

**United States Environmental Protection Agency (U.S. EPA)
Science Advisory Board (SAB)/Board of Scientific Counselors (BOSC)
Teleconference for the Sustainable and Healthy Communities Breakout Group
July 10, 2014
Meeting Minutes**

Date and Time: July 10, 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) Sustainable and Healthy Communities Program (SHC) 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/BOSC Members (See rosters for the SAB¹ and BOSC Executive Committees²)

Dr. Duncan Patten, Breakout Group Chair	Dr. Robert Johnston
Dr. George Alexeeff	Dr. Catherine Karr
Dr. Joseph Arvai	Dr. Nancy Kim
Dr. Peter Chapman	Dr. Elizabeth Matsui
Mr. Shahid Chaudhry	Dr. John Tharakan
Dr. Terry Daniel	Dr. Katherine vonStackelberg
Dr. Courtney Flint	

SAB Staff:

Dr. Angela Nugent, SAB Staff Office, Designated Federal Officer (DFO)
Dr. Thomas Armitage, DFO for the SHC Breakout Group

Other Attendees:

Dr. Michael Slimak, National Program Director for SHC
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/d7c09197c1f63d4185257cf20070495c!OpenDocument&Date=2014-07-10>

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 Breakout Group to focus particularly on ORD's SHC 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.

The meeting generally followed the agenda.³

Goals and agenda for the meeting

Dr. Duncan Patten welcomed the group. The purpose of the teleconference was to prepare for the breakout session on July 24, 2014. He emphasized that it was most appropriate to provide comments at a strategic level at this time, since ORD had invited early comments on its Strategic Research Action Plan (StRAP).

Presentation on the SHC Research Program

Dr. Michael Slimak, National Program Director for the SHC Research Program, began his discussion by thanking members for their service on the group. He said that he looked forward to their early input into the development of the SHC StRAP for 2016-2019. In his slide presentation,⁴ he noted that traditional environmental "command and control" programs have set a "high floor," and that a systems approach is necessary to achieve goals above that "floor" for sustainable environmental, economic and social outcomes. He summarized a hypothesis and vision statement for the program and emphasized that communities were a priority and a "real unit of study" for the EPA. He illustrated how planned SHC actions align with Goal 3 (cleaning up communities and advancing sustainable development) and several cross-cutting strategies in the EPA's strategic plan. He listed the EPA mandates that provide the "drivers" for SHC work in: (1) sustainability; (2) vulnerability assessment and remediation of contaminated sites and oil spills, Brownfields; (3) sustainable materials management; and (4) health and well-being, environmental quality (which includes cumulative stressors). He gave examples of SHC interactions with regions, which he considered as agency leaders in sustainability thinking. He described the importance of the National Research Council 2011 report entitled *Sustainability and the U.S. EPA*. This report, sometimes called "The Green Book," called for the development of a sustainability assessment and management toolbox.

Before describing ORD's preliminary strategic plan for SHC for 2016-2019, Dr. Slimak described how the program integrated three previous ORD efforts (community-based human health; remediation/restoration of contaminated sites and materials management; and ecosystem

services) into a systems approach, centered on a tool called “Total Resource Impacts & Outcomes (TRIO) applied to decisions affecting communities.

He identified four major research themes: (1) decision support and innovation; (2) community well-being; (3) sustainable approaches for contaminated sites and materials management; and (4) integrated solutions for sustainable communities. He described a process for program design with the following elements: (1) decision to be made; (2) scoping and options; (3) sustainability assessment of the implications of decisions; (4) trade-off/synergy analysis; and, after a decision is made, (5) monitoring/evaluation of outcomes. He illustrated trends in funding and FTE. He summarized opportunities for a systems solution in: (1) developing approaches and tools that “can be generalized to the broad range of community types for the broad range of environmental decisions made by community stakeholders;” (2) providing the science foundation for ecological services, environmental public health and metrics to help the EPA complement regulation and compliance assurance to advance sustainability; (3) cleaning up contamination and preventing the development of further contaminated sites, working toward greater resource and energy efficiency and building communities’ capacity to attain their Brownfield goals; and (4) building an approach that supports decisions that “have long-term, broad and beneficial impact on community environmental quality, health and well-being, and economic resilience.” He closed his presentation by describing SHC interactions with other ORD research programs.

Follow-up questions from the Breakout Group members

After Dr. Slimak concluded his presentation, he responded to questions from SAB and BOSC members. He provided the following responses to questions:

- Slide 17 provides a “pretty good” conceptual diagram of the overall SHC program. He emphasized that ORD is struggling with implementing the sustainability paradigm with all three pillars of Sustainability, especially including the “economic pillar.”
- Dr. Slimak acknowledged that he sometimes feels that ORD does get caught up in planning rather than “doing work.” He feels that “we have too much planning and not enough doing... This program is about doing.”
- Between a quarter and a third of SHC resources are devoted to activities related to legacy contamination, but he is noting that the EPA’s Office of Solid Waste and Emergency Response is realizing that it must deal with climate change. He was encouraged that program offices are beginning to look at sustainability within the context of their programs.
- He welcomed SAB/BOSC advice in the area of prioritization, especially where ORD might get the greatest return on its research investment.
- ORD favors the 1969 National Environmental Policy Act definition of sustainability* He noted that different clients view sustainability through different lenses and community clients may differ from regional clients. The definition chosen affects the kind of work actually done in operationalizing sustainability.
- Of the 500 ORD FTEs, less than one percent are in the economic job series, but up to 15 percent have some experience in the social sciences.

*i.e.,the purpose of the National Environmental Policy Act (NEPA) was to "foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony and fulfill the social, economic and other requirements of present and future generations." From History of Sustainability, <http://yosemite.epa.gov/r10/oi.nsf/Sustainability/History>, accessed 07/17/14.

- ORD welcomes advice on addressing the tension between providing socio-economic tools that are generalizable and universal but less accurate than detailed, complex tools with low uncertainty adapted to a particular application.
- ORD seeks community input from the beginning of the process of developing a research activity.
- The SHC program is engaged in many efforts to collaborate with other organizations. It has a Cooperative Research and Development Agreement with Proctor and Gamble; it works with non-governmental organizations; EPA's Children's Health Centers are a joint project with the National Institute of Environmental Health Sciences; there is regulatory science cooperation with the U.S. Department of Agriculture; and the Enviro Atlas was developed in partnership with the Department of the Interior's U.S. Geological Survey.
- ORD is leading the agency "into the sustainability paradigm." This can contribute to some tension when a program office "doesn't factor in the other two pillars."
- In slides 13-16, the smaller print represents input for the phase in question and research activities are shown in the larger circles.
- He acknowledged a member's comment that stakeholder processes are not just an "input" but may require research because communities can be disengaged with the research process. The community may need to be educated so they can appreciate and use tools.
- He refrained from expressing a view as to whether the SAB and BOSC should defer to the NRC's "Green Book."
- "Community well-being" means consideration of factors other than exposure to toxic chemicals, such as social determinants of health.
- In response to a question about whether a community itself is involved in defining their well-being, Dr. Slimak responded ORD is developing a human well-being index that measures well-being in eight domains (connection to nature; education; health; leisure time; living standards; safety and security; social cohesion; and spiritual and cultural fulfillment).
- Dr. Slimak had not considered the potential conflicts between EPA's SHC goals and objectives and communities' definitions of well-being. He responded that "hopefully" they would not be in conflict. He noted that the EPA's strategic plan is moving the agency in that direction and that ORD needs to prepare to "bring along the clients to be prepared and supportive." Regional offices are in the vanguard, but program offices focus instead on their regulatory calendar.
- Although the SHC vision statement reference to "regulatory compliance" may seem out of place, given the focus of other language on "human health and well-being, environmental quality and economic vitality to foster community sustainability," slide 2 shows that regulatory compliance sets the necessary "floor" for sustainability.
- Expanding community stakeholders' capabilities to consider alternatives and their implications is equally important as the SHC vision statement.
- Although the slides seem to indicate decisions to be made as dichotomous choices, Dr. Slimak considers decisions as continuous variables. He agreed that there may be ranges of choices and different kinds of decisions needed to make different choices. He agreed that sometimes there may be "little information needed to make an important, but not draconian change."
- Science to Achieve Results (STAR) fellowships are fully funded in FY 14, but FY 15 is uncertain. STAR grants are fully funded in FY 14.
- The SHC research program does not include research on invasive species.

- ORD has a research project addressing crowd sourcing and use of social media to engage communities.

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

Dr. Patten reviewed the SHC charge questions relevant to the Breakout Group discussion on July 24, 2014. The relevant charge questions are 2a, 2b, 2c, and 4a, 4b, and 4c. Preliminary written responses are due to Dr. Nugent by July 21, 2014. He also pointed out that the group should respond to charge questions 1, and 8 and 9 as these responses to these will be developed by the group at the meeting.

Dr. Nugent committed to provide members with a link to The Green Book, but Dr. Patten emphasized that members should not be limited to the information in The Green Book. Members should respond based on their own experience and expertise.

To prepare for the July 24-25, 2014 meeting, Dr. Patten additionally asked members to: (1) look at the EPA Strategic Plan; (2) look at the briefings provided by other National Program Directors at the briefing/planning meetings; and (3) keep their preliminary comments short, preferably in bullet form.

Dr. Patten thanked breakout group members, representatives of the agency, and members of the public for participating. Dr. Nugent adjourned the teleconference at 11:35 p.m.

Respectfully Submitted,
/Signed.

Certified as Accurate,
/Signed/

Dr. Angela Nugent
SAB Designated Federal Officer

Dr. Duncan Patten
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:

Jace S. Cujé, EPA

Andrew L. Dannenberg, University of Washington, Seattle

Richard C. Feiock, Public Administration Review

Herbert Fredrickson, EPA

Andrew M Geller, EPA

Annie Jarabek, EPA

James Johnson, EPA

Carlos Martin, Housing.org

Matthew Naud, City of Ann Arbor

Gregory Sayles, EPA

Mya Sjogren, EPA

Materials Cited

The following meeting materials are available on the SAB website,

<http://www.epa.gov/sab>, at the page for the [July 10, 2014](#) :

<http://yosemite.epa.gov/sab/sabproduct.nsf/a84bfee16cc358ad85256ccd006b0b4b/d7c09197c1f63d4185257cf20070495c!OpenDocument&Date=2014-07-10>

¹ Roster for the Chartered SAB

² Roster for the BOSC Executive Committee

³ Agenda

⁴ Sustainable and Healthy Communities Research Program, Presentation by Michael Slimak