

**United States Environmental Protection Agency (U.S. EPA)
Science Advisory Board (SAB)/Board of Scientific Counselors (BOSC)
Homeland Security Breakout Group
Advisory Meeting
June 25, 2014
Meeting Minutes**

Date and Time: June 25, 2014, 2:00 p.m. – 4:00 p.m. Eastern Time

Location: By telephone.

Purpose: To: (1) provide SAB and BOSC members with a briefing on the EPA Office of Research and Development's (ORD's) Homeland Security Research Program and ORD's initial thinking regarding its 2016-2019 Strategic Research Action Plan and (2) allow members to discuss ORD's charge to their committees and preparations for the SAB-BOSC face-to-face meeting on July 24–25, 2014.

Meeting Participants:

SAB and BOSC Executive Committee Members (See Rosters of the Chartered SAB¹ and the BOSC Executive Committee²)

Dr. Paula Olsiewski, Breakout Group Chair
Dr. Costel Denson

Dr. Nancy K. Kim
Dr. H. Keith Moo-Young
Dr. Daniel Stram

SAB Staff:

Dr. Angela Nugent, SAB Staff Office, Designated Federal Officer (DFO)
Mr. Edward Hanlon, DFO for the Breakout Group

Other Attendees:

Dr. Gregory Sayles, Acting National Program Director for Homeland Security
Attachment A lists members of the public who requested the call-in information for this meeting.

Meeting Materials:

<http://yosemite.epa.gov/sab/sabproduct.nsf/a84bfee16cc358ad85256ccd006b0b4b/cd4794a8042b117d85257cf30056c11c!OpenDocument&Date=2014-06-25>

Meeting Summary:

Convene the meeting

Dr. Angela Nugent, Designated Federal Officer (DFO), formally opened the teleconference and noted that this federal advisory committee meeting of the SAB had been announced in the Federal Register on June 18, 2014 (79 FR 34738-34739). She noted that the meeting had been announced as a briefing/planning meeting so that members of the SAB and BOSC could prepare for a July 24-25, 2014 meeting in Washington, DC to develop advice for the EPA on strategic

research directions. The SAB and BOSC has established an SAB/BOSC Homeland Security Breakout Group to focus particularly on ORD's Homeland Security research program.

Dr. Nugent noted that the EPA 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 (ERDDAA) - to provide advice to the EPA Administrator on scientific and technical issues that inform EPA's decisions. The BOSC is a separately chartered committee established to provide ORD with advice on technical and management issues associated with its research programs. The DFO noted that the Federal Register notice announcing the meeting had provided the public with an opportunity to provide written and oral comment. There were no advance requests for oral comment and no written comments submitted in advance of the meeting.

Goals and agenda for the meeting

Dr. Paula Olsiweski, the Homeland Security Breakout Group Chair welcomed the group. She reviewed the agenda³ and noted that the major agenda items were to receive a briefing from the agency and to make preparations for the group's deliberations at the July 24-25, 2014 face-to-face meeting.

Presentation on the Homeland Security Research Program

Dr. Gregory Sayles, Acting National Program Director for the Homeland Security Research Program, began his discussion by thanking members for their service and said he looked forward to their early input into the development of the Homeland Security Strategic Research Action Plan (StRAP) for 2016-2019. He provided a presentation⁴ that had the following elements: (1) the mission; history; budget; and major components of the current program; (2) the relationship of the program to sustainability and systems approaches; (3) the relationship to the EPA strategic plan; (4) impacts of the program; (5) its relationship to and integration with other ORD programs and other Federal programs; and (6) future program directions. Future program directions included: (1) wide area clean up – technologies and strategies; (2) full scale demonstration of water tools and decontamination; (3) exposure assessment; (4) addressing “all hazards” science gaps; (5) developing resilience metrics; (6) cybersecurity; (7) the Food Safety Modernization Act; and (8) emerging issues including chemical warfare agents.

Informational questions from the Breakout Group members

After the presentation concluded, Breakout Group members asked several questions. One member asked about the ORD research programs most closely linked to Homeland Security. Dr. Sayles suggested that, among the six ORD research programs, the Homeland Security program was most closely integrated with ORD's Safe and Sustainability Water Resources program and the Sustainable and Healthy Community program.

The next question concerned how ORD was identifying the new research areas to address, as listed on slide 31. Dr. Sayles responded that the foundation for the program involved environmental risks related to terrorism; the next set of topics involved possible applications of the program's existing body of work; and the third set involved identification of key gaps not being addressed.

A member then asked if ORD had conducted a gap analysis and, if so, were there results that the SAB and BOSC could review. Dr. Sayles responded that ORD has not yet conducted a systematic gap analysis. He would like to conduct one in collaboration with customers and welcomed input on how that might be best done.

A member asked how ORD had defined the four cross-cutting topics that would be a topic for the SAB-BOSC meeting on July 24-25, 2014. Dr. Robert Kavlock, the ORD Deputy Assistant Administrator for Science, responded that ORD reorganized its research five years ago to make its programs more efficient, timely, and bring “more critical mass” to environmental questions. The result was the ORD’s current six research programs [(1) Air, Climate and Energy; (2) Chemical Safety for Sustainability; (3) Human Health Risk Assessment; (4) Safe and Sustainable Water Resources; (5) Homeland Security; (6) Sustainable and Healthy Communities]. Many research topics, however, reach across many of the six research programs. An ORD management team then identified the topics that were sufficiently important and cut across so many programs that they were worthy to elevate. ORD created create roadmaps for those four areas (climate change; nitrogen and co-pollutants; children’s health; and environmental justice) to identify relevant activities in existing StRAPs and stimulate work on future StRAPs.

A member asked Dr. Sayles to describe the nature of ORD’s research effort related to sampling strategies and how that effort informs what and how to sample. Dr. Sayles responded that ORD has recently focused on analytical methods and will be turning to how to sample well. Larger questions about how to get the most information for the number of samples collected is important. ORD has work underway on research sampling. He committed to providing a short write-up on ORD’s sampling-related research prior to the July 24-25, 2014 meeting.

The next question concerned the radiological research that was envisioned for the 2016-2019 StRAP. Dr. Sayles responded that ORD is considering research on: analytical methods for radionuclides; reducing time for radiological sampling; environmental fate and transport to inform cleanup, timing, and sampling; and how to “peel radionuclides off” surfaces.

A member asked about the program’s plans for risk communication. Dr. Sayles stated that, based on customer feedback, there is a need to focus on communicating risk and science to decision makers. He would also welcome from the SAB and BOSC advice on communicating to public.

In response to a question from a member requesting clarification of what is meant by a “systems approach” in the context of the Homeland Security Research Program, Dr. Sayles pointed her to slide 11, which provided a graphic depicting a systems approach for Water System Security and Resilience. He noted that to provide science for effective problem solving all components of the system and interactions among them are important. If contamination were detected, EPA must not only focus on what can be done in the short term to mitigate the problem. Full characterization of the problem is needed before remediation and, once the system has returned to service, there is a need to consider lessons learned and preplanning for a potential future incident. He noted that all these phases are interconnected and a systems approach provides an organizing principle simple enough to allow the agency to understand the complexity of the different aspects of agency response to hazard and to take them into account. ORD’s Homeland Security program is seeking insights on how it can use systems thinking to design programs and relate to customers better. A member then noted that such a systems approach can be a helpful tool for allocation of resources to prevent over-allocation to only one component of the system.

Another member then asked whether the name of the program should change if it is broadening its role to include “all hazards,” and not only Homeland Security. Dr. Sayles welcomed input on that point but also mentioned that EPA will need to make the Homeland Security component clear.

The final question concerned the extent to which ORD’s program coordinates with other federal agencies. Dr. Sayles responded that ORD actively coordinates with other agencies through the National Response Framework.

Discussion of ORD’s Charge to the SAB and BOSC and preparations for the face-to-face meeting

In response to questions from Breakout Group members, Dr. Sayles and Dr. Nugent made the following points:

- SAB and BOSC members will be provided a draft outline of the Homeland Security StRAP for 2016-2019
- The DFO will make available to members links to ORD’s existing StRAPs

Dr. Olsiewski clarified that the Homeland Security Breakout Group will be responsible for developing draft responses to ORD charge questions 2a and 2b, 7a and 7b.

The teleconference was adjourned at 3:45 p.m.

Respectfully Submitted,

Certified as Accurate,

/Signed/

/Signed/

Dr. Angela Nugent
SAB Designated Federal Officer

Dr. Paula Olsiewski,
Breakout Group 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: Members of the public attending the public teleconference:

Ed Hackney, United Water

Annie M. Jarabek

Robert Kavlock, EPA

Ed Roehl, Advanced Data Mining International, Greenville, SC

Doug Steele, EPA

Debra Reinhart, University of Central Florida

Monica Schoch-Spana, University of Pittsburgh

Tom Tracy, EPA

John Vandenberg, EPA

Materials Cited

The following meeting materials are available on the SAB Web site,
<http://www.epa.gov/sab>, at the page for the [June 24, 2014 teleconference](#) :
<http://yosemite.epa.gov/sab/sabproduct.nsf/a84bfee16cc358ad85256ccd006b0b4b/cd4794a8042b117d85257cf30056c11c!OpenDocument&Date=2014-06-25>

¹ Roster for the Chartered SAB

² Roster for the BOSC Executive Committee

³ Agenda

⁴ ORD's Homeland Security Research Program Briefing by Gregory Sayles, Acting National Program Director (6/24/14 with updated budget information)