

Priority science themes of interest to the SAB for possible communication to the Administrator

Background

After hearing from the EPA Administrator and senior managers at the [December 4-5, 2013 meeting of the chartered SAB](#), the Board discussed preparing a short letter to the Administrator identifying priority science themes where the SAB could provide helpful advice to the agency.

At the January 21, 2013 (1-5pm ET) teleconference call the chartered SAB will discuss these themes, along with other Board business.

The draft list of themes below, organized by category, reflects comments provided by Board members to the Designated Federal Officer after the December 2013 meeting.

Draft list of themes

General

- Helping the Administrator raise the visibility of the role of science in EPA decision making
- Continuing the role of assessing the science basis for regulatory actions (or likely actions) by the agency.
- Identifying future environmental challenges
- Science questions regarding implementation of sustainability, environmental justice and addressing climate change.

Climate change

- Articulating climate change as a public health issue
- How to prioritize adaptation activities so that the most vital needs are addressed in the most expeditious way.
- Development of a case study (demonstration project) to help guide integrative science by demonstrating the linkages among EPA programs, labs, etc. One example would be integration of approaches to human adaptation to climate change. This would by necessity have to include “healthy communities”, “water”, “air”, and “human health.”
- Impacts of air pollution and climate change on the nation’s biodiversity.

Decision science

- Use of insights from decision sciences to better help the agency structure complex (e.g., multiple stakeholders, conflicting goals and objectives, long planning horizon, high uncertainty, etc.) decision making process .
- Development of decision support tools that communities will be able to use. The EPA will need to develop the capacity to use decision support tools that focus on both people’s

behaviors (e.g., so that they act in their long-term best interest), as well as on processes for untangling and structuring complex decision making problems and opportunities.

Risk assessment

- Incorporation of socioeconomic factors into risk assessment.
- Decision-making frameworks for application of 21st century toxicology and exposure assessment.
- Development of a hazard –based decision paradigm when quantitative information is insufficient.
- Advising on developing a “risk assessment community” outside of the EPA.

Trends in science and application to EPA science awards

- Examination of the role and nature of modern day publications and collaborations and advice on EPA award criteria in view of the changing focus (and role) of EPA.

Other

- Impacts of invasive species in aquatic environments.