

**Fall 2010 National Sea Advisory Board Meeting**  
**Astor Ballroom II**  
**The Astor Crown Plaza Hotel**  
**739 Canal Street at Bourbon**  
**New Orleans, Louisiana 70130**

**Friday, October 15**

Arrive in New Orleans, LA

**Saturday, October 16**

**8:30 AM – 5:00 PM - OPEN TO PUBLIC**

- 8:30** Introductions, review agenda, approval of minutes, etc. (J. Woeste, Chair, NSGAB)
- 8:45** Chair's update (J. Woeste)
- 9:00** NSGAB charter renewal, NSGAB nomination process and Membership Committee (J. Murray, NSGO)
- 9:30** Break – 15 minutes
- 9:45** NSGO report (L. Cammen, NSGO)
- 10:30** SGA report (G. Grau, President, Sea Grant Association)
- 11:00** NSGAB budget and policy (D. Vortmann, NSGAB, J. Murray, J. Eigen, NSGO)
- 11:30** Discussion on morning topics
- 12:00** Lunch
- 1:00** Sea Grant Academy (M. Spranger, Florida Sea Grant)
- 1:30** Committee updates
  - Allocations (R. Heath, NSGAB)
  - Futures II (M. Orbach, NSGAB)
- 2:45** Break – 15 minutes
- 3:00** Sea Grant and the Deepwater Horizon oil spill (L. Swan–Director, MS-AL Sea Grant/  
Sam Walker–NOAA Senior Representative at the Incident Command Center)
- 3:45** Network reports
  - Legal (S. Showalter, National Sea Grant Law Center)
  - Research (S. Sempier, Gulf of Mexico Regional Research Planning Coordinator)
- 4:15** Knauss Selection Committee Updates (H. Simmons)
- 4:30** Site Review Panel (J. Byrne, NSGAB, M. Orbach, B. Stubblefield, NSGAB)
- 4:45** Resolution for Dr. Manuel L. Hernández Ávila (J. Woeste, R. Chaparro – Director, PR Sea Grant)
- 5:00** Adjourn
- 6:30** Welcome reception - Aquarium of the Americas (OPTIONAL IN REGISTRATION)

**Sunday, October 17**

**8:30 AM – 3:00 PM - OPEN TO PUBLIC**

- 8:30** Call to Order, review agenda and previous day's discussions (J. Woeste,)
- 8:45** Biennial Report discussion and adoption, lessons learned, guidance for 2012 (J. Byrne)
- 9:15** Focus Team liaison reports and discussion
  - Hazard Resilience in Coastal Communities (J. Byrne)
  - Healthy Coastal Ecosystems (N. Rabalais, NSGAB)
  - Safe and Sustainable Seafood Supply (R. Schmitten, NSGAB)
  - Sustainable Coastal Development (R. Heath)

- 10:00** OAR Senior Research Council report (R. Heath)  
**10:15** Break – 15 minutes  
**10:30** New Activities in NOAA: a Sea Grant perspective (L. Cammen)  
-Ocean Policy Report  
-Next Generation Strategic Plan and OAR Next  
-NOAA Reorganization and the NOAA Climate Service  
**11:30** Discussion on NSGO topics  
**12:00** Lunch  
**1:15** Scientific Advisory Board meeting presentation – November 30-December 1 in DC  
(J. Woeste)  
**1:30** Judith Gray, Deputy Assistant Administrator, Office of Ocean and Atmospheric  
Research  
**2:00** Break – 15 minutes  
**2:15** Captain Eric Trehubenko, Executive Officer, Naval Oceanographic Office  
**2:45** Public comment period  
**3:00** Adjourn

**Sunday, October 17**

**3:15 -5:00 – ADVISORY BOARD BUSINESS MEETING**

- Review Advisory Board assignments  
Revisiting the Executive Committee  
Elections  
Performance Review Panel  
Review of 2011 and 2012 budget  
Transition of DFO  
Spring Meeting Dates  
**5:00** Adjourn

**National Sea Grant Advisory Board Semiannual Meeting**  
Tuesday, March 9 and Wednesday, March 10, 2010

Washington Plaza Hotel  
10 Thomas Circle Northwest  
Washington, DC

**TUESDAY MARCH 9, 2010**

**MEETING OPEN**

- Around the room introductions of Board Members and Current Nominees
- Senator Patty Birkholz provided overview of her activities in Michigan.

**CALL TO ORDER - ROLL CALL:**

John Byrne	Dick Vortmann
Jeremy Harris	Dick West
Ross Heath	John Woeste (Chair)
Mike Orbach	Patty Birkholz (present for first hour)
Nancy Rabalais	Frank Beal
Rollie Schmitten (not present)	Leon Cammen
Harry Simmons (not present for AM)	Jim Murray
Bill Stubblefield	Gordon Grau

**REVIEW OF DAY'S ACTIVITIES/APPROVAL OF AGENDA**

- Review of August 2009 Meeting Minutes.
- **MOTION TO APPROVE MINUTES. (1<sup>ST</sup> – Heath, 2<sup>ND</sup> – Stubblefield.) All ayes.**

**WELCOME REMARKS**

**Leon Cammen, Director, National Sea Grant College Program**

- Thanks to Dick West for service as Board Chair. Review historical role of Board and current role. Welcome to New Chair John Woeste and new members of the Board. Urge current members to think about recommendations for new members.
- Review of impact of the Board's advice / how Sea Grant has responded to Board advice.
- SG year in review: milestones
  - PIE underway
  - Alignment of program plans to national plan
  - Site visits planned
  - Focus Team annual meetings
  - NOAA engagement
  - \$8M budget increase (FY2010) – gets SG back to FY2005 level

- \$7.5M budget increase request (FY2011)
- Climate workshop
- Regional “climate engagement” mini grants – worked very hard to get all the regions to involve SG / have them in the room for discussions. Drive home the importance of engagement with partners
- Snapshot of SG Successes (examples in PPT)
- Sea Grant’s Year Ahead
  - Site visits (start April)
  - Annual reports
  - Initiation of 4-year awards
  - New Information Management System & Website
  - National Initiatives
    - AIS
    - Aquaculture
    - Climate Adaptation
  - OAR Reorganization
  - NOAA Climate Services
  - SBIR competition

## **SEA GRANT’S ROLE IN NOAA**

### **Sally Yozell, NOAA Director of Policy**

1. Mission, Vision, Value – discussion of NOAA’s role in the country, mission / values, etc.
2. NOAA Leadership Alignment – present key alignment changes. Added 2 senior level appointees, redefine roles to clearly outline authorities
3. NOAA Policy Initiatives & FY 2009 Accomplishments - discussion of NOAA Policy objectives, progress towards key goals, working with regional areas to balance needs of ecosystems and communities (ex: catch share debate – perhaps role for SG extension there). NOAA Stimulus update – overview of distribution of funds.
4. Strengthening Science Across NOAA – initiative rolling out – envisioning strengthening science across NOAA – wants to get young scientists interested in coming to NOAA, need to bring in strong, young group to backfill the folks who will be leaving (one of Lubchenco’s top priorities). [Science underpins NOAAs Service and Stewardship Activities, Growing NOAA’s Socio-Economic Capacity, Partnerships & Engagement, OAR provides complementary research – focusing \*across\* NOAA, Communicating and Marketing NOAA Science]
5. Administration Initiatives: Ocean Policy Task Force, Coastal & Marine Spatial Planning. [Scientific Integrity, Climate and Energy, Adaptation to Climate Change, Ocean Policy, Regional Ecosystem Restoration and Resilience Efforts]. Overview of Ocean Policy Task Force. Presidential policy statement expected in immediate future – really support

ability of different agencies tasked with ocean issues to work together as a collective whole.

6. Budget Update – review appropriations history.
7. Future

DISCUSSION – looking for input on (1) How can SG [better] support NOAA, & (2) How can NOAA [better] support Sea Grant:

Woeste – Thanks to Sally coming to talk to the Board.

Orbach – One of the issues with SG is that essentially all the funding goes outside of government (competition for internal needs) – having come from NGO, how do you see that?

Yozell – Think more funding could go outside. Lots of great activities going on in the regions. How bring some of the great stuff going on outside into NOAA to use? More pilot projects to create new ideas, developing cadres of innovative young thinkers within NOAA who have those connections to the outside.

Byrne – How can SG become more visible within NOAA? What frustrations do you see in other elements of NOAA that are not being satisfied? If SG knows what these are, then SG could better help.

Yozell – Still too new to NOAA to know the answer. Planning office hours with AAs, etc. to figure this out. Commit to keep tally to work with Leon to get this info back out to SG.

Stubblefield – Realize SG capabilities not utilized as fully as could be. With NOAA restructure, do you see an organizational answer to allow SG to be more fully utilized.

Yozell – think removing climate focus from OAR will help with this, allow program to work more closely with Chief Scientist / OAR AA – combination will allow SG to look more broadly across the agency

Rabalais – One of big Board issues under discussion is this divide between SG and NOAA as though SG is on the other side of some divide – know it's an issue, but not how to address it.

Yozell – lets try to crack that nut – big supporter of SG. Think emphasis on regional focus in last few years has been transformative. Interested in what Board thinks of this regional emphasis, and of NOAA moving towards a more regional focus?

Woeste – the Board will add that as a topic for more follow up discussion

Woeste – think it is a great initiative. May want to look at how each individual regional coordinator is approaching this – opinion is that some of these are working, and some are not.

Woeste – As look at new issues (spatial planning, social science competencies, etc.), what discussion has occurred about tapping expertise in academic institutions across the country, esp. for areas that address hot topics (sea level rise, etc.) that may involve expertise not currently reflected within NOAA?

Yozell – Looking at this currently –sent back feedback about how exactly to structure a new economist position, maybe an economist with addition individuals to provide social scientist report (i.e. emphasize that this is more than just economics)

Stubblefield – Issues of fiefdoms generally exist \*outside\* the beltway (as opposed to inside, where folks aim to work together), how is NOAA going to address this?

Yozell – With funding. The only way to incentivize people to do this is to have more cross-cutting / regional funding pots.

Yozell – would appreciate advice on how to bring gulf coast into picture on marine spatial planning.

Byrne – division of society into government, education, private sectors – only private sector creates wealth. SG connected to these other areas – any movement to strengthen connections in other areas of NOAA

Yozell – definitely talk of this, but haven't learned of any actual initiatives yet. Need more advice from private sector on what they need to do business better.

West – never really had private industry support in oceans. Really think NOAA has to step up and appreciate that / work on this partnership – the federal government is often looked at as just the regulatory part.

## **NOAA'S REGIONAL CLIMATE ENTERPRISE**

### **E. Shea, Chief, Climate Services and Monitoring Division, NOAA National Climactic Data Center**

- Presentation on Regional Climate Services – focus on regional, because that's where NOAA can be a keystone partner
- NOAA commits to providing critical assets in science and service to a Federal partnership – overview of NOAA's role in a new 'national' climate service
- NOAA Climate Service Proposal: vision (informed society anticipating and responding to climate and its impacts), mission (support decision makers regionally to globally at all time scales), goals (deliver sustained & effective services, promote partnerships, advance climate science)
- Overview of NOAA's role in a national strategy. Contributions at international, national and regional levels. State / local / regional level where most citizens will see NOAA's activities
- Shared Lessons: focus on integrated climate-society system, early & continuous partnership with users is essential, problem-focused approach, promote climate literacy and regular communication
- Importance of state, local & tribal engagement
- Remember that MOST adaptation decisions will be made at local, state and regional levels, and not at a national scale.
- 'Climate service pearl' – imagery for understanding NOAA Climate Service. Users are at the heart of this scheme, surrounded by 3 functional areas: regional climate products and services, regional climate science (modeling, research & assessment), state local and tribal climate services. Rings of other agency partners in all of these areas. Ultimately a national context for a regional climate service. See Sea Grant as a part of this in both the

research & services components. Does NOT distinguish between the NSGO and the State programs – all are Sea Grant, and Sea Grant is part of NOAA.

- For an example of how this would work, look to the Pacific Climate Information System. PaCIS as guide for NOAA implementing similar efforts in other regions. Many lessons leading to PaCIS have a Sea Grant origin. Sees Sea Grant as integral \*NOAA\* partner in a climate services effort.

## DISCUSSION

Woeste – underlying principles resonate with this group

Orbach – think concept is fabulous. Adaptation to climate – 10% is science, rest is figuring out what to DO with it. And that requires a lot of non-science expertise. Question of relative amounts of resources applied to this area – how do you see this going forward?

Shea – agree with you. If look at climate budget in NOAA, heavily weighted to physical science. Part of answer is an equal level of commitment to the social aspect at the highest levels of the organization. Think it will take a WHILE to balance the resource investment. But will say that these activities are highlighted in budgets going forward. Matter of recognizing these needs, and establishing partnerships. In many ways climate service gives SG the doorway to get the physical science, but in a way are relying on SG to take that out to the community. There is a commitment to getting more resources to that part of the job.

West – concern that private industry has no answer to the question of ‘who’s in charge?’

Outside the beltway – question of what is the role of the regional coordinator?

Shea – discussion of role of regional coordinator. Saying \*right now\* need someone in the regions focused on climate.

## **NOAA’S COASTAL ROLE IN NATIONAL CLIMATE SERVICES**

### **M. Davidson, Director, NOAA Coastal Services Center**

- FY2011: framing of ocean service priority plan for extreme events - \$5m, \$3m for CSC, \$2M specifically for Sea Grant. Among the elements will do with this is continue to build on capabilities for building information that improves ecosystem and weather response forecasting , acquiring mapping & monitoring & socio-economic data for improved services.
- Related FY11 initiative – comparing coastal communities for climate hazards – focusing on making people aware of hazards and reducing our vulnerability to them
- Coastal and marine spatial planning
- Regional ocean governance program
- FY12 – actively working with Sea Grant to build on FY11 activities.

## DISCUSSION

Woeste – Thanks to Margaret Davidson for the presentation.

Orbach – How do you see role of CSC developing over next few years in respect to NOAA / SG on these climate issues?

Davidson – climate service delivery, training delivery to SG folks, Feds provide national framework / guidelines / prototypes / etc. But efforts HAVE to occur at the local level. Encourage more regional planning, but like SG is already doing, NEED to get out and work directly with the communities.

Byrne – what, other than funding, is your greatest frustration?

Davidson – hoping will see new goal team structure – coastal folks scattered across NOAA, which is difficult. Expectation that FY11 is the best can hope for in FY12, since the FY12 budget comes out in advance of elections.

## **INTEGRATION OF NOAA COASTAL PROGRAMS**

### **D. Kennedy, Deputy Assistant Administrator (Acting), National Ocean Service**

- Overview of goals for NOS.
- Expecting more guidance from president with how to move forward on reports that have been submitted.
- NOS FY11 priorities: ocean policy task force; coastal & marine spatial planning; NOAA climate services; next generation strategic plan; renewed focus on science; respond to increased demand for NOS tools, products and services
- Waiting for Congress & OMB to ratify NOAA's proposed way ahead.
- Strengthening coastal/ocean focus: NOAA coastal strategy; NOAA's next generation strategic plan – includes new coastal goal. Important message: work has finally borne fruit, believe some of the budget formulation that has bypassed coastal efforts may now be more visible and at the table.
- Looking at budget formulation change in the FY12/13 time frame.
- Focus on coastal-climate nexus: NOAA climate science and service
- Assessing NOS coastal science: assessing the scale and scope of NOS science
- NOS-SG connections: capacity building and training; education; sustainable coastal communities [any time talk to Congress, mention coastal and they want to know how it will generate jobs]; coastal storms program. Already involved in all these, but can do a better job of coordinated activity.
- New opportunities: reshaping NOS Coastal Science.

## DISCUSSION

Stubblefield – a few years ago made reference to OMB coordination requirement. Are these examples an outgrowth of this? Did you formally respond?

Kennedy – Did respond to OMB. 1<sup>st</sup> time got back 'do more', 2<sup>nd</sup> time got no response, so have moved on. But have received favorable feedback on role of coastal efforts

West – Reminder that board has extensive coastal expertise - offer that NOS has access to this Board for advice. Still think NOAA should utilize this Board as subset of SAB due to heavy coastal experience.

Kennedy – Have heard of this idea. Still struggling with where going with next generation strategic plan. Think coastal is going to stick. Takes this as a suggestion to look into. Think this group as stands without additional members isn't as comprehensive as would want for NOS.

Byrne – NOS is the national OCEAN service, haven't said much about ships / ship operations

Kennedy – in the existing system, had a commerce and transportation goal that addressed the naval side of the house. This has been under fire for a while. Question has been where IS the ocean, and is the ocean fish? Longer title is “great lakes, coasts & oceans.” Struggling with how to raise the awareness of how the ocean intersects with this.

Woeste – Thanks Kennedy for his time, hopes for the discussion to continue in the future.

## **BIENNIAL REPORT COMMITTEE REPORT**

### **J. Byrne, NSGAB**

- Reminder that this Board is an independent group. And that charge on biennial report is to make independent evaluation of state of SG.
- All work conducted by conference call, email, etc.
- Message to network: know about SG strengths, but also need to know about failures, as these are the best opportunities to figure out ways to improve
- Committee consists of the members of the alignment team - Byrne (chair), West (co-chair), Woeste – along with Orbach and Pennock (SGA representative)
- Timeline: March 2010 - Board meeting, May 25-26 – writing session, June – draft circulated for comment, July – final draft, Mid-august – discuss and approve, Sept – report submitted to congress
- Provide draft report outline
- Need input on the nature of the report, draft outline, etc.

### DISCUSSION

West – Consider this the most important thing for Sea Grant in near term. The message from the Hill is that a strong report can help them support Sea Grant. This will be the first outside, authoritative look at Sea Grant in a long time.

Byrne– Current report will serve as template for future reports, so want to get it right

West – NOAA should be informed now that this will be going directly to Congress and not up through the chop chain, though NOAA will be kept informed of the process.

Rabalais – We need to go forward with new information, not just keep repeating recommendations from old reports

Byrne – For this to be effective, it must be a short document

Stubblefield – The research committee report did some real data mining / survey / etc. Might want to look at some of these as a starting point – opportunity to ID areas where need to get more information.

Introduction of Frank Cushing (SGA government relations representative)

## **THE VIEW FROM OMB**

### **S. Levenbach, Program Examiner, OMB**

- Presented graph of Sea Grant budget versus NOAA Coastal programs – shows a rise in overall coastal programs while Sea Grant stayed flat. Rate of increase ~6% coastal, <1% for Sea Grant.
- What is the role of Sea Grant relative to other coastal programs – why congress investing in coastal but NOT in Sea Grant?
- Proportion of NOAA’s budget spent on coastal programs has declined significantly. (Huge driver of NOAA budget rise is satellite programs)
- Sea Grant must quantitatively demonstrate performance for additional support in budget (direct line of sight from \$ in budget to output). Ex performance measures:
  - Fish Stock sustainability index;
  - FY11 Marine Aquaculture Initiative (+\$2.7M) – Q: how significant is the PM, and how will it be measured? Added sentence to initiative to address this. This is still difficult to see if this PM is feasible, and if it is worth the investment, etc.
  - Coastal Resilience Scorecard. First glance – skeptical of how do this, but provided clear method for obtaining this quantitative assessment
- Sea Grant must also find its niche within NOAA’s coastal programs
- Sea Grant as locally relevant research and extension in support of economically and environmentally sustainable coastal communities.
- Late year R&D initiative from the Administration is part of why SG has additional funding this year.

## DISCUSSION

Woeste – Board extends its thanks for taking the time to meet with us.

Grau – Last time we meet, we talked about human resources, and that Sea Grant is a bit unique on this front within NOAA programs. Human resources is one thing Sea Grant can provide to NOAA but also across the coastal enterprise. If someone came in with research and demonstrated HR benefit from it, is that a positive Performance Measure for OMB?

Levenbach – Have seen interest from agency to try to develop particular expertise. Ultimately other priorities were chosen above that. If you look at real opportunities for growth, not sure human resources is a big driver unless it can be hung onto a big administrative issue. Office of Education has made this an important part of their strategic plan. Needs to be a way that brings multiple NOAA programs together – can’t just be a SG program, needs to be tied in to other programs and provide compelling outcomes. In order for HR to be successful, need to

be NOAA wide with coordinated approach. Not saying this isn't important, but need to structure it to be able to out-compete other priorities.

Stubblefield – Reason for proliferation of coastal programs?

Levenbach – When a gap is perceived, interest on the Hill is to create new program rather than improve management of existing programs. Way to stop this is to provide a coordinated approach that will break down silos, show that NOAA has a program with the strengths to address the issues desired

Stubblefield – is the logical place for the forced integration at OMB?

Levenbach – This is challenging for us. Personally don't have expertise to direct how this is supposed to work – really needs to be done from the ground (agency) up. OMB has powerful tools, but they are blunt – not in a good position to implement these structural changes. Have received feedback from coastal programs with very different Performance Measures from the different programs, which indicates these are not very well coordinated

Cammen- In most recent case, correct that the effort wasn't coordinated – in large part because the programs only found out about it Christmas Eve, and NOAA required a very quick turnaround while most staff were on leave. However the programs are now coordinating efforts.

West- Until NOAA can show coordinated signals, OMB is going to think things aren't coordinated. NOAA needs to take responsibility for making sure information sent to OMB is coordinated (meaning NOAA needs to give line offices enough response time to actually be able to do this.)

Byrne – if OMB gives penalties for lack of coordination, is there subsequently an increase if this is remedied?

Levenbach – If we have seen this improvement, we can argue that these programs will be able to implement new administration priorities

Murray – There are a number of NOAA programs with climate service capabilities. Any comments generally on what OMB might be looking for from the climate services perspective?

Levenbach – This is an area that's evolving, especially the role of extension, which we see as critical in this area.

West – Give us 2-3 items needed in the upcoming biennial report that would be helpful to OMB

Levenbach – Let me get back to you on that. One thing that would really help, would be a budget request that integrates SG into NOAA's other missions. If the budget doesn't show support for a particular program, appropriators have difficulty supporting it.

Orbach – Do you look any differently at programs that fair better on the Hill than in their own agency?

Levenbach – There are a number of programs like that. To a certain extent, when we add or cut funding, we do look to previous enacted levels for various programs – disparities between enacted and requested amounts do influence funding decisions. When the recent Research

& Development initiative came through, we definitely looked to the Hill to make decisions about what to do with the funding.

Byrne – Would the budget be increased for NOAA activities if climate activity was added to NOAA so it was NOCAA?

Levenbach – Part of the strategy for rolling this out within the Administration is that this is just a restructuring / management exercise to better manage existing activities. Thinks adding climate to NOAA's title would cause issues with other Federal Agencies.

## **BOARD BUSINESS**

- Discuss need to update the Charter and the Board manual. Hope to have these ready for adoption at Fall meeting

## **NSGO REPORT**

### **L. Cammen**

#### Changes in NOAA

- Dynamic time – mostly triggered by the reorganization for climate service, but has cascading effects. 2 initiatives: 1 – create climate service, 2 – strengthen NOAA Science
- Slide of existing OAR org chart. Funding wise, loss of climate items about cuts OAR in half. Ocean programs make up ~2/3 of remaining.
- Engagement (Murray): came in 1998 – NOAA not doing a terrific extension job, lots to learn from USDA. In 2000 initiated Byrne report to get ahead of request for external review. Had some success pushing these ideas from NOAA. At some point VAdm. Lautenbacher went to SAB and they committed to another Extension report – that report included extensive Sea Grant involvement. In later presentation, Winer will present on how NOAA has addressed the recommendations in this report to change the culture of NOAA. On extension front, NOAA has made a radical change in the last 12 years.
- Executive Committee for Engagement (ECE) – response to SAB report. Along with NOAA Extension and training Service (NETS), gives NOAA better ability to organize capacity to engage the public. Now need to take it to the next level. Created new structures, but without dedicating any resources to them – just asked busy people to take on one more task.
- Sea Grant's role in Climate: Sea Grant network climate synthesis; eight 'climate engagement' mini grants; Charleston workshop; RISA extension pilot; COMET training modules; member regional climate team; SBIR renewable energy; Coastal community climate adaptation initiative
- Next Generation Strategic Plan – 4 Goals: climate adaptation & mitigation, weather resilience, sustainable coastal communities and economies, sustainable and resilient fisheries, species and habitats. The Plan should be out for public comment soon – looking to be final by June

#### Budget Overview

- FY2009 – \$55M.
- FY2010 - \$63M (include \$4.8M aquaculture, \$2M Aquatic Invasive Species, \$1M coastal community climate adaptation. Note that AIS and aquaculture were line items outside of Sea Grant in previous years.) All 2009 omnibii already out – marked improvement from previous years, in part due to presence of Grants Specialist physically located part of the time within the office.
- FY2011 – Presidents request \$62.5M. \$7.4M over last year’s request of \$55.1M. \$1M Aquatic Invasive Species, \$4.3M aquaculture. \$2M community hazards assistance (emphasis on coastal community climate adaptation.)
- FY2010 Budget Highlights & New Activities . New Activities: Aquatic Invasive Species, Aquaculture, climate adaptation. Regional climate engagement mini-grants. Regional research plans.
- 2010-11 Aquatic Invasive Species Regional Strategic Investment (RSI). 3 year regional projects. Integrated research, outreach, education. National performance measures. \$400K per project + \$200K match. \$3-4M in 2010-2011. With matching funds, a 2 year total of \$4.5-6M. This is one of Sea Grant’s first \*regional\* strategic investment competitions.
- 2010-2012 Aquaculture National Strategic Investment (NSI). 3 year awards. Two pools of funding: Extension (\$1.6M fed) for new staff & extension projects; Research (\$3.2M fed) for ‘smart design’ approaches to aquaculture, tools or approaches to siting of facilities, research on the social and economic issues associated with current and new marine aquaculture. National performance measures. With matching funds, a 3 year total of \$7.2M for extension and \$14.4M for research. Learning from Fish Extension - if proposal is to hire new staff, need to provide clear transition plan for what happens after 3 years.
- 2010-11 Coastal Community Climate Adaptation Initiative (CCCAI). \$1M in 2010, \$2M in 2011. FY 2010 – rapid response, community-based demo projects in each Sea Grant state. Proposals for 2010 funds due May 1 for projects to be completed in time for discussion at Sea Grant week. Logical extension of Sustainable coastal community development (SCCD). Panels 2006 SCCD evaluation recognized its success & called for increased funding. CCCAI represents first significant enhancement.
- Questions from the Board about tightness of time frame. Reason for quick time frame: want to demonstrate can create national program from local initiatives. Want to be able to use results presented at Sea Grant Week to justify future funding. Recognize this will constrain some of the ways these things are addressed.

#### NSGO Annual Review (January 2010)

- Positively received from Sea Grant network and NOAA. Review intended for informational purposes. Follow up from review.

#### Site Visits

- Site Visits are intended to review the following: program management and organization, stakeholder engagement, collaborative network / NOAA activities. Chaired by Federal Program Officer. The site visit team is NOT rating the program – this is not a competitive assessment. Site visit reports go to the Program and the NSGO. Site Review Teams (SRT) will spend NO MORE than 1.5 days with program. Additional ½ day to draft report.

#### Performance Review Panel (9/2011)

- Reviewing programs overall impact. Primarily evaluated against their own plans, though will look at relative performance. Panel includes Board members as well as external experts. Members form 5 working groups according to expertise – evaluate performance of all programs in their focus area based on the 4 year plans. Programs receive separate rating for each focus area, weighted by resources dedicated to that area. Initial PRP cover impacts since 2008.

#### Focus Teams

- Goal to tell a national story. Deliverables: national impacts & synthesis stories.
- These will be used in State of Sea Grant Report, media, NOAA, climate portal, local media, web, Program use, etc. Critical step for positioning program as a national player.

#### Information Management System & Website

- Queried the network last fall as to needs, and generated an ambitious set of requirements. After collation and review, a list of high level requirements were sent to network. Priority tasks include: user-friendly look & feel; ability to enter PIE requirements (including impacts), ready for annual reports (due July 30, 2010)
- Network Advisory Council (NAC) – help design metrics for whole network. Metrics development beginning this month. Continued input of NAC and Network is vital.
- Website – revising this to make it more user-friendly. Intention to have graphical google-map user interface for input from the Address book

#### Advisory Board

- NSGO staff will be presenting on the response to Board Reports.
- Upcoming items on the Agenda: State of Sea Grant; Allocation of funds (tomorrow).
- Need names / nominations for new members.

### **CHAIR AND PAST CHAIR REPORT**

#### **J. Woeste & D. West, NSGAB**

#### Alignment Review

- 3 board members sat down with staff when strategic plans came in and matched them up against the national plan. Estimate 80-85% had no problems, a few needed tweaking, and a few had big problems.
- Thin state programs now get that they HAVE to be matched up with the national plan.
- Can now lay out some documents and there is a track from funding and intentions to outcomes at the local level.

## Hill Meetings

- General acceptance and appreciation of Sea Grant - had good meetings across the board.
- Raised idea of NSGAB providing more general coastal advice to the broader NOAA community.
- Working to set up meeting with Sec. Locke.

## **SGA REPORT**

### **G. Grau, President, SGA**

#### State of Sea Grant

- Organization as strong as it has ever been. Sympathetic and supportive Administration and Congress. Thoughtful, astute and committed board. More collegial than ever. Strong relationships with NSGO and NSGAB.
- Climate. Report “Sea Grant’s Role in Understanding and Preparing for Climate Change along America’s Coasts” (Paul Anderson with assistance from Mary Donohue). Sent to NOAA Administrator and OAR AA. Report hailed as “very timely” and “what OAR needs to do.” So where does SG fit?
- Met with Margaret Cummisky. Old perceptions of Sea Grant are disappearing: “Sea Grant has a vision...its partnerships are working...networking is helping to advance new opportunities.” Awaiting details on the Climate Service reorganization and how it will impact programs, activities and people. OAR can focus on high risk / high return research. Pass along request to Senator Inouye for SG Week. The President’s increase in the Sea Grant budget attributed to OMB’s better understanding of Sea Grant. Effort on this front by numerous individuals, but extend a special “Thank You” to Dick West for his efforts. Interested in seeing the results of the human resources study.
- NOAA Administrator Annual Guidance Memo. Validation of the Sea Grant Mission and Focus Areas. Alignment of NOAA and our university programs. The AGM either derives from Sea Grant programmatic paradigms at national, regional and state levels or is convergent upon the directions that we have developed and pursued for a number of years.
- Sea Grant’s contribution to National Priorities: a proven record in applying the resources of America’s Universities to national issues. Important provider of human resources to NOAA, government (including coastal management agencies), and to public and private NGOs. Important contributor of science.
- NOAA Workforce Survey (assisted by Mary Donohue and Craig McClean). Went up through NOAA – going out next week or so to get feedback on how much of NOAA workforce has a Sea grant background.
- NSGCP Peer-refereed publications: 1990-2009 - productivity is relatively flat. Graph of these shows a drop off in last few years, which is a reporting (as opposed to actual) problem.

- 2010 could be “breakthrough” year, but challenges remain. Federal, state and local budget problems. Important to address OMB’s wish for integration of NOAA’s coastal programs – need to both do something and to be perceived as doing something. Important to engage proactively, not reactively, with NOAA in preparing for reorganization and development of the “climate service” and a redefined OAR.
- What we need to do. Seek increased funding for research: research is the principal vehicle for graduate education. Now more than ever, coastal America needs integrated physical, social, design and engineering sciences. Stress that we are national network distributed locally and acting regionally and nationally. Continue collaboration, with open channel of communication and consensus building throughout network and with NSGO, OAR, NSGAB. Stay “on message” with congress – we are helping the \*people\* who live in the coastal areas. Communicate that we connect the unparalleled resources of America’s universities to NOAA’s mission and to the benefit of our nation’s coasts.
- Upcoming Events: SGA conference call in April / May due to snow-out of February meeting. Many delegates rescheduled Cap Hill visits for March. Frank Cushing coordinated meetings with House and Senate Appropriations staff (cancelled due to snow, looking to reschedule.) SG leadership meeting – proactive stance on reorganization of NOAA / OAR. New AA for OAR? Coordination among leadership for SG week. Pursuit of new opportunities (eg coastal tourism). Planning continues for SG week - NOAA Administrator Lubchenco scheduled to speak, Senators Inouye and Landrieu invited.
- Clarify that SG Week is aimed at the entire SG Network, with between 300-400 individuals in attendance, with lots of presentations, trainings, etc.

## **NSGO Responses to recent NSGAB Reports**

### **Communications**

#### **A. Painter, NSGO**

- #1: Recommendation to look at technology options to increase efficiency. Moving in that direction. Hosted 80+ conference calls last year to reduce travel. Also utilizing web based meeting technologies. Run SBIR through WebEx. Also tried some video conferencing – met with limited success. Are limited by some federal restrictions to make this stuff work. Give lots of credit to John and Mike for social media sites, and getting these hosted by network since we are unable to host them directly.
- #2: Recommendation that we hire 2<sup>nd</sup> communications position. Unfortunately with staffing resource limits, we are unable to do this at this point. Are finding some work arounds: utilizing Knauss fellows, working with new public affairs staffer Linda Joy, working with SG Communicators network to develop national stories / impacts – welcome ideas from Board as to how best to market these stories

- #3: Recommendation that the Director engage in personal visits to SG programs. Both the Director and Deputy Director will be attending a number of the site visits
- #4: Recommendation to engage SG Fellow. As mentioned, utilizing Focus Team Fellows in this capacity. But not able to take on 3<sup>rd</sup> fellow to work specifically on communications, in part because Fellows need to focus on programmatic (rather than administrative) work
- #5: Friends of SG. Don't think this was directed at NSGO. Agree that this would be very useful, but not appropriate for NSGO to commission this.
- #6: Think this recommendation is directed towards Advisory Board as opposed to NSGO. NOAA policy and editorial guidelines encourage brevity in national / regional focus. If it doesn't have national / regional emphasis, than it won't go out the door.  
 Woeste – cuts both ways – work done by Universities needs to be highlighted as coming from them, can't erase ID of folks who did the work.  
 Byrne – one of the things we've aimed to do is make NOAA more aware of SG – suggest might start to get some different mileage out of this if instead of 'State' Sea Grant, it was NOAA supporting X university. Follow up discussion later.
- #7: Review of past reports. We still use the Whitman plan – still relevant. Given resource limitations, feel resources better directed at moving forward. (Have responded to all past recommendations – have enacted ones NSGO felt could take on under resource & other limitations.)
- #8: Starting this, would welcome input from the Board on this effort. National messaging is a group effort.
- #9: NIMS. Working with SGA's advisory council on this.

## Research

### D. Carlson, NSGO

- In general, recommendations cover 5 areas: interaction with NOAA leadership from program managers and up; helping programs maintain, improve & sell research partnerships; helping programs find ways to maintain strength and quality of research portfolios in face of budget constraints; promoting SG to universities and NOAA; removing unnecessary administrative burdens.
- #1: Leadership of NOAA – put together team to look at national focus of SG and specifically research portfolio. Agree this would be good idea. Have done a lot of work to address national focus of SG. Too early to say we're done, so strategy of response is to keep doing this. Not working on task force specifically – NOAA is currently working on looking at this – whatever they find, we will apply to SG.
- #2; help NOAA find better ways to utilize strengths of SG. Agree that this is important, and we are trying to do what we can to help this happen.
- #3: SG develop more meaningful partnerships with NOAA labs and improve communications. Agree this is appropriate effort. Current NSI's have actively tried to

focus on areas of interest within NOAA – develop FFO in conjunction with other NOAA programs to get proper priorities. Make case that the shift of funding to SG doesn't mean not doing NOAA focused work.

- #4: NSGO be more aggressive in promoting contribution of SG. This is done currently.
- #5: value of regional partnerships. To us this reads as recommendation to state programs.
- #6: NSGO agrees
- #7-#8: deal with budget constraints.
- Discussion by Board members of lack of response to the information in the Appendices of the report, which were rationale for the recommendations. Clarification that the NSGO was not asked to respond to appendices. Suggestion by Board to wait and see how the new OAR organization shakes out / how the strategies suggested work out over the next year.

### **Futures – J. Murray, NSGO**

- Pilot projects in Climate Adaptation. Let's discuss major issues:
  - Concern about time constraints of only 6 months –
  - Concern about having a link to the strategic approach –
- Liffmann – many shovel ready projects;
- Harris – concerned projects will not be part of a long term response; maybe providing an example in the information sent out to programs; this will help be one overall project; ideas that come out might be for micro-project; show how would go to a bigger future idea.
- Cammen – think we are talking language problem; think there was enough buzz words; trying to guide folks in that direction; maybe sending out ideas or for examples.
- Murray – should we ask for a discrete step one;
- Byrne – one or two page pre-proposal, then if on target, ask for a full proposal. Saves SG programs and NSGO time.
- Cammen – was going to give example in the SGA conference call on Friday. We want to demonstrate something for a National project. We only want a one page proposal.
- Nancy – 3 pages, ok 2 pages. Some might not work, some will work.
- Cammen – we will take group of experts to form a national group of experts that other programs can tap into.
- Woeste – could programs bring in someone with expertise to bring a program along?
- Simmons – first steps is the biggest problem for many communities/
- Murray – Mike/Leon/Murray – take a shot a rewording to capture ideas and run by Futures committee members.
- Stubblefield – have to be careful with reviews.
- Cammen – this \$1 million is going into the merit pool. Will stay in the merit pool in FY11.

### **Knauss Recommendations – M. Lugo, NSGO**

- Update briefing book with the final version of the SG Knauss response
- Work with Gordon on SG Knauss alumni stories

- Promoting “shadowing” of other fellows to learn what each other is doing
- Field trips – not for now

## **WEDNESDAY, MARCH 10**

Attendance: Rabalais and Birkholz not present

### **Call to Order, review of Agenda**

#### **THE VIEW FROM THE HILL**

##### **K. Sarri, US Senate Committee on Commerce, Science & Transportation**

- Committee has jurisdiction over ocean policy issues. This congress, theme took up is the idea of the blue economy – value of ocean and coastal communities to economies.
- Holding hearings on this, and on national ocean policy.
- For us (Cantwell, Snowe), this means starting with a strong NOAA
- Framework on spatial and marine planning has come out since this hearing
- Unsure how ocean policy will come about, but there is a focus on it
- Despite attention given to this issue, not being backed up by the budget – this is of concern. As look at addressing major ocean issues, putting a lot of mandates / responsibilities on people, but without backing it up with the necessary resources

#### DISCUSSION

Byrne – Every administration wants a new ocean policy. What do you see as elements of a national policy? Perspective that there has been a real evolution in regards to what an ocean policy is.

Sarri – That was one reason to hold the hearing – to ask this question of what are the guiding areas. I think starts at the federal level with a strong agency dedicated to working on these issues. Acknowledge importance of these issues (supportive of organic act for NOAA within Commerce). Whatever we decide for this policy, needs to be concrete .

West – Personal opinion is that it is going to take congressional action to make ocean policy happen

Sarri – Agree. There are a few challenges: Even though wealth from oceans and communities on coasts, don’t get a lot of traction on senate side for ocean issues. Up until 3-4 years ago, got a lot of work done through unanimous consent, now have republican steering committee, no unanimous consent, so every bill requires significant time on the floor. If you don’t have a block of voices calling for action, it is very difficult to bring a bill for action. Part of why pick up blue economy theme, to get folks to understand they are impacted by coastal issues even if they don’t live near them. Also trying to do drum beat for budget support of NOAA. Other effort to do better on this is to get Administration to bring bills to us. Concerning that a little over a year into presidency, and haven’t seen one bill transmitted from the Administration.

Orbach – sense that good management schemes exist - the challenge is putting everything together. Don't see good chance of congressional action on this. Sense that folks are waiting to see what comes out of these administrative initiatives.

Sarri – agree folks are sitting back to see what happens. One good thing about administrative initiative is whole idea of regional partnerships, although there is a little concern around regional partnerships. A lot of work needs to be happening at local level, but no clear idea about what regional grants will look like. If get the funding, who will it go out to, how assess it was successful, since not in existing programs, how know it is working, etc? Concern about building up expectations, not supporting it with resources, and ultimately winding up in a worse position.

Stubblefield – agencies came together on climate for common message – has this been done with oceans?

Sarri – trying to, but not there yet.

Sarri – issue with America Competes bill being limited to physical science and not include NOAA – 'blue collar' science – need education to get a better understanding of what NOAA is / does

Stubblefield – mention difficult to get heartland democrats to buy into ocean policy. A few years ago effort to ID hooks – is this still being pursued?

Sarri – yes.

Woeste – thanks from Board for speaking.

## **FOCUS TEAM LIAISON REPORTS**

### **Safe & Sustainable Seafood Supply**

#### **J. Murray, NSGO (for R. Schmitten, NSGAB)**

- Energy use in fisheries symposium (spurred by high cost of fuel). Currently putting together International symposium in Seattle in November, 2010
- Working on issue of 'Local catch'
- Input of focus team in development of aquaculture NSI. Team put together subcommittee that provided report to Leon on how to spend this funding
- National impact & synthesis stories – grouped into 5 categories (education/outreach; spatial planning' minimize bycatch mortality and .....

### **Sustainable Coastal Communities**

#### **R. Heath, NSGAB**

- In good shape at beginning because of previous SCCD initiative
- Efforts will be augmented by coastal communities climate adaptation initiative
- Extension – strong. Research & Education less so. No new financial incentives, no tradition of multi-state collaboration, social science hiatus at NSGO. May want to focus on pushing multi-state efforts.

- Leadership changes: Mike Liffman → social scientist (new hire), John Jacob → Vicky Carrusco, Josh Brown (Knauss Fellow) → Lisa Adams (Knauss Fellow)
- Overview: (1) balancing working waterfronts and coastal dependent uses with other development concerns; (2) community sustainability (defining carrying capacity, alternative energy and resource conservation to meet this, importance of management and policies to meet needs); (3) building local capacity for sustainable decision making.
- What issues should FT highlight nationally?
- What are we missing? Research on economic impacts of working waterfront and SG's impact; carrying capacity research (need for pilot projects); not taking full advantage of university SCD expertise (architecture, planning, econ.); National successes not yet being propagated (documented?); need clear communication WITHIN network; climate change adaptation/mitigation
- Where are we going? Marine spatial planning (15 stories – 11 programs); watershed planning (20/30 new staff); sustainable planning for limiting resources (e.g. water, open space, energy); alternative energy/conservation; ....
- Deliverables?
- Potential action steps: national technical support panel; convene partners to develop land use database; coastal development indicators; 'translate' climate change information

#### DISCUSSION

- In past areas of focus, Sea Grant has been big player (ex. commercial fishing); with some of these climate change issues, SG will be much smaller player since these are such big issues. SG will need to focus on partnerships / linkages
- West – do we WANT SG to be go-to place for adaptation to coastal climate change?
- Cammen – that may be over-reaching, but yes – along those lines.
- West – if so, then this should be verbalized as a goal
- Cammen – that is where we're going. Small fish in big pond – recast as small fish in barren lake. There is tremendous need that is NOT being met – not that we are out there competing with others.
- Orbach – think this could be real opportunity to grow SG, but if we do that, have to SAY we are doing that, and budget needs to dramatically increase to accommodate this.
- Simmons – demonstrate how this is already happening
- Harris – important issue isn't to have these experts in SG already, \*BUT\* the ability of SG extension to pull these outside experts in to discussions / work on the issue

#### **Hazard Resilient Communities – J. Byrne, NSGAB**

- Discussion of coastal issues and threats to coastal communities. Discussion of National Sea Grant Center for hazard resilient coastal communities – provide education and training for officials / local folks.
- List activities / recommendations

- Need to determine social & economic impacts of these. Thing often overlooked is psychological implications of hazard threats
- Results of annual meeting: a # of stories being picked up in 5 areas
- A number of other agencies also recognize these problems, and are beginning to work on solutions – partnership issues critical here

## **NOAA CLIMATE SERVICE**

### **M. Glackin, Deputy Under Secretary**

#### **BACKGROUND FOR NOAA CLIMATE SERVICE**

- Huge demand for climate information. How does NOAA adjust to meet this demand?
- Cite multiple internal & external reports related to climate services
- To meet the rising demand for climate services, NOAA move from climate research focus to a framework that better meets needs for climate service products
- Challenge is to take this on while maintaining leadership in research & observations

#### **VISSION, MISSION, GOALS AND OPERATIONS CONCEPTS**

- Vision: informed society anticipating and responding to climate and its impacts (exs: flood ready community, prepared for weather extremes, renewable / green energy information, supporting private sector industry as happened with weather service, enhancing national security)
- Mission statement: inform mitigation and adaptation decisions needed to respond to the impacts of a changing climate. Support decision makers regionally to globally on every time scale. (This will be revised to reflect science / research mission)
- Goals: continue to build, evaluate and evolve NOAA's Core competencies in 3 key areas: deliver sustained & effective services; promote partnerships; advance climate science
- NOAA's role in National Strategy: NOAA provide information internationally, nationally and regionally. NOAA recognized as leader among international community
- NOAA commits to providing critical assets in science and service to a Federal partnership. Climate observations & monitoring → climate change research and modeling → assessments of climate change and impacts → information delivery and decision support
- NOAA Climate service leadership (areas where we are the main center of federal expertise): living marine resources & ecosystems; coastal regions; water
- NOAA's enabling contributions to climate services: energy, transportation, agriculture, health. Expect this list to grow. While these are 'sectors', they are not neatly delineated – lots of overlap
- Federal regional climate service enterprise: connecting science, services and people.

#### **ORGANIZATIONAL PROPOSAL**

- Design criteria for NOAA's reorganization:
  - Goal 1: establish a climate service: establish climate leadership; enhance climate program coordination; promote user engagement on climate

- Goal 2: strengthen NOAA Science: establish science leadership; enhance cross line science coordination and engagement
- Goal 3: implement the Administrations' priorities: promote efficient implementation and operation; position NOAA to meet current and future challenges to NOAA's critical mission functions and long term strategy
- Proposed NOAA Climate Service / Science Serving Society
- Bulk of resources to create climate come from OAR. Slide of what is left in OAR.
- Looking at how to deal with these items, and also how it should look going forward. Currently have a tally – will probably look different when submit actual reprogramming package

#### STRENGTHENING SCIENCE

- NOAA's Science: innovation through integration
- Looking to have more top level direction on focus of scientific effort
- Focus on need to understand linkages of social and natural systems. Need for a more holistic approach.
- Engage NOAA's science leaders and partners to strengthen NOAA Science: support NOAA's Scientists and Science Leaders; Strengthen NOAA Labs and Science Centers; Enhance Science partnership programs

#### NEXT STEPS

- Continued engagement with partners and stakeholders to develop implementation plans
- Recruitment of regional climate leads May /June
- Evolution of climate portal
- Submission of a reprogramming package to Congress in Summer; implementation target for October 2010
- NOAA Science workshop – may occur this summer, though may get pushed back
- For more information: [www.noaa.gov/climate](http://www.noaa.gov/climate); [climateservice@noaa.gov](mailto:climateservice@noaa.gov); [www.climate.gov](http://www.climate.gov)

#### DISCUSSION

Harris – have served on NRC panel, clear that huge bulk of adaptation will fall on local governments. Hope that NOAA recognize that SG Extension service is one of greatest assets for dealing at this scale and transmitting NOAA information to these local decision makers.

Glackin – couldn't agree more. Anyone dealing with climate change is also dealing with other stressors & problems, so we need to deliver information in an integrated way. We already have SG out there talking to folks / understanding their problems, so we really need SG in understanding the regional science, and Extension out there transmitting results back.

Stubblefield – why some labs left in OAR (ex wet labs) which have as much to do with climate change as some of the ones that came out?

Glackin – rationale for that is that we do NOT have a centralized focus enough on ecosystem research, so even though labs have strong climate work, left to provide building block for this focus on ecosystems science

Stubblefield – proliferation of coastal programs – on the net positive, or is this dilution of resources?

Glackin – NOAA hasn't yet taken the steps it needs to take – some other problems (satellite, etc.) have drawn attention away. Reauthorization of CZA could help with this. So programs developed for good reasons, but NOAA is fragmented.

West – raise issue of NOAA exclusion from America Competes Act. Is leadership of NOAA aware of this / weighing in?

Glackin – argument being made now is that this has to be kept to physical science (so push back on this). Through America Competes that NOAA gets broad authorities for Education, which we MUST keep. But Board efforts on this are encouraged.

West – President's letter on investment and research historically not mentioned NOAA, this should be addressed.

Glackin – think it's going to be VERY hard to get plus ups in 2012.

West – more than plus-ups, this is about long term education of policy makers about role of NOAA.

Grau - understand rationale of keeping reorganization neat and clean, but could be good opportunity to think about how Sea Grant best serves US citizens, how it best advances NOAA's mission, etc. Would like SGA to be part of what is considered as this moves ahead.

Glackin – very welcome of any written input.

## **ENGAGED AT LAST: REVITALIZING NOAA EXTERNAL AFFAIRS**

### **A. Winer, Director of NOAA External Affairs**

- Position had been allowed to wither – trying to revitalize this office within NOAA.
- Looking Back: 2008 SAB Working Group on Engagement provided comprehensive set of recommendations for how NOAA can improve in this area (indictment of current activities)
- Agency Response: extensive review of document; Dec 2008 - engagement strategy; September 2009 - detailed written response. But lack of central galvanizing point within agency.
- Question of how things change under new administration: embracing engagement. White House renamed Office Public Liaison to the “office of public engagement and intergovernmental affairs.”
- Strategic approach: come up with ability to knit together existing efforts so folks are working together. Put together in set of recommendations “Revitalizing NOAA External Affairs”
- Did inventory of the tool box – determine what products and strategies exist to promote common agency-wide messages
- Key Actions: significant expansion of the NOAA Regional Collaboration framework as an engagement network at the local level; agency-wide engagement training program to be established in 2010; coordination of outreach, communications, education via the

ECE, Constituent Affairs Network, Communications Committee and Regional Teams; evaluating the impact of engagement by monitoring the NOAA Climate Portal, Facebook, and using the Kellog rubric; Executive Committee On Engagement meetings (SG represented there); Best practices reviewed regularly; engagement added to SES annual performance plans (15%); in process of setting up central customer relations management system; funded series of regional pilot or demo projects with partners – NOAA mini grants: FY10 were SG focused projects; full implementation of NOAA External Affairs Plan adopted by NOAA Leadership

- Strengthening External Affairs: create career Deputy Director of External Affairs and add staff – institutionalize this position, so career position; customer relations system (Database); support for exhibits program; expanding NOAA Speakers Bureau; External Affairs web site; integrated and strategic approach to communications, intersecting with education, line offices, extension, regional teams; agency-wide planning for engagement
- Current staff structure - 9 people (database admin currently vacant)
- Vision: provide communications policy input; organize stakeholder meetings and events; identify potential problems and develop proactive strategies; deploy leadership to events and engagement opportunities; interact with others in DOC and Fed family; develop engagement elements in AGM priorities; link and communicate constituent positions to NOAA priorities
- Philosophy and Mission: Evolve into a creative force within NOAA that markets the people behind our science, service and stewardship missions; be the incubator for creative ideas that will inform the public and stakeholders; develop strategic partnerships and outreach efforts that will help our constituents feel that they are co-owners of the enterprise as well as the missions and goals of the organization; be responsive to stakeholder needs and convey their input to NOAA leadership

#### DISCUSSION

Harris – NOAA has never realized asset of SG and SG extension service – not even always recognized as part of NOAA. suggestions for ways to build / develop that relationship.

Winer – invitation back to this group, lets figure out how to get together to figure this out

Harris – when SG issues press release about initiatives, NOAA often deletes mention of university and often of SG – this detracts from the partnership

West – one of problems OMB has is that they bring program over but without identifying partners. External Affairs needs to get involved with budget process, and keep partners identified.

Winer – didn't emphasis it, but were involved in budget process

Byrne – auspicious time – seeing better integration of SG activities with NOAA agenda. Value of SG extension – not a substitute for what NOAA needs, but an adjunct. NOAA has arcane structure, and solutions to different problems come from different areas.

Orbach – way to get funding to address specialized needs outside the beltway?

Winer – unlikely to be more funding, but working at regional level to get folks who can meet some of those needs. However this is one of the areas in need of attention

Orbach – some benefit to retraining individuals to take on additional requirements, but at certain point need to dedicate specific funding for specific resources

Winer – will be assessing this, especially as requests for help come up from the regions. Part of conversation that still needs to take place between HQ and regions.

## **UPDATED ALLOCATION OF FUNDS POLICY: A CHARGE TO THE BOARD**

### **L. Cammen, Director, NSGCP**

- When SG started, only 5 programs, and they were 5 major oceanographic institutions. Idea that as SG expanded, bring in universities from other states. At beginning there was no assumption of only one program / state. Over time brought in additional programs, but the growth in funding didn't occur at the same rate. Result: more programs = less resources / program. Over time allocation of base funding to programs has grown out of a series of complex decisions: peer review, competition, etc. Sea Grant is at the point now where it is striking that some programs are significantly larger than others. This is a problem without a solution- there is no single 'best' answer.
- Bottom line: ALL programs are underfunded.
- New legislation in 1998 set up performance based funding allocation. At that time reviewed process for allocating funding – not just between funding, but between programs v. national initiatives etc.
- Generation of an initial allocation of funds policy in 2003. As did this, 2002 legislation came out with mandate for competitive awards. Policy had 4 areas for funding: programs base, merit funding based on performance, national strategic investments (now includes regional), national program development. Report said should review this strategy prior to the next reauthorization, which did not happen.
- 2008 reauthorization looks slightly different. No longer says award funding based on rankings, but still needs to be based on performance. What this means is all programs can be operating at the top level – remove need for fine gradations among great work.
- Other issue is size of the various programs. Getting to the point (inflation, stable funding), where there are programs that are on the edge of viability – there is a minimum funding size below which a program is simply not effective.
- It is time to go back and revisit the allocation policy. Time to take a real look about how we are allocating funds, not just amongst programs, but to these other initiatives.
- Last time Sea Grant did this, it was set up and mandated by the Director – not a Board Activity. Preference now is to do this as a charge to the Board to get advice on this issue.

### DISCUSSION

Stubblefield – may want to consider a more regional approach as opposed to state programs. Not suggesting SHOULD do this, but may need to consider this under current funding regime.

Suggest give hard look at difficult questions beyond just allocation of funds. And SGA would need to be integral partner with this.

Cammen – agree. Have sent around draft charge. Built into this is that it is open ended. When I talk about allocation of funding, it includes these considerations – don't HAVE to continue with current operating model. However, the bigger the change, the more justification is needed and the more push back will result. Hope to have draft in place by SG week, with final version by Spring meeting 2011.

Woeste - Director asking to charge Board with reviewing this. Ask Board to review charge, and decide whether to accept charge or not. Also address Directors proposal for procedure to move forward – let by the Board with 2 Board, 2 NSGO, 2 SGA.

West – clarification that 2<sup>nd</sup> bullet means looking for a plan that provides sufficient funding for any plan suggested.

Byrne – this committee will provide advice as to what they believe the right policy to be, but policy decisions are up to the program director.

Stubblefield – well served to expand make up to include someone from NOAA.

Cammen – as part of last reauthorization, legislation explicitly gives the Board the right to set up subcommittees without restrictions on membership.

Orbach – not comfortable accepting this until clear on a few more items. No time to go out to constituents by Oct. If this is envisioned as a thought exercise, then should bring a number of alternatives to the Oct. meeting, then move forward from there in a consensus building exercise, aiming for some final recommendation by the spring – would be more comfortable with this.

Cammen – that sounds very much like what had in mind. Think asking a lot to come in with a single recommendation by Oct – had imagined there might be a couple of different options.

Reminder: the more we change things, higher the bar to actually make it happen.

Orbach – intended that Board lead this exercise – what does that mean?

Woeste – chair of committee would be Board member. Board Chair appoints Committee Chair.

West – totally support this. However need to be concerned that this not preempt the new PIE process.

Byrne – motion is to accept the charge. Think should respond one way or another to requests from Director – think this is appropriate charge. Think should accept this, but not necessarily agree to accept the Implementation suggestion.

Stubblefield – See the 1<sup>st</sup> objective as pretty straightforward. But #2 is more complicated.

Orbach – timing as presented here, go public with this discussion in middle of PIE process – wonder if this create more consternation than necessary – need to think about whether this is an issue

Cammen – not looking for system to evaluate performance

West- consider pulling bullet #2?

Vortmann – the Board has the option to consider whatever they want from what we are charged with

Stubblefield – removing item #2 limits the scope of the study.

**MOTION to accept the task, allowing for future tweaking to the charge. (Simmons, Heath - 2<sup>nd</sup>). MOTION CARRIES, not quite unanimous. (motion passes the idea of doing this.)**

## **OTHER BOARD BUSINESS / FOLLOW UP ACTION ITEMS**

### UPCOMING BOARD MEETINGS

- Summer 2010 Board Meeting.  
**MOTION to change proposed meeting in RI to a publicly advertised conference call (Simmons, Orbach)). No discussion. Unanimous aye.**
- SG week, New Orleans, Oct 14-20
  - Suggest Sat 16<sup>th</sup> / Sun 17<sup>th</sup> for Board meeting
  - Think in terms of full day on sat and sun AM – all network meetings will be sun PM
  - Sat PM will be concurrent sessions for SG week
  - **Carry over resolution for Manny Hernandez until SG week**
- Spring 2011 meeting
  - Set for March 8-9, 2011 (Tue-Wed). Leaning towards a meeting in DC, but final location to be decided at a future point.

### NOAA AS A SCIENCE BASED AGENCY

- **MOTION – Board Approve chairman write memo that relays sense of Board of NOAA as a Science based service agency. Send up the line through NOAA with copy to Kris Sari (Woeste, Byrne). All Ayes.**

### FUTURES COMMITTEE

- Harris to send 1 paragraph synopsis of Futures Committee Report to Woeste to transmit to Mary Glackin.
- West – Futures committee report was very useful and helpful, but need a follow up document that does not give impression that this is a request for money. **MOTION to continue Futures Committee in its efforts to further define the role of Sea Grant in NOAA's mission (West, Harris). All ayes.**
- Stubblefield – current future committee is definite as Board as a whole – are we generating a sub committee? Yes. **Woeste will appoint sub committee.** Thinking 3 people, would appreciate volunteers, as well as for the Budget allocation issue.
- Suggestions for members of Futures sub-committee: representative from SGA and Eileen's office – proposal for this to be Grau and Eileen. Additional Board members include Orbach and Heath.

### RESOLUTION FOR DICK WEST

**Whereas:** During the past 2 years the National Sea Grant Advisory Board has contributed significantly to securing the enactment of the Sea Grant Act of 2008 and to enhanced governance, programmatic performance in the National Sea Grant College Program.

**Be it Resolved:** that the National Sea Grant Advisory Board, hereby, with great pleasure and sincere appreciation, acknowledge the leadership and many significant contributions made by Rear Admiral Richard West during his tenure as Advisory Board Chair.

**MOTION (Woeste, Byrne). Unanimous passage / all ayes.**

NSGO and SGA express thanks and appreciation for hard work.

**ADJOURN PUBLIC MEETING**

U.S. DEPARTMENT OF COMMERCE  
CHARTER OF THE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL SEA GRANT ADVISORY BOARD

- 1. Committee's Official Title.** National Sea Grant Advisory Board
- 2. Authority.** The National Sea Grant Advisory Board (the "Board" hereinafter) was established by the Secretary of Commerce as directed by Section 209 of the National Sea Grant Program Act of 1976, as amended, 33 U.S.C. 1121 *et seq.* (the "Act" hereinafter). Initially chartered in 1976 under the Federal Advisory Committee Act, (5 U.S.C., App.) the Board is hereby rechartered under the same Act. The terms used in this charter shall have the same meaning as prescribed in the Act, as amended.
- 3. Objectives and Scope of Activities.** The Board shall advise the Under Secretary of Commerce for Oceans and Atmosphere (the Under Secretary), acting for the Secretary of Commerce pursuant to Section 1122 (15) of the Act, and the Director of the National Sea Grant College Program (the Director) and meet with the Secretary of Commerce as appropriate on matters related to the responsibilities and authorities set forth in the National Sea Grant Program Act. The Board should address issues appropriate for a Federal Advisory Committee serving the National Sea Grant Program.
- 4. Description of Duties.** Sea Grant topics the Board should address include: developing strategies for utilizing the National Sea Grant College Program to address the Nation's highest priorities regarding the understanding, assessment, development, management, utilization, and conservation of ocean, coastal, and Great Lakes resources; the designation of sea grant colleges and sea grant institutes; and such other matters as the Secretary refers to the Board for review and advice. The Board shall report to the Congress every two years on the state of the National Sea Grant College Program. The Board shall indicate in each such report the progress made toward meeting the priorities identified in the strategic plan in effect under section 204 (c). The Board may exercise such powers as are reasonably necessary in order to carry out its duties. The Board shall function as an advisory body in accordance with the Federal Advisory Committee Act.
- 5. Agency or Official to Whom the Committee Reports.** The Board shall report to the Under Secretary, acting for the Secretary of Commerce pursuant to Section 1122 (15) of the Act.
- 6. Support.** The National Sea Grant Office, National Oceanic and Atmospheric Administration (NOAA), shall make available to the Board such information, personnel, and administrative services and secretarial assistance as may be required to accomplish duties and provide a Designated Federal Officer (DFO) for the Board.
- 7. Estimated Annual Operating Costs and Staff Years.** The annual cost of operating the Board is estimated to be \$325,000, 1.5 FTE staff support per annum.
- 8. Designated Federal Officer.** The DFO will be a full-time employee of the National Sea Grant Office and will be appointed by the Director of the National Sea Grant College Program in

accordance with agency procedures. The DFO will approve or call all of the Board's meetings, prepare and approve all meeting agendas, attend all Board meetings, adjourn any meeting when the DFO determines adjournment to be in the public interest, and chair meetings when directed to do so by the Director.

**9. Estimated Number and Frequency of Meetings.** The Board shall meet on a biannual basis and, at any other time, at the call of the Chairperson or upon the request of a majority of the voting members or of the Director, with approval by the DFO.

**10. Membership and Designation.** The Board shall consist of fifteen voting members, appointed by the Under Secretary, acting for the Secretary of Commerce pursuant to Section 1122 (15) of the Act, in accordance with the provisions and prohibitions of Section 1128(c) of the Act. Members will be selected on a clear, standardized basis, in accordance with applicable Department of Commerce guidance. The Director and a Director of a Sea Grant Program, who is elected by the various Directors of Sea Grant Programs, shall serve as nonvoting members of the Board.

Not less than eight of the voting members of the Board shall be individuals who, by reason of knowledge, experience, or training, are especially qualified in one or more of the disciplines and fields included in marine science. The other voting members shall be individuals who, by reason of knowledge, experience, or training are especially qualified in, or representative of, education, marine affairs and resource management, extension services, state government, industry, economics, planning, or any other activity which is appropriate to, and important for, any effort to enhance the understanding, assessment, development, utilization, or conservation of ocean, coastal and Great Lakes resources.

A full term of office of a voting member of the Board shall be four years. A voting member may be reappointed to no more than one additional full term. The Director may extend the term of office of a voting member of the Board once by up to one year. Board members will serve at the discretion of the Under Secretary, acting for the Secretary of Commerce pursuant to Section 1122 (15) of the Act. At least once each year, the Secretary shall publish a notice in the *Federal Register* soliciting nominations for membership on the Board.

The Board shall select one voting member to serve as the Chairperson and another voting member to serve as the Vice Chairperson. The Vice Chairperson shall act as Chairperson in the absence or incapacity of the Chairperson. Voting members of the Board shall receive compensation at a rate established by the Secretary, not to exceed the maximum daily rate payable under section 5376 of title 5, United States Code when actually engaged in the performance of duties for the Board, and shall be reimbursed for actual and reasonable expenses incurred in the performance of such duties. Voting members will be subject to ethical standards applicable to special government employees.

**11. Subcommittees.** NOAA may establish such subcommittees, task forces, and work groups consisting of Board members and/or outside experts as may be necessary. Chairs of subcommittees, task forces or work groups shall be selected by and serve at the discretion of the Board. All subcommittee work must be forwarded to the full Board for actual deliberation. Only the Board may advise NOAA.

**12. Recordkeeping.** Records of the Board, formally and informally established subcommittees, or other subgroups of the Board, shall be handled in accordance with General Records Schedule 26, Item 2 or other approved agency records disposition schedule. These records shall be available for public inspection and copying, subject to the Freedom of Information Act, 5 U.S.C. 552.

**13. Duration/Termination.** This charter will terminate two years from the date of its filing with the appropriate U.S. Senate and House of Representatives oversight committees unless earlier terminated or renewed by proper authority. As required by Section 5(h)(4) of the Act, the Secretary shall consult the Board with regard to termination or extension of the Board.

  
\_\_\_\_\_  
Chief Financial Officer and  
Assistant Secretary for Administration

9.10.10  
\_\_\_\_\_  
Date

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# NATIONAL SEA GRANT ADVISORY BOARD

## Procedures Manual

### Preamble

The Advisory Board consists of 15 members appointed by the Secretary of Commerce. The process of selecting new members begins in part with approved proposals of the Advisory Board's Membership Committee being submitted to the National Sea Grant Program Director, National Sea Grant Office (NSGO).

The Director of the National Sea Grant College Program and a Director of a Sea Grant program who is elected by the various directors of Sea Grant Programs [usually the Sea Grant Association (SGA) President] serve as nonvoting members of the Advisory Board. The Board meets twice a year, a minimum requirement of the National Sea Grant College Program Act, as a full Advisory Board. The Board can meet in additional sessions as required and announced in the Federal Register. Members with various subcommittee assignments and responsibilities participate in activities through the year that do not require announcement in the Federal Register.

The Advisory Board's general responsibilities include advising the Secretary of Commerce, the National Oceanic and Atmospheric Administration (NOAA) Administrator, and the Director of the National Sea Grant College Program in reference to various aspects of the Program, in addition to conducting reviews and evaluations.

The Advisory Board takes an active role in the Sea Grant Community that includes the Sea Grant Association (SGA), and individual Sea Grant programs, by means of recommendations made to and assignments from the National Sea Grant Office (NSGO). The Advisory Board may also participate in activities such as Sea Grant Week, Leadership Retreats, Focus Teams, the Assembly of Sea Grant Extension Program Leaders, the National Sea Grant

Communications Network and other similar activities approved by the National Sea Grant Office.

As specified by Congressional authorization, Advisory Board members are to serve for a 4-year term, renewable for an additional 4 years. The Director may extend the term of office of a voting member of the Board once by up to 1 year.

At a minimum, Advisory Board members are expected to attend and participate in at least one full Advisory Board meeting per year. Barring extenuating circumstances, consideration will be given to requesting the resignation of any Advisory Board member who does not attend and participate in at least one full Advisory Board meeting per year

Advisory Board members will follow the guidelines and requirements that are stipulated in the standard Conflict of Interest Statement that is signed by Advisory Board members, and any other guidelines and requirements that are based upon a statute, regulation or official agency policy that are required for FACA committees.

An Advisory Board member may not participate in a Performance Review Panel (PRP) if such Advisory Board member serves on an advisory or similar committee that is associated with an individual Sea Grant Program or a Consortium Sea Grant Program. Advisory Board members who serve on an advisory or similar committee for an individual Sea Grant Program or a Consortium Sea Grant Program, or who are otherwise similarly associated, must resign from such committee or association prior to participation in a PRP.

An Advisory Board member may not participate in, or be otherwise involved or associated with, or be a beneficiary of, financial or otherwise, a research project that involves Sea Grant funds. However, an Advisory Board member who, on the date on which the Advisory Board takes official action to adopt this provision, participates in, or is otherwise involved or associated with, or is a beneficiary of, financial or otherwise, a research project that involves Sea Grant funds, must discontinue such participation, involvement or

association no later than one year from the date on which the Advisory Board takes official action to adopt this provision.

## **Advisory Board Internal Procedures**

### **A. Officers**

The Advisory Board elects two officers, a Chair and a Vice-Chair (or Chair-elect). The Chair and Vice-Chair serve for a period of two years. The Chair also chairs the Executive Committee and represents the Advisory Board in making recommendations to the Executive Committee for actions by the Advisory Board when the full Advisory Board is not engaged. The Chair and Vice-Chair are elected by the body as a whole from a list submitted by the Nominating Committee.

### **B. Standing Advisory Board Committees**

Executive Committee - The Executive Committee is to consist of 4 members, the Advisory Board Chair, Vice-Chair (Chair-elect), the most recent Past Chair, and a Member-at-Large from the Advisory Board. The terms of office on the Executive Committee membership shall be for two years in each position. The Advisory Board Chair may add additional members from the Advisory Board to the Executive Committee for one year appointments as circumstances require. The Member-at-Large reports monthly by email to the Advisory Board on all Executive Committee activities during that month.

Under no circumstances shall the Executive Committee or other committees vote on any issue, this power being the exclusive responsibility of the full Advisory Board. The Advisory Board may vote to Authorize the Executive Committee to conduct assignments to represent the full Advisory Board (but not voting itself) as required.

It is recognized that conference calls severely restrict discussion of important matters and issues by large groups. Nonetheless, it is also noted that matters and issues sometimes must be voted on a critical time scale that would not allow a full Advisory Board meeting in person. The following rules and guidelines for Advisory Board conference calls are to

be followed if such circumstances occur.

1. When such a topic must be decided by vote of the full Advisory Board on a conference call, an outline of the matter or issue(s) must be provided sufficiently in advance to the Advisory Board members by email, mail, or individually.
2. After appropriate procedures (FACA) are followed to make a conference call become an official Advisory Board meeting, the call will be conducted as though it were a normal Advisory Board meeting. The Chair shall conduct the meeting in a formal sense according to Roberts Rules to the extent possible. Any discussion by Advisory Board members shall be by request to and designation by the Chair. All Advisory Board members on the conference call will be asked individually by the Chair for comments or discussion, and all discussion shall be recorded or noted by a person acting as Secretary.

Nominating Committee: - Nominations for Advisory Board Officers are proposed to the full Advisory Board by a Nominating Committee consisting of the Advisory Board Chair and two members of the Advisory Board chosen as result of an Advisory Board voted motion. No member of the Nominating Committee may be considered for re-nomination unless any such member (including the current Chair) shall be recused from the Committee during such considerations. The Nominating Committee composes a proposed slate at some time other than during a full Advisory Board or Executive Committee meeting, and circulates the proposed slate in advance of the election of officers. The slate normally includes the current Chair-elect as incoming Chair. Election of the Advisory Board Chair, Vice-chair (Chair-elect), and member at large is usually conducted every two years at the Advisory Board's fall meeting, with the new officers beginning official duties on January 1 of the following year. The Vice Chair assumes the responsibilities of the Chair in the event of premature resignation or unavailability of the Chair.

Advisory Board Membership Committee - Periodically, as requested by the National Sea Grant Director, an Advisory Board Membership Committee is formed consisting of no less than three Advisory Board Members appointed by the Chair. The Advisory Board Membership Committee solicits nominations and reviews those nominations to determine if the qualifications

of the nominees generally satisfy the legislative requirements for Advisory Board membership. Names of all qualified nominees from the Advisory Board Membership Committee are submitted by the Advisory Board to the Director of the National Office for consideration.

Minority Serving Institution Committee - The Minority Serving Institution Committee reviews and makes recommendations to the Advisory Board concerning increasing the participation of Minority Serving Institutions within the Sea Grant program and within NOAA as a whole.

Topical Advisory Teams (TATs). A visit by a Topical Advisory Team can be requested by any party (within the Sea Grant Program), but because TAT visits are not mandatory, both the director of the host Sea Grant program and the Director of the NSGO must mutually agree to conduct a TAT visit.

Other Reviews. The Advisory Board can elect to review other elements of the Sea Grant program (e.g., extension, administration, communications, etc.).

Position Papers: The Advisory Board may request members to develop white papers or other positions as needed. Advisory Board decisions are normally made by consensus and where votes are necessary, the majority will govern. Roberts Rules of Order are used.



## National Sea Grant Academy: Building Professional Capacity While Increasing Network Collaboration

One of the goals of the National Sea Grant College Program is “to produce a highly trained workforce.” This goal should include an investment internally, to ensure that professionals in the Sea Grant Extension network are technically trained to design, implement, and evaluate effective extension, technology transfer, and education programs that meet the needs of the marine and coastal clientele groups that they serve.

In 2001, the Assembly of Sea Grant Extension Program Leaders produced *Fundamentals of a Sea Grant Program*. This publication covered the “basics” needed by network program leaders to carry out and manage an effective outreach program.

The Assembly also recognized the need for an intensive “face-to-face” training of newly hired Sea Grant Professionals that would contribute to their professional development by providing a foundation in the NOAA Sea Grant culture, and fundamentals of Sea Grant extension philosophy and skills.

Through discussions between the Assembly and the National Sea Grant Office, the first Athelstan Spilhaus National Sea Grant Academy was convened in 2005.

Thirty extension professionals from 21 Sea Grant Programs participated in the first academy. A second academy was convened in 2009, with 32 extension professionals from 20 states in attendance, as well as a participant from Japan.

Leveraging of funding sources and partnerships provided the means for the academy to occur. The National Sea Grant Office, the Assembly, and each participating Sea Grant program provided support for



2009 Academy participants complete a strategic planning exercise. Florida Sea Grant photo.

this two-week program. The NOAA Coastal Services Center and the Florida, Illinois-Indiana, Louisiana and Maryland Sea Grant programs provided staff who served as Academy coordinators and trainers.

### Impacts, Outcomes and Benefits

Participants were surveyed following Academy to see if overall goals were met.

- 1) *To improve the knowledge and skills needed for professionals working in Sea Grant Extension.* 100% indicated that this objective was met extremely well or very well.
- 2) *To provide information critical to your career as a Sea Grant professional.* 91% indicated that this objective was met extremely well or very well.
- 3) *To provide a national perspective on the role of Sea Grant within NOAA and the Department of Commerce.*

(continued)

90% indicated that this objective was met extremely well or very well.

4) *To instill a Sea Grant ethos among Academy participants.* 100% indicated that this objective was met extremely well or very well.

5) *To encourage the pursuit of lifelong learning.* 86% indicated that this objective was met extremely well or very well.

Graduates of the program have assumed new leadership positions. Six graduates are now Sea Grant Extension directors or assistant directors (TX, LA, NH, IL-IN, MN, PA).

All participants recommended that new Sea Grant extension professionals attend the Academy.

## What Participants Have To Say

One of the measurements of success is how the individuals perceived the utility of the training, as well as how they are now using the new knowledge and skills. All participants have indicated that they are using the information in their extension activities. Selected comments from participants from a follow-up survey conducted one year after the 2005 Academy.

“...I feel that because of the Academy experience I have had the confidence to try more challenging extension programs that may have otherwise been too overwhelming without the proper strategic approach or facilitation skills. Additionally, regional efforts in my extension area have been greatly enhanced through networking with other specialists in my region. As a new extension specialist, the Academy provided me with the fundamental principles of how to be a successful extension professional...” (2005 participant, South Carolina).

“...I feel this training has pushed me forward several years-worth of experience and knowledge. I am a more effective educator because of the training...” (2005 participant, Minnesota).

“...I have used the logic model to write a grant and received funding. I set goals and objectives for a two-day workshop and conducted evaluation of a workshop. This was an invaluable experience. I now have a network of people to contact for



2009 students learn hands-on techniques for conducting on-the-water exercises. Florida Sea Grant photo.

***“...I was able to apply my training when I facilitated a multi-statewide (and \$20 million study) rollout of the results of a 10-year study of contaminants in Lake Michigan to managers in 4 states. Without this training I doubt I would have been as confident or effective in this effort...”***  
***(2005 participant, Illinois-Indiana).***

collaboration, advice, and support since we work on similar projects throughout the country. Having this network helps you to look outside of the geographic area you work into see the larger goals you are working toward...”(2005 participant, University of Southern California).

“...The academy was invaluable! It was particularly valuable to “pick the brains” of the veterans in a setting where they could provide their full attention. Funding the academy as a yearly or every-other-year basis should be a very high priority for Sea Grant and NOAA! The use of the logic model, meeting planning and facilitation are two (of the things I use). I’m sure I have used about everything covered in one way or another...” (2005 participant, New Hampshire).

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**Contact:**  
Mike Spranger, Associate Director  
Extension and Education  
spranger@ufl.edu



## National Sea Grant College Program



March 26, 2010

To: John Woeste, Chair, National Sea Grant Advisory Board

From: Leon M. Cammen, Director 

Subject: Charge to the National Sea Grant Advisory Board to Review Policies and Criteria for Allocating Sea Grant Funding Resources

**Purpose:** To develop policies and criteria for allocating Sea Grant funding resources that will be consistent with Sea Grant's legislative authority and will maximize the effectiveness, efficiency, and impact of the National Sea Grant College Program.

### Background

Following the 2002 reauthorization of the National Sea Grant College Program, a policy document, "*Policy for the Allocation of Funds, FY 2003 and Beyond*," was developed by a joint committee of the National Sea Grant Review Panel, the Sea Grant Association (SGA), and the National Sea Grant Office (NSGO) to guide the allocation of appropriated funds in a manner consistent with the new legislation. The policy established four categories for Sea Grant's funding allocation: program base funding; merit funding; national competitions; and support for new programs. Almost a decade has passed since that policy was put in place, and there is new legislative language from the 2008 reauthorization that impacts the allocation of funds. In addition, state austerity budgets, coupled with years of relatively flat Federal funding and continued inflation, have increased the financial pressure on all state Sea Grant Programs. This has been especially difficult for the smaller programs that have less ability to absorb budget cuts.

Sea Grant's 2008 reauthorization (P.L. 110-394) requires that the Director, "subject to the availability of appropriations, allocate funding among sea grant colleges and sea grant institutes so as to —

- (i) promote healthy competition among sea grant colleges and institutes;
- (ii) encourage collaborations among sea grant colleges and sea grant institutes to address regional and national priorities established under subsection (c)(1);
- (iii) ensure successful implementation of sea grant programs;
- (iv) to the maximum extent consistent with other provisions of this Act, provide a stable base of funding for sea grant colleges and institutes;
- (v) encourage and promote coordination and cooperation between the research, education, and outreach programs of the Administration and those of academic institutions; and
- (vi) encourage cooperation with Minority Serving Institutions to enhance collaborative research opportunities and increase the number of such students graduating in NOAA science areas; and ensure compliance with the guidelines for merit review under subsection (c)(2)."

The legislation further provides that "In any fiscal year in which the appropriations made under subsection (a)(1) exceed the amounts appropriated for fiscal year 2003 [\$62.4M] for the purposes described in such subsection, the Secretary shall distribute any excess amounts (except amounts used for the administration of the sea grant program) to any combination of the following:

- (1) sea grant programs, according to their performance assessments;

- (2) regional or national strategic investments authorized under section 204(b)(4) [33 USCS § 1123(b)(4)];
- (3) a college, university, institution, association, or alliance for activities that are necessary for it to be designated as a sea grant college or sea grant institute; and
- (4) a sea grant college or sea grant institute designated after the date of enactment of the National Sea Grant College Program Act Amendments of 2002 [enacted Nov. 26, 2002] but not yet evaluated under section 204(d)(3)(A) [33 USCS § 1123(d)(3)(A)].”

The 2009 NSGO policy document entitled “*National Sea Grant College Program Evaluation*” described the process for evaluating the performance of Sea Grant programs and using those evaluations to allocate the available merit funds among the programs. However, it did not address the larger issue of the appropriate size of the merit funding pool relative to base funding for the programs. The National Sea Grant Advisory Board’s 2009 report, “*Sea Grant Research*,” considered several alternative models for funding allocation, outlining the positive and negative aspects of each, but did not make any recommendations regarding their potential adoption.

It is time to reconsider Sea Grant’s current allocation policy and determine whether it is still appropriate or whether we need to make changes in the way Sea Grant supports its local, state, regional, and national programming.

### **Charge to the National Sea Grant Advisory Board**

The National Sea Grant Advisory Board should provide advice on an overall policy and criteria for allocating funding resources for Sea Grant programs and initiatives that will maximize the effectiveness, efficiency, and impact of the National Sea Grant College Program and be consistent with Sea Grant’s legislative authority. The allocation policy will need to meet the following objectives:

- Provide guidance for the allocation of funding among base programs, merit funding, regional and national strategic investments, and national program development
- Ensure that all Sea Grant programs will have sufficient resources, to the extent overall funding allows, to function effectively in their respective environments

In developing recommendations for the allocation policy, the Advisory Board should consider alternative models for allocating resources than the current policy, including those presented in the recent “*Sea Grant Research*” report. The Advisory Board should also consider whether guidelines are appropriate for the allocation of resources within Sea Grant programs for research, education, etc. and if so, what form those guidelines might take.

### **Participants**

This policy review should be carried out by the Advisory Board through the appointment of an appropriate subcommittee. The subcommittee should include representatives from the Sea Grant Association and the National Sea Grant Office and may include any other individuals who could provide useful perspective both from within and external to the Sea Grant network. The National Office is prepared to provide staff support and travel funds as necessary to facilitate the subcommittee’s discussions.

### **Potential Schedule**

A draft policy recommendation, with or without options, should be available for discussion at Sea Grant Week in October 2010 and should be finalized by the spring 2011 Board meeting.



*The*  
**University of Mississippi**

Oxford • Jackson • Tupelo • Southaven

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E-mail: sealaw@olemiss.edu

January 19, 2010

Sylvain De Guise  
Director, Connecticut Sea Grant College Program  
University of Connecticut - Avery Point  
Marine Science Building  
1080 Shennecossett Road  
Groton, Connecticut 06340-6048

Re: Sea Grant Legal Network's Response to the NSGAB Futures Committee's Report

Dear Sylvain,

Thank you for facilitating this opportunity to submit comments to the SGA on the recent reports of the National Sea Grant Advisory Board. Because of its particular relevance to our work, the Sea Grant Legal Network chose to focus on the Futures Committee's Report to the Board.

While we agree with many of the recommendations of the Futures Committee regarding Sea Grant's funding and branding, the Legal Network is troubled by the Futures Committee's apparent lack of awareness of existing Sea Grant climate change programming. The Committee's recommendations for a "Climate Change Mitigation and Adaptation Initiative" suggest that Sea Grant is not currently addressing these issues in the local communities. That is not the case. Given that there are several new NSGAB members, the Legal Network urges the SGA and the individual Sea Grant directors to consider how the NSGAB might be better informed about Sea Grant programming. Projects and outcomes are highlighted in each program's annual report, but those are not the most efficient means of providing information. Webinars, for instances, could be used to inform NSGAB members of emerging initiatives and recent impacts.

Many Sea Grant programs already have the specialists the Futures Committee recommended that NSGO hire on staff. For instance, North Carolina has a regional climate extension specialist, a coastal construction and erosion specialist, and a coastal law, policy, and community development specialist. Illinois-Indiana Sea Grant has an environmental planning specialist. Under the auspices of the Sea Grant Assembly, ninety Sea Grant specialists working on coastal planning and urban infrastructure have become members of the Sustainable Coastal Community Development Network. The newly formed Sea Grant Climate Network, which is open to the entire network (educators,

communicators, extension agents, etc.), has 262 members. These specialists are on the front lines of policy development, water quality planning, land use planning, and climate change mitigation and adaptation. It seems unnecessary and potentially redundant to hire new people to do work that can be (and is being) done by specialists already.

The Legal Network believes Sea Grant already has a “national reservoir of experts [that] would be available to advise local governments in the assessment of their climate change vulnerabilities and in planning to meet their adaptation challenges.” What we need are mechanisms to coordinate the efforts of those experts and facilitate information sharing. The SCCD and the Climate Network are important first steps towards such coordination and communication, but those are “bottom-up” efforts. A “top-down” approach is also needed.

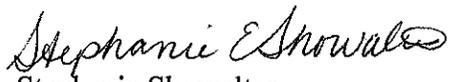
The Legal Network urges the NSGAB to consider how such a climate change initiative could be supported by the NSGO and the Sea Grant network while utilizing existing programs and specialists. For instance, the existing Sea Grant climate change programming would benefit from a comprehensive national plan identifying research and extension needs and outlining a path forward. An NSGAB recommendation that such a plan be developed by the NSGO with the assistance of SGA and the individual networks could go much further in establishing the National Sea Grant College Program as a leader in this area than hiring specialists to work in Washington, D.C. Furthermore, national “outside” experts are not always accepted by the local communities undertaking planning efforts, as evidenced by coastal Mississippi’s rejection of many plans developed by national experts (with local community participation) following Hurricane Katrina.

The Futures Report would also have benefited from a clearer statement about what Sea Grant’s role can be in general and how crucial we are to achieving meaningful changes in ocean and coastal management to ensure the sustainability of vital resources for future generations. As state and local governments begin to address the impacts of climate change, Sea Grant’s role should be what it has always been – a neutral broker and facilitator. Sea Grant is able to serve this role, unlike other entities, because we have access to so many stakeholders, funding and endorsement from the federal government, and the neutral, academic link. The programs within the Legal Network support these efforts by providing law and policy expertise where little currently exists and training the next generation of professionals to be fluent in ocean law and policy. This unique role should be highlighted whenever possible.

Finally, the Legal Network urges the Futures Committee and the NSGAB to consider the role Sea Grant can play in marine spatial planning and management. While there are links to community sustainability and climate change adaptation, marine spatial planning as contemplated by the Ocean Policy Task Force may involve different planning processes. As the Task Force’s plan is finalized, federal agencies, state coastal management programs, and local governments will have to implement this new framework. They will need all the help they can get.

Thank you again for the opportunity to comment. I hope the PMC and SGA find these comments useful as they prepare their response to the NSGAB.

Sincerely,

A handwritten signature in cursive script that reads "Stephanie Showalter". The signature is written in black ink and is positioned above the printed name.

Stephanie Showalter

Director, National Sea Grant Law Center

Chair, Sea Grant Legal Network

# FY2011 Site Review Schedule

Program	Site Visit Dates	Chair	Co-Chair	Sea Grant Director
SC	Sept 21-22, 2010	Terry Smith	Harry Simmons	Chuck Wilson (LA)
FL	Sept 22-23, 2010	Gene Kim	Jeremy Harris	Brian Miller (IL-IN)
MIT	Sept. 28-29, 2010	Mike Liffmann	John Byrne	Robert Stickney (TX)
WHOI	Sept 30-Oct 1, 2010	Mike Liffmann	John Byrne	Robert Stickney (TX)
OR	Oct 5-6, 2010	Jim Murray	John Woeste	Jeff Gunderson (MN)
MN	Nov 2-3, 2010	Miguel Lugo	Dick Vortmann	Peter Rowe (NJ)
Law Center	Nov 9-10, 2010	Gene Kim	Nancy Rabalais	Mike Voiland (NC)
NY	Nov 17-18, 2010	John Eigen	Michael Orbach	David Christie (AK)
PR	Feb 8-9, 2011	Nikola Garber	Ross Heath	Jonathan Pennock (NH)
HI	Feb 23-24, 2011	Jim Murray	Dick West	Paul Anderson (ME)
WA	March 2-3, 2011	Jim Murray	Nancy Rabalais	Karl Havens (FL)
LA	March 22-23, 2011	Gene Kim	John Byrne	Judith McDowell (WHOI)
WI	Apr 6-7, 2011	Miguel Lugo	Dick Vortmann	Penny Dalton (WA)
CT	April 12-13, 2011	Sami Grimes	Harry Simmons	LaDon Swann (MS-AL)
DE	Apr 12-13, 2011	Dorn Carlson	Ross Heath	Jeff Gunderson (MN)
NH	Apr 19-20, 2011	Mike Liffmann	Rollie Schmitten	Anders Andren (WI)
PA	Apr 27-28, 2011	John Eigen	Nancy Rabalais	Mike Voiland (NC)
TX	May 10-11, 2011	Gene Kim	Dick Vortmann	Jim Ammerman (NY)
CA	May 17-18, 2011	Jim Murray	Jeremy Harris	Jeff Reutter (OH)
USC	May 24- 25, 2011	Jim Murray	John Byrne	Sylvain De Guise (CT)
NJ	June 14-15, 2011	Dorn Carlson	John Woeste	Linda Duguay (USC)
MD	June 22-23, 2011	Dorn Carlson	Rollie Schmitten	Chuck Hopkinson (GA)
NC	June 28-29, 2011	Terry Smith	Ross Heath	Steve Brandt (OR)

**RESOLUTION  
BY THE  
SEA GRANT NETWORK  
OCTOBER 18, 2010**

WHEREAS, Dr. Manuel L. Hernández Ávila was an eloquent and effective spokesman for the National Sea Grant College Program for many years; and

WHEREAS, Dr. Manuel L. Hernández Ávila was a mentor to his fellow Sea Grant Directors, National Sea Grant College Program, and a generation of students and new staff; and

WHEREAS, Dr. Manuel L. Hernández Ávila was universally respected by members of Congress for his integrity and knowledge of marine issues associated with Puerto Rico; and

WHEREAS, Dr. Manuel L. Hernández Ávila treated everyone with respect and dignity; and

WHEREAS, Dr. Manuel L. Hernández Ávila was greatly admired and respected by all with whom he worked and directed; and

WHEREAS, Dr. Manuel L. Hernández Ávila's distinguished himself in a 26 year career at the University of Puerto Rico / Mayaguez also; and

WHEREAS, Dr. Manuel L. Hernández Ávila served as a professor and chairman in the Department of Marine Sciences, and Director of the Minority Biomedical Research Support Program; and

WHEREAS, Dr. Manuel L. Hernández Ávila successfully led the university's Research and Development Center as its Director from 1994 until his retirement in 2000; and

WHEREAS, Dr. Manuel L. Hernández Ávila was elected president of the Association of Marine Laboratories of the Caribbean and U.S. delegate and invited speaker at numerous international conferences; and

WHEREAS, Dr. Manuel L. Hernández Ávila served the Commonwealth of Puerto Rico both through his academic endeavors and as a member of several advisory councils, including those of the Environmental Quality Board, the Department of Natural Resources, and the Economic Development Administration's Industrial Development Company; and

WHEREAS, Dr. Manuel L. Hernández Ávila served as the Director of the Puerto Rico Sea Grant Program from 1980 to 1995; and

WHEREAS, Dr. Manuel L. Hernández Ávila chaired the Sea Grant Association's International Affairs Committee from 1984 to 2000; and

WHEREAS, Dr. Manuel L. Hernández Ávila served on the National Sea Grant Review Panel from 2001 until 2008; and

WHEREAS, Dr. Manuel L. Hernández Ávila made invaluable contributions to the National Sea Grant Review Panel through his chairmanship of its International Programs Committee, his membership of its Program Evaluation Committee and Minority Serving Institutions Committee, Chairmanship of the Coastal Natural Hazards Theme Team, and participation in the Program Assessment Teams for the Sea Grant College Programs at North Carolina, Virginia, Oregon, and Louisiana; and

WHEREAS, Dr. Manuel L. Hernández Ávila provided incalculable benefit to the Sea Grant Network through his many years of dedicated service.

NOW THEREFORE BE IT RESOLVED that the Sea Grant Network, during its 2010 national meeting in New Orleans, Louisiana, herewith expresses its highest praise, admiration and honor to Dr. Manuel L. Hernández Ávila for his outstanding leadership and valued contribution to Sea Grant and the people we serve.

It is fitting that this recognition be in Louisiana where he received his PhD in Physical Oceanography from Louisiana State University.

AFFIRMED ON BEHALF OF THE MEMBERSHIP:

_____	_____
Dr. Leon M. Cammen Director, National Sea Grant College Program	Date
_____	_____
Dr. James D. Murray Deputy Director, National Sea Grant College Program	Date
_____	_____
Dr. John T. Woeste Chairman, National Sea Grant Advisory Board	Date
_____	_____
Dr. E. Gordon Grau President, Sea Grant Association	Date



# THE STATE OF SEA GRANT 2010

Impacts, challenges and opportunities

Biennial Report to Congress by the National Sea Grant Advisory Board, November 2010



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## *The State of Sea Grant 2010: Impacts, Challenges and Opportunities*

Biennial Report to Congress by the National Sea Grant Advisory Board, November 2010

### National Sea Grant College Program Biennial Report Committee Members

Dr. John V. Byrne, Chairman, President Emeritus, Oregon State University  
 Dr. Michael K. Orbach, Professor, Nicholas School of the Environment, Duke University  
 Rear Admiral Richard D. West, U.S. Navy (Ret.)  
 Dr. John T. Woeste, Professor Emeritus, University of Florida  
 Dr. Jonathan R. Pennock, incoming President, Sea Grant Association (SGA), Director, New Hampshire Sea Grant

### Ex Officio Committee Members

Dr. James D. Murray, National Sea Grant Office  
 Dr. Jonathan R. Pennock, incoming President, Sea Grant Association (SGA), Director, New Hampshire Sea Grant

### National Sea Grant Advisory Board Members

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 Richard Vortman, Vice Chairman, Past President, National Steel and Shipbuilding Co. (Ret.)  
 Dr. John V. Byrne, President Emeritus, Oregon State University  
 The Honorable Jeremy Harris, Former Mayor, Honolulu, Hawaii  
 Dr. G. Ross Heath, Dean Emeritus and Professor of Oceanography, University of Washington  
 Dr. Michael K. Orbach, Professor, Nicholas School of the Environment, Duke University  
 Dr. Nancy N. Rabalais, Professor, Louisiana Universities Marine Consortium  
 Rolland A. Schmitt, Former Director, National Marine Fisheries Service (Ret.)  
 The Honorable Harry Q. Simmons, Jr., Mayor, Caswell Beach, North Carolina  
 Dr. William L. Stubblefield, Rear Admiral, NOAA (Ret.)  
 Rear Admiral Richard D. West, U.S. Navy (Ret.)

### Ex Officio Advisory Board Members

Dr. Leon M. Cammen, Director, National Sea Grant Office  
 Dr. E. Gordon E. Grau, President SGA, Director, Hawaii Sea Grant

### Biennial Report Staff

Amy Painter, National Sea Grant Office  
 Elizabeth Waters, planning consultant, Charlottesville, Virginia  
 Greg Aylsworth, graphic designer

### On the covers (from l-r)

Sleeping Bear Dunes National Lakeshore, Lake Michigan (Michigan Sea Grant);  
 A Taku Fisheries processing plant worker shows off a nice coho salmon just offloaded from a troller at the company's dock in downtown Juneau, Alaska. Alaska Sea Grant works with Alaska seafood processing plants to educate managers on how to write Hazard Analysis and Critical Control Point Plans and develop sanitation control procedures, both required by federal law (Kurt Byers, Alaska Sea Grant);  
 Puerto Rico Sea Grant actively participates in the promotion and implementation of a Caribbean tsunami warning system, similar to the one in the Pacific Region (Puerto Rico Sea Grant);  
 Earth Force Summit (Pennsylvania Sea Grant);  
 Pleasure boats abound on Peconic Bay during the Annual Maritime Festival in Greenport, New York, a working waterfront since the 18th century. This historic harbor, used by whalers, commercial fishers and even rum runners, is now a haven for artists, writers and musicians. The Peconic Estuary is vital to the ecological and economic health of Long Island's East End. (Barbara A. Branca, New York Sea Grant).





## National Sea Grant Review Panel

*A Federal Advisory Committee*



Dear Member of the Congress of the United States of America,

It is my pleasure to transmit to you on behalf of the National Sea Grant Advisory Board this report of the state of Sea Grant college programs throughout the United States. The 2008 Sea Grant Act (PL110-394) requires the Advisory Board, a federal advisory committee established by Congress, to prepare biennial reports to congress on the state of Sea Grant. This is the first report provided in response to this requirement.

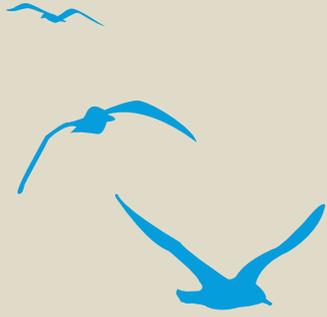
In preparing this report the Advisory Board reviewed all elements of the Sea Grant enterprise including the activities of the national office, the state programs and the Sea Grant Association. We assessed the effectiveness of the Sea Grant program, noted the constraints to realization of the Sea Grant potential to benefit the people of the United States and we recommend ways to maximize the future contributions of the Sea Grant program.

The Advisory Board finds the Sea Grant program to be an effective program that responds to local needs of the coastal and marine-related community while at the same time addressing critical national needs. Sea Grant's recently developed national strategic and implementation plans with which each state program is aligned, ensure that throughout the 32 state programs national goals as well as local needs will direct research, aggressively engage society and educate the public to enhance informed decision making concerning our marine and coastal resources.

In spite of its many accomplishments, constraints do exist that have impeded Sea Grant's achievement of its full potential. The recommendations that conclude this report provide guidance to Sea Grant, to the National Oceanic and Atmospheric Administration and the Congress of the United States which, if followed, will materially benefit the people of the United States.

The National Sea Grant Advisory Board looks forward to working with Congress, NOAA and the entire Sea Grant team to capture the academic capacity of the Sea Grant colleges and to maximize the benefits Sea Grant can provide to our country and its coastal communities.

John T. Woeste,  
Chair, National Sea Grant Advisory Board



## The National Sea Grant Advisory Board,

a federal advisory committee established by Congress under the Federal Advisory Committee Act, is pleased to report to the U.S. Congress on the status of the National Sea Grant College Program. This is the first response to the requirement under PL 110-394 for a biennial report on the status of Sea Grant. Included in the report are the Advisory Board's assessment of Sea Grant impacts, the program's effectiveness in responding to changes in national priorities, the constraints that prevent Sea Grant from living up to its originally envisioned promise and the outlook for the future. The report concludes with recommendations for action that will enhance Sea Grant's ability to contribute to the fulfillment of national goals in the future, building on past national investments.

## The Sea Grant Model

Congress established Sea Grant in 1966 to bring practical scientific information from the nation's universities to coastal businesses, citizens and all levels of government in order to capture the economic and social benefits of the nation's oceans, coasts and Great Lakes in a sustainable way. In its first four decades, Sea Grant has worked with thousands of public and private partners across the country to create and preserve coastal jobs, balance economic development and resource protection, and create an informed coastal citizenry.

Today, Sea Grant is a network of 32 university-based state programs administered by the National Oceanographic and Atmospheric Administration (NOAA) through the National Sea Grant Office.

The Sea Grant model—integrated research, stakeholder engagement and education—offers many advantages in addressing contemporary

coastal challenges. The network supports and draws on the work of more than 3,000 scientists at over 300 colleges and universities to build a sound scientific foundation for the use and preservation of the nation's coastal and Great Lakes resources. Sea Grant has been a leader in public engagement activities in coastal communities for decades. Over 375 Sea Grant extension agents are working directly with stakeholders to prepare for climate change impacts, preserve and build the nation's fishing and aquaculture industries, and deal with such coastal crises as Hurricane Katrina and the Deepwater Horizon oil spill.

Sea Grant's impacts are impressive for the federal investment directed to the program. Federal dollars invested in Sea Grant require a 50% state match, and most state programs exceed that requirement. In 2010, federal Sea Grant investments of \$59.3 million federal, \$9.6 million pass thru, \$33.1 million match dollars and more in private support, magnifying the impact of taxpayers' investment.

## National Priorities and Impacts

Sea Grant's 2009-2013 strategic plan includes four national priority areas chosen to align with NOAA agency-wide priorities:

- healthy coastal ecosystems
- sustainable coastal development
- safe and sustainable seafood supply
- hazard resilience in coastal communities

Within these focus areas, Sea Grant programs are helping communities make decisions concerning coastal land use and offshore energy development. They are preventing seafood-related illnesses and saving consumers millions of dollars by training seafood handlers. Sea Grant is conducting research and outreach activities that are building the nation's aquaculture industries and are resulting in more effective fishing practices, saving jobs and building local economies. Sea Grant is helping communities prepare for climate change and working with other parts of NOAA to design regional approaches to coastal resource protection and use.

The 2009-2013 strategic plan is part of Sea Grant's new Planning, Implementation and Evaluation (PIE) system adopted in 2009. The new system puts renewed emphasis on national priorities and includes national and state performance measures that will track Sea Grant contributions toward advancing national priorities and achieving national goals.

## Constraints on Realizing Sea Grant's Potential

During its earliest years, NOAA was regarded as a science agency. Local capacity and service to the public were not highlighted, leaving Sea Grant's outreach and education functions somewhat disconnected to NOAA's central focus. As the outreach/engagement functions of NOAA increase, the Sea Grant program can play a significant role in helping to marry national programs with local and regional presence. Realizing Sea Grant's potential in this arena will require NOAA leadership at all levels to embrace the importance of engaging the public in carrying out its mission. Finding ways to integrate Sea Grant with other NOAA coastal programs so they function together as one is also a challenge. Clearer delineation of individual program roles and responsibilities within NOAA is needed to help Sea Grant—and other coastal programs—maximize their contributions.

Despite Sea Grant's many accomplishments and contributions to national goals, there have been perceptions among some leaders and decision-makers that Sea Grant is not a national program, but rather a collection of independent state programs. In the past two years, Sea Grant has taken a number of steps to strengthen its national focus: adoption of national priorities for the entire network, alignment of state plans with the national plan, and adoption of performance measures to demonstrate national impact. However, past perceptions, combined with Sea Grant's difficulty in aggregating and communicating its significant national contributions, may have contributed to level appropriations for Sea Grant over the past two decades. Level appropriations combined with inflation have resulted in a loss of buying power for Sea Grant. This erosion in buying power has impeded Sea Grant's capacity at both the national and state levels to respond fully to national coastal challenges and opportunities.

## Last year alone, SEA GRANT

- Created or retained over 3,500 jobs and 650 businesses
- Assisted 160 coastal communities to adopt or implement hazard resiliency practices
- Supported nearly 1,700 undergraduate and graduate students to develop a diverse, highly qualified workforce

## Outlook and Recommendations

The outlook for Sea Grant and other NOAA ocean and coastal programs is one of increased complexity and uncertainty. Population growth, climate change, increased pressure on coastal and marine environments and more conflicts related to the use of limited natural resources all point to unprecedented challenges. To respond effectively, Sea Grant must be a strong, well-integrated national program that concentrates its energies where it has the most to offer. The program needs to support research in high priority areas and serve as a leader in engagement activities. Sea Grant must bring its broad base of academic expertise to coastal crises whenever and wherever they occur.

If Sea Grant is to achieve its potential to help address pressing national needs, important actions need to be taken as soon as possible.

1. **The entire Sea Grant network must focus its efforts on advancing national priorities, while remaining sensitive to local needs.**
2. **The ability to track and report the cumulative measurable impacts of Sea Grant activities on achieving national goals should be a high priority for Sea Grant.**
3. **NOAA coastal programs, including Sea Grant, should be more fully integrated in order to maximize NOAA's contributions to national goals.**
4. **Sea Grant should capitalize on its nationally recognized leadership in stakeholder engagement within coastal and Great Lakes communities as federal-state-local communication and collaboration become more critical to addressing needs and responding to crises.**
5. **Sea Grant should continue to re-examine its priorities and methods of operation in order to respond to the nation's most urgent needs.**
6. **Significant additional resources should be provided to the National Sea Grant College Program in order to reverse the erosion of buying power and maintain a dynamic program with rapid response capability.**

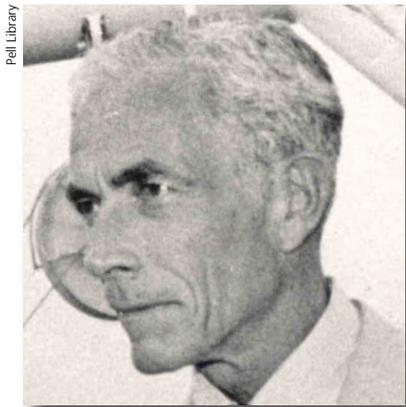


# INTRODUCTION

The National Sea Grant College Program was created in 1966 at a time of major national concern about the future of our coasts and oceans. Then, as now, population growth along the coasts, decline in wild fisheries, and tension between protection and use of ocean and coastal resources threatened the future health and vitality of ocean and coastal resources and communities.

Congress established Sea Grant to unite the academic power of the nation's universities with public and private sector partners in order to capture in a sustainable way the economic and social benefits of the oceans, coasts and

Great Lakes. Inspired by the contributions of the Land Grant college system, Senator Claiborne Pell of Rhode Island and others saw the need to create a similar program to harness the best science available to inform public and private decision-making "for the wise use and protection" of America's complex and dynamic coastal and ocean environments.



Pell Library

↑ Senator Claiborne Pell

Today, Sea Grant is a national network of 32 university-based state programs (Appendix 1), administered by the National Oceanic and Atmospheric Administration (NOAA) through the National Sea Grant Office (National Office). Sea Grant is advised by the National Sea Grant Advisory Board (Advisory Board), and supported by the Sea Grant Association (SGA),

an association of the academic institutions that serve as host institutions for Sea Grant within their respective states. The broad reach of the Sea Grant network provides NOAA and the nation with direct links to an extensive array of scientific expertise and to the people living and working on America's coastlines and beyond.

From the outset, the Sea Grant Program has taken a leadership role in identifying and addressing emerging coastal and ocean issues. Sea Grant has been instrumental in bringing national attention to issues such as coastal land use, aquaculture, wild fisheries technology, invasive species and coastal literacy. Often, the programs started by Sea Grant have been embraced and expanded by other agencies and organizations, frequently in partnership with Sea Grant.

The Sea Grant reauthorization process provides Congress with regular opportunities to guide, adjust and enhance the program. Over the years, Sea Grant has made numerous operational and programmatic changes in response to this guidance. The 2008 Sea Grant Act (PL110-394) requires the Advisory Board, a federal advisory committee established by Congress, to prepare biennial reports to Congress on the state of Sea Grant. This is the first report provided in response to this requirement. In preparing the report, the Advisory Board has reviewed the Sea Grant enterprise in order to assess the current status of the program and to suggest ways to maximize the contributions of the program in the future. The Board's findings and recommendations are included in this report.

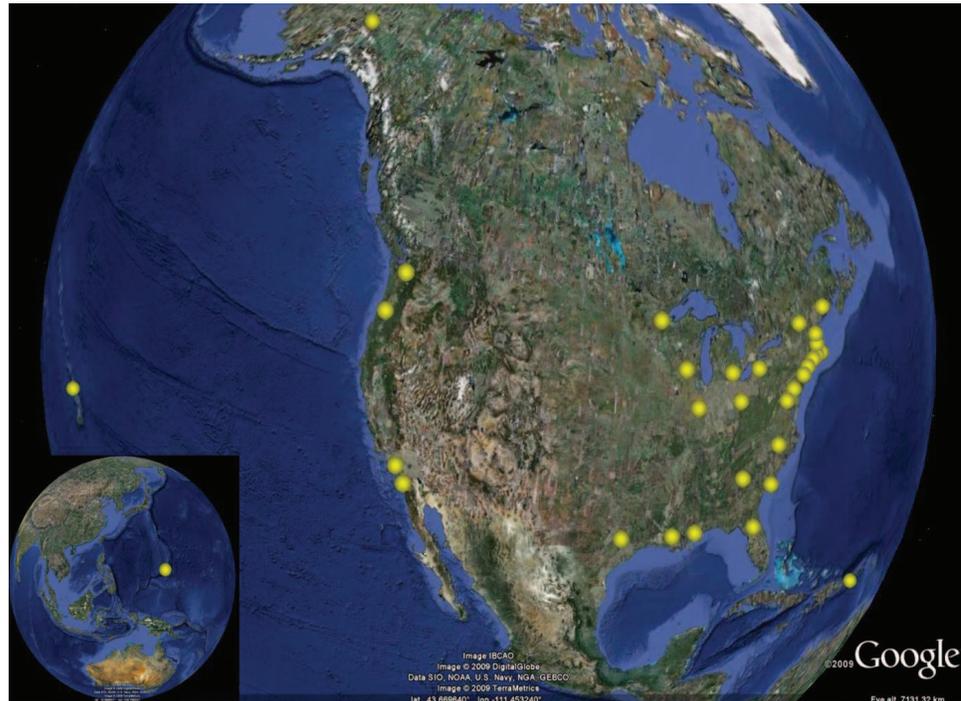
The report is organized into the following major sections:

- **The Sea Grant Model**
- **National Priorities and Impacts**
- **Constraints on Realizing Sea Grant's Potential**
- **Outlook and Recommendations**

It includes an assessment of recent Sea Grant impacts, the Program's effectiveness in responding to changes in national priorities, the challenges it faces in trying to fulfill its originally envisioned promise and an outlook for the future. The report concludes with recommendations for action designed to enhance Sea Grant's ability to contribute to the fulfillment of national goals in the future, building on past investments.

Web links to all reports cited in the document may be found in Appendix 2.

## SEA GRANT'S 32-PROGRAM NATIONAL NETWORK



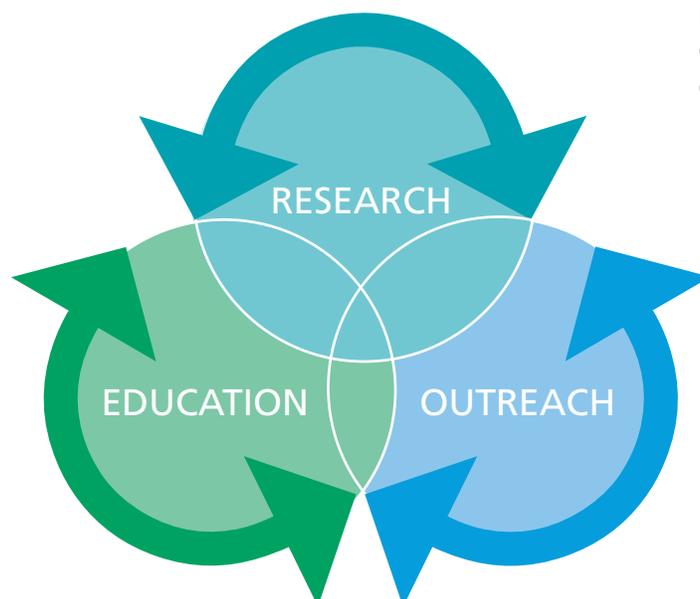
# THE SEA GRANT MODEL

*Sea Grant researchers, extension agents and educators provide a multi-dimensional way to address national priorities and respond rapidly to crises and opportunities that arise in coastal, ocean and Great Lakes environments.*

The Sea Grant model is designed to combine research, outreach and education in ways that allow for an integrated approach to solving problems and capturing opportunities. On-the-ground experts, located in every coastal and Great Lakes state, translate sound scientific information into tools, products and services that benefit coastal residents and their communities every day. Sea Grant experts address national priorities at the local level, while identifying citizens' needs in ways that help guide state and national research agendas. This two-way flow of services and information enables Sea Grant and NOAA to meet demonstrated needs, support businesses and help policy-makers make balanced, well-informed science-based decisions.

From its inception, the hallmarks of Sea Grant's work have been:

- **quality research** to answer critical questions and generate solutions that often include new technologies
- **local technical assistance** teams in communities around the country that share and explain new discoveries and empower stakeholders to address national, state and local issues as they emerge
- **education programs** that create informed citizens in coastal and Great Lakes communities and help prepare the next generation of citizens, workers and professionals involved with our nation's coastal resources, communities and economies



## Mobilizing a nationwide team of scientists

The location of state Sea Grant leadership in major universities gives the Program access to researchers working to identify the best ways to use and manage our coastal, ocean and Great Lakes resources in a sustainable fashion. Today, Sea Grant draws on and supports the work of over 3,000 scientists and researchers from over 300 institutions. Sea Grant supports natural, biological and social science research in a wide array of disciplines. It helps illuminate scientific, technical and socio-economic issues related to the use and management of coastal, ocean and Great Lakes resources. Peer-reviewed Sea Grant research provides practical scientific information to support the work of Sea Grant and other agencies, organizations and businesses. When urgent new questions arise, Sea Grant can call on this network of scientists for information and science-based solutions.



↑ Oregon State University professor Chris Langdon holds juvenile Kumos oysters raised from eggs. With grants from Oregon Sea Grant and cooperation from Oregon shellfish growers, Langdon has developed a system that uses ultraviolet light to rid hatcheries of a highly pathogenic organism, *Vibrio tubiashii*.

## Providing local presence and expertise for every coastal locality

Sea Grant provides an on-the-ground workforce in coastal communities to help them address problems of local, regional and national significance. Collectively, the 32 state Sea Grant programs have over 375 extension agents engaging directly with citizens, businesses and local governments to address national and regional priorities and respond to state and local needs. These extension agents have experience in a broad range of scientific and technical areas. They have access to highly specialized scientists and they understand the particular cultures and constituencies they serve. Extension agents are skilled at sharing new knowledge and convening stakeholders at the local, state and regional levels to forge informed consensus on new policies and management strategies. This experienced team of experts mobilizes to respond to needs wherever they arise and transfers research needs back to their university communities.



## Educating workers, citizens and tomorrow's professionals

Sea Grant is a leader in K-12, undergraduate, graduate, professional, technical and public education in coastal and Great Lakes states. It works closely with its host universities, the NOAA Office of Education, the National Marine Educators Association, the Centers for Ocean Sciences Education Excellence (COSEE) and others to develop school programs, workforce training and professional education for the next generation of coastal leaders.

Sea Grant education and outreach specialists around the country are providing training in seafood safety regulations, use of new fishing gear and other topics that advance the safety and productivity of coastal-related commerce. Sea Grant pioneered the first U.S. program training volunteers to conduct sampling and analysis of water quality indicators, an approach used widely today by Sea Grant and countless other governmental and non-governmental organizations. Sea Grant funding supports graduate students in coastal-related biological, natural and social sciences. Sea Grant's Knauss Marine Policy Fellowship Program has brought over 800 graduate students interested in natural resource policy to Washington, D.C. to work with federal agencies and congressional offices as part of their professional training.

Sea Grant research, extension and education programs are supported by a cadre of nearly 90 communications specialists who provide information to many constituencies through a variety of media, including print, web, video, radio and television outlets.



↑ Students learn about aquatic plants on the R/V Clinton during a Great Lakes Education Program (GLEP) cruise on the Detroit River. The GLEP program is designed to stimulate interest in the Great Lakes and help students understand their role in protecting these vital freshwater resources.

## Focusing on critical national issues

In recent years, Sea Grant has stepped forward to assist with some of the nation's most critical coastal crises and challenges. In the earliest stages of the Hurricane Katrina crisis, Sea Grant programs issued public service announcements in multiple languages with basic public health information related to the adverse effects of contaminated water. Louisiana Sea Grant built a website to serve as a clearinghouse for hurricane recovery resources for the public, businesses and policymakers. In the ensuing months and years, the Sea Grant network has provided technical assistance throughout the region to support the recovery of coastal communities and economies.



NOAA  
 ↑ Hurricane Katrina

In response to the Deepwater Horizon oil spill, Florida, Louisiana, Texas and Mississippi-Alabama extension and legal specialists have been working with fishing communities to provide information on the spill and facilitate interaction with BP to help with the damage claim process. Mississippi-Alabama and Florida Sea Grant are providing hazmat clean-up training for both professionals and citizens in the Gulf region. Four South Atlantic state programs held summits to identify potential risks and precautions that should be taken in response to the oil spill. Sea Grant has worked with NOAA's Coastal Data Development Center to create a web-based clearinghouse for information on oil spill research and monitoring activities that can be used by interested stakeholders throughout the Gulf region and beyond.

Sea Grant is also applying the strength and diversity of its network to address the impacts of climate change in coastal communities. At the request of the governor, Maine Sea Grant collaborated with the University of Maine Climate Change Institute and others to produce a document that serves as the foundation for statewide climate preparation. North Carolina, Oregon, Washington, Wisconsin, Woods Hole and other Sea Grant programs are participating with government and other partners in statewide climate-change planning. As a result, our nation is becoming better prepared to deal with anticipated climate change impacts such as sea level rise, changes in fisheries ranges, and loss of habitat.



Delaware Sea Grant, University of Delaware

↑ Sea Grant programs are investigating renewable energy options to aid the transition to a clean energy economy. The University of Delaware and Gamesa Technology Corporation installed this utility-scale 2-megawatt wind turbine in Lewes.



Georgia Sea Grant (from expedition led by Dr. Samantha Eby)

↑ Throughout the oil spill disaster, Georgia Sea Grant worked with the state's Department of Natural Resources to develop a comprehensive monitoring and sampling protocol for Georgia's waters and coastal ecosystem.



Louisiana Sea Grant

← St. Tammany, LA Oil Spill Forum, June 1, 2010. Sea Grant has facilitated communication between local stakeholders and incident response personnel to identify and address immediate concerns and provided timely, science-based information to the public, including Vietnamese and Hispanic communities, and the tourism, fishing and recreational sectors.

Since the oil spill, Sea Grant has organized 47 meetings involving over **4,500 participants** in Florida, Alabama, Mississippi, Louisiana and Texas to provide science-based information to communities and to facilitate communication between local stakeholders and incident response personnel.

# A PRESCRIPTION FOR CLEAN WATER:

*SEA GRANT PROGRAMS TEAM UP TO KEEP DRUGS OUT OF DRINKING WATER*

Whether flushed down toilets or disposed of in garbage cans, unwanted drugs are contaminating our drinking water and causing deformities in fish. A 2008 investigation launched by the Associated Press found pharmaceuticals in the drinking water of at least 41 million Americans and in the water supplies of 24 major metropolitan areas. Illinois-Indiana, Michigan, New York, Ohio, Minnesota and Pennsylvania Sea Grant are working to help citizens address dangerous drug disposal habits by establishing safe, legal collection programs in communities. Sea Grant educators and outreach experts have created programs and activities for 4-H youth, scouts and after-school youth clubs. The idea is that these youth will serve as important agents for change to help protect and improve the quality of our waters. Sea Grant and the U.S. EPA Great Lakes Office developed a resource kit for those interested in starting a “take-back” program or creating other disposal programs. The kit includes background information on unwanted medicines, what’s known about their impact on the environment, and numerous resources for addressing the problem, including extensive collection program case studies, and is available online at [www.iisgcp.org/unwantedmeds](http://www.iisgcp.org/unwantedmeds).



## Fostering partnerships

Working with a wide range of coastal interests and users—fishermen, ports, tourism industries, seafood processors, energy producers and others—makes public-private partnerships central to Sea Grant’s activities. In an era of growing complexity in the interactions between human activities and the natural environment along the coasts, Sea Grant, with a long history as a trusted partner and source of objective information, offers NOAA the crucial capacity to solve problems and resolve conflicts at local, state and regional levels.



▲ Congressman Frank Pallone (6th District) (center) who worked for the New Jersey Sea Grant Extension Program, presented this year’s Stew Tweed Fisheries and Aquaculture Scholarships at Ocean Fun Days, one of Sea Grant’s showcase public outreach events sponsored by private sector partner New Jersey Natural Gas.

Within NOAA, Sea Grant partners regularly with the National Marine Fisheries Service, the National Weather Service, the National Ocean Service, including

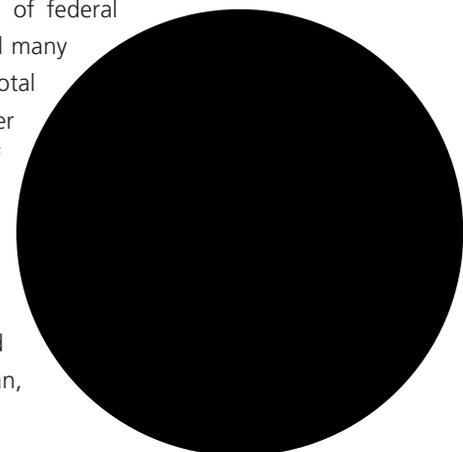


▲ Dave Goethal, left, a fisherman in Hampton, N.H., and deck hand Paul Kuncho hauling back one a new topless shrimp trawl designed reduce finfish bycatch in the pink shrimp fishery in the Gulf of Maine. New Hampshire Sea Grant collaborated with Goethal on the design, and secured funds from NOAA’s National Marine Fisheries Service to make several topless trawls for demonstration purposes. The trawl has reduced Gulf of Maine herring by-catch by 90% without loss of shrimp.

the Coastal Services Center and the National Estuarine Research Reserve System, and the Office of Oceanic and Atmospheric Research, including the Climate Program Office, to advance NOAA’s mission. State Sea Grant programs cooperate regionally and throughout the network on sustainable fishing gear development, preserving waterfront access for citizens and water-dependent businesses, and protecting water quality and habitat.

## Leveraging federal dollars for greater impact

Sea Grant is required to match every \$2 of federal funding with \$1 of non-federal funds, and many state programs far exceed this match. Total investments in the Sea Grant program over the past two years have been “XXX.” Of these “XXX” are federal dollars, “XXX” are state match, and “XXX” are from other partners and sources. By leveraging federal funds, Sea Grant expands its reach and effectiveness in planning for and managing the future of America’s ocean, coastal and Great Lakes resources.





# NATIONAL PRIORITIES AND IMPACTS

*Sea Grant is increasingly focused on advancing national priorities while also attending to state and regional planning and management issues.*

Since its creation in 1966, Sea Grant has continued to evolve in response to new guidance from Congress and changing priorities within NOAA and in coastal communities and industries.



In its 2002 Sea Grant reauthorization (PL107-299), the United States Congress directed NOAA to contract with the National Academy of Sciences/National Research Council (NRC) to review Sea Grant's process of program evaluation and make recommendations to improve its effectiveness. The resulting NRC report, *Evaluation of the Sea Grant Review Process* (2006), included recommendations for revising and strengthening the process of evaluating state Sea Grant programs.

The NRC's recommendations were followed with new Congressional authorizing legislation in 2008 which supported the NRC's recommendations. The reauthorization encouraged collaboration at the regional and national levels and highlighted Sea Grant's role in supporting coastal and ocean resource management. The legislation also changed the name of the National Sea Grant Review Panel to the National Sea Grant Advisory Board. It called for an elevated role for the Advisory Board, including providing the National Sea Grant Office with strategic advice and submitting biennial reports to Congress on the state of Sea Grant.

**Sea Grant has responded to this most recent Congressional input with a substantial realignment of the Sea Grant program that includes:**

- **2009-2013 national priorities**
- **a new planning, implementation and evaluation system**
- **an ongoing commitment to regional leadership**
- **new roles for the National Sea Grant Advisory Board**

All elements of the Sea Grant network—the National Office, the state programs, the Sea Grant Association and the Advisory Board—are working closely to produce the desired outcomes from this realignment.

## 2009-2013 Sea Grant National Priorities

*The NOAA National Sea Grant Strategic Plan 2009-2013: Meeting the Challenge* was adopted in 2009. It includes four national focus areas chosen to align with current NOAA agency-wide priorities: healthy coastal ecosystems, sustainable coastal development, safe and sustainable seafood supply and hazard resilience in coastal communities. The plan also embraces three cross-cutting goals—sound scientific information, an informed public, and open decision-making processes—that form an integral part of the work in which Sea Grant engages.

Specific goals, objectives and performance measures have been set for each of the four focus areas in the *Sea Grant Implementation Plan 2009-2013*. National teams have been established to guide implementation of the national, regional and state plans in an effective, coordinated manner. Significant contributions in all of the national focus areas are documented on an ongoing basis.

**IN 2009, 186 COASTAL  
COMMUNITIES RESTORED  
DEGRADED ECOSYSTEMS  
AS A RESULT OF  
SEA GRANT ACTIVITIES.**



Alaska Sea Grant - Kurt Byers

# HEALTHY COASTAL ECOSYSTEMS

## NATIONAL GOALS →

- Sound science to support ecosystem-based management
- Widespread use of ecosystem-based approaches to managing land, water and living resources in coastal areas
- Restored function and productivity of degraded ecosystems

Healthy coastal ecosystems are the foundation for life along the coast, but increasingly rapid coastal development, global overfishing, and other human activities are leading to water quality degradation, decline of fisheries, wetlands loss, proliferation of invasive species and a host of other challenges that need to be understood in order to restore and maintain these ecosystems.

Millions of Americans suffer from waterborne illnesses each year. Sea Grant has helped redefine approaches to contaminant monitoring, develop molecular fingerprinting methods that can distinguish between human and nonhuman sources of fecal matter, and reduce chemical pollutants in waterways by organizing pharmaceutical collection events. In 2009, California Sea Grant scientists identified methyl mercury, a highly toxic form of mercury, in the

groundwater at two sites. Findings indicated that the amount of mercury being introduced into coastal waters from these two sites may be as great as the total amount of mercury entering these coastal waters as a result of atmospheric deposition. Illinois/Indiana Sea Grant, MIT Sea Grant and other state programs have contributed significantly to advancing understanding about toxic pollutants in water and wetlands.

Sea Grant programs nationwide have mobilized to control and mitigate the negative impacts of invasive species through their research, outreach and education activities. In a two-year period, more than 3,000 fish producers learned about control of invasive species from Sea Grant workshops. Maryland Sea Grant developed a comprehensive invasive species rapid response plan template for use by states in the Mid-Atlantic region and beyond

for responding to newly introduced invasive species. Every coastal and Great Lakes state that has an aquatic nuisance species plan did so with input from their Sea Grant Program. Appendix 3 provides a link to additional impacts.

← A brightly colored blood star (*Henricia leviuscula*) on the rocky Alaska coastline.

→ Sea Grant supports the development of new policies, technologies and processes that promote restoration of ocean, coastal and Great Lakes ecosystems in ways that balance the needs of the natural systems with the needs of the humans who inhabit them.



Washington Sea Grant

IN 2009, 435 COASTAL COMMUNITIES ADOPTED OR IMPLEMENTED SUSTAINABLE (ECONOMIC AND ENVIRONMENTAL) DEVELOPMENT PRACTICES AND POLICIES (E.G., LAND-USE PLANNING, WORKING WATERFRONTS, ENERGY EFFICIENCY, CLIMATE CHANGE PLANNING, SMART GROWTH MEASURES, GREEN INFRASTRUCTURE) AS A RESULT OF SEA GRANT ACTIVITIES.



Ruperto Chaparro, Puerto Rico Sea Grant

# SUSTAINABLE COASTAL DEVELOPMENT

## NATIONAL GOALS →

- **Healthy coastal economies**
- **Coastal communities that make efficient use of land, energy and water resources**
- **Informed coastal citizenry to balance multiple uses and achieve environmental sustainability**

According to NOAA's *State of the Coast Report*, the U.S. coastal zone contributed \$7.9 trillion to the nation's GDP in 2007. Coastal and marine waters provide 69 million jobs. Economists estimate non-market economic value from the nation's ocean and coastal resources to be over \$100 billion a year. Coastal communities provide vital economic, social and recreational opportunities for millions of Americans. However, decades of population migration have transformed our coastal landscapes and intensified demand on finite coastal resources. In 2010, approximately 160 million people (52%) of the nation's population lived in the 673 U.S. coastal counties, an increase of 49.6 million people since 1970. That growth trend continues. The increase in population has resulted in new housing developments and recreation facilities, a new generation of energy development activities, port expansions and other new business activities. These changes are placing tremendous pressure on coastal lands, water supplies and traditional ways of life.



Michigan Sea Grant

▲ Fishtown Harbor, Leelanau Peninsula, Michigan. Changing development patterns along the coast are threatening to displace traditional water-dependent industries and cut off water and beach access for coastal residents. Sea Grant provides information, tools and techniques to support working waterfronts.

◀ The San Juan coastline. Citizens and decision-makers have an urgent need for tools that will help them evaluate the implications of land-use changes, coastal development pressures, and increased resource use in approaching the policy and management decisions they face. Sea Grant's well-established role as a trusted broker makes it a key player in facilitating the development and implementation of new coastal policies, plans, management approaches and consensus-building strategies.

Sea Grant is engaging a diverse array of stakeholders to work on building vibrant coastal economies and communities that function within the carrying capacity of their ecosystems. USC Sea Grant is bringing science and policy research to the ports of Los Angeles and Long Beach, CA to advance sustainable management practices at this complex that handles close to 45% of all marine freight entering the U.S. Texas Sea Grant facilitated the testing of new fuel-efficient trawl gear. In Brownsville, Texas, more than 85% of the vessels have adopted the experimental gear, saving almost \$9 million in fuel costs in 2009 alone and an estimated 200 jobs. Virginia Sea Grant, Maine Sea Grant and others are leading an emerging national coalition on maintaining working waterfronts and coastal access in partnership with state coastal zone management programs, Boat US, the Urban Harbours Institute, the Coastal States Organization, and others, and work done by Delaware Sea Grant helped advance the development of a \$1.6 billion wind farm project that will generate renewable energy for the state. Appendix 3 provides a link to additional impacts.

**IN 2009, 27,748 STAKEHOLDERS MODIFIED THEIR PRACTICES USING KNOWLEDGE GAINED IN FISHERIES SUSTAINABILITY, SEAFOOD SAFETY AND THE HEALTH BENEFITS OF SEAFOOD, WHILE 366,687 FISHERS USED NEW TECHNIQUES AS A RESULT OF SEA GRANT ACTIVITIES.**



Ben Young Landis, North Carolina Sea Grant

# SAFE AND SUSTAINABLE SEAFOOD SUPPLY

## NATIONAL GOALS →

- Sustainable supply of safe seafood
- Healthy domestic seafood industry
- Informed consumers who understand sustainable harvesting, health benefits of seafood consumption and seafood safety

Fisheries provide over \$60 billion to the U. S. GDP annually (NOAA FY 2010 Budget Summary). At the same time, the U.S. has witnessed the decline of many of its major fisheries while seafood consumption is on the rise, resulting in a multi-billion dollar seafood trade deficit. Seafood safety is also a growing concern as international trade increases and fish diseases and contamination become larger problems.

Sea Grant is working closely with a wide range of federal, state and local partners to find ways to balance the protection of species with the protection of economies. Sea Grant programs in Rhode Island and New Hampshire supported research on new shrimp trawls and haddock nets that resulted in larger shrimp being caught, with 90% reduction in bycatch of herring—a fish that is important to both the economy and the marine food web. In Alaska, longline fishing fleet solutions developed by Washington Sea Grant reduced bycatch of endangered short-tailed albatrosses by nearly 100 percent, preventing the closure of a fishery worth \$300 million annually. Connecticut Sea Grant training programs have led to the reopening of 1,219 acres of shellfish grounds.

A number of Sea Grant programs are working on both wild fish restoration and aquaculture development. In South Carolina, field trials performed by the S.C. Sea Grant Consortium and its partners have determined that stocking red drum in estuaries contributes significantly to restoring the state's most popular coastal recreational fish population. In Florida, Sea Grant research and outreach are enhancing the production and profitability of the Florida hard clam industry, which produces more than 500 jobs, \$1.3 million in business taxes and \$25 million in income annually. Wisconsin Sea Grant research has opened the door to commercial yellow perch aquaculture, leading one private company benefiting from the research and technical assistance to invest \$50 million in the industry with plans to expand within the next five years to employ 100 people and harvest 8.5 million pounds annually, at a value of more than \$1 billion.

In addition to its efforts to enhance the supply of U. S. seafood, Sea Grant provides training activities that prevent seafood-related illnesses, thereby saving consumers millions of dollars. Sea Grant extension professionals across the country have been core partners in the National Seafood Hazard Analysis and Critical Control Point (HACCP) Alliance. This intergovernmental partnership with industry and academia has provided seafood safety training to about 90 percent of all nationally-based seafood processing firms and more than 26,000 people since 2001. The U.S. Department of Health and Human Services estimates that the HACCP program has prevented between 20,000 and 60,000 seafood-related illnesses a year, translating into savings of about \$155 million annually. The U.S. Department of Agriculture awarded the Seafood HACCP Alliance its "Group Award for Excellence." New York Sea Grant has taken a lead role nationally in providing on-line training in HACCP. Appendix 3 provides a link to additional impacts.



Louisiana Sea Grant

↑ Louisiana Sea Grant's Lucina Lampila, an associate professor with Louisiana State University shows how experts sniff fresh seafood for signs of oil contamination. The Gulf Sea Grant programs have conducted seafood safety sensory trainings and offered workshops on safe handling procedures for processors in several states.

← Oyster shells are recycled to restore reefs in North Carolina as part of a federal stimulus project in April 2010. North Carolina Sea Grant will work with the N.C. Coastal Federation to evaluate the economic benefits of the restored oyster reefs.

**IN 2009, 160 COASTAL COMMUNITIES  
ADOPTED OR IMPLEMENTED HAZARD  
RESILIENCY PRACTICES TO PREPARE FOR  
AND RESPOND TO OR MINIMIZE COASTAL  
HAZARDOUS EVENTS AS A RESULT OF  
SEA GRANT ACTIVITIES.**

Madeline Gotkowitz, University of Wisconsin-Extension



# HAZARD RESILIENCE IN COASTAL COMMUNITIES

## NATIONAL GOALS →

- **Widespread understanding of the risks of living, working and doing business along the coasts**
- **Community capacity to prepare for and respond to hazardous events**
- **Effective response to coastal disasters**

Sea level rise, the increased number and intensity of coastal storms, the ongoing threat of oil spills and other natural and human hazards are putting more people and property at risk along the nation's coasts, with major implications for human safety and the economic and environmental health of coastal areas. Sea Grant is using its established presence in coastal communities to help local citizens, decision-makers and industries plan for hazardous events and optimize the ability of their communities to respond and rebuild.

North Carolina Sea Grant helped lead a two-year review of the state's ocean policies, which resulted in numerous recommendations, including the creation of a coastal vulnerability index. Texas Sea Grant's policy guidance on creating a resilient coast is contributing to planning for "smart growth" along the Gulf coast, as is the Louisiana Sea Grant Legal Program's guidebook on coastal hazard mitigation. Hawaii, Alaska and Oregon Sea Grant have research and education programs underway to prepare their states and communities for anticipated tsunamis.

A central focus of Sea Grant's work in building hazard resilience in coastal communities involves helping communities prepare for and respond to the impacts of climate change. Connecticut Sea Grant, Mississippi-Alabama Sea Grant and many other state programs are working with local communities to develop climate change management strategies as part of local planning processes.

In response to the new national emphasis on climate change, Sea Grant has allocated \$6 million to climate change initiatives that provide \$1.5 million for community preparedness activities; \$2.9 million for local and regional climate change mitigation and adaptation research; \$200,000 in regional climate engagement grants to strengthen partnerships between Sea Grant and NOAA regional teams; and \$500,000 for small business alternative and renewable energy projects. The Sea Grant Association is maintaining an up-to-date summary of Sea Grant climate change work in regions around the country entitled: [Sea Grant's Role in Understanding and Preparing for Climate Change along America's Coast](#). Appendix 3 provides a link to additional impacts.



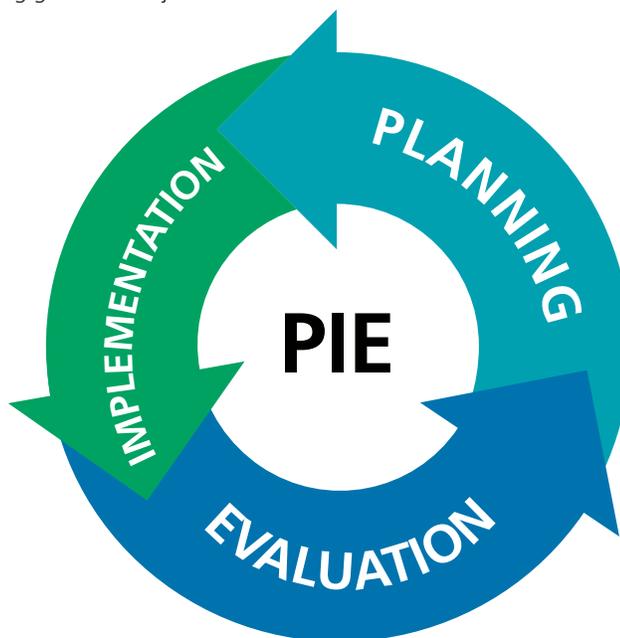
Delaware Sea Grant

- ◆ Broadkill Beach, Delaware. Coastal communities are increasingly vulnerable to shoreline erosion and hazardous events brought on by climate-related and land-use changes. Sea Grant's work with NOAA's National Weather Service and the National Ocean Service, regional ocean observation systems, and other partners to make hazard-related data and data-derived products available during crisis events.
- ◀ Communities need information and tools to help assess the risks they face and to identify options to minimize those risks. Sea Grant works with partners to develop risk assessment tools, economic and environmental impact models, and other mechanisms to help families, businesses and communities understand their risks and take them into account in making decisions.

Sea Grant’s new Planning, Implementation and Evaluation System enables programs to report national successes. In 2009, for instance, **31,817 acres** of degraded ecosystems were restored across the nation as a result of Sea Grant activities.

## A new Planning, Implementation and Evaluation System

The adoption of the national strategic plan and the four national priority areas is just one part of Sea Grant’s new Planning, Implementation and Evaluation system (PIE), developed in response to the NRC recommendations regarding Sea Grant’s evaluation processes. PIE is fully outlined in: *An Enhanced and Integrated Strategic Planning and Program Assessment Strategy for the National Sea Grant College Program*. The system includes development of a national strategic plan every four years, adoption of individual state plans aligned with the national plan, and a peer-review evaluation process at the end of the four-year process to assess the success of state programs in meeting goals and objectives.



↑ Ohio Sea Grant Director, Jeffrey M. Reutter presents to a site review team (SRT). Once every four years, a SRT visits each Sea Grant Program. The SRT reviews and discusses broad issues related to: 1) Program Management and Organization; 2) Stakeholder Engagement; and, 3) Collaborative Network/NOAA Activities.

During 2009, all state Sea Grant plans went through a rigorous review process by a sub-committee of the Sea Grant Advisory Board and the National Sea Grant Office to be sure they were aligned with the national strategic plan and that state efforts will continue to advance national priorities. As part of the new evaluation and accountability process, Sea Grant is also developing and implementing a National Information Management System (NIMS) that will provide a uniform, centralized reporting process to track Sea Grant performance over the four-year planning period.

Sea Grant’s new PIE system aligns the resources of the entire Sea Grant network to address national priorities and presents a way for Sea Grant and outside evaluators to measure the program’s success in achieving stated objectives. At the same time, the process respects the federal/university partnership structure of Sea Grant. It allows individual Sea Grant programs the flexibility needed to develop state plans that pursue national goals and objectives in ways that also address urgent state and local concerns.

## Ongoing commitment to regional leadership

Part of Sea Grant’s focus on national priorities is its ongoing leadership role in regional approaches to planning and problem solving. In recent years, coastal scientists and resource managers have realized that many of the critical issues facing the coastal zone such as fisheries management, nutrient enrichment and invasive species cannot be addressed solely at the local or state levels or through a single national approach. This has led NOAA and others to emphasize that these issues require regional approaches that encompass ecosystems, watersheds and coastal socio-economic factors. Sea Grant has been a leader in bringing stakeholders, managers and scientists together to address regional issues. State Sea Grant staff members typically work collaboratively beyond state boundaries in support of regional and national goals.

In 2006, in response to recommendations by the U.S. Commission on Ocean Policy and the Pew Oceans Commission, a competitive National Sea Grant Strategic Initiative was developed. The initiative supported the creation of regional science priority plans to highlight the science gaps considered most critical to the successful implementation of regional ecosystem-based approaches to coastal marine spatial planning and management. These plans, created by regional Sea Grant teams in partnership with other NOAA coastal programs, EPA, U.S. Fish and Wildlife and numerous other public and private stakeholders at the regional, state and local levels, have provided a framework for science and policy initiatives on the West Coast, in the Gulf of Mexico, in the Gulf of Maine and in NOAA regions throughout the United States.

Sea Grant regional planning efforts have been integrated with NOAA regional teams as well as several regional governor’s associations such as



↑ Fisher Patrick Riley discusses fuel savings and additional savings associated with the switch to new shrimp fishery gear and netting developed by Texas Sea Grant and partners. His fleet is seeing between 25 and 28 percent fuel savings.



↑ The map shows NOAA regions along with highlights denoting Sea Grant regions.

“Sea Grant continues to be a catalyst for answering practical research questions in a rigorous way, providing us with a platform for co-management of Maine’s fisheries.”

Robin Alden, Penobscot East Resource Center

the Northeast Regional Ocean Council organized by northeast governors from New York to Maine. The Western Governors Association for the states of California, Oregon and Washington has asked Sea Grant to serve as the lead coordinating body for regional coastal science priorities. Rhode Island Sea Grant has been the leader in the development of the Rhode Island special area management plan, one of the leading efforts for state-based, and now regionally-focused, coastal marine spatial planning efforts.

A key player in developing regional approaches to climate adaptation and mitigation, Sea Grant is representing NOAA in a partnership with the state Land Grant institutions and other federal agencies to develop and implement strategies designed to minimize the economic and environmental impacts associated with changing climate in the coastal zone.

### New roles for the National Sea Grant Advisory Board

The 2008 Sea Grant reauthorization called for the National Sea Grant Advisory Board to provide strategic advice and direction to Sea Grant. The Advisory Board has responded in a number of ways.

The Advisory Board appointed a committee to revisit Sea Grant funding allocation policies and is continuing a long-standing tradition of conducting in-depth reviews of the Program. In 2009, the Advisory Board issued three reports on topics it deemed important to the future of Sea Grant:

- [Sea Grant Research: A Report of the National Sea Grant Advisory Board](#)
- [Communications/Engagement: A Report from NOAA’s National Sea Grant Advisory Board](#)
- [National Sea Grant Advisory Board Futures Committee Report](#)

[Sea Grant Research: A Report of the National Sea Grant Advisory Board](#) resulted from a year-long examination of Sea Grant’s operation and funding, as well as a review of the status of Sea Grant research. As part of this effort, extensive interviews were conducted within and outside of NOAA to measure how Sea Grant is perceived. The information gathered by the research report committee was used to develop a range of options for Sea Grant to consider with regard to future organization, operation, research and collaboration. [Communications/Engagement: A Report from NOAA’s National Sea Grant Advisory Board](#) identified actions needed to allow Sea Grant to build on its leadership role in engaging stakeholders in coastal communities. The [National Sea Grant Advisory Board Futures Committee Report](#) recommended some near-term strategic directions for the program.

These reports have informed the Advisory Board’s assessment of the current state of Sea Grant and the recommendations in this report. Links to the full reports may be found in Appendix 2. This process of self-examination will continue. A Futures II committee has been established and charged with assessing the role and capacity of Sea Grant to address such emerging issues as climate change, green energy sources and economic stress in coastal regions, as well as the implications of changes taking place within NOAA.



▲ The National Sea Grant Advisory Board, 2010.



# CONSTRAINTS ON REALIZING SEA GRANT'S POTENTIAL

## SEA GRANT KNAUSS FELLOWSHIP: BUILDING A POWERFUL WORKFORCE

The National Sea Grant College Program supports the Dean John A. Knauss Marine Policy Fellowship. The fellowship brings to Washington highly qualified graduate students with an interest in national policy

decisions affecting natural resources. This prestigious program places 40-48 highly qualified Master and Ph.D.-level students within the Executive and Legislative branches of government for a one year fellowship in marine policy. This program has over 800 alumni who currently hold positions within the federal and state government, as well at universities, non-governmental organizations and private businesses. During 2007-2010, the National Sea Grant Program trained 184 new Sea Grant Knauss fellows who have joined an extensive fellowship alumni network.



Sea Grant fellow, Long Zhou (Rhode Island Sea Grant) meets Dr. Jane Lubchenco, Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator.

*While Sea Grant has many accomplishments to be proud of and a demonstrated ability to respond to emerging needs and demands, a number of factors are limiting full utilization of Sea Grant capabilities.*

The health and productivity of America's oceans, coasts and Great Lakes are central to the health and vitality of the nation. NOAA's mission, "To understand and predict changes in Earth's environment and conserve and manage coastal and marine resources to meet our Nation's economic, social, and environmental needs," is more vital than ever. Sea Grant, with its integrated research, outreach and education capabilities and its on-the-ground presence in coastal communities, is positioned to play a major role in fulfilling NOAA's mission, but a number of factors have inhibited the program from realizing its potential.

### Unrealized opportunities in the Sea Grant-NOAA relationship

The 2008 Congressional declaration of policy regarding Sea Grant states:

*"The vitality of the Nation and the quality of life of its citizens depend increasingly on the understanding, assessment, development, management, utilization, and conservation of ocean, coastal, and Great Lakes resources . . . (which) requires a broad commitment and intense involvement on the part of the Federal Government in continuing partnership with State and local governments, private*

*industry, universities, organizations and individuals concerned with or affected by ocean, coastal, and Great Lakes resources. The National Oceanic and Atmospheric Administration, through the National Sea Grant College Program, offers the most suitable locus and means for such commitment and engagement." (PL 110-394, Congressional declaration of policy)*

Sea Grant is a federal-state-university partnership, built from a bottom-up relationship between state and local capacity and national leadership. This is an excellent way to address the nation's complex array of ocean and coastal resource management and protection challenges, which are at varying times international, national, regional and local in nature. During its earliest years, NOAA was regarded as a science agency. Local capacity and service to the public were not highlighted. This left Sea Grant's outreach and education functions somewhat disconnected from NOAA's central focus and resulted in Sea Grant not being fully embraced by NOAA leadership.

Conditions today are different, not only opening doors to new possibilities, but calling strongly for a direct connection between federal agencies and the people those agencies serve, something Sea Grant's extensive experience with stakeholder engagement can provide. Sea

Grant's emphasis on national priorities, directly linked to NOAA's goals, and its extension agents located in all coastal states, help to strengthen the connection between the federal agency and local users of the Agency's services. As the outreach/engagement functions of NOAA increase, as articulated in *Engaging NOAA's Constituents: A Report from the NOAA Science Advisory Board* (2008), the Sea Grant Program can play a significant role in carrying out these functions. Realizing Sea Grant's potential will require NOAA leadership at all levels to fully embrace the importance of engaging the public in carrying out its mission and to use existing capacity in Sea Grant to provide these critical stakeholder connections.

"As the outreach/engagement functions of NOAA increase, the Sea Grant Program can play a significant role in carrying out these functions."

## Ability to demonstrate national impact

Historically, some national leaders and decision-makers have viewed Sea Grant more as a collection of independent state programs than as a national program with state-local presence. Before its recent adoption of integrated strategic planning and program assessment, it was difficult for Sea Grant to demonstrate cumulative national benefits from the work of individual Sea Grant programs around the country. Planning was carried out at the state level and, while there were substantial accomplishments, there was a limited amount of data available on cumulative investments and impacts at the national level.

The adoption of national priorities for the entire Sea Grant program, the alignment of state plans with the national plan, and the incorporation of performance measures in both state and national plans are important steps forward in demonstrating national impact. However, the

ability to measure cumulative national impacts with regard to performance measures remains a work in progress. Progress in developing the National Information Management System (NIMS) has been slowed by a lack of resources available to support this necessary initiative at both the national and state levels and by the challenges of integrating information from 32 different programs into a single national system. Having a fully operational NIMS in place is critical to being able to measure Sea Grant's success in making meaningful contributions to national goals.

## Coastal program integration challenge

In the years since NOAA was created, its coastal programs have continued to evolve. In some instances, in order to meet particular needs, new programs were developed rather than assigning these tasks to existing programs. The result of these changes over time is that some of the distinctions between and relationships among programs have been blurred, leading to a greater likelihood of overlap in mission and perceived duplication of effort.

There is a strong mandate from the administration to integrate the nation's coastal programs. NOAA has embraced this goal and established working groups to identify ways to achieve greater integration among its coastal programs and with coastal programs of other agencies. NOAA's Coastal Services Center, the Office of Ocean and Coastal Resource Management, the National Centers for Coastal Ocean Science, the National Marine Fisheries Office of Habitat Protection and Sea Grant are working to integrate their efforts more effectively. The purpose of this collaborative planning

is to ensure that the individual NOAA coastal programs are focused on national priorities and that their work is synergistic, outcome-oriented and built around each program's strengths in ways that avoid duplication. The short-term goal is to collaborate on strategic planning, budgeting and implementation. The long-range goal is to develop a joint coastal strategic plan that articulates agreed-upon priorities, functional responsibilities, outcomes and metrics.

While Sea Grant and its partners have been working diligently on coordination and integration efforts, significant progress has yet to be achieved. Sea Grant and all of NOAA's coastal programs would benefit from clear guidance on how the Agency wants to move forward with more effective coastal program integration.

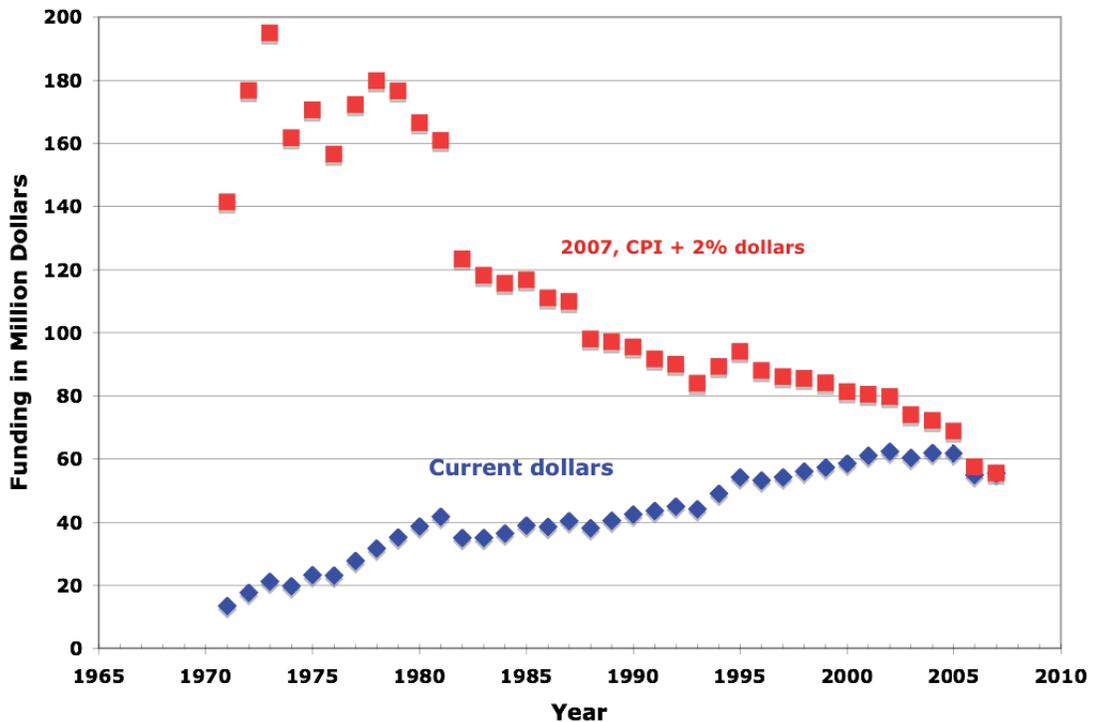
### Decline in Sea Grant buying power and loss of national capacity

The buying power of federal Sea Grant funding has decreased dramatically over the last two decades, leaving state Sea Grant programs with only about one-third the buying power they had in the early 1980s. While a review of annual appropriations over time shows a modest rise in federal allocations for Sea Grant, those same dollars, when adjusted for inflation, show a

“Most state Sea Grant programs are currently struggling to maintain the staff necessary to respond effectively to new national, regional and local priorities and requests.”

significant decline in federal support and buying power. This loss of buying power, described in greater detail in *Sea Grant Research: A Report of the Sea Grant Advisory Board*, 2009, is illustrated in the chart below.

**Overall Sea Grant Funding**



This decline places significant constraints on Sea Grant's ability to respond with sound science and on-the-ground presence to growing coastal challenges. The decline has continued during a period when Sea Grant has been working to strengthen its national focus, dedicating significant energy at both the national and state levels to accomplish this. Loss of federal funding on an inflation-adjusted basis has significantly decreased the ability of state programs to work with stakeholders to address the nation's coastal, ocean and Great Lakes priorities through their research, extension and education programs. Most state Sea Grant programs are currently struggling to maintain the staff necessary to respond effectively to new national, regional and local priorities and requests.

“At the current level of staffing, the National Sea Grant Office lacks the capacity to carry out all of its leadership functions for the Sea Grant network.”

According to the NSGAB's *Communications/Engagement* report of 2009, this decline in Sea Grant buying power has had major effects on the capacity of the National Office as well. With a cap of 5% on what may be spent on administrative costs at the national level, the National Office has seen its staffing decline significantly over time. Presently, the National Office has roughly half the staff it had in 1991: 29 full-time equivalent staff positions in 1991 versus 16 today. There has been a 36% loss in capacity just since 2005.

### National Sea Grant Office Workforce

Year	Full Time Staff (FTEs)
1991	29
2005	22
2010	16

The Sea Grant Advisory Board reviewed the role of the National Sea Grant Office in 2002 in *Building Sea Grant: The Role of the National Sea Grant Office* and concluded that staff erosion in the National Office had seriously diminished the

ability of the National Office to provide the leadership necessary to support the Sea Grant network and respond to increasing demands at the federal level. This was revisited by the Administrative Review Committee of the then Sea Grant Review Panel in 2008 in a report entitled *Staffing the National Sea Grant*

*Office*. That report recommended an increase of staffing to 29.5 FTEs to allow the NSGO to fulfill its core responsibilities. The erosion of national capacity discussed in these reports has continued, as demonstrated below. The new planning, implementation and evaluation process, designed to emphasize national priorities, has created significant new demands on the National Office and state program staffs. The design and implementation of network-wide planning efforts, liaison work, site visits to state programs, and the collection and management of network-wide performance data have all added to the work loads of already burdened staff.

At the current level of staffing, the National Sea Grant Office lacks the capacity to carry out all of its leadership functions for the Sea Grant network. It is becoming increasingly difficult for the National Office to employ the number and kinds of personnel needed to participate effectively at the federal level and to respond to a growing number of information requests and calls for assistance. The National Office is working actively with NOAA on its new climate initiatives and coastal program integration efforts, but they are participating in these and other high-level NOAA activities with about one-quarter the number of FTEs per dollar of grants managed as other similar NOAA programs.



# OUTLOOK AND RECOMMENDATIONS

*Sea Grant is in a strong position to harness its full range of resources to advance national priorities and respond to national crises while continuing to be responsive to state and local needs, if NOAA and Congress choose to capture this opportunity.*



There is reason for optimism about the role Sea Grant can play helping NOAA carry out its mission in the decade ahead, tempered by a realistic outlook on the external and internal factors that will affect this. The recommendations in this report suggest what must be done to ensure that Sea Grant will fulfill the promise it carried when it was established: to help the country respond in an integrated way with the sound science and collaborative decision-making processes needed to protect and use the nation's ocean, coastal and Great Lakes resources for the benefit of present and future generations.

## Outlook

In 2000, the Sea Grant Review Panel (now the Advisory Board) issued a report entitled *A Mandate to Engage Coastal Users*. It opened with the following prospect for what the nation would face in the coming years:

*"In 1999, world population reached 6 billion people. It has doubled in less than 40 years, is continuing to increase rapidly, and is projected to reach 8 to 10 billion people in the next 50 years. The accompanying pressure on world resources will be extreme, but none more so than on coastal resources. Today, over half the population of the United States lives in coastal counties; it is estimated that by 2025 roughly three-fourths of all Americans will live in coastal areas. As the demand for seafood increases, fisheries*

*are being depleted or eliminated. When world production of oil peaks in the first decade of the 21st century, there will be increased pressure to drill in offshore and coastal areas. The conflict in use of the coastal areas between recreational and industrial users can only increase. The world economy is expanding, and by 2020 goods traded worldwide are expected to triple. With the U.S. as a major consumer of goods, the pressure on American ports will be immense. And then there are the threats from coastal hazards, the rise in sea level associated with global climate change, inadequate water supplies and water treatment—the list goes on. The economic, environmental, and social demands on our coastal oceans and shorelines will be unparalleled in human history, and these demands will be similar throughout the world. The need for solutions to coastal problems, resolution of conflicts and help in general will continue to grow as the threats to coastal areas increase. It will be imperative that all governments—local, state, and federal—engage their citizens and attend to their needs."*

While some of the specific numbers would change, this assessment of the situation we face holds as true today as when this was written ten years ago. The outlook for Sea Grant and other NOAA ocean and coastal agencies is one of increased complexity and pressure. Population

**“ Just the other day I had an email from a company in Germany that wants to import our whitefish. This is a 19th century industry that is now competing in the 21st century. That never would have happened before this initiative was launched by Michigan Sea Grant.”**

**Jill Bentgen,**  
 Founder of Mackinac Straits  
 Fish Company

growth and the demands this is placing on the coastal zone, climate change impacts, increased demands and conflicts related to the use of limited natural resources, over-use of ocean fisheries, and pollution of the environment all point to unprecedented challenges for Sea Grant in the years ahead.

The nation, NOAA and Sea Grant must respond to this increasingly complex array of coastal issues during a period of major resource constraints. The current administration has indicated that it will ask for a reduction of 5% in many agency budgets. State and higher education budgets are stretched tighter than they have been in decades. It is essential for Sea Grant to concentrate its energies in areas of highest priority where opportunities for meaningful impacts are greatest. Plans must be generated on the assumption that resources will not increase significantly. At the same time, Sea Grant must make it clear that continued loss of buying power and the administrative cap of 5% will diminish Sea Grant's ability to serve NOAA and respond to the nation's needs.

### **A way forward for Sea Grant**

In moving forward, it is important to have a vision for what the National Sea Grant College Program can become. While it may not be possible to realize this vision in the near-term, it can inspire and guide actions of the program today and serve as a beacon for Sea Grant as the program continues to evolve.

*Looking to the future, Sea Grant will be an integral component of NOAA, contributing significantly to fulfilling NOAA's mission. Sea Grant will do this not by making radical changes in what it does and how it does it, but by building on its strengths and recent commitment to a stronger national focus.*

Sea Grant will be a strong, well-integrated national program. It will draw its expertise from its university bases throughout the United States and from NOAA, its federal parent agency. It will have a strong National Office that provides direct contact with other elements of NOAA, with other federal agencies, and with

the Congress of the United States, linking them to a robust Sea Grant network at the state level.

Sea Grant will concentrate its energies where it has the most to offer to advance national priorities. It will use its model of integrating research, outreach and education to translate sound scientific information into tools, products and services that benefit the country and its coastal communities. It will concentrate these efforts on identified national priorities such as climate adaptation and community coastal development and response to coastal hazards, where its ability to facilitate honest exchange of information, informed decision-making and rapid response are most valuable. It will continue to educate the next generation of informed citizens, environmental professionals and the ocean-coastal-Great Lakes related workforce.

Sea Grant will lead engagement with coastal stakeholders, including fishermen, coastal industries, local governments and citizens. As a main program in NOAA dedicated to transferring ocean and coastal knowledge to users, Sea Grant Extension will become a central part of NOAA's day-to-day work. Extension work will expand and its benefits will more closely mirror those envisioned in the founding legislation.

Sea Grant will respond immediately to problems and crises with broad-based expertise. Experts from the entire Sea Grant network will be mobilized to respond to needs wherever they occur. Sea Grant will be one all-encompassing program, addressing national needs without sacrificing state program responsiveness.

Sea Grant will grow in size and capacity to help address the increasing array of coastal, ocean and Great Lakes challenges facing the nation. Sea Grant will grow selectively, by building capacity in areas such as applied research, technology transfer, and stakeholder engagement where it already has a strategic advantage. Sea Grant will continue to build the specific expertise and array of skills needed to address emerging coastal issues to be of maximum benefit to the nation as a science-based first responder.

## THE NATIONAL SEA GRANT ADVISORY BOARD RECOMMENDATIONS

The National Sea Grant Advisory Board believes that realizing this vision and positioning Sea Grant to respond to the nation's coastal challenges and possibilities will require clear demonstration of Sea Grant's contributions to achieving national goals, a more effective integration and coordination of the nation's coastal agencies and programs, achieving maximum benefit from existing Sea Grant resources and the addition of strategically-directed new resources for Sea Grant.

**1. The entire Sea Grant network must focus its efforts on advancing national priorities, while remaining sensitive to local needs.**

Sea Grant is a national program built on a foundation of strong federal-state-university partnerships. Partnerships remain strong when the needs of all parties continue to be met. The new Planning, Implementation and Evaluation system adopted in 2009 represents a conscious commitment on the part of the Sea Grant National Office and its state/university partners to undertake the significant coordination and accountability activities required to ensure that the program maintains a strong focus on national priorities, while also responding to the most urgent priorities found at the regional, state and local levels.

**2. The ability to track and report the cumulative measurable impacts of Sea Grant activities on achieving national goals should be a high priority for Sea Grant.**

The Sea Grant network needs to work together to make the National Information Management System (NIMS) fully functional as quickly as possible. It is fundamental to the new planning and accountability process and to being able to communicate the national benefits of Sea Grant activities and programs in measurable ways.

**3. NOAA coastal programs, including Sea Grant, should be more fully integrated in order to maximize NOAA's contributions to national goals.**

It is essential in this era of limited resources that NOAA build on the specific strengths of existing coastal programs, use them to meet emerging needs and provide clear direction on future roles and responsibilities. Sea Grant should continue joint planning with other coastal programs and communicate more effectively within NOAA and beyond about what it has to offer with regard to research, outreach and education to advance the over-all NOAA coastal, ocean and Great Lakes agenda.

**4. Sea Grant should capitalize on its nationally recognized leadership in stakeholder engagement within coastal and Great Lakes communities as federal-state-local communication and collaboration become more critical to addressing needs and responding to crises.**

With its presence in all coastal counties and its strong outreach, education and communication staff, Sea Grant can play a significant role for NOAA as demand for these services increases. Sea Grant's ability to provide rapid response in recent crises such as Hurricane Katrina and the Deepwater Horizon oil spill demonstrate the value of its national network and local presence in engaging with stakeholders to respond to crises and pursue other shared goals.

**5. Sea Grant should continue to re-examine its priorities and methods of operation in order to respond to the nation's most urgent needs.**

The National Sea Grant Office, state Sea Grant programs and the National Sea Grant Advisory Board should review the full range of Sea Grant activities and determine which could be reduced, redirected, expanded or terminated so new opportunities can receive investments. Sea Grant research programs should be targeted to address Sea Grant and national strategic priorities such as climate-related research, coastal and offshore energy development, sustainable fishing technologies and socio-economic issues related to sustainable growth in coastal environments.

**6. Significant additional resources should be provided to the National Sea Grant College Program in order to reverse the erosion of buying power and maintain a dynamic program with rapid response capability.**

The 21st century has brought unparalleled challenges to coastal America. Twice in recent years, the nation has faced dramatic human and natural resource crises in the Gulf of Mexico. Both times, Sea Grant, with staff already in these coastal communities, was among the first to respond by communicating with and bringing together affected constituents. Sea Grant participated in or led scientific and technical reviews of the extent of damages and efforts to design effective responses to repair damaged communities, natural resources and economies. Even in a time of serious budget constraints, consideration should be given to providing Sea Grant with additional resources. Twenty years of level funding combined with significant inflation over that same time period have left state Sea Grant programs and the National Sea Grant Office with substantial reductions in buying power. This has had pronounced effects on the National Office's ability to provide leadership and coordination and the ability of state programs to leverage additional funds and carry out their responsibilities. Sea Grant urgently needs additional funding to continue its critical 21st century involvement in coastal crisis response and management and its leadership role in meeting the nation's growing coastal, ocean and Great Lakes challenges.

**The National Sea Grant Advisory Board welcomes this opportunity to provide Congress with a report on the State of Sea Grant and looks forward to working with Congress, NOAA and the entire Sea Grant team to maximize the benefits this program can provide to this nation and its coastal communities.**

# APPENDIX 1

## Sea Grant Programs

### GREAT LAKES REGION

Illinois-Indiana Sea Grant College Program  
Lake Champlain Sea Grant Project  
Michigan Sea Grant College Program  
Minnesota Sea Grant College Program  
New York Sea Grant Institute  
Ohio Sea Grant College Program  
Pennsylvania Sea Grant Institutional Program  
Wisconsin Sea Grant Institute

### NORTHEAST REGION

Connecticut Sea Grant College Program  
Lake Champlain Sea Grant Project  
Maine Sea Grant College Program  
Massachusetts Programs:  
Massachusetts Institute of Technology  
Sea Grant College Program  
Woods Hole Oceanographic Institution  
Sea Grant Institutional Program  
New Hampshire Sea Grant College Program  
New York Sea Grant Institute  
Rhode Island Sea Grant College Program

### MID-ATLANTIC REGION

Delaware Sea Grant College Program  
Maryland Sea Grant College Program  
New Jersey Sea Grant Consortium  
Virginia Sea Grant Institutional Program

### SOUTHEAST, GULF OF MEXICO AND CARIBBEAN REGIONS

#### Southeast

Florida Sea Grant College Program  
Georgia Sea Grant College Program  
North Carolina Sea Grant College Program  
Puerto Rico Sea Grant College Program  
South Carolina Sea Grant Consortium

#### Gulf of Mexico

Louisiana Sea Grant College Program  
Mississippi-Alabama Sea Grant Consortium  
Texas Sea Grant College Program

### PACIFIC REGION

Alaska Sea Grant College Program  
California Programs:  
California Sea Grant College Program  
Southern California Sea Grant  
Institutional Program  
Hawaii Sea Grant College Program  
Oregon Sea Grant College Program  
Washington Sea Grant College Program  
Guam Sea Grant Project

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[http://www.corporateservices.noaa.gov/~nbo/10bluebook\\_highlights.html](http://www.corporateservices.noaa.gov/~nbo/10bluebook_highlights.html)

# APPENDIX 2

**NOAA Sea Grant Strategic Plan 2009-2013: Meeting the Challenge**, National Sea Grant College Program, 2009  
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# APPENDIX 3

## **Sea Grant Program Impacts**

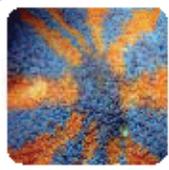
<http://www.seagrant.noaa.gov/newsevents/impacts2010.html>



## The State of Sea Grant 2010: Impacts, Challenges and Opportunities

Biennial Report to Congress by the National Sea Grant Advisory Board, November 2010





# FOCUS TEAMS

Hazard Resilient Coastal Communities  
Sustainable Coastal Development  
Healthy Coastal Ecosystems  
Safe Sustainable Seafood Supply

Mission:  
NOAA's National Sea Grant College Program enhances the practical use and conservation of coastal, marine and Great Lakes resources to create a sustainable economy and environment.

In response to the recommendations put forth by the National Research Council "Evaluation of the Sea Grant Program Review Process" report, the National Sea Grant College Program developed a new national strategic plan, "NOAA National Sea Grant College Program Strategic Plan 2009-2013: Meeting the Challenge". All state program plans have since aligned to this national plan. Focus Teams were established as a new mechanism to enable Sea Grant to implement the national, regional and state plans in an effective, coordinated and collective manner.

## PURPOSE

To advise the National Sea Grant College Program for the purpose of developing and accomplishing the goals and strategies outlined in the four focus areas described in the NOAA National Sea Grant College Program Strategic Plan.

## MEMBERSHIP

Nominations for members from Sea Grant and the broader community were solicited from the Sea Grant network and its partners and recommendations were vetted with the leadership of the National Sea Grant Office (NSGO) and Sea Grant Association (SGA). While mindful of geographic and functional (e.g. the networks) balance, the overarching objective is to appoint individuals who have a "big picture" perspective, are creative and innovative, and are recognized by peers as highly reputable experts within their focus area. The 9-12 members of each team include representatives from the National Sea Grant Office, the National Sea Grant Advisory Board, Sea Grant Directors and other networks (research, extension, education and communications) and outside expertise. Members function on behalf of the entire Sea Grant network, and not the individual programs or organizations they represent. Focus Team appointment is for the duration of the strategic planning period or through 2013.



## RESPONSIBILITIES

- Facilitate planning, implementation, synthesis and reporting of Sea Grant activities and accomplishments.

-Responsibilities may include:

1. Participating in national level strategic planning
2. Assisting in the development of the Sea Grant National Implementation Plan
3. Reviewing annual reports and providing a coherent national story about Sea Grant contributions in the focus area annually.
4. Assess progress in achieving the outcomes identified in the national plan and recommend mid-course adjustments, if any.

- Identify new opportunities and directions for Sea Grant national and regional initiatives.

-Responsibilities may include:

1. Articulating and promoting the need for regional and national programming.
2. Assisting in the development and/or review of national and regional strategic investments.
3. Developing white papers or think pieces that convey new opportunities or approaches for Sea Grant relative to the focus area.
4. Reviewing regional research and information plans to identify new opportunities for national and/or regional initiatives.
5. Recommending new initiatives for funding in the NOAA budget process.

- Catalyze cooperative efforts among Sea Grant College Programs, the NGSO, NOAA, and other agencies and stakeholder organizations, including NGO's.

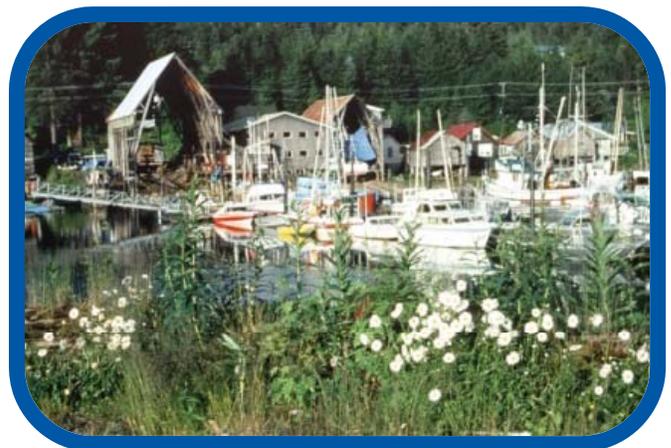
- Responsibilities may include:

1. Developing strategies and forming partnerships with other NOAA programs, agencies or NGOs.
2. Prioritizing and developing action plans for achieving partnership development.

- Provide a mechanism to further solidify Sea Grant's local, regional, and national identity.

- Responsibilities may include:

1. Organizing and/or sponsoring or co-sponsoring national level conferences, symposia and other educational initiatives.
2. Working with NSGO communications staff, developing news releases, media events, etc. that highlight Sea Grant impacts in the focus area.



# National Sea Grant College Program



## HAZARD RESILIENCE IN COASTAL COMMUNITIES

### THE ISSUE

Coastal storms, flooding, inundation, coastal erosion, sea-level rise, tsunamis, the ongoing threat of oil spills and other **natural and human hazards** all carry the **threat of disaster**, placing people and property at risk along the nation's coasts. These dynamic forces and potential climate change impacts, combined with population growth along our coastlines, present tremendous implications for the economic and environmental health of our coastal areas. Coastal residents must understand these risks, and learn how to reduce their vulnerability and respond quickly and effectively.

Sea Grant uses its integrated research, training, and technical assistance capabilities to help local citizens, decision-makers, and industries plan for hazardous events, as well as respond and rebuild.

### SEA GRANT WORKS TO:

**Promote widespread understanding:** Assess short and long-term risk for residents and businesses and ensure that forecast and other information is available and useful to help save lives.

**Prepare Communities:** Help communities plan to reduce risk; pinpoint vulnerabilities and use technologies to prepare for and mitigate hazards.

**Respond to coastal catastrophes:** Make products and services available to support crisis decision-making, mobilize our network to provide rapid response strategies, and partner with emergency responders.

### SEA GRANT BRINGS THESE UNIQUE ASSETS AND CAPABILITIES TO EMPOWER CITIZENS

- Conducts applied research to help solve local problems
- Helps businesses identify risks
- Conducts education/literacy programs to save lives and protect property
- Develops policies, plans, and ordinances to reduce risks, manage catastrophic events and speed recovery
- Pinpoints vulnerabilities, integrating demographic and coastal hazard information
- Help communities prepare for hazards
- Supports crisis decision-making
- Develops life-saving hazard-related products and predictive tools
- Informs response strategies by mobilizing scientific and technical expertise
- Helps facilitate emergency response



Sea Grant

# SEA GRANT IMPACTS: BALANCING HUMAN & ENVIRONMENTAL NEEDS

This page is intentionally left blank for the state Sea Grant programs to insert the impacts they would like to highlight.

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# National Sea Grant College Program



## HEALTHY COASTAL ECOSYSTEMS

“Sea Grant has been visionary enough to realize this is a great way to engage fishermen in science.”

– **Michael Harte, professor in the Oregon State University College of Oceanic and Atmospheric Sciences and director of the Marine Resource Management Program**

### THE ISSUE

Degradation **rapid coastal development**, and **other human activities** are just some of the threats to our Nation’s coastal ecosystems. Responsible management of ecosystems requires new kinds of thinking and actions.

Sea Grant is leading regional efforts to understand and maintain healthy ecosystems. Planning efforts are underway across the country to identify information gaps, set research priorities, and coordinate information and technology transfer to citizens. Sea Grant’s regional consortia, nationwide networks, and international contacts are particularly well-suited to helping the Nation address ecosystem health at the appropriate local, state, regional, national and global levels.

**Support ecosystem-based approaches to managing the coastal environment:** Increase the capacity of managers to consider the entire ecosystem.

**Restore the function and productivity of degraded ecosystems:** Identify and evaluate innovative policies, technologies, and methods to restore the services provided by our Nation’s ecosystems.

**Promote stewardship of healthy ecosystems:** Provide life-long learning programs that enhance understanding of coastal, ocean, and Great Lakes environments and the services they provide.

### SEA GRANT WORKS TO:

#### SEA GRANT BRINGS THESE UNIQUE ASSETS TO EMPOWER CITIZENS

- Identifies and implements innovative management approaches
- Increases understanding of ecosystem processes and stressors
- Promotes sound management principles and practices
- Partners with federal, state, and local agencies
- Increases the effectiveness of restoration efforts
- Advances restoration science



**Sea Grant**

# SEA GRANT IMPACTS: BALANCING HUMAN & ENVIRONMENTAL NEEDS

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# National Sea Grant College Program

# DRAFT



# SAFE SUSTAINABLE SEAFOOD SUPPLY

“I love working with Oregon State University, and Sea Grant in particular has helped establish a good connection between Oregon’s fishing industry and academia....”

– **Al Pazar, crab fisherman**

## THE ISSUE

Rising demand for seafood, coupled with the decline of many major U.S. fisheries, has led to a staggering **seafood trade deficit of \$8 billion per year**. Aquaculture creates important new opportunities to meet the increased demand for seafood, but a number of questions and concerns must be addressed for its full potential to be realized. With international seafood imports on the rise, and **fish diseases** and **contamination** escalating, the safety of our seafood is a growing concern.

Sea Grant works to ensure a sustainable supply of safe seafood for our Nation. A dynamic link between scientific information providers and information users, Sea Grant leads innovative research and outreach programs, and furthers the effectiveness of the efforts of our federal, state, and local partners. Located within the communities they serve, Sea Grant experts are an integral and trusted resource for coastal residents and decision-makers.

## SEA GRANT WORKS TO:

**Ensure the sustainability of fisheries:** Engage harvesters, recreational fisherman, producers and managers in ways to minimize threats, and enhance the productivity and management of wild fisheries.

**Support a viable domestic seafood industry:** Provide innovative approaches and techniques that ensure financial competitiveness and environmental responsibility.

**Ensure the health and safety of seafood:** Enhance training and technical assistance programs related to the application of standards for safe domestic and imported seafood.

## SEA GRANT BRINGS THESE UNIQUE ASSETS TO EMPOWER CITIZENS

- Identifies and implements innovative management approaches
- Supports a viable domestic aquaculture industry
- Partners with federal, state, and local agencies to deliver seafood science to consumers and businesses
- Develops new seafood products and innovative marketing approaches
- Promotes application of standards for seafood safety
- Educates consumers about the sustainability and safety of seafood choices



# SEA GRANT IMPACTS: BALANCING HUMAN & ENVIRONMENTAL NEEDS

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# National Sea Grant College Program



## SUSTAINABLE COASTAL DEVELOPMENT

“Sea Grant offers a tremendous network of dedicated professionals that I can rely on for authentic information and imagery to incorporate into educational workshops and marketing campaigns. Their commitment to funding, supporting and sustaining nature-tourism initiatives is a valuable public service.”

– Joanne McDonough,  
nature-tourism  
specialist



Sea Grant

### THE ISSUE

Population growth and poor development practices along our Nation’s coasts have transformed our coastal landscapes and resulted in increased **habitat loss** and **water quality degradation**, user conflicts, and loss of cultural heritage. With the Nation’s coastal population expected to increase by more than 12 million by 2015, vulnerability to sea-level rise and other effects of climate change will increase exponentially, as will stress on coastal environments. Facilitating coastal community decision making in the face of these challenges is a daunting task, requiring trusted, knowledgeable, on-the-ground expertise in coastal communities.

Sea Grant professionals reside in every coastal and Great Lakes state, and work with coastal communities and their citizens to help them understand and utilize research, tools, and technologies to address these issues and to make informed decisions.

### SEA GRANT WORKS TO:

**Strengthen local economies:** Provide science-based information and techniques that enhance waterfront economic activities while sustaining environmental integrity.

**Ensure public access:** Preserve and enhance public access to the Nation’s beaches and waterfronts through access-related needs assessments, conflict resolution, legal analysis, and technical assistance.

**Support sustainable planning:** Engage coastal communities and decision-makers in planning processes that identify and pursue sustainable economic development policies, including renewable energy options.

### SEA GRANT BRINGS THESE UNIQUE ASSETS AND CAPABILITIES TO EMPOWER CITIZENS

- Conducts environmental and socio-economic assessments
- Supports renewable energy development and conservation
- Supports working waterfronts and local businesses through planning efforts, legal and technical assistance
- Engages communities in environmentally and economically sustainable planning practices and policy development to promote sustainable growth
- Trains local managers
- Provides legal and policy analysis and program evaluation
- Encourages public participation in coastal development issues through outreach, education and facilitation
- Conducts relevant research and technology development informed by stakeholder needs.

# SEA GRANT IMPACTS: BALANCING HUMAN & ENVIRONMENTAL NEEDS

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## About Us

### About the Acting Deputy Assistant Administrator, Programs and Administration for Oceanic and Atmospheric Research

**Judith Gray**

Judy Gray is Deputy Assistant Administrator, Programs and Administration (Acting) for NOAA's Office of Oceanic and Atmospheric Research (OAR). She is responsible for daily operations and administration of NOAA's research enterprise, and the execution of NOAA programs including the Climate program, National Sea Grant, and Ocean Exploration and Research.

For the past 12 years, she served as Deputy Director of NOAA's Atlantic Oceanographic and Meteorological Laboratory (AOML) in Miami, FL.

A meteorologist, Gray has been with NOAA for 30 years. She started as a NOAA Corps officer and became a scientist at the Pacific Marine Environmental Laboratory in Seattle, where she studied winds along the mountainous coastline of Alaska on NOAA ships and aircraft in support of the Fisheries Oceanography Coordinated Investigations. Gray moved to OAR in 1990 to be an advocate for oceanic and atmospheric research, was OAR's first representative to NOAA's Program Coordination Office, served as the Acting Executive Director and Acting Deputy Director of NOAA's then 11 Environmental Research Laboratories (ERL), and was Program Manager for the NOAA Coastal Forecast System and GLOBEC (Global Ocean Ecosystems Dynamics).

She earned her undergraduate degree in meteorology from Penn State, and her master's degree in atmospheric sciences from the University of Washington. Gray is a graduate of the first class of NOAA's Leadership Competencies Development Program, and a mentor to NOAA staff across NOAA. In addition to developing people to meet their potential, her life-long goal is to provide the Nation with outstanding research to improve weather, ocean, and climate forecasting and a policy-neutral scientific basis for making environmental decisions.

She has a Department of Commerce Bronze Medal, Department of Energy Federal Energy and Water Management Award, and a NOAA Special Act Award. Her favorite awards are her humorous honors including the *Above and Beyond the Call of Duty* award from the ERL Directors and the *Meritorious Order of Management (MOM)* award from AOML staff.

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Updated April 15, 2010



**Captain Eric J. Trehubenko**  
*United States Navy*

Captain Eric J. Trehubenko is a native of Wolcott, Connecticut. He graduated from Boston University with a degree in Astronomy and Physics in 1988. In 1995 he received a Master of Science degree in Oceanography and Meteorology from the U.S. Naval Postgraduate School in Monterey, California, where he graduated with distinction. He was commissioned an Ensign in the United States Navy in 1988 and has served in a variety of sea-going and shore-based billets.

At sea, Captain Trehubenko served on board USS *Lewis B. Puller* (FFG-23), homeported in Long Beach, California, from 1989 to 1992, where he served as Communications Officer, Ordnance Officer, qualified as a Surface Warfare Officer, and deployed to the Western Pacific. From 1997 to 1999, he served as Officer in Charge, Mobile Environmental Team, Yokosuka Japan, where he led efforts to provide tactical meteorology and oceanography support to numerous Pacific Theater commanders. Remaining in Japan, he served aboard USS *Kitty Hawk* (CV-63) as Oceanographer and *Hawk's* Senior Officer of the Deck from 1999-2001. In addition to "routine" forward-deployed operations, *Kitty Hawk* deployed to the Middle East in October 2001 to serve as an afloat forward staging base for special operations in the early days of ENDURING FREEDOM.

Ashore, Captain Trehubenko was assigned to Joint Typhoon Warning Center, Guam, from 1995- to 1997, where he served as Deputy Director/Operations Officer, and as a Typhoon Duty Officer. From 2002-2004, he was assigned to the Bureau of Naval Personnel, as assistant Oceanography Officer Detailer, Placement Officer, and Community Manager. In 2004 he reported as Force Oceanographer to Commander U.S. Naval Forces Central Command and Commander, U.S. Fifth Fleet/Coalition Forces, Maritime Component Commander in Bahrain. He also performed duties as Future Operations Officer, directing planning efforts for U.S. and coalition naval forces supporting combat operations in Iraq and Afghanistan as well as Coalition Maritime Security Operations. He reported to the Oceanographer & Navigator of the Navy (CNO N84) staff in 2005 as Executive Assistant. From October 2007 to September 2009, Captain Trehubenko commanded the Naval Oceanography Antisubmarine Warfare (ASW) Center Yokosuka, Japan where he supported ASW efforts throughout the COMSEVENTHFLT and COMFIFTHFLT areas of responsibility. Upon completion of his command tour, he performed duties as Assistant Chief of Staff for Strategic Plans and Policy for Commander Naval Meteorology and Oceanography Command and Deputy Hydrographer of the Navy and reported recently as Executive Officer of the Naval Oceanographic Office in July of 2010.

Captain Trehubenko's personal awards include the Defense Meritorious Service Medal, Meritorious Service Medal (five awards), Navy and Marine Corps Commendation Medal (three awards) and various unit and campaign awards.