

**House Subcommittee on Investigations and Oversight
and
House Subcommittee on the Environment
Committee on Science, Space, and Technology, U.S. House of Representatives
Room 2318 Rayburn House Office Building**

**“EPA Advisory Committees: How Science Should Inform Decisions”
July 16, 2019**

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My name is Deborah Swackhamer, and I am a Professor Emerita from the University of Minnesota, in Minneapolis and Saint Paul, where I held appointments in Environmental Health Sciences in the School of Public Health, and in Science, Technology, and Public Policy in the Humphrey School of Public Affairs. I also co-directed the Water Resources Center in Minnesota. I am trained as an environmental chemist, with an emphasis on understanding toxic chemical movement in the environment and human exposures. I served as Chair of the U.S. Environmental Protection Agency (EPA) Science Advisory Board from 2008-2012, and served as Chair of the EPA’s Board of Scientific Counselors from 2015-2017. I continue to hold a Special Government Employee (SGE) appointment at EPA, but currently do not serve on any committees. I speak to you today as an environmental sciences and policy expert, and as a private citizen, and not on behalf of the U.S. EPA. My perspectives and statements are mine alone.

Key points of this testimony

- 1) Strong multidisciplinary science is essential for EPA to meet its mission.
- 2) External, independent expert science advice is critical to ensure that EPA is supported by the best science.
- 3) EPA and ORD science would be diminished without an effective BOSC.
- 4) Interference with scientific advisory boards at EPA will lead to the loss of scientific integrity at the agency, and is consistent with a broader pattern of science misuse at the agency.

Strong multidisciplinary science is essential for EPA to meet its mission. The EPA is charged with protecting human health and the environment. This widely encompassing mandate is highly complicated. The many issues affecting human health require understanding pollutant sources to air, water, and soil; the movement of pollutants through air, water, and soil; the exposures of these pollutants to people through breathing, eating, drinking and through the skin; then understanding the impacts to human health at the cellular, genetic, metabolic, and organ levels; and finally

the outcomes of these impacts such as illness, reproductive disorders, various diseases, cancer, etc. There are hundreds of known pollutants, and thousands of potential pollutants. While EPA regulates individual pollutants, we know that there are all kinds of interactions (environmentally and toxicologically) that increase the actual complexity of this in an exponential manner. This complexity requires many diverse fields of scientific expertise be brought to bear to help achieve EPA's mandate: environmental engineering; air and water pollutant modeling; water resource expertise; environmental biology, microbiology, and chemistry; exposure science; ecology; and human, wildlife, and aquatic toxicology. However, since people live in communities, and pollution generally correlates inversely with economic health, understanding solutions for pollution also requires expertise in economics, geography, sociology, community planning, vulnerable populations, and environmental justice.

External expert science advice is critical to ensure that EPA is supported by the best science. The Congress passed the Federal Advisory Committee Act (FACA) in 1972 in recognition of the need for Federal agencies to get expert science advice for these highly complex problems such as environmental protection. In doing so, they formalized a consistent and transparent process for agencies to follow when establishing these committees to ensure independence of the advice, public access to the advice, and accountability and transparency of the agency's use of science.

The EPA is a science-based regulatory agency. To meet its mandate it must use the most current, robust, and accepted scientific evidence available. It is understood that effective environmental policy must be based in strong science, and that without strong science environmental policy is weakened and ineffective. For EPA to meet its mandate, it is essential that it use the best scientific evidence to guide its policies and decision-making. Advice from external, independent scientific experts are key to achieving this goal.

The role of advisory committees is generally two-fold. The first role is to provide external, objective advice to EPA. They are the independent eyes looking in from outside, able to examine scientific evidence, make constructive recommendations, and provide peer review. The second role is to provide the EPA with access to an expanded pool of expertise. The EPA does not have the resources to have all the many facets of environmental science covered by agency staff, and thus having access to leaders in environmental research from outside the agency is a huge advantage to informing their own research priorities (e.g. BOSC) or reviewing their scientific evidence for regulations (e.g. CASAC, SAB). Their peer review work also makes EPA more accountable to the public. Thus, if the external science advisory role is diminished or tarnished by a lack of independence, the integrity of the science used by EPA is also diminished and tarnished. And this leads to weak environmental protections and actions.

EPA and ORD science would be diminished without an effective BOSC. EPA conducts its own research on a number of topics, to be sure that the necessary science needed to understand environmental protection is available to them. The Board of Scientific Counselors (BOSC) was created by EPA in 1996 to specifically advise the

Assistant Administrator of the Office of Research and Development (ORD) on what the scope and direction of internal research should be, and to ensure the highest quality of the research being conducted. Such on-going review allows for mid-course corrections, infusion of new and innovative ideas, as well as constructive support for the research program.

ORD is a relatively small enterprise, and thus BOSC plays an important role in keeping it “on-point”. ORD targets its research programs to fill in the gaps that external research doesn’t fill, such as the research provided by universities and other research laboratories. For example, it develops tools and models that the State environmental agencies can use to help implement the Clean Water Act or Safe Drinking Water Act – something basic research laboratories might not do. BOSC helps identify those gaps, identify where research might be duplicated elsewhere, identify potential external partnerships to maximize effectiveness, and advises on emerging issues that EPA research should get a jump-start on. Without BOSC, ORD runs the risk of getting isolated from outside research advances, being unnecessarily redundant and wasteful, and it could easily fall behind in focusing on timely issues.

Interference in the process of appointing BOSC members can be highly disruptive to the ability of BOSC to assist and advise ORD. On April 28, 2017 the members of BOSC who had served one of their allowed two terms were assured by senior ORD staff that their appointments would be renewed for a second term. On May 4, one week later, the Administrator’s Office reversed this recommendation and announced that none of these members’ terms would be renewed. The reasons given to the media for this decision were that *“The Administrator believes we should have people on this board who understand the impact of regulations on the regulated community”* (New York Times) and *“...(the Administrator) is considering new applicants, including those who may work for chemical and fossil fuel companies...”* (Associated Press). This created the perception that the intent of the Administrator’s Office was to remove independent research scientists and replace them with people having a vested interest in the regulatory actions of EPA. On June 19, 2017, all of the members of the five BOSC subcommittees who were up for a second term also had their memberships terminated. Regardless of the motive, it meant that BOSC was stripped of the vast majority of its members, all its future scheduled meetings were canceled, and thus it could not provide timely advice to ORD on a number of important pending matters – one being recommendations on how to absorb proposed budget cuts, and reprioritize research programs as a result; the other was the review of the next edition of strategic research plans for the 6 research areas in ORD. I was removed as Chair of BOSC on October 31, 2017. It took from June until November 2017 to repopulate BOSC. The newly reconstituted BOSC had their first Executive Committee meeting in early June 2019 – nearly 2 years to the day after the non-renewals. This action on the part of EPA resulted in significant disruption of the iterative and on-going process of external scientific advice provided to ORD, important time lost while EPA research and planning proceeded without the benefit of BOSC advice.

It should be noted that the Administrator took similar actions against the SAB and CASAC. Second term appointments were denied to members, and the committees were reconstituted

to create biased, non-independent committees. In addition to time lost, the politicization of these committees greatly diminishes their ability to provide robust and independent scientific advice to the agency.

Interference with scientific advisory boards at EPA will lead to the loss of scientific integrity at the agency, and is consistent with a broader pattern of science misuse by the agency. Why would the EPA Administrator's Office interfere with the science advisory committees? The aggressive changes made to the advisory committee eligibility and composition are unprecedented at EPA. It is my concern that they are populating the committees (especially SAB and CASAC) with a significant number of members who have a vested interest in EPA actions and regulations, thus co-opting the committees in order to support the overall direction of the agency to deregulate fossil fuel and other industries and loosen environmental protections, rather than provide independent advice based on solid science. The EPA administration has demonstrated a pattern of selectively cherry-picking scientific evidence, of ignoring rigorous scientific evidence, or simply politicizing science to justify its actions. While regulations can be affected by politics, science never should be. The interference with the independence and composition of the science advisory committees is a direct attack on the integrity of science, and leads to an erosion of the scientific underpinning of agency regulations. Ultimately this may result in weakened environmental protections, degradation in our country's environmental condition, and an erosion in the health and well-being of our communities.