



# SCIENCE ADVISORY BOARD

May 23, 2023

Dr. Richard W. Spinrad  
Under Secretary of Commerce for Oceans and  
Atmosphere & NOAA Administrator  
Herbert C. Hoover Building, Room 6811  
14th Street & Constitution Avenue, NW  
Washington, DC 20230

Dear Dr. Spinrad:

**Subject: Transmittal of the NOAA Science Advisory Board Climate Working Group (CWG)  
Report on Air Quality in a Changing Climate: NOAA's Role**

On behalf of the NOAA Science Advisory Board (SAB), I am pleased to transmit to you the report developed by the CWG, *Air Quality in a Changing Climate: NOAA's Role*. This report was developed under NOAA's stated goal "To understand and predict changes in climate, weather, the ocean, and coasts." Specifically, air quality degradation is one of the major consequences of climate change and is often called the "climate penalty." Therefore, including air quality prediction in NOAA's earth system modeling prediction is an essential goal.

The overarching recommendations are as follows:

1. NOAA would be benefited from a coordination office to utilize its research and product portfolios fully.
2. NOAA should provide sustained funding for research on air quality in a changing climate.
3. NOAA could support targeted early-career researchers working to increase the understanding of these relationships, especially relative to drought, heat, and wildfire.
4. NOAA should enhance coordination with EPA and other various state air quality agencies, understanding their needs, using them as stakeholders, and leveraging state and private sector resources.
5. NOAA should develop a close working relationship with the epidemiology community working on the air quality's impact on humans, such as NIH, CDC, and EPA.
6. NOAA should establish a dedicated Societal Benefits Office to facilitate transitioning air quality research to applications and engage practitioners such as air quality managers, disaster response teams, and health professionals.

Although the report was endorsed by all SAB members, there was discussion regarding roles of other US federal agencies engaged in air quality measurement and modeling, particularly, the Environmental Protection Agency as well as other agencies. The SAB discussion centered

around specific sub-recommendations, for which the SAB recommends early engagement with these other agencies:

- Under the first recommendation for a coordination office, it would be preferable to see this office supported as an interagency coordination (similar to the former Air Quality Research Committee that was under the NSTC Committee on Environment and Natural Resources), with particular emphasis on engagement with the EPA.
- The second SAB recommendation relates to the Call to Action, in which the report requests NOAA organize a workshop to map a way forward. The SAB recommends early dialogue with the other Federal agencies, with the aim of organizing a collaborative workshop.

Recognizing the purpose of this white paper is to develop and exploit NOAA's expertise in air quality prediction in a changing climate, it would be expected that such capacity would be powerfully beneficial to both the development of the regulatory and service obligations of the other agencies.

The SAB greatly appreciates the opportunity to provide this advice to NOAA. We look forward to engagement with NOAA on this critical topic in coming years.

Very Respectfully,



John R. Kreider  
SAB Chair

Cc:	Sarah Kapnick	Kirstin Dow
	Karen Hyun	Don Wuebbles
	Michael Weiss	Chelle Gentemann
	Steve Thur	AR Ravishankara
	Wayne Higgins	Rong Fu
	Benjamin DeAngelo	Cynthia Decker
	Annarita Mariotti	Andrew Peck
	Jeff Privette	Katherine Longmire
	Keelin Kuipers	Viviane Silva
	Kenric Osgood	Karin Bucht
	Joellen Russell	

Attachment: NOAA Science Advisory Board CWG Report on Air Quality in a Changing Climate: NOAA's Role



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