

# Sea Grant Association

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September 12, 2002

The Honorable Conrad C. Lautenbacher, Jr., USN (Ret.)  
Under Secretary of Commerce for Oceans and Atmosphere  
U.S. Department of Commerce  
14th Street and Constitution Ave., NW  
Washington, DC 20230

Dear Admiral Lautenbacher:

The Sea Grant Association (SGA) appreciates this opportunity to comment on the NOAA Program Review Report. SGA represents the academic institutions that participate in NOAA's National Sea Grant College program. These institutions constitute our nation's most advanced capabilities in marine, coastal, and Great Lakes research, education, and outreach. Sea Grant is a federal-university-state-private sector partnership designed to foster science-based decisions about the use and conservation of our coastal resources. The SGA has carefully reviewed the Report and our comments are enclosed.

SGA believes that the National Sea Grant College Program is an underutilized NOAA asset that can clearly fulfill a more significant role in achieving NOAA's overall missions. The Sea Grant enterprise can and should be empowered to meet the needs of NOAA and NOAA's constituencies through an expansion of its responsibilities and the provision of additional resources. We encourage you to use Sea Grant – a well known, respected, and successful partnership network – to provide for NOAA's outreach, research, and extension needs.

We applaud the results of the NOAA Program Review Team, and remain committed to working with NOAA on implementation of the recommendations wherever we can.

Sincerely,



M. Richard DeVoe  
President

Cc: Louisa Koch, Acting AA for OAR  
Ronald Baird, Director, NSGCP  
Peter Bell, Chair, Sea Grant Review Panel

**Sea Grant Association  
Formal Comments on the NOAA Program Review Report**

September 12, 2002

**EXECUTIVE SUMMARY**

NOAA recently completed an internal review of its operation, management, organization, and functions. Sixty-eight recommendations were developed by the Program Review Team and subsequently evaluated by Vice Admiral Lautenbacher for action. The Sea Grant Association (SGA) reviewed the Program Review Team recommendations and believes that the National Sea Grant College Program is an underutilized NOAA asset that can clearly fulfill a more significant role in achieving NOAA's overall missions. Sea Grant can be more involved and effective in NOAA strategic planning, in the implementation of NOAA's programs, and in fulfilling the needs of constituencies of NOAA (and its partners). The following recommendations are offered in this context.

**A. On NOAA and Sea Grant - An Organizational Model**

1. The proposed Line Office for Program Planning and Integration should be realigned to cut across rather than parallel the five established line offices. NOAA's extramural research, education, and extension programs, including Sea Grant, should be placed within the proposed AA for Program Planning and Integration.
2. Effective education and extension are critical to NOAA's mission and must be identified as core missions for NOAA and the U.S. Department of Commerce. Sea Grant, with additional resources, can assist NOAA in enhancing its educational and extension efforts.
3. NOAA workforce renewal and human resource development are critical to NOAA's ability to accomplish all missions.
4. Sea Grant should be recognized as a *nationwide* program, serving all of NOAA and a diverse clientele throughout the country.
5. NOAA should enhance its engagement of the extramural community in establishing its research, education, and extension priorities and action agendas.

**B. On the National Sea Grant Review Panel**

6. NOAA should consider establishing an agency-wide Advisory Board that reflects the breadth of both its missions and the constituencies it serves. Sub-agency (Line Office and Program level) advisory panels should perhaps be organized as extensions of the NOAA Advisory Board, with appropriate Advisory Board representation, leadership, and guidance, to provide for consistency and effective communication across the agency.

### **C. On Sea Grant Program Evaluation**

7. All participants in the Sea Grant partnership (i.e., the National Sea Grant Office, including NOAA and its advisors, the Sea Grant Programs, including their universities and consortia, and all stakeholders, including matching funds partners) should be engaged in setting priorities for Sea Grant program activities as well as strategies to solve problems and build capabilities nationwide. In this manner, all stakeholders have a share in the continued strengthening of the Sea Grant College Program network.

### **D. On Extramural Funding**

8. NOAA's Program Review Report Recommendation #38 should be expanded to include the eligibility of education and extension projects as well as research for any new extramural funding to encourage the integration of outreach capabilities in relevant and user-driven scientific efforts.
9. Competitive funding opportunities should be made available to Sea Grant College Programs to increase their base support. Furthermore, SGA encourages NOAA to provide maximum flexibility in the use of extramural grant funding to derive full "value-added" in leveraging matching funds and in optimizing the use of the enormous talent and expertise found in our nation's universities.
10. SGA enthusiastically applauds the Program Review Recommendations that address NOAA's Administrative and Grants Processing systems. New emphasis on more extramural funding will only succeed if the "grants processing" problem is solved.

### **E. On Staffing of the NSGO**

11. Given that several NSGO staff positions have been recently vacated, NOAA currently has the opportunity to restructure and focus Sea Grant personnel and responsibilities. SGA offers the following "staffing model" for the NSGO office:

*Program Leadership:* Reestablish and fill the Assistant Director position; retain the Director position as a career SES position.

*Programmatic Specialists:* Create program element specialists for each of the major functional areas of research, extension, education, and communication.

*Program Technical Staff:* Hire information technology specialists for database management and information synthesis; bring on financial specialists to facilitate grants processing and accounting.

*Subject Area Specialists (IPAs):* Specialists should be recruited on a rotator basis to ensure responsiveness to changing national needs and to advances in science and technology.

**Sea Grant Association  
Formal Comments on the NOAA Program Review Report**

September 12, 2002

**BACKGROUND**

*Premise - The National Sea Grant College Program (NSGCP) Network is  
an underutilized NOAA asset.*

Congress created the National Sea Grant College Program in 1966 to bring the talents resident in our nation's universities to bear on the conservation and development of our marine, coastal, and Great Lakes resources. It was patterned after the very successful Land-Grant College Program, which has evolved over a 140 year period. Originally created to teach agriculture, military tactics, and the mechanical as well as classical arts to members of the working class, subsequent federal legislation added research and extension responsibilities to the land-grant college charge. Modern land-grant universities continue to fulfill their original mission but also allow millions of students and the public to have access to every academic discipline and explore fields of inquiry far beyond the scope envisioned in the original mission.

Sea Grant was created to mimic the land-grant model specifically to "focus a broad array of academic talent on issues related to the sea." In just 35 years Sea Grant has created a remarkable track record. Sea Grant conducts priority-driven research, transfers scientific results to the public, provides educational opportunities from K-12 to graduate degrees, and conducts successful outreach programs. Sea Grant is a partnership among academia, government, and the private sector. It uses a combination of research, education and outreach. It focuses on extension and improving the economy and coastal, marine, and the Great Lakes environments. Sea Grant peer-reviewed science is the key to generating intellectual capital. Sea Grant serves a broad constituency. Sea Grant solves national problems and creates national opportunities.

**The Sea Grant Association encourages NOAA to invest in programs with a proven track record of success.** The Sea Grant enterprise can and should be empowered to meet both the needs of NOAA and its constituencies through an expansion of its role and responsibilities and the provision of additional resources.

Congress has placed Land Grant and Sea Grant programs in the appropriate stewardship agencies; that is, the Department of Agriculture, which supports agricultural research and education programs in Land-Grant universities, and the National Oceanic and Atmospheric Administration (NOAA), which supports the National Sea Grant College Program and its network of some 300 universities. However, to date, Sea Grant universities have not achieved the synergy with NOAA that has been achieved by Land-Grant universities with USDA (and other agencies), and consequently has been unable to reach its full potential to serve the needs of America's coasts, oceans, and Great Lakes.

The recently completed NOAA Program Review Report offers an opportunity to address this situation, the analysis below offers some answers to the question:

*How can the National Sea Grant College Program be empowered to meet the needs of NOAA and the increasing demands for information and services coming from multiple constituencies?*

## **SGA RECOMMENDATIONS FOR ACTION**

### **A. On NOAA and Sea Grant - An Organizational Model**

Of the issues identified by the Program Review Team in its internal review, the need for integration and cross-cutting of NOAA's research, education, and extension enterprises stands out. Currently, these three functions are dispersed throughout the agency, with no mechanism to ensure shared priority setting or program execution.

- 1. The proposed Line Office for Program Planning and Integration should be realigned to cut across rather than parallel the five established line offices, and NOAA's extramural research, education, and extension programs, including Sea Grant, should be placed within the proposed AA for Program Planning and Integration.***

Establishing a Program Planning and Integration line office presents NOAA with an excellent opportunity to integrate strategic planning and implementation both within and across all NOAA components and missions, including research, education, and extension initiatives. To be successful, this office must be located between the Office of the Administrator and across the five program Assistant Administrators to serve as a cross-cutting hub. The lead Program Manager for NOAA research and outreach should be housed in the Program Planning and Integration cross-cutting office. This office should seek to raise the stature of NOAA's extramural funding efforts in research and outreach and establish standards and outcomes that are a model for engagement of the best available talent.

- 2. Effective education and extension are critical to NOAA's mission and must be identified as core missions for NOAA and the U.S. Department of Commerce. Sea Grant, with additional resources, can assist NOAA in enhancing its educational and extension efforts.***

Interaction and regular contact with external constituencies contribute to NOAA's identification of critical coastal, marine, and Great Lakes issues and to its effectiveness in delivering information and products to its "client" base. Numerous studies<sup>1</sup> have recognized the NOAA-university partnership as one of the principal means to connect with these constituencies.

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<sup>1</sup> National Research Council's 1994 review of the National Sea Grant College Program; NASULGC Board on Oceans and Atmosphere 2001 white paper on NOAA in the 21<sup>st</sup> Century; President's Council on Ocean Exploration (2001); Sea Grant Review Panel 2001 report *A Mandate to Engage Coastal Users*; and NOAA & Academic Partnership Building Conference report (2001).

The structure and function of the National Sea Grant College Program can serve as a key component in NOAA's education and extension strategy, and should be given the challenge, responsibility, and resources to assist in affecting the transfer of research findings and general information generated throughout NOAA to the appropriate user base.

***3. NOAA workforce renewal and human resource development are critical to NOAA's ability to accomplish all missions.***

NOAA will only be able to adequately address marine and coastal issues if it has a cadre of well-educated ocean science and policy professionals. Current demographic trends suggest that with the "graying" of our ocean experts, the nation may soon lose a large fraction of the intellectual power that has generated recent advances in the ocean sciences. This talent pool must be replenished. Innovative, well-funded ocean science education programs are needed from kindergarden through graduate school to attract the best and brightest to careers in the ocean sciences. Sea Grant is NOAA's greatest asset in efforts to address workforce, human resource, and education needs.

***4. Sea Grant should be recognized as a nationwide program, serving all of NOAA and a diverse clientele throughout the country.***

Sea Grant is a unique partnership between federal, university, state and private sector interests. As such, the Sea Grant network can significantly contribute to NOAA initiatives on climate, human resource development, and watershed dynamics, all of which have nationwide importance and applicability. To affirm the importance of the ocean to the very existence of all living organisms — including those that live in inland states — Sea Grant funding should be substantially increased to accommodate Sea Grant network growth in all 50 U.S. states. Because there is a progressive path for a university to become a Sea Grant College — single project → coherent project → institutional program → Sea Grant College — funding increases could be phased in over time.

Sea Grant, like Land Grant, is inclusive in its mandate, even though it is currently perceived as exclusive to only coastal and Great Lakes states. Balanced use and conservation of marine and coastal resources is a national priority and NOAA is the lead federal agency with the mission to achieve this goal. Enhanced ocean literacy across this nation's population is critical for NOAA to be successful — further reinforcing the notion of Sea Grant involvement in all 50 states. The Program Review Report does not address NOAA's relationship to the states. Sea Grant is an established, well-respected state based program that can serve as NOAA's conduit to the states.

**5. *NOAA should enhance its engagement of the extramural community in establishing its research, education, and extension priorities and action agendas.***

One recommendation of the NOAA Program Review is that 50% of new research funds be committed to the extramural community. NOAA should formally apply the model used by agencies such as NSF and NIH to involve the extramural-university community in workshops and other forums to discuss and generate NOAA priorities for research AND education AND extension in key programmatic areas. This would ensure that NOAA's programmatic priorities accurately reflect both the current state-of-knowledge of coastal, marine, and Great Lakes resource issues and the real needs of NOAA's constituencies, and would vest the extramural community in seeing that the priorities are addressed.

**B. On the National Sea Grant Review Panel**

Currently, NOAA and its line offices engage a variety of advisory mechanisms to oversee the development and operations of their programs. For example, there is the NOAA Science Advisory Board that serves the NOAA Administrator's Office, and the National Sea Grant Review Panel, a FACA panel authorized by legislation, to oversee the operation of the National Sea Grant College Program. Multiple advisory groups have the potential to contradict and confound, as well as waste human and financial resources. They are also countercurrent to the concept of one NOAA, rather than five or more NOAA "parts." The issue of advisory panels is only partially addressed by the NOAA Program Review, which recommends that membership on NOAA's Science Advisory Board be modified to include a diversity of expertise, experience, and perspectives.

**6. *NOAA should consider establishing an agency-wide Advisory Board that reflects the breadth of both its missions and the constituencies it serves. Sub-agency (Line Office and Program level) advisory panels should perhaps be organized as extensions of the NOAA Advisory Board, with appropriate Advisory Board representation, leadership, and guidance, to provide for consistency and effective communication across the agency.***

NOAA should expand the definition of its primary advisory board to embrace and support the research, education, and extension components of its mission. NOAA should also specifically define the charge and role of its "advisory" structures and clearly establish their relationship to NOAA's management structure. There should be only one overall agency advisory board so as to minimize the potential for mixed and possibly contradictory messages coming from external "experts."

**C. On Sea Grant Program Planning, Evaluation, and Funding**

SGA firmly believes that excellence in the Sea Grant College program network has been strengthened through a rigorous and well-defined program evaluation and improvement process. Sea Grant College program strengths are measured through an evaluation of their management

structure, strategic planning process, use of a comprehensive and well-defined peer review process and the engagement of *external* science (and outreach) review panels, and a thorough evaluation of program outcomes and results. These are the criteria upon which Program Assessment Panels evaluate Sea Grant College programs. The results of such an evaluation process should include an identification of Sea Grant Program strengths, weaknesses, and recommendations for improvement. However, funding decisions should NOT be linked solely to the Program Assessment process.

Sea Grant Program funding increases should be based on merit. The Sea Grant peer review process occurs initially during biennial project selection at the university level and is carried out by the Sea Grant Program management teams distributed throughout the network of universities. The peer review process employed for this distributed review is directly analogous to that carried out by NSF, both of which draw from a national pool of peer reviewers. This distributed management concept provides many opportunities for Sea Grant programs to leverage the federal investment with support from non-federal partners that invest real cash in the Sea Grant enterprise. In addition, Sea Grant solicitations for national strategic initiatives are also peer-reviewed using an NSF-like model.

***7. Under the proposed NOAA management scheme, all stakeholders in the Sea Grant partnership (i.e., the National Sea Grant Office, including NOAA and its advisors, the Sea Grant Programs, including their universities and consortia, and all stakeholders, including matching funds partners) should be engaged in determining the most efficient ways to implement funding strategies that will help solve problems and build capabilities nationwide. In this manner all stakeholders share in the continued strengthening of the Sea Grant College Program network.***

Funding decisions should be the outcome of competitive, merit-based, and peer-review processes to avoid the trap of complacency associated with formula funding. Further, Sea Grant's current approach for funding national initiatives results in numerous national competitions for funding levels that are too small - as low as \$500,000. Energizing a national network for so little money is inefficient, and has resulted in many of the best faculty choosing to bypass Sea Grant and instead focusing their efforts on other federal funding sources where the potential for return on their investment of time is much greater.

#### **D. On Extramural Funding**

SGA strongly supports recommendation #38 of the Program Review Report, which proposes that 50% of new research funding be made available to the extramural community. This recommendation is consistent with the goal of harnessing the underutilized potential of the Sea Grant network as a NOAA asset. However, we believe that the extramural community can also play an important role in furthering NOAA's efforts to expand its outreach capabilities. In addition, Sea Grant extension and education projects can be used to evaluate information and define grass-roots research needs. In this way, outreach will include informing, listening and responding, with a meaningful exchange of ideas and information.



- 8. NOAA's Program Review Report Recommendation #38 should be expanded to include the eligibility of education and extension projects as well as research for any new extramural funding to encourage the integration of outreach capabilities in relevant and user-driven scientific efforts.**

We also strongly support Program Review Report recommendation #48 that commits NOAA to "maintaining the 'buying power' of recurring grants" to extramural partners. Funding challenges over the last two decades have resulted in the significant loss of buying power throughout the Sea Grant network (estimated at more than 25% over the last 20 years).

- 9. Competitive funding opportunities should be made available to Sea Grant College Programs to increase their base support. Furthermore, SGA encourages NOAA to provide maximum flexibility in the use of extramural grant funding to derive full "value-added" in leveraging matching funds and in optimizing the use of the enormous talent and expertise found in our nation's universities.**

Given NOAA's renewed commitment to working with the extramural community in addressing its missions, these systems must receive the attention and resources they need to make them much more efficient and responsive to the needs of NOAA's external partners and the scientists, educators, and staff that receive NOAA support.

- 10. SGA enthusiastically applauds the Program Review recommendations that address NOAA's Administrative and Grants Processing systems.**

NOAA's goal to increase the amount and enhance the effectiveness of extramural funding will only succeed if its grants processing capabilities are streamlined, made more efficient, and able to process information in a much shorter time frame.

## **E. On Staffing of the NSGO**

*The National Sea Grant College Program is a university-based partnership and its management should be representative of the stakeholders who have made financial investments.*

*The National Sea Grant College Program is also a national network and its management should be distributed accordingly.*

These two existing boundary conditions suggest that the Sea Grant College Program is best served if the identification of overarching programmatic priorities and general operational guidelines are the responsibility of the National Sea Grant Office (NSGO) and the integration of non-federal investor priorities and day-to-day operations fall to the distributed management team of university-based Sea Grant directors. Quality control, evaluation, and assessment are the responsibility of all management. To bring the number of full-time equivalents for federal dollars

administered in line with other external federal funding programs, the NSGO needs major “retooling.”

***11. Given that several NSGO staff positions have been recently vacated, NOAA currently has the opportunity to restructure and focus Sea Grant personnel and responsibilities. Accordingly, SGA offers the following “staffing model” for the NSGO office:***

***Program Leadership:*** The Director should remain a career SES position, and NOAA should reestablish and fill the Assistant Director position.

***Programmatic Specialists:*** NOAA should create program element specialists for each of the major functional areas of research, extension, education, and communications. These specialists would serve as Sea Grant program officers for the network.

***Program Technical Staff:*** Information technology specialists are needed for database management and information synthesis. SGA also recommends that NOAA hire financial specialists to facilitate grants processing and accounting.

***Subject Area Specialists (IPAs):*** Subject area priorities must be identified by NSGO and specialists should be recruited on a rotator basis to ensure responsiveness to changing national needs and advances in science and technology. An extensive talent pool resides at the universities in the Sea Grant network and this pool should be tapped to the mutual benefit of Sea Grant and NOAA.

## **CONCLUSION**

If Sea Grant is to reach its potential in meeting the needs of both NOAA and the various constituencies it serves, it needs to be repositioned to transverse the NOAA organization. This will allow each office of NOAA to tap Sea Grant – a well known, respected, and proven successful partnership network - to provide for NOAA’s outreach, research, and extension needs. To do this, Sea Grant must be provided with the necessary resources to address priority coastal, marine, and Great Lakes issues and enhance its partnership and leveraging power. We applaud the results of the NOAA Program Review Team, and remain committed to working with NOAA on implementation of the recommendations wherever we can.