FACA). The SAB is empowered by law (the Environmental Research, Development, and Demonstration Authorization Act) to provide advice to the EPA Administrator on scientific and technical issues related to the EPA's decisions. The BOSC was established and operates at the request of ORD 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.

Mr. Tracy noted that the Federal Register notice meeting announcement had provided the public with an opportunity to provide written and oral comment. There were no requests for oral comment and no written comments submitted by the public for the meeting.

Dr. Nugent noted that the SAB and the BOSC committees consist entirely of special government employees appointed by the EPA to their positions. As government employees, all the members are subject to all applicable ethics laws and implementing regulations. She noted that the SAB Staff Office had reviewed financial disclosure forms provided by SAB members and other information related to the public statements expressed by experts on these committees related to the advisory activity under consideration.

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

Dr. David Allen, the SAB Chair, welcomed the group. He briefly discussed the purpose of the meeting, to discuss finalization of a draft SAB/BOSC report<sup>4</sup> on ORD strategic research planning for 2016-2019. He noted that members had received the draft report; had provided comments<sup>5</sup> in response that had been posted on the SAB website; and also had been sent a revised Executive Summary.<sup>6</sup> He briefly described the process for developing the report, which involved: (1) individual teleconference briefings on the development of Strategic Research Action Plans (StRAPs) for ORD's six research programs; (2) a joint SAB-BOSC public meeting on

July 24-25, 2014 to receive additional information about four ORD cross-cutting topics and updates on research programs and to engage in preliminary deliberations; (3) development of draft text by breakout groups or breakout group leads; and (4) assembly of draft text into a consistent format by the SAB and BOSC Chairs, with the assistance of the SAB Staff Office.

The goal was to provide a strategic, high-level review of ORD's plan in the form of a draft report by January 31, 2015. He noted that he and Dr. von Stackelberg would lead the SAB and BOSC members during the teleconference through a review of each section of the draft report, inviting oral comments for discussion. Dr. von Stackelberg expressed her agreement with Dr. Allen's summary of the development process for the draft report and for the approach for facilitating chartered SAB and BOSC discussion on the call.

Dr. Allen then noted that the EPA had requested time on the agenda for Dr. Thomas Burke, newly appointed to the EPA, to provide a few introductory remarks. Dr. Allen acknowledged Dr. Burke's past distinguished service on the SAB and the National Research Council's Board on Environmental Studies and Toxicology and welcomed him in his new role at the EPA. Dr. Burke expressed his pleasure in being recently appointed as the Deputy Assistant Administrator for ORD and Science Advisor to the Administrator. He acknowledged the challenging work of the SAB and the BOSC, where he also served as an inaugural member. He noted that the draft SAB-BOSC report includes important themes of science integration, sustainability, research planning in light of constrained resources, and the importance of social sciences and behavioral sciences to broaden the scientific foundation of the EPA's work. He emphasized that the Administrator and the leadership of the EPA considers the science advice they receive very seriously, and he wished the group good luck in their deliberations.

## **Discussion of Draft SAB/BOSC Report**

The substantive points of discussion are listed below by section of the report, along with any action items identified.

### Cover Letter

- Page 2, lines 20-23: group discussed providing more brief discussion about short- and long-term human resource strategies, since the report provides some detail on these points.

- Page 2, line 26-28: add text that notes that the report includes recommendations to improve cross-cutting roadmaps.

### Executive Summary

Dr. Allen asked members to focus on the revised Executive Summary text dated January 11, 2015. This text had been revised to highlight the major recommendations in each section.

Drs. Ingrid Burke and Peter Thorne orally summarized the revised key recommendations for the Air, Climate and Energy (ACE) program, because these revision did not appear in the January 11, 2015 revisions. This revised text included:

- Include a conceptual framework linking elements of the ACE program in the ACE StRAP
- Document progress in agency programs addressing greenhouse gases and plan the research needed to inform future decisions.
- Plan to incorporate renewable energy scenarios and pathways developed by other organizations in ORD's analysis of environmental impacts.

Other discussion points and action items included:

- Revise the Executive Summary to provide a discussion of the EPA's definition of sustainability on the first page.
- Edit the third recommendation for Chemical Safety for Sustainability/Human Health Risk Assessment research programs so that it reads something like this: "Advance exposure and **epidemiologically-based approaches**" (bolded text added).
- Edit the first recommendation for Nitrogen and co pollutants to read "Partner with USDA and study the effectiveness of approaches for management of nitrogen in agriculture (both crop and animal), including control of runoff and other emissions bearing nitrogen."
- Include a clarification in the Executive Summary that the body of the report has a full list of recommendations and that the recommendations highlighted in the executive summary reflects the major themes and major concepts related to charge questions for the StRAPs and cross-cutting roadmaps. Also include a section in the main body text for each section introducing the major themes and major concepts that are to be included in the Executive Summary.

### General Findings and overarching recommendations

- Page 9, line 10-11: add the fifth EPA Strategic Plan cross-cutting strategy.
- Page 9, line 25: expand discussion of potential opportunities to leverage the EPA's resources through outside parties or Cooperative Research and Development Agreements (CRADAs).
- Page 12, lines 3-8: clarify that the SAB and BOSC are not recommending that ORD immediately revise the StRAPs to address the list of eight future environmental challenges. Make it clear that these challenges are guides for framing how ORD might identify and address environmental challenges beyond 2020. Consider linking this text to the recommendation on line 10.

## Air, Climate and Energy

There were no substantive oral comments.

## Safe and Sustainable Water Resources

There were no substantive oral comments.

## Chemical Safety for Sustainability and Human Health Risk Assessment

- Page 21, lines 13-18: clarify language regarding use of new data streams, exposure analysis, and epidemiological literature and identify an appropriate list of federal agencies as resources for human disease literature and human epidemiology data.
- Explore whether the point above should be added to the executive summary list of major themes/concepts.
- Page 20, line 37-39: drop the last sentence.
- Page 21, lines 12-14: edit along the following lines “As the field moves ~~away from animal-based approaches~~ toward models based on human cells...”

## Sustainable and Healthy Communities

- An additional reference should be provided on page 25, line 32 to the 2013 *World Happiness Report*. Dr. Elke Weber will provide.
- References in the document should not refer only to “tradeoffs” between the pillars of sustainability (economics, environment and society), but instead refer to “synergies and tradeoffs.”
- Any edits to the report should insure consistency in references to sustainability.
- Page 24, lines 6-11: remove references to “fringe issues” and reframe it in terms of ORD being aware of and tracking emerging issues from communities, with emphasis on changing demographics.

## Homeland Security

There were no substantive oral comments.

## Children's Environmental Health

- Page 31, line 18-30: consider inserting reference to using short-term full-animal toxicity tests to test hypotheses, where epidemiological findings are not conclusive.
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## Nitrogen and Co-pollutants

- Change the recommendation on page 33, line 29 to be consistent with the Executive Summary and to read: “Partner with USDA and study the effectiveness of approaches for management of nitrogen in agriculture (both crop and animal), including control of runoff and other emissions bearing nitrogen.”

- Page 33, lines 29-38: modify text to broaden the related discussion of the recommendation above by dropping references to voluntary approaches.

### Climate Change

- Page 35, lines 23-24: reframe the text so that it does not focus so much on cook-stoves and expand language to make clearer the intent, which is to link research to actionable science, which includes regulatory actions, voluntary programs, and outreach to other countries.
- Page 36, lines 21-27: revise text to remove redundancy and make text more consistent with other recommendations, i.e., not framed as a series of questions.

### Environmental Justice

There were no substantive oral comments.

### Integration across ORD programs

- Include a recommendation on page 40, lines 37-43, suggesting that ORD consider adding Sustainable and Healthy Communities as a cross-cutting theme, like climate, since it is a topic central to the EPA's protection of public health and welfare. It could be a cross-cutting topic parallel to "Climate," which is part of the ACE program, but also identified as a topic worthy of a cross-cutting roadmap.

### **Summary and Next Steps**

Dr. Allen entertained a motion for disposition of the Report. Dr. Peter Thorne moved that the report be revised in light of the comments discussed on the call, with the assistance of chartered SAB and BOSC members who volunteer to participate in the revision process. Dr. Gina Solomon seconded the motion. There was discussion of the motion. In response to a question, Dr. Allen noted that the SAB and BOSC chairs would consider all the cross-cutting comments and work with DFOs to address the comments. If there was a question about a comment, the Chairs would contact the commenter through the DFOs.

The motion was approved unanimously with no members abstaining.

Dr. Allen stated that the goal will be to finalize the report by the end of January. He asked members interested in volunteering to revise parts of the report, as discussed on the teleconference, to please contact the DFOs by close of business on Thursday, January 15, 2015.

The DFOs adjourned the meeting at 5:05 p.m.

Respectfully Submitted:

Certified as Accurate:

*/Signed/*

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Dr. Angela Nugent  
SAB DFO

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Dr. David Allen  
SAB Chair

*/Signed/*

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Mr. Tom Tracy  
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 to 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: Names of those who requested the teleconference call-in number**

Lisa Bacanskas, EPA  
Tina Bahadori, EPA  
Carole Braverman, EPA  
Thomas Brennan, EPA  
Jana Compton, EPA  
Dan Costa, EPA  
John Cowden, EPA  
Michael Dunn, EPA  
Hiba Ernst, EPA  
Lindy Farrar, EPA  
Michael Firestone, EPA  
Beth Hassett-Sipple, EPA  
Elaine Hubal, EPA  
Robert Kavlock, EPA  
John Kenneke, EPA  
Michelle Latham, EPA  
Monica Linnenbrink, EPA  
Andy Miller, EPA  
Michael Morton, EPA  
Anna Rea, EPA  
David Reynolds, Inside EPA  
Lee Riddick, EPA  
Gregory Sayles, EPA  
Laurel Schultz, EPA  
Michael Slimak, EPA  
Emily Snyder, EPA  
Doug Steele, EPA  
Suzanne van Drunick, EPA  
Alan Vette, EPA  
Christopher Zarba, EPA

### Materials Cited

The following meeting materials are available on the SAB website,

<http://www.epa.gov/sab>, at the page for the [January 13, 2015](#) teleconference:

<http://yosemite.epa.gov/sab/sabproduct.nsf/a84bfee16cc358ad85256ccd006b0b4b/00af90007c523dba85257daa006c6b0a!OpenDocument&Date=2015-01-13>

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<sup>1</sup> Roster of SAB members

<sup>2</sup> Roster of BOSC Members

<sup>3</sup> Federal Register Notice Announcing the Meeting, published December 30, 2014 (79 FR Pages 78430-78431)

<sup>4</sup> *Strategic Research Planning for 2016-2019: A Joint Report (11/20/14 Draft) of the SAB and ORD BOSC*

<sup>5</sup> Comments from Chartered SAB and BOSC Members as of 01.12.15; Comments from Dr. Charles Werth, received 01.13.15

<sup>6</sup> Revised Executive Summary (01.11.15 Draft)