

BOSC REVIEW OF ORD RESEARCH PROGRAMS

Charge Questions for All Five Subcommittees

Background

In July 2014, the BOSC Executive Committee (EC) joined the Science Advisory Board in its role as advisors to the EPA Administrator on strategic research directions. In shorthand, the SAB advisory role has been to provide input on “what science should we be doing?” To arrive at their recommendations, the SAB and BOSC EC reviewed preliminary drafts of ORD’s Strategic Research Action Plans (StRAPs), and received briefings and additional background materials from ORD’s Deputy Assistant Administrator for Science and its National Program Directors for the six research programs. The SAB and BOSC EC then held a two day meeting in July, 2014 with ORD officials to discuss the materials and develop recommendations, culminating in a report to the EPA Administrator in January 2015 on research directions for 2016-2019.

The role of the BOSC is to advise the ORD Assistant Administrator at an operational level, which in shorthand would be “are we doing the science right?” The BOSC EC will address cross cutting issues of interest to ORD broadly. Five new sub-committees have been established to provide targeted advice to ORDs research programs on accomplishing the objectives and high quality research articulated in the six StRAPs. The general charge questions below are designed to address some of the front-end research processes ORD undertakes, fully understanding that there are many equally important issues that will have to be addressed through additional BOSC subcommittee efforts over the coming years.

1. The StRAPs are designed to clearly convey the vision and objectives of the research program, and to describe, at a high level, the research topics, and major outputs planned for 2016-2019. Upon receiving recommendations from the SAB and the BOSC EC, as well as from EPA partners and others, ORD has further developed the StRAPs, including refining the objectives and topics, and providing more clarity. At an operational level, each research program is aiming to accomplish its objectives through research spanning physical, biological and social sciences and through numerous ORD laboratories, centers, and STAR grantees all across the country. In addition, ORD has heeded the advice of the SAB and BOSC in past years to do more to integrate research across the six programs, across EPA and with other Federal

partners. Given these complexities, we recognize there are likely several reasonable approaches for organizing the research to best accomplish the objectives.

Based on the revised StRAP, ORD briefings, and additional materials provided to the subcommittee:

Charge Question 1. Given the research objectives articulated in the StRAP, are the topics and project areas planned and organized appropriately to make good progress on these objectives in the 2016-2019 time frame?

2. ORD works with EPA partners to design the research programs to meet Agency priorities. The first step in this process is problem formulation which provides the foundation of the research. Although it can be tempting to jump to a list of research priorities, problems that are well defined lead to the most effective research efforts and solutions. The problem formulation stage of research planning lays the groundwork for the StRAPs and is the reference point for any changes in priorities as budgets change and new issues emerge. Problem formulation occurs at many different levels including the articulation of issues in the EPA Strategic plan; meetings with EPA partners including regular staff-to-staff meetings; workshops and conferences where states, regions, policy and science staff describe the problems they face; and discussions among senior managers at EPA. In addition, each National Program Director reaches out to EPA partners in a variety of targeted ways to agree on problem definition. Based on the approaches described by program staff:

Charge Question 2. How effective are the approaches for involving the EPA partners in the problem formulation stage of research planning?

3. ORD places a very high value on working closely with EPA partners to design the research programs to meet Agency priorities. During the preparation of the StRAPs, the programs were guided by the EPA Strategic Plan and undertook a variety of activities to actively engage partners, both to understand their priorities and to elicit their input on research directions. These include many regular meetings with EPA policy and regional staff, communities of practice for specific scientific disciplines throughout the Agency, annual two day meetings led by the NPDs, annual senior level meetings with EPA Assistant and Regional Administrators, and formal requests from ORD's DAA for science to receive comments from across the Agency twice during the year of StRAP development.

In addition to the up-front work with EPA partners to understand their research needs for the upcoming year(s), ORD also needs to be flexible enough to address top priority, unanticipated needs or environmental crises that emerge at any given time. The research program will describe interactions with EPA partners, present examples of recent responsiveness to unexpected events, and explain how they work with EPA partners to accommodate acute needs while resources are limited. Based on the evidence provided by program staff:

Charge Question 3. How well does the program respond to the needs of EPA partners (program office and regional).

SSWR Subcommittee Questions

1. How can SSWR streamline model and tool development within the program and across other national programs and partners to improve utility, interoperability, and accessibility, and what are some ways we can measure metrics of success?
2. What are the unique aspects of resource recovery and water reuse that SSWR is best able to address? What research products are envisioned to maximize impact?
3. How SSWR can better translate its research products and disseminate such knowledge to a broader community of stakeholders?