

2019 Current Fiscal Year Report: NOAA Science Advisory Board

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1. Department or Agency

Department of Commerce

2. Fiscal Year

2019

3. Committee or Subcommittee

NOAA Science Advisory Board

3b. GSA Committee No.

2203

4. Is this New During Fiscal Year?

No

5. Current Charter

06/26/2019

6. Expected Renewal Date

06/26/2021

7. Expected Term Date

8a. Was Terminated During Fiscal Year?

No

8b. Specific Termination Authority

8c. Actual Term Date

9. Agency Recommendation for Next Fiscal Year

Continue

10a. Legislation Req to Terminate?

No

10b. Legislation Pending?

Not Applicable

11. Establishment Authority Agency Authority

12. Specific Establishment Authority

Secretary's Decision Memorandum

13. Effective Date

08/15/1997

14. Committee Type

Continuing

14c. Presidential?

No

15. Description of Committee Scientific Technical Program Advisory Board

16a. Total Number of Reports

7

16b. Report Date

Report Title

11/26/2018	Potential for Citizen Science in Support of Data Needs for Ecosystem-based Science
	The Climate Working Group Subcommittee Response to the External Review
03/19/2019	Report of the NOAA Climate and Global Change Postdoctoral Fellowship Program
04/09/2019	SAB Comments on the NOAA Draft Research and Development Plan Outline
06/12/2019	Use of Observing System Simulation Experiments at NOAA
08/06/2019	A Review of NOAA's Aquaculture Science Portfolio
08/08/2019	Second NOAA EISWG Report to Congress as mandated by the Weather Research and Forecasting Improvement Act of 2017
	Environmental Information Services Working Group Report and
09/23/2019	recommendations to the NOAA Science Advisory Board concerning the Earth Prediction Innovation Center

Number of Committee Reports Listed: 7

17a. Open 7 17b. Closed 0 17c. Partially Closed 0 Other Activities 0 17d. Total 7

Meetings and Dates

Purpose	Start	End
<p>THIS was one of three in-person meetings held every year. The topics covered in this meeting included: (1) Discussion on the Ecosystems Management Working Group Report (ESMWG) on Citizen Science; (2) Updates and information on elements of the SAB work plan; and (3) Update from the Acting NOAA Administrator and a NOAA Science Update, (4) Updates on SAB Work Plan topics - Environmental Information Services Working Oversight, Observing System Simulation Experiments, Unmanned Autonomous Systems, Social Sciences, Data Sciences, and Sustainable Aquaculture.</p>	11/01/2018	11/02/2018
<p>This was a webinar meeting to consider specific, decisional topics: (1) Climate Working Group Review of the Climate Program Office Climate and Global Change Post-Doctoral Program; (2) Environmental Information Services Working Group Interim Report on the Use of Observing System Simulation Experiments (OSSEs); (3) Input on the draft NOAA Strategic Aquaculture Science Plan; and (4) Discussion of the NOAA Research and Development Plan.</p>	02/27/2019	02/27/2019
<p>This was one of three in-person meetings held each year. Topics covered included: (1) Update on Sustainable Aquaculture report; (2) Environmental Information Services Working Group Report to Congress; (3) Final Report on EISWG Observing System Simulation Experiments; (4) Updates on Unmanned Autonomous Systems and Data Science and Decision Support Work Plan topics; (5) Update on Emerging Technologies for Fish Stock Assessment Report; (6) NOAA Education Efforts: Possible collaboration with the SAB.</p>	04/23/2019	04/24/2019
<p>This was a webinar meeting set up to discuss specific, decisional topics: (1) recommendations on the NOAA Strategic Research and Development Plan; (2) Recommendations on the NOAA Draft Strategic Aquaculture Science Plan.</p>	06/18/2019	06/18/2019
<p>This is one of three in-person meetings held every year. Topics discussed included: (1) Environmental Information Services Working Group Recommendations on the NOAA Report To Congress on Tornado Warning Improvement and Extension Program Plan; (2) EISWG Report to Congress; (3) Additional Discussion on the SAB Recommendations on the NOAA Draft Strategic Aquaculture Science Plan;(4) Update on New Technologies for Fish Stock Assessments Report; (5) Discussion of the SAB 2020-21 Work Plan; (6) Data Science and Public-Private Partnerships Session; (7) NOAA Update.</p>	07/10/2019	07/11/2019
<p>This is one of three in-person meetings held every year. Topics discussed included: (1) Environmental Information Services Working Group Recommendations on the NOAA Report To Congress on Tornado Warning Improvement and Extension Program Plan; (2) EISWG Report to Congress; (3) Additional Discussion on the SAB Recommendations on the NOAA Draft Strategic Aquaculture Science Plan;(4) Update on New Technologies for Fish Stock Assessments Report; (5) Discussion of the SAB 2020-21 Work Plan; (6) Data Science and Public-Private Partnerships Session; (7) NOAA Update.</p>	07/10/2019	07/11/2019
<p>This was a webinar meeting to discuss recommendations on a specific topic: recommendations from the SAB Environmental Information Services Working Group regarding the Environmental Prediction Innovation Center (EPIC).</p>	09/09/2019	09/09/2019

Number of Committee Meetings Listed: 7

	Current FY	Next FY
18a(1). Personnel Pmts to Non-Federal Members	\$0.00	\$0.00
18a(2). Personnel Pmts to Federal Members	\$0.00	\$0.00
18a(3). Personnel Pmts to Federal Staff	\$0.00	\$0.00
18a(4). Personnel Pmts to Non-Member Consultants	\$0.00	\$0.00
18b(1). Travel and Per Diem to Non-Federal Members	\$0.00	\$0.00
18b(2). Travel and Per Diem to Federal Members	\$0.00	\$0.00
18b(3). Travel and Per Diem to Federal Staff	\$0.00	\$0.00
18b(4). Travel and Per Diem to Non-member Consultants	\$0.00	\$0.00
18c. Other(rents,user charges, graphics, printing, mail, etc.)	\$0.00	\$0.00
18d. Total	\$0.00	\$0.00
19. Federal Staff Support Years (FTE)	0.00	0.00

20a. How does the Committee accomplish its purpose?

NOAA's Science Advisory Board (SAB) assists the agency in maintaining a complete and accurate understanding of scientific issues critical to the agency's missions, from forecasting weather to stewardship of the Nation's fisheries. The SAB is the only Federal Advisory Committee with responsibility to advise the Under Secretary of Commerce for Oceans and Atmosphere (aka the NOAA Administrator) on strategies for research, education, and application of science to operations and information services, to understand and predict changes in Earth's environment and conserve and manage coastal and marine resources to meet the Nation's economic, social, and environmental needs. This purpose, as expressed in the SAB's charter, reflects the missions of the Agency and so better aligns the SAB with NOAA's needs. SAB activities and advice provide necessary input to ensure that NOAA's science programs are of the highest quality and provide optimal support to resource management and environmental assessment and prediction. The SAB provides specific advice and recommendations on all aspects of NOAA's science programs and activities in areas the Board deems necessary or in response to specific requests by NOAA. The SAB makes these recommendations in the form of oral guidance, written reports, and communication to the Under Secretary of Commerce for Oceans and Atmosphere. The SAB also conducts its business through the use of standing working groups. There are currently four standing working groups - Environmental Information Services; Ecosystem Sciences and Management; Data Archiving and Access Requirements; and Climate.

20b. How does the Committee balance its membership?

Consisting of eminent scientists, engineers, resource managers and educators, the diverse membership of the group assures expertise reflecting the full breadth of NOAA's responsibilities. Members are appointed by the Under Secretary of Commerce for Oceans and Atmosphere (aka the NOAA Administrator) to serve three year terms, with the possibility of renewing once. Members may serve until their replacements are appointed but do not have to do so. If a member remains on the Board past his/her completion date, language in the latest Charter indicates that this may only be done with approval of the NOAA Administrator and for a period of time not to exceed one year beyond the original appointment's completion date. This ensures that members have a clear time frame for rotating off the SAB. The term limits ensure that experts are moved on and off the Board in consistent fashion to ensure a diversity of opinions over time. The membership in FY2019 was diverse, including: eight academic researchers and science administrators, three consultants on national scientific matters; one member from non-academic, non-profit policy, research and education institution; two from industry; And one retired from state government (this reflects the total membership of 15, including those who resigned or rotated off during the year). The Board membership was composed of five

females and ten males. Maintaining the diversity and professional balance of the Board membership continues to be a priority and a challenge in NOAA's evaluation and selection of new appointees.

20c. How frequent and relevant are the Committee Meetings?

The NOAA SAB has approximately three in-person meetings per year, budget permitting, and teleconferences in between those. At all meetings, the Board considers topics that are current and relevant to the science and technology issues that are being addressed by researchers, educators, and agencies in conducting advanced atmospheric and oceanic research and in advancing NOAA forecasting and stewardship missions. Five meetings were held in FY2018, three in person and two virtual. Two in-person meetings were held in the Washington DC area; one meeting was held in New Hampshire. The topics for the meetings are solicited from the leadership of NOAA and from the Board members through a formal process. Meeting topics are selected based on needs expressed by either NOAA through such documents as the Annual Guidance Memorandum or by Board members based on their understanding of critical issues. When meetings are held outside of the Washington DC area, a focus is placed on regionally-important issues; this was the case at the New Hampshire meeting. In addition to topical issues, important elements of SAB meetings are updates from SAB working groups and the consideration and approval/ disapproval of their reports. This year, the SAB meetings focused on development of its first Work Plan. By the end of this FY, the SAB had approved a Work Plan with eight topics to consider. A ninth topic continues to be under negotiation with the NOAA leadership. This Work Plan may be found on the SAB website.

20d. Why can't the advice or information this committee provides be obtained elsewhere?

NOAA's ability to carry out and continually improve its forecasting and stewardship missions depends on scientific and technological expertise that resides both within and outside the agency. NOAA must have access to the most advanced atmospheric and oceanic research and tap the best ideas for applying scientific breakthroughs to its mission. It must also be forward-looking, able to anticipate needs in coming years, and ensure that the agency is performing and funding research and education that will answer those future requirements. In managing NOAA's research, NOAA leadership must be able to base its decisions on the most recent developments in the broad areas of rapidly changing science and technology that underlie the agency's work. The SAB plays a critical role in affecting NOAA's strategic goals for long- and short-term improvement in environmental forecasting and stewardship by advising NOAA on ever-changing management, stewardship, and regulatory needs and on emerging science and

technology. For that reason, the SAB in FY2019 continued to work on its two-year Work Plan to address these needs in a systematic fashion as requested by NOAA leadership.

20e. Why is it necessary to close and/or partially closed committee meetings?

N/A - No closed or partially closed SAB meetings have been held in FY2019.

21. Remarks

Subcommittee meeting costs are included as part of the overall committee costs.

Designated Federal Officer

Cynthia J. Decker Executive Director, NOAA Science Advisory Board

Committee Members	Start	End	Occupation	Member Designation
Avery, Susan	11/27/2017	11/27/2018	President Emerita, Woods Hole Oceanographic Institution	Special Government Employee (SGE) Member
Donahue, Michael	10/31/2016	10/31/2019	Vice President and Director, National Ecosystem Restoration Practice, URS Corporation	Special Government Employee (SGE) Member
Faulconer, Walter	10/30/2016	10/30/2019	Faulconer Consulting Group (FCG)	Special Government Employee (SGE) Member
Grossman, Robert	12/06/2017	12/05/2020	Frederick H Rawsoin Professor and Jim & Karen Frank Director of the Center for Data Intensive Science, University of Chicago	Special Government Employee (SGE) Member
Joseph, Everette	03/14/2016	03/13/2019	Director, Atmospheric Science Research Center, SUNY University at Albany	Special Government Employee (SGE) Member
Kalnay, Eugenia	03/11/2016	03/10/2019	Research Professor, University of Maryland	Special Government Employee (SGE) Member
Lenhardt, Christopher	12/06/2017	12/19/2020	Domain Scientist, Earth Data Science, RENCI, University of North Carolina at Chapel Hill	Special Government Employee (SGE) Member
May-Brett, Jean	11/27/2017	11/27/2018	Retired STEM Partnership Coordinator, Louisiana Department of Education	Special Government Employee (SGE) Member
Moss, Richard	03/13/2016	03/12/2019	Pacific Northwest National Lab and University of Maryland	Special Government Employee (SGE) Member
Polasky, Stephen	10/31/2016	10/31/2019	Professor, Depts of Economics AND Ecology, Evolution, and Behavior, University of Minnesota	Special Government Employee (SGE) Member
Reed, Denise	03/15/2016	03/14/2019	Science Director, The Water Institute of Louisiana	Special Government Employee (SGE) Member
Rheault, Robert	11/25/2017	11/24/2020	Executive Director, East Coast Shellfish Growers Association	Special Government Employee (SGE) Member
Scarlett, Lynn	10/31/2016	10/31/2019	Managing Director for Public Policy, The Nature Conservancy	Special Government Employee (SGE) Member

Storksdieck, Martin	11/25/2017 11/24/2020	Director, Center for Research on Lifelong STEM Learning; Professor, College of Education and School of Public Policy, Oregon State University	Special Government Employee (SGE) Member
Winokur, Robert	10/29/2016 10/29/2019	Retired	Special Government Employee (SGE) Member

Number of Committee Members Listed: 15

Narrative Description

As the Science Advisory Board advises on all aspects with respect to science at NOAA, by its nature the SAB supports the agency's mission. To strengthen this connection, the SAB charter reflects the Agency's mission statement. The charter states that the first objective of the SAB is to: advise the Under Secretary of Commerce for Oceans and Atmosphere on strategies for research, education, and application of science to operations and information services, so as to better understand and predict changes in Earth's environment and conserve and manage coastal and marine resources to meet the Nation's economic, social, and environmental needs. As NOAA has adjusted its strategic plan to reflect a One NOAA perspective through better cross-Line Office communication, the SAB charter aligns the advisory board to follow this cross-disciplinary perspective.

What are the most significant program outcomes associated with this committee?

Checked if Applies

- Improvements to health or safety
- Trust in government
- Major policy changes
- Advance in scientific research
- Effective grant making
- Improved service delivery
- Increased customer satisfaction
- Implementation of laws or regulatory requirements
- Other

Outcome Comments

NA

What are the cost savings associated with this committee?

Checked if Applies

- None
- Unable to Determine
- Under \$100,000

\$100,000 - \$500,000	<input type="checkbox"/>
\$500,001 - \$1,000,000	<input type="checkbox"/>
\$1,000,001 - \$5,000,000	<input type="checkbox"/>
\$5,000,001 - \$10,000,000	<input type="checkbox"/>
Over \$10,000,000	<input type="checkbox"/>
Cost Savings Other	<input type="checkbox"/>

Cost Savings Comments

NA

What is the approximate Number of recommendations produced by this committee for the life of the committee?

741

Number of Recommendations Comments

The SAB produced seven reports this year, some through its Working Groups and some on its own. Some were related to its Work Plan topics and some were not. A total of 39 recommendations were received for six of the reports; comments on the NOAA Draft Research and Development Plan Outline received 57 recommendations. Most of the R&D Plan Outline comments were addressed fully in the draft Plan.

What is the approximate Percentage of these recommendations that have been or will be Fully implemented by the agency?

35%

% of Recommendations Fully Implemented Comments

Recommendations made by the Science Advisory Board prior to July 2002 continue to be collated and assessed to determine how many have been implemented.

Recommendations by the SAB since July 2002 are being tracked by the SAB staff office to ensure that the Agency has provided a response. Many of the recommendations are of the nature that will take several years and thousands of dollars to implement. The agency is not always able to implement these fully but has made an effort to at least address these partially and provide explanations for why they are or are not yet fully implemented.

What is the approximate Percentage of these recommendations that have been or will be Partially implemented by the agency?

25%

% of Recommendations Partially Implemented Comments

As per the previous explanation, full implementation of many of the recommendations would require significant changes to the agency programs and budget. This is not always feasible and so a number of the recommendations are only able to be partially implemented.

Does the agency provide the committee with feedback regarding actions taken to implement recommendations or advice offered?

Yes No Not Applicable

Agency Feedback Comments

The agency works with the SAB Office to prepare formal responses to any and all recommendations made by the SAB. The agency has one year to provide a response back to the SAB after recommendations are provided to the agency. This response takes the form of a presentation at a public meeting of the SAB and a written report that is posted on the SAB website. In FY 2011, the SAB discussed the timeframe for NOAA responses. Some responses have taken up to three years to be received. The SAB was very concerned that this is too long. Further, the SAB discussed working with NOAA to revise the response requirement to one year or sooner if appropriate. The specific request for a quicker response will be made when recommendations are delivered to the NOAA Administrator. In FY2019, There were no responses received from NOAA since no reports were transmitted in FY2018.

What other actions has the agency taken as a result of the committee's advice or recommendation?

	Checked if Applies
Reorganized Priorities	<input checked="" type="checkbox"/>
Reallocated resources	<input checked="" type="checkbox"/>
Issued new regulation	<input type="checkbox"/>
Proposed legislation	<input type="checkbox"/>
Approved grants or other payments	<input type="checkbox"/>
Other	<input type="checkbox"/>

Action Comments

Although NOAA has adjusted its science and technology priorities, including internal allocation of resources, the SAB recommendations do not typically address issues that require regulatory or legislative changes. The SAB does not provide advice on specific grant or contract allocations.

Is the Committee engaged in the review of applications for grants?

No

Grant Review Comments

NA

How is access provided to the information for the Committee's documentation?

Checked if Applies

- | | |
|---------------------------|-------------------------------------|
| Contact DFO | <input checked="" type="checkbox"/> |
| Online Agency Web Site | <input type="checkbox"/> |
| Online Committee Web Site | <input checked="" type="checkbox"/> |
| Online GSA FACA Web Site | <input checked="" type="checkbox"/> |
| Publications | <input checked="" type="checkbox"/> |
| Other | <input checked="" type="checkbox"/> |

Access Comments

Federal Register notices.