

**Public Comments
on the U.S. Commission on Ocean Policy's Preliminary Report**

Topic Area: Education

Comments Submitted by:

- C. Peter Magrath, National Association of State Universities and Land-Grant Colleges
- Joshua Phelps, Edmonds, Washington; Danielle Jensen, Lynnwood, Washington; Ashley Blanchard, Lynnwood, Washington
- Ashley Miffitt, Santa Cruz, California
- Judith Mineo, GFWC Florida Federation of Women's Club's
- Richard Strathmann, Friday Harbor, Washington
- Max Ledbetter, Kitchener, Ontario
- Greg McBride, Aptos High School
- Angela DeGraffenreid, Sonoma, California
- Jerry R. Schubel, Sea Grant Review Panel

**Comment Submitted by Dr. C. Peter Magrath,
National Association of State Universities and Land-Grant Colleges**

June 3, 2004

**Comments on the U.S. Commission on Ocean Policy Preliminary Report
Dr. C. Peter Magrath
President
National Association of State Universities and Land-Grant Colleges
1307 New York Ave. NW, Suite 400
Washington, DC 20005**

On behalf of the National Association of State Universities and Land-Grant Colleges (NASULGC), I commend the Commissioners and staff for producing an excellent report that calls attention to the critical issues facing our marine and coastal resources and provides recommendations for addressing them. Our community was particularly pleased with the emphasis on increased investments in research and education. NASULGC institutions will work to implement these and other recommendations and provide long-term support as a new integrated national ocean policy is refined. As we move forward together, it is essential that the expertise of the higher education community be fully utilized in developing national management strategies. Universities must play a key role in the Presidential Council of Advisors on Ocean Policy and in the establishment of regional ocean councils.

The shift towards ecosystem-based management and end-to-end watershed monitoring that the report recommends is long overdue. As management responsibilities increase and become more complex, the need for information and infrastructure will grow exponentially. NASULGC supports large investments in ocean observing and water quality monitoring networks and doubling the ocean and coastal research budget over the next five years. We support the Commission's suggestions for strengthening NOAA, particularly the recommended Congressional authorization and formal inclusion of education in its mission.

NASULGC supports the report's recommendation to significantly expand the National Sea Grant College Program. Sea Grant's extension and outreach capabilities are a sorely underappreciated bridge between researchers and local users. The existing infrastructure of Land-Grant institutions and Cooperative Extension must also be utilized as the oceans community looks inland, away from the coast, on issues such as non-point source pollution and air quality. The report correctly lists "Ocean-Land-Atmosphere Connections" as a guiding principle for building a comprehensive ocean policy; NASULGC urges that principle be more explicitly articulated in the report's recommendations. Our members can help engage the agricultural and atmospheric research communities, as well as others, to solve estuarine, coastal, and deep ocean problems that know no disciplinary or geographic boundaries.

We applaud the report's proposals to increase ocean education at all grade levels and for teachers. You have correctly recognized the need to encourage interdisciplinary studies and real world experiences outside the classroom. The aging federal workforce is of great concern, therefore we believe Congress needs to fund graduate and post doctorate fellowships and traineeships with great haste.

Comment Submitted by Joshua Phelps, Edmonds, Washington; Danielle Jensen, Lynnwood, Washington; Ashley Blanchard, Lynnwood, Washington

May 20, 2004

Members of the U.S. Commission on Ocean Policy,

I am a high school student at Meadowdale High School in Lynnwood, Washington, a suburb twenty miles north of Seattle. It has been brought to my attention that the Commission was seeking public opinion regarding the matters of ocean policy. My class was split into nine groups, each studying a different section of the preliminary report. My group looked over Chapter 31: Summary of Recommendations. This covered the guiding principles and summarized the ideas brought under the umbrella of what role states should play in ocean policy.

The first bullet put on state involvement regards education. That is a good place to start as those who are educated in how they affect the ocean and how the ocean affects them would likely feel more compelled to alter their behavior to better help their environment. Education in the four corners and middle of America would help to protect ocean life. I am currently enrolled in a Marine Biology class at Meadowdale where we learn of the multitude of life beneath the waves and what kind of a role humans play in affecting those species and how those species affect humans. An article in a local newspaper mentioned how the otters in California are dying off and how such a decrease in that population increases urchin numbers. The urchins eat seaweed and thus the seaweed gradually disappears. This instability of ecosystem could and likely will lead up to much bigger things regarding California and spread farther inland. If we hope to stop such abuse of our oceans, educating people will help to build a constituency, which would bolster a candidate likely to support beneficial ocean policies.

With such a constituency built, the candidate could push for the watchdog groups your recommendations have been suggesting. From what I have read, these groups would monitor coastal areas, water-based infrastructures, debris prevention, and water quality monitoring. As good an idea this is, it is also an area where people are rather hesitant to tread. The formation of these groups would require state budget increases, as you are recommending states to form their own watchdog coalitions. Common citizens might not be open to the idea of increased taxes. This can be seen in the Seattle area where tax decreasing initiatives seem to pass at an alarming rate. Plainly put, people do not like to pay a lot of taxes, especially when they feel they will gain no benefit from the tax. On the eastern side of the Cascade Mountain Range of Washington and Oregon states, the general populace would feel little effect from such a tax and be inclined to reject or protest its advent. The same may be applied to areas of America's heartland where oceans seem to be a thing the folks far west or east have to deal with. States affected by the money brought along the Mississippi River may feel compelled to comply with a new ocean policy due to how the ocean affects their monetary gain or loss directly via boat traffic gained or lost by the destruction of the Gulf of Mexico, a small portion of the Atlantic Ocean. If people can realize that they are helping themselves and their generations to come, swaying them towards the position would not need such pugilistic campaigning.

As the members of the Commission seek to affect ocean policy and raise awareness to the dire peril our ocean is heading towards in our current trajectory and speed, I try to do my part. Recycling is popular in the Seattle area and some laws are being worked on to make it mandatory. Keep in mind the way to these programs is paved with money but unfortunately, people view that carpet of green as a bed of burning coals, which they believe will burn them if tread upon. Keep the awareness up and keep the oceans safe.

Comment Submitted by Ashley Miffitt, Santa Cruz, California

May 18, 2004

My name is Ashley Miffitt and I am a junior at the University of California Santa Cruz and am a marine biology major. I am currently taking a marine conservation class and as part of an assignment, we read the Oceans Commission report. As an informed citizen, I am well aware of the state of our oceans and the effects that we as citizens have on oceans and what impacts negative treatment of the oceans will have on us, our economy and on the future generations to come. The reason I care so much about the state of our oceans and the current affairs associated with it is because I have been well informed by my professors. So I am writing to you to stress the importance of education for all about the oceans and fisheries. I am not only talking about children or teens but adults. People only begin to care about something and take action to protect it when they understand it and know something about it. It is easy for someone to look out at the ocean and see that it is blue and think that it looks healthy but when in reality it is not. It is also easy to go to the local fish market and grocery store and see fish ready to be sold and think that fish stocks are plentiful when in reality they are being depleted at a drastic rate. Although you mentioned education in your report, my fellow classmates and I feel it was understated and that we felt you should know how important it is to educate all age groups about our oceans and the state that it is in. Although this is not an easy task to accomplish, I do believe it can be done by putting out informative fish facts in super markets and also to inform the retailers of issues so that they might also take an active role in helping maintain our oceans. It is most important to have the information, in order to make a change and to care about something and I believe that the only way this can be achieved is by informing the public and making them care as much as we do. Thank you ever so much for your time and for reading my comments and I hope that in the future, your report will include more good news about the state of our wonderful ocean.

Comment Submitted by Judith Mineo, Resource Conservation Chairman, GFWC Florida Federation of Women's Club's

May 13, 2004

I am the Resource Conservation Chairman 2004-06 for the GFWC Florida Federation of Women's Club's (approximately 14,500 members. The Sea Grant Program is an important resource for education and information for the general public. I have found our Sea Grant Agent, Christine Verlinde, most enthusiastic and helpful in providing information concerning the program and projects for our area - Santa Rosa County, Florida.

Comment Submitted by Greg McBride, Aptos High School

May 2, 2004

I recommend that formal Marine education be given a higher priority, especially in the vicinity of National Marine Sanctuaries. In the last ten years public organizations such as the Monterey Bay National Marine Sanctuary and the Monterey Bay Aquarium have concentrated their energy on web sites and focused dwindling funds on public education. Elementary education is an afterthought and secondary education is off the priority list. Only the National Ocean Science Bowl is an exception to this trend. Encouraging public institutions to work with formal educators is a way to tap into a huge audience.

I would also recommend that an Advanced Placement exam in Marine Science or Marine Biology be developed. The most ambitious and talented students focus their efforts on AP classes. I have taught over one hundred students per year in Marine Biology at Aptos High School for the last seven years. Students efforts and recognition and career goals would shift toward the ocean if they could earn AP credit.

Comment Submitted by Richard Strathmann, Friday Harbor, Washington

May 10, 2004

Dear Commission members:

The preliminary report on US Ocean Science Policy is right on the mark in the sections that I have read.

An apparent omission, in the sections on education and in the recommendations, is the key role played by marine labs and field stations in college and university education in the marine sciences.

Most students have limited access to marine organisms and environments at their home campuses. At marine labs and field stations they gain direct and extensive experience with marine life and marine environments. Students at marine labs/field stations are also exposed to concepts and methods unavailable on their home campuses. However, students must travel to another site, live there, and often pay tuition to an institution that is not part of their home institution. This is an added expense that few students can meet. Traineeships granted to marine labs and field stations for support of students will greatly enhance students' education in the marine sciences.

Funding college and university students as assistants on research grants is certainly insufficient, as the report notes. Many marine labs/field stations are attempting to fund expenses of students through non-government sources, including donations for endowments. These sources of student funding enable some students to take courses or do research at marine labs but have supported only a few of the students who need and deserve extensive, direct experience with marine organisms and environments.

The report recommends addition of traineeships and other forms of student funding. Traineeships granted to marine labs and marine field stations for support of students taking courses and doing research will help meet the Report's stated goals for future leadership and marine stewardship.

Richard Strathmann
Friday Harbor, WA 98250

Comment Submitted by Max Ledbetter, Kitchener, Ontario

May 8, 2004

"The education of the 21st century ocean-related workforce will require not only a strong understanding of oceanography and other disciplines, but an ability to integrate science concepts, engineering methods, and sociopolitical considerations. Resolving complex ocean issues related to economic stability, environmental health, and national security will require a workforce with diverse skills and backgrounds. Developing and maintaining such a workforce will rely, in turn, on programs of higher education that prepare future ocean professionals at a variety of levels and in a variety of marine-related fields."

Obviously, your educational and institutional environments and curricula must include rigorous methods for assessing codes of conduct and ethics.

Comment Submitted by Angela DeGraffenreid, Sonoma, California

I believe I have been blessed and I am proud to day that I was born and raised in a small coastal town in Northern California. Along with many other California kids I have collected sea shells, watched the whale migrations, enjoyed wonderful seafood meals, like abalone, and volunteered at beach clean up days. But these aspects of coastal living are under appreciated and now in jeopardy because of the many harmful impacts upon our greatest resource. This semester I will graduate with a degree in Biological Sciences and I am thankful for the education and research I have participated in about the dangers our marine ecosystems face. And it seems that outside our geeky Darwin Hall nobody seems to know or care about the preservation of marine ecosystems health and biodiversity. For instance, the introductions of non native species is one of the many problems effecting local ecosystems of the San Francisco Bay. Yet SF continually makes national headlines about gays and other eccentrics about the city but never does anyone mention what is happening in the water, which I find even more interesting. When traveling it can be exciting to tell someone far away that I am from California and often with one glance at my blond hair someone will immediately ask, "Do you surf?" In a truthful answer I should tell them that our waters are polluted and getting in is as much of a risk as Mexico's toilet water, but luckily we northerners are still behind the pollution that has been created in the southern part of the state. So we just blame the cold water for keeping us out. But is this ignorance really bliss? It is disgusting and alarming to think about the amount of money that is spent and enjoyed on eating sushi, when everyone should be warned about the toxins dumped into our oceans only to be biologically magnified into the fish and other delicacies. I have heard my Dad speak of finding sand dollars washed ashore, and watching otters swimming and playing in the water when he was a child. I wonder what someday I will tell my children about what used to be? We need to recognize that changes will only be made if we initiate them. Making changes now will allow us to preserve what is still hanging on. Education will spread awareness and by voicing concerns we can help save the oceans by making conscious decisions about ways to slow down our harmful impacts. Even children landlocked in middle America can hear the sound of the ocean's waves when they hold a seashell to their ear. Isn't this enough to make them care? Thank you for taking the time to read this.

Angela DeGraffenreid
Sonoma, California



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Sea Grant College Program
1315 East-West Highway
Silver Spring, Maryland 20910

11 May 2004

Admiral James D. Watkins (Ret.)
Chairman
Commission on Ocean Policy
1120 20th Street NW
Washington DC 20036

**National Sea Grant
Review Panel**

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John A. Knauss

Jeffrey R. Stephan

Judith Weis

John T. Woste

Dear Admiral Watkins:

We are writing as the National Sea Grant Review Panel to provide our response to the report of the U.S. Commission on Ocean Policy. Congress created the Sea Grant Review Panel in 1976 to advise the Secretary of Commerce, the Under Secretary for Oceans and Atmosphere (NOAA), and the Sea Grant Director (NOAA) on the direction, operations, and performance of the National Sea Grant College Program.

We applaud the Commission's recommendation to double the ocean research budget. The Nation's resource management decisions can only be made with a strong base of sound science. We would like to reinforce some of the important contributions that Sea Grant already makes to the Nation and to underscore areas where it can make further contributions to fulfilling the recommendations made in the Commission's report.

- Sea Grant is well positioned to meet the challenge of the Commission's recommendation to significantly increase Sea Grant's role in shaping the Nation's ocean and coastal research agenda. Sea Grant meets or exceeds NSF's competitive research benchmarks, with the added advantage of a stable national infrastructure and outreach network ready to deliver results in a very timely manner. Sea Grant provides a strong match between the Nation's coastal problems and opportunities, and the Nation's best problem solvers
- Sea Grant is one of the most highly leveraged of all Federal science programs. To the \$60 million in appropriated Federal funds in FY2003, the states contributed an additional \$36 million, a match of almost 60% of the appropriation. Federal agencies entrusted another \$11.0 million in FY2003 to Sea Grant to tap into the expertise and coastal reach of the Sea Grant program. This is only part of the story. Sea Grant programs also manage a significant level of local, state, and regional resources that does not show up in the federal grants column. When these funds are included, it is not unusual for a Sea Grant program to have far more than a 1:1 ratio of non-federal funds to federal funds.



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- Sea Grant currently addresses problems on regional and ecosystem scales, and with appropriate budget funding could do far more. Sea Grant's appropriation must be quickly raised to its federal authorized level of \$103 million. After that, a significant increase in Sea Grant's authorized funding level will be required to meet the Commission's vision. The Commission's farsighted call to enhance the Nation's capability in marine science literacy, public outreach and education also plays to Sea Grant's strength, but we have only scratched the surface. For example, successful implementation of a national integrated ocean and coastal observing system (IOOS) requires grass roots support, and regional development and coordination. Sea Grant is in an excellent position to lead the effort in educating the public about the goals and benefits of an ocean observing system, as well as playing a leading role in the development of these systems

- Sea Grant can also address the Commission's recommendation that the U.S. should increase its efforts to enhance long-term ocean science and management capacity in other nations. Sea Grant is a proven, effective paradigm for the engagement of universities and is inherently flexible both culturally and administratively. Thus, there is substantial opportunity to develop cooperative programs domestically and with international partners. Sea Grant receives requests from developing countries, many more than can be adequately accommodated, asking for assistance to adapt the Sea Grant model of University-based education, research and outreach (extension and communications) to a country's particular circumstances. Currently, programs based on the Sea Grant model are in various stages of development in Korea, Nicaragua, Honduras, and Indonesia.

On behalf of the Sea Grant Review Panel, let me commend the Commission on the very thoughtful report and thank you for the confidence you showed in Sea Grant throughout the report. You and your colleagues have taken an enormous amount of information from a multitude of sources -- sometimes with divergent goals -- and synthesized that information into a compelling and balanced document. We hope that the Congress and the Executive Branch will implement your recommendations in a timely manner because we share your concern and sense of urgency about the problems facing our Nation's oceans and coasts.

Sincerely,



Jerry R. Schubel, Chair
National Sea Grant Review Panel