OREGON SEA GRANT

Oregon State University

Strategic Plan
1998–2003

Second Edition
April 2000

Sea Grant
Oregon

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Introduction

This document summarizes Oregon Sea Grant's mission and the values that create its vision. It also outlines the program's goals and subgoals. Our intention is that our functional planning will provide guidance for improving the program's perform- ance and will allow the program to be both deliberate and responsive, changing with fluctuating needs and circumstances while retaining the best of what works. In addi- tion, this document outlines the processes we use to identify priority issues or themes, and it briefly describes the program's most current thematic goals. In other words, this plan describes both how we intend to do business and what issues, problems, and oppor- tunities will receive most of our attention in the period 1998–2003.

In its more than 30 years of existence, Oregon Sea Grant has built highly visible and productive research and outreach programs. Historically, formal Sea Grant planning exer- cises were carried out to plot the near-term future of the program, largely as part of the biennial omnibus proposal process. Many of our relationships, processes, and activities existed simply because they had always existed. In the turbulent political climate of the late 1980s and early 1990s, that posture was not only undesirable, it could have been fatal to the program. The period brought both opportunity and serious challenges that tested the strength and resilience of the Sea Grant concept nationally, regionally, and locally. Now the challenges are as formidable as ever. But this is a time for neither despair nor complacency. Those of us who are the managers and the stewards of Oregon Sea Grant know that we must continually refresh our vision. We must plan and act deliber- ately but boldly, with a sense of optimism for what lies ahead.

Strategic thinking has always been a fundamental element in the management of Oregon Sea Grant. But in 1995 we embarked on a period of reflection and formal programmatic strategic planning that did much more than set the stage for selection of the program's short-term themes, priorities, and specific activities. We recognized the need to examine the boundaries of our mission and our mandates and to consider difficult internal issues. We felt, for example, that it was important to improve internal functions and to create partnerships and true synergy among the major elements of the program: research, education, and outreach. We considered difficult external issues as well, including how we might best interact with state agencies and industries, the various colleges within Oregon State University, and the other institutions of higher education in Oregon. Further, we examined how we interact with other Sea Grant programs of the national network and with national institutions and agencies. In a parallel and equally important process, we worked to identify which themes and specific issues were most in need of this program's attention.

The planning process, begun about four years ago, resulted in a series of largely internal strategic planning documents. Those documents contributed directly to the thematic priorities we set for the program every two years, which in turn were reflected publically in our calls for proposals. The process and particularly the internal documents also led to a great many formal and informal discussions by staff, our Advisory Council, researchers, and others about how we carry out the business of Sea Grant. They also led to our trial-and-error application of strategies and processes. Together all of these activities evolved into the thematic and functional goals and objectives that are presented here.

OREGON SEA GRANT'S VALUES

Oregon Sea Grant is determined to carry out and support programs that will make a difference both in the way people perceive the ocean and its resources and the way they act to use and conserve those resources. Toward that end we address issues based on the probability of our stimulating positive change, not on the likelihood of our generating headlines for Sea Grant. Further, we recognize that our mission is to provide objective information in a useful form so that our stakeholders can better understand and make informed choices. We are not in the business of making those choices for them.

Oregon Sea Grant's Management Team allocates funds and other resources to best serve our many stakeholders, not to accommodate any preconceived budgetary expectations. Therefore, a critical element of our planning and our activities is to create and use mechanisms for connecting with and simply listening to our stakeholders.

We view Sea Grant's communication, education, research, and extension capabilities not as semi-independent programs, but as tools that we can integrate and use together in the most appropriate combination to address any coastal problem or opportunity. Partnerships also provide important tools. They can make possible what could not be done by Sea Grant or by our potential partners alone. Therefore, we seek partnerships that will allow us to objectively address an issue with a broad range of talents and abilities and on a

scale that is appropriate for the issue.

We recognize that Oregon Sea Grant can be no better than its people make it. We value and respect the people of Sea Grant, and we strive to provide a rewarding work environment and to encourage the personal and professional growth of all of our staff no matter what their roles or positions.

OUR PROGRAM PHILOSOPHY

A clear sense of our mission and values guides our management, or more properly, our leadership of Oregon Sea Grant. We see ourselves as stewards, not owners, of the program. We are guided by a strong sense of responsibility for maintaining and nurturing the program's remarkable reputation for quality, productivity, and impartiality. Our overall program philosophy is based on six fundamental tenets, essential elements of the program's character and personality that are the foundation for our strategic planning as well as for our day-to-day decision making. The tenets are as follows:

> **In Oregon, there is only one Sea Grant, and it is much more than the sum of its parts.**

1. We believe in the importance of making a difference, solving problems, and addressing important issues, not just making a public relations splash.

2. We assume the responsibility for creating a single, integrated program out of varied Sea Grant activities in research, extension, communications, and education. In Oregon there is only one Sea Grant, and it is much more than the sum of its parts.

3. We are in the business of creating and disseminating knowledge. We are not in the business of managing natural or social resources or of making public policy.

4. Oregon Sea Grant can be truly effective only if its leaders and staff scrupulously avoid conflicts of interest and the appearance of conflicts of interest. We are responsible for insuring that no such conflicts or biases enter into our activities or decision making at any level.

5. We view strategic planning as much more than an exercise. We rely on strategic planning, and more importantly, on strategic thinking to guide our decision making. Strategic planning links our program's vision and goals to those of NOAA and the other 28 programs of the National Sea Grant network.

6. We recognize that the majority of important coastal and marine issues are not restricted by the borders of a single state. Forming partnerships and addressing problems and opportunities from a regional perspective is fundamental to our management thinking.

A VISION FOR OREGON SEA GRANT

Oregon Sea Grant is much more than a grant or a funding source. It is an integrated program of research, education, extension, and communications that is recognized and broadly understood at OSU and throughout the university system for its unique strengths and capabilities. Sea Grant will achieve a broad and stable mix of funding that will permit the program to respond to the needs of Oregon and the region while meeting and exceeding the broader expectations associated with our NOAA/National Sea Grant funding. Our activities will be further enhanced by constructive partnerships with other Sea Grant programs, public and private institutions, agencies, foundations, and other entities that share our goals. Oregon Sea Grant will be a leading national and regional creator of knowledge and provider of information.

Strategic Goals

Oregon Sea Grant's programmatic strategic goals include both functional goals and thematic goals. These two types of goals and the associated strategies are defined and presented below.

DEFINITIONS

As the name implies, **functional goals** relate to how Oregon Sea Grant functions. That is, they define the way the business of Sea Grant is conducted in Oregon. Our functional goals result from the program's ongoing formal and informal strategic planning. It is a kind of continual self analysis that in light of changing circumstances examines and re-examines every process and policy and every aspect of the way we operate.

The subject areas or themes that Oregon Sea Grant will address over a specific time period are defined by our **thematic goals**. These goals essentially result from our relating national thematic goals to more specific situations in the Pacific Northwest. Since we cannot possibly address all of the national Sea Grant goals, we use agreed-upon criteria to identify themes that are important both nationally and regionally.

In the document that follows, we make distinctions among goals, subgoals, and objectives. For our purposes the word **goal** implies a long-term target, an ultimate destination that will not necessarily be reached, or a broad and desirable outcome that will not necessarily be achieved in the time frame of the planning document. A **subgoal** addresses a facet of the larger goal, but it is still not achievable within the time frame of the plan. An **objective** is distinguished from goals and subgoals, not by its scope but by the fact that it can be achieved within the time frame of the plan.
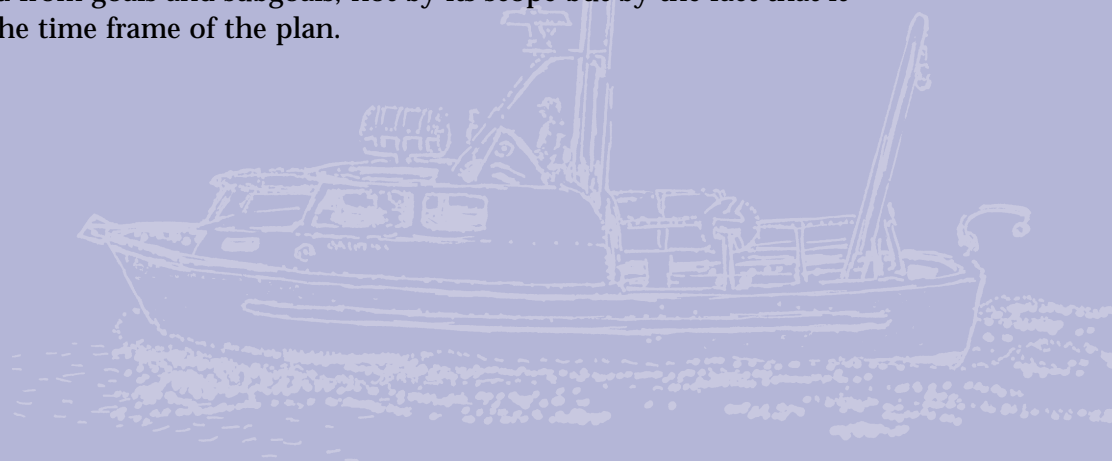
WHO DOES THE PLANNING

The members of the Management Team do not personally determine the program's functional and thematic goals. The Management Team oversees and participates in the process, but we rely heavily on the contributions of our Advisory Council, Extension Sea Grant and Sea Grant Communications staff, external organizations and agencies, and other knowledgeable groups and individuals. Much of our planning involves using every opportunity to just listen carefully to our stakeholders. For example, we now meet annually with researchers to discuss Oregon Sea Grant policy and process. We also use those meetings as one more opportunity to listen and to learn which of our procedures seem to be working well and which could be improved. Also, no matter what their stated purpose might be, we see every meeting, workshop, or conference as an opportunity to learn more about issues and to test the validity of our current thematic priorities and plans.

HOW STRATEGIC PLANS ARE USED

Periodically, we produce a document that captures our current goals and the strategies we develop to address those goals. But in Oregon Sea Grant, planning is a process and a mind set. It is not an event intended to result in a document. Our strategic plan is not something we produce because it is required, nor is it a marketing device for the program. Our reason for carrying out both functional and thematic strategic planning is to focus our thinking and to guide the program in such a way that our efforts have the greatest possible positive influence on the use and conservation of marine and coastal resources.

Formal documents, such as this one, can do little more that present a snapshot of ever evolving plans. We recognize that such documents are necessary to, among other things, share our planning broadly and provide a formal record of this program's goals and strategies over time. On the other hand, we feel that there are many better ways to make our goals and strategies known within the program and to the majority of our stakeholders. And there are certainly better ways to insure that our goals and strategies are in fact applied to programmatic decision making.

An example of a way to actually use the plan is to reduce this important but relatively bulky document to more useful, smaller pieces and to include them in other, more focused, documents. Examples of documents containing parts of our strategic plan include the call for proposals and guidance documents for our scientific review panels and Advisory Council. Of course, parts of the plan also find their way into the individual work plans of Sea Grant staff.

DECISION FILTERS

Strategic planning can also result in criteria for decision making. At Oregon Sea Grant, the criteria are grouped as program filters. For example, functional strategic planning led us to conclude that we should approach issues on a regional basis when possible and that partnerships with other programs can help us broaden our reach. Therefore, both regionality and the presence of partnerships are included among the criteria we use in the final proposal-selection process. In this example, proposals having the features that our functional strategic planning has told us to look for are "filtered out" for probable funding. Thus our filters are the links between planning and decision making. Appendix 2 shows how the filters link our strategic planning to critical programmatic decision making. We use nine separate filters (see sidebar). All nine filters are defined in Appendix 3.

A. FUNCTIONAL FILTER
Used by the Management Team and the Advisory Council to screen functional goals and objectives for special focus.

B. THEMATIC FILTER
Used by the Management Team and Advisory Council to screen issues for possible Oregon Sea Grant action.

C. PRELIMINARY FILTER
Used by the Management Team to screen preliminary proposals for possible development into full proposals.

D. PEER AND USER REVIEW FILTER
Used by the external peer reviewers for their written reviews of full proposals.

E. PEER PANEL FILTER
Used by the external peer review panel, experts brought in from outside of Oregon, to evaluate the proposals and to help us interpret the written peer reviews of those proposals.

F. SOCIETAL VALUE FILTER
Used by the Oregon Sea Grant Advisory Council to further screen only those full proposals that reviewers (D and E above) have given high marks.

G. PROGRAM FILTER
Used by the Management Team to screen the highest ranked full proposals for funding.

H. OUTCOME FILTER
Used by the Management Team to screen true outcomes from program products and to assess those outcomes.

I. PROGRAM DEVELOPMENT FILTER
Used by the Management Team to screen requests for Program Development funding. (This filter is not shown in Appendix 2.)

OREGON SEA GRANT'S
Functional Goals

FUNCTIONAL GOAL 1

*To identify critical national, regional, and local issues that are
within our mission and to assist the best available talent to address those issues.*

FUNCTIONAL GOAL 2

*To solve critical problems and respond to important
opportunities nationally, regionally, and locally through partnerships and teams.*

FUNCTIONAL GOAL 3

*To enhance program flexibility,
capability, and responsiveness by diversifying our funding base.*

FUNCTIONAL GOAL 4

*To improve public awareness of
Oregon Sea Grant's capabilities, accomplishments, services, and products.*

FUNCTIONAL GOAL 5

*To bring about personal and
professional development in every Oregon Sea Grant staff and faculty member.*

FUNCTIONAL GOAL 6

*To create and sustain innovative formal and informal educational opportunities
for undergraduate, graduate, and postgraduate students, and for citizens in general.*

FUNCTIONAL GOAL 1

*To identify critical national, regional, and local issues that are
within our mission and to assist the best available talent to address those issues.*

Functional Subgoals

Subgoal 1.1

To be fully aware of the thematic priorities of NOAA and the National Sea Grant College Program, to be familiar with published strategic plans, to stay current with strategic thinking and planning processes at the national level, and to be able to anticipate changes in national thematic priorities.

Subgoal 1.2

To be capable of tracking emerging national coastal and ocean-related issues independently of NOAA and National Sea Grant thematic planning.

Subgoal 1.3

To at all times be knowledgeable about the primary regional and local issues and anticipate changes in the relative importance of those issues as well as the emergence of new issues.

Subgoal 1.4

To direct the best available talent toward identified issues by first knowing what research and outreach talents and interests exist among individuals who could be available to Oregon Sea Grant to respond to thematic priorities, and then to ensure that those individuals are aware of priority issues as well as of the possibility of Sea Grant support for addressing those issues.

FUNCTIONAL GOAL 2

*To solve critical problems and respond to important
opportunities nationally, regionally, and locally through partnerships and teams.*

Functional Subgoals

Subgoal 2.1

To establish strong working relationships with governmental and nongovernmental entities and to understand their priorities and their capabilities in order to create effective partnerships.

Subgoal 2.2

To build lasting partnerships with other programs and funding sources, especially other Sea Grant programs in the region, in order to achieve the most efficient use of available resources for addressing issues of regional importance.

Subgoal 2.3

To facilitate the development of research and outreach teams, particularly multi-institutional teams, in order to bring the best available talent to bear on critical issues.

Subgoal 2.4

To create effective teams of researchers and outreach specialists, using approaches that include helping outreach people and researchers work together to address important issues, "cross training" researchers to effectively conduct outreach, and involving outreach professionals directly in the conduct of relevant research projects.

FUNCTIONAL GOAL 3

*To enhance program flexibility, capability,
and responsiveness by diversifying our funding base.*

Functional Subgoals

Subgoal 3.1

To use a base of Sea Grant funding to attract non-Sea Grant funding to support research on issues of importance to Sea Grant.

Subgoal 3.2

To familiarize the Oregon State University Foundation with Oregon Sea Grant's programs and capabilities in order to help the Foundation seek funding for Sea Grant activities from private donors.

Subgoal 3.3

To work with elected officials at the state level to secure state funding for research programs that would work through Oregon Sea Grant to support research addressing themes and issues that are important to the state and that are compatible with Sea Grant's mission and values.

FUNCTIONAL GOAL 4

To improve public awareness of
Oregon Sea Grant's capabilities, accomplishments, services, and products.

Functional Subgoals

Subgoal 4.1

To ensure that Oregon Sea Grant products and programs are clearly identified as such to audiences and users.

Subgoal 4.2

To actively market Oregon Sea Grant products and programs.

Subgoal 4.3

To establish institutional partnerships that result in wider distribution of Oregon Sea Grant products.

Subgoal 4.4

To help researchers integrate outreach plans into their funded research project.

FUNCTIONAL GOAL 5

To bring about personal and professional development in every Oregon Sea Grant staff and faculty member.

Functional Subgoals

Subgoal 5.1

To encourage professional development by creating opportunities for every Oregon Sea Grant staff member to participate in at least one appropriate professional training experience or attend at least one workshop or conference each year.

Subgoal 5.2

To provide every Oregon Sea Grant staff member with at least one meaningful leadership opportunity each year.

Subgoal 5.3

To create mechanisms for providing tangible rewards to Oregon Sea Grant staff members who display innovation, exceptional professionalism, and high productivity in the work place. Rewards will include, but will not be limited to, special awards, public recognition, merit increases in salary, and promotions.

Subgoal 5.4

To create and sustain in each member of the program's staff a sense of personal pride in all of Oregon Sea Grant's accomplishments, an esprit de corps, a sense of unity, and a clarity of mission and vision.

FUNCTIONAL GOAL 6

*To create and sustain innovative formal and informal educational opportunities
for undergraduate, graduate, and postgraduate students, and for citizens in general*

Functional Subgoals

Subgoal 6.1

To use our Visitor Center at the Hatfield Marine Science Center as a laboratory in which we conduct research and develop innovative approaches to public education through exhibitry, aquaria, field experiences, etc. Note that securing outside funding, Goal 3, is closely tied to our achieving this subgoal.

Subgoal 6.2

To establish and sustain fellowships and scholarships to create new learning opportunities for graduate and undergraduate students in a variety of environments.

Subgoal 6.3

To increase the number of graduate and undergraduate students supported per project by Oregon Sea Grant research grants.

Subgoal 6.4

To increase the number of graduate and undergraduate students involved in activities of Oregon Sea Grant extension and communications.

OREGON SEA GRANT'S
Thematic Goals

The primary outline below is based on the National Sea Grant Strategic Plan. Of course no single program, including Oregon Sea Grant, can or should attempt to deal with all of the national thematic priorities. Shown below are those themes and issues that were determined by our processes to be most appropriate for our program to address.

In making our decisions regarding which of the many important themes we might address, we applied our thematic issues filter, a set of seven decision criteria (Appendix 3B). We applied this filter to the themes and specific issues that came to us through our thematic strategic planning. Application of this filter requires judgement. It is hardly an exact science. As the reader will note, meaningful use of the filters requires thorough knowledge of the issues and the ongoing research, outreach, and education activities in coastal and marine resources. It also requires knowledge of the talents and interests of researchers and others who might be available to carry out new activities. The use of the thematic filters combines functional strategic planning and thematic strategic planning to determine priority themes and set goals. In other words, we are using the results of functional strategic planning, the filters themselves, to set thematic priorities.

THE RESULTS OF PRIORITY SETTING:
OREGON SEA GRANT'S THEMATIC GOALS

GOAL AREA I.
Economic Leadership

GOAL AREA II.
Coastal Ecosystem Health and Public Safety

GOAL III.
Education and Human Resources

GOAL AREA I.

Economic Leadership

I. A.   BIOTECHNOLOGY

This is an area of continuing program focus and strength. We recognize that relatively long-term investment is necessary to achieve significant outcomes. However, we also expect funded projects to have specific, achievable objectives and to show sustained progress toward their goals. Oregon Sea Grant's financial investment in biotechnology is almost entirely in research. The highly technical and specialized nature of the work is such that the researchers themselves need to be prepared to make their results known to potential users. Therefore, we require researchers to specifically describe how they intend to do that, and we judge the quality of the projects' outcomes in part on the basis of how effectively the researchers interact with industrial and other users of their work.

■ ***Subgoal I.A.1***   ***To extract useful natural products from marine organisms using marine biotechnology.***

I.B. SEAFOOD PRODUCTION

I.B.1. Revitalized Commercial Fisheries

This is a complex theme that Oregon Sea Grant is addressing by, among other things, supporting research and outreach that leads to more effective and innovative management of marine species. The work we seek to support on this theme is work that integrates research and outreach (both Extension and Communications) and that makes use of the strength of partnerships with industry, agencies, and others to address the difficult problems contained in this theme.

■ ***Subgoal I.B.1.1*** ***To improve the models on which management is based through research on the life cycles of important species and on habitat utilization, beginning with estuarine habitats and offshore rocky reefs.***

■ ***Subgoal I.B.1.2*** ***To search for new, innovative, and effective approaches to fishery management, such as co-management, and assist industry leaders and managers in understanding the benefits and limitations of such approaches.***

■ ***Subgoal I.B.1.3*** ***To incorporate economics into biological models that traditionally have been the basis for fisheries management.***

■ ***Subgoal I.B.1.4*** ***To improve communications and decrease fragmentation within the fishing community, particularly between gear types and between the industry and agencies.***

I.B.2. Sustainable Aquaculture

The state of Oregon has not created a friendly political or business environment for aquaculture in its coastal zone. For that reason, sustainable aquaculture, though technically feasible, is not likely to be attempted in Oregon until state policy changes. Therefore, it is not a high priority for Oregon Sea Grant per se. However, we recognize Oregon State University's exceptional research strength and record of achievement in the area of preventing and controlling diseases of fish and shellfish. The work of Oregon researchers is used by the aquaculture industry around the world. Even if that were not true, the fish disease work would be valued by Oregon's state and federal salmonid hatcheries.

■ *Subgoal I.B.2.1* *To develop advanced biotechnological approaches improving the effectiveness of vaccines used to control a variety of diseases in cultured fish and shellfish.*

I.B.3. Seafood Technology

OSU has one of the premier seafood research facilities and research faculties in the U.S. This fact, combined with the great number of important issues and opportunities that exist in this theme area, has caused this to be an important theme area for Oregon Sea Grant research and outreach for many years. At the same time that the region's coastal communities found themselves facing a shortage of potable water, pollution from seafood processors also became an important issue. A priority area in this theme involves using biotechnological approaches to reduce the waste stream from seafood processing and developing ways of reusing process water to reduce water consumption. Although new-product development, product quality, and seafood safety (i.e,. consumer safety) have remained part of the program over the years, the specific priority issues have changed to reflect changing needs.

■ *Subgoal I.B.3.1* *To promote waste management approaches that reduce amounts and types of solid waste and the use of freshwater in seafood processing, as well as encourage efforts to reduce the waste steam through biotechnology.*

■ *Subgoal I.B.3.2* *To improve seafood product quality and safety and enhance product development and processing technology.*

I.C. COASTAL ECONOMIC DEVELOPMENT

This is a theme area that has received attention from Oregon Sea Grant in recent years but which has traditionally not been a priority. It is only recently, i.e., since about 1994, that a concerted effort has been made by Oregon Sea Grant staff to identify and recruit talented and interested researchers to work with our Extension faculty, first to refine our understanding of the needs and second to propose specific objectives for research. By "work with" we mean that we plan to fund research proposals the results of which will provide useful information to communities to help them first understand and then deal with changing demographics and changing industries. Working with them also means that our Extension program will reach out to these communities to better understand their needs and to help them address those needs. One result was a large research subprogram that we called "Adapting to Change," which was funded through the National Office of Sea Grant's National Strategic Investment program. That work, which has been completed, left as one of its legacies a cadre of researchers who are knowledgeable about the fishing industry, fishing communities, and the family businesses that make up so much of the region.

■ *Subgoal I.C.1.1*   ***To target the business aspects of the fishing industry, of marine trades, and of coastal recreation and tourism.***

■ *Subgoal I.C.2.1*   ***To help coastal communities manage the growth of recreation and tourism, supporting work that goes beyond recreation development and promotion and addresses sustainability issues in coastal communities and ecosystems.***

■ *Subgoal I.C.2.2*   ***To work with coastal communities affected by changing coastal demographics and by changes in natural resource availability and uses.***

GOAL AREA II.

Coastal Ecosystem Health and Public Safety

II.A. COASTAL ECOSYSTEM HEALTH

II.A.1. Coastal Ecosystems

The coastal ecosystems theme area was identified in 1998 as one that should receive added emphasis by Oregon Sea Grant. There are a number of reasons for our increased concern about ecosystems. First, there is the issue of "essential fish habitat," a term that found its way into the language of the reauthorization of the Magnuson Act, which is the basis for the management council system of fisheries management. Second, the decline of salmonid populations in this region has been tied, at least in part, to degradation of essential habitat. Thus the issue is tied to a major fishery problem in the Pacific Northwest. Further, two federal agencies, NMFS and the EPA, have added new staff to their laboratories in Oregon. This created new opportunities for forming partnerships to work on coastal ecosystems. Finally, we recognized that although our outreach efforts were targeting habitat issues, the level of research effort, particularly in Oregon's estuaries, is extremely low relative to the importance of those ecosystems.

■ *Subgoal II.A.1.1 To protect and enhance coastal water quality and safety.*

■ *Subgoal II.A.1.2 To protect and enhance coastal habitats such as coastal watersheds, estuaries, and nearshore groundfish reefs through a focus on biological and physical sciences, and socioeconomic considerations.*

■ *Subgoal II.A.1.3 To develop a better understanding and awareness of invasive aquatic species, particularly nonindigenous species such as the European green crab* (Carcinus maenas)*, and partner with neighboring Sea Grant programs and both state and federal agencies to develop programs of public education and research.*

II.A.2 Sustainable Development

The changing nature of coastal recreation and tourism, coupled with increasing development on the coast, has made the sustainable development theme a higher priority than ever before for Oregon Sea Grant. We continue to seek research proposals and expertise for this theme.

■ *Subgoal II.A.2.1* **To address the ecological and environmental dimensions of sustainable coastal development, particularly coastal management policy, multiple uses of resources, wastewater management, and freshwater availability.**

■ *Subgoal II.A.2.2* **To address sustainability issues in coastal communities, such as resource uses and variable natural resource availability.**

II.B.   PUBLIC SAFETY

II.B.1. Coastal Natural Hazards

Oregon Sea Grant has supported considerable research and outreach in the area of coastal natural hazards, long before it became the current national interest, which is often centered around hurricanes and storms. Much of our work has been related to earthquakes, subsidence, chronic and acute erosion, and tsunami inundation problems that affect most of the Pacific coast. However, the extensive research base still needs to be incorporated into coastal and community plans. Therefore, while it is not a high research priority for Oregon Sea Grant at the moment, we will continue with outreach work centered on safeguarding human life and port facilities from the impacts of tsunamis, and we will serve on national committees related to coastal natural hazards.

■ *Subgoal II.B.1.1* **To expand the use of existing and new coastal hazard information in regional as well as local coastal and community plans and to safeguard human life and coastal and port facilities.**
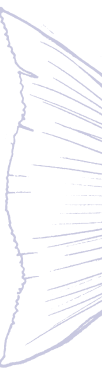
II.B.2. Safety at Sea

In the early 1990s, Oregon Sea Grant carried out a major effort to train fishers and thereby to enhance their chances of surviving in one of the nation's most dangerous professions. Vessel safety remains important to the program, but our investment in the effort has declined because other entities, both public and private, now offer vessel safety training based largely on Sea Grant's earlier work. Our higher priority now is for work that targets safety at sea for charter fishing vessels and charter vessels involved in other nature-based recreation and tourism activities.

■ ***Subgoal II.B.2.1 To support work that targets safety at sea for charter fishing vessels and charter vessels involved in other nature-based recreation and tourism activities.***
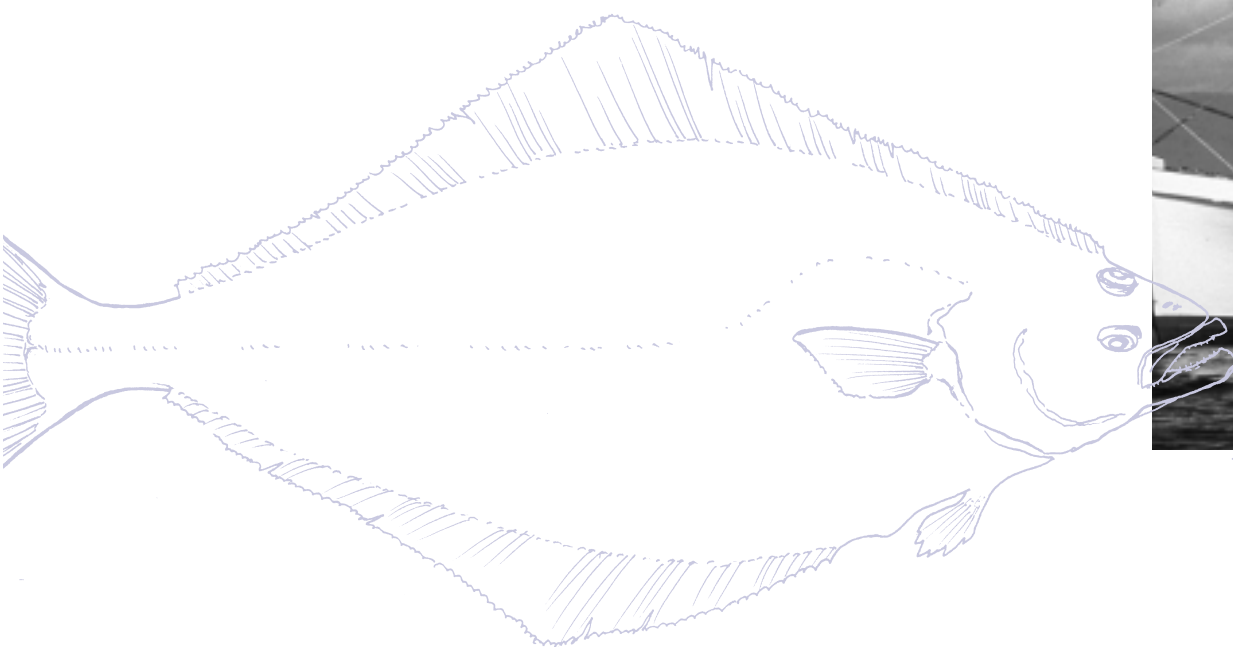
GOAL III.

Education and Human Resources

III.A. EDUCATION

III.A.1. University Fellowships and Research Assistantships

Our long-time experience with the national Knauss Fellowship, in addition to jointly supporting an Oregon State Legislative Fellowship with the Oregon Coastal Zone Management Association, has shown us the value of providing fellowship experiences for students. Therefore, a priority for Oregon Sea Grant is the development of additional fellowship opportunities, loosely based on the Knauss Fellowship program. A recently established fellowship, called the Natural Resources Fellowship, joins the Legislative Fellowship as part of our state fellowship program. Furthermore, our research projects continue to attract and serve qualified graduate and undergraduate students.

- ◼ ***Subgoal III.A.1   To produce a highly trained workforce through fellowships and research opportunities.***

III.A.2 Informal Science Education

Oregon Sea Grant is responsible for operating and managing the Visitor Center of the OSU Hatfield Marine Science Center. The Visitor Center includes exhibits, aquaria, and other displays that are seen each year by about 200,000 citizens from Oregon and the region. Not only does this provide an opportunity for us to reach a number of people annually equal to about 15 percent of the state's population, but it also gives us the opportunity to carry out studies to improve the art and science of public education through exhibitry. Using the Visitor Center as a kind of laboratory to develop new techniques and procedures for public education is an increasingly important priority for this program. We are seeking support for this work from sources other than the National Office of Sea Grant, although the Visitor Center is an integral part of Oregon Sea Grant.

- ◼ ***Subgoal III.A.2.1   To test strategies for improving informal science education, both through programs and exhibits.***

III.B. OUTREACH

Oregon Sea Grant includes a large and very effective Extension program. Our investment of over $1 million annually in Extension demonstrates clearly how important this theme area is to our program. This program also has an effective communications unit that works with all other elements of the program, including researchers and Extension faculty, to provide professional assistance with the production of educational materials. Priority setting for Oregon Sea Grant Extension and Sea Grant Communications is not a process separate from research or education priority setting. In fact, we endeavor to set the same thematic priorities for the entire program. Our issue-based priorities apply equally to all four primary elements (research, extension, communications, and education) of Oregon Sea Grant.

■ *Subgoal III.B.1*   *To create a scientifically and environmentally informed citizenry.*

■ *Subgoal III.B.2*   *To enhance the training of teachers in marine sciences.*

■ *Subgoal III.B.3*   *To develop educational materials for teachers and students.*
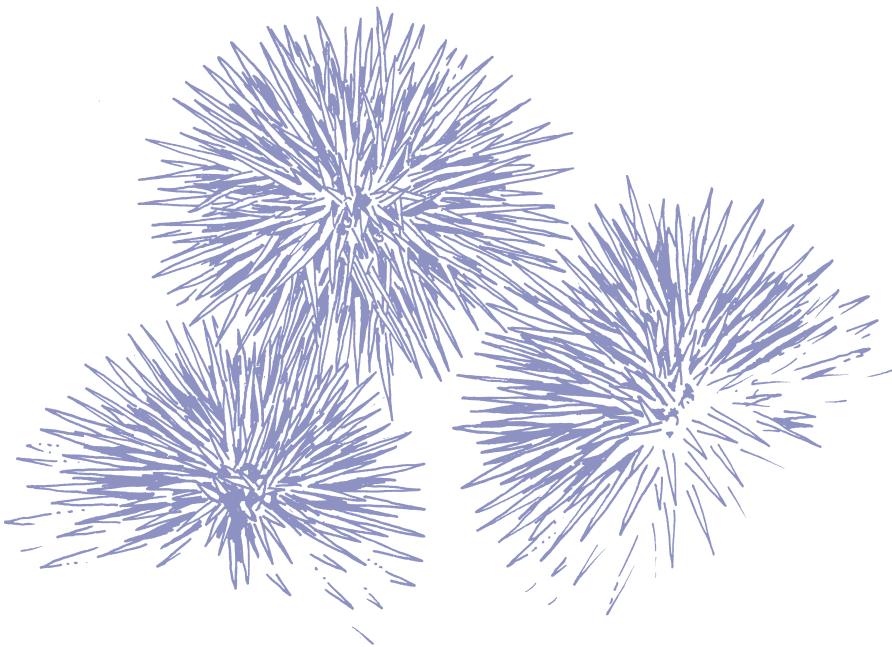
Appendices

APPENDIX 1

*Institutional Organization of the Oregon Sea Grant
and its Relationship with the Leadership of Oregon State University*

APPENDIX 2

*Application of Strategic Planning
to Decision Making and the Management of Oregon Sea Grant*

APPENDIX 3

Decision-Making Filters Used to Manage the Oregon Sea Grant Program

APPENDIX 1

Institutional Organization of the Oregon Sea Grant and its Relationship with the Leadership of Oregon State University

This figure shows the structure of Oregon Sea Grant, and in particular the relationships among Oregon Sea Grant's four major program elements, research, extension, communications, and education. Note also that the program's director reports to Oregon State University's Vice Provost for Research, who in turn reports directly to the Provost and President. In addition the figure shows the membership of Oregon Sea Grant's Management Team. The team conducts strategic planning, manages the program, and facilitates the integration of program activities and outcomes.

Sea Grant Management Team

UNIVERSITY PRESIDENT
Paul Risser

PROVOST
(vacant)

VICE PROVOST FOR RESEARCH
Wilson "Toby" Hayes

SEA GRANT DIRECTOR
Robert Malouf

Communications

ASSISTANT DIRECTOR COMMUNICATIONS
Joe Cone

SCIENCE WRITER AND WEBMASTER
Pat Kight

VIDEO PRODUCER
Carol Sibley

PERSONAL SERVICES CONTRACTS

MANAGING EDITOR
Sandy Ridlington

DESKTOP PUBLISHING & MARKETING
Joel Southern

PUBLICATIONS DISTRIBUTION COORDINATOR
Cindy Newberry

Programs

ASSISTANT DIRECTOR PROGRAMS
Jan Auyong

PROJECT INVESTIGATORS

ADMINISTRATIVE ASSISTANT
(vacant)

FISCAL MANAGER
Evelyn Paret

ADMINISTRATIVE ASSISTANT
Bonnie Haynes

Extension

ASSOCIATE DIRECTOR AND EXTENSION PROGRAM LEADER
Jay Rasmussen

EXTENSION FACULTY

SUPPORT STAFF

ADMINISTRATIVE ASSISTANT
Christi Sheridan

VISITOR CENTER MANAGER
Jon Luke

PROGRAM ASSOCIATE
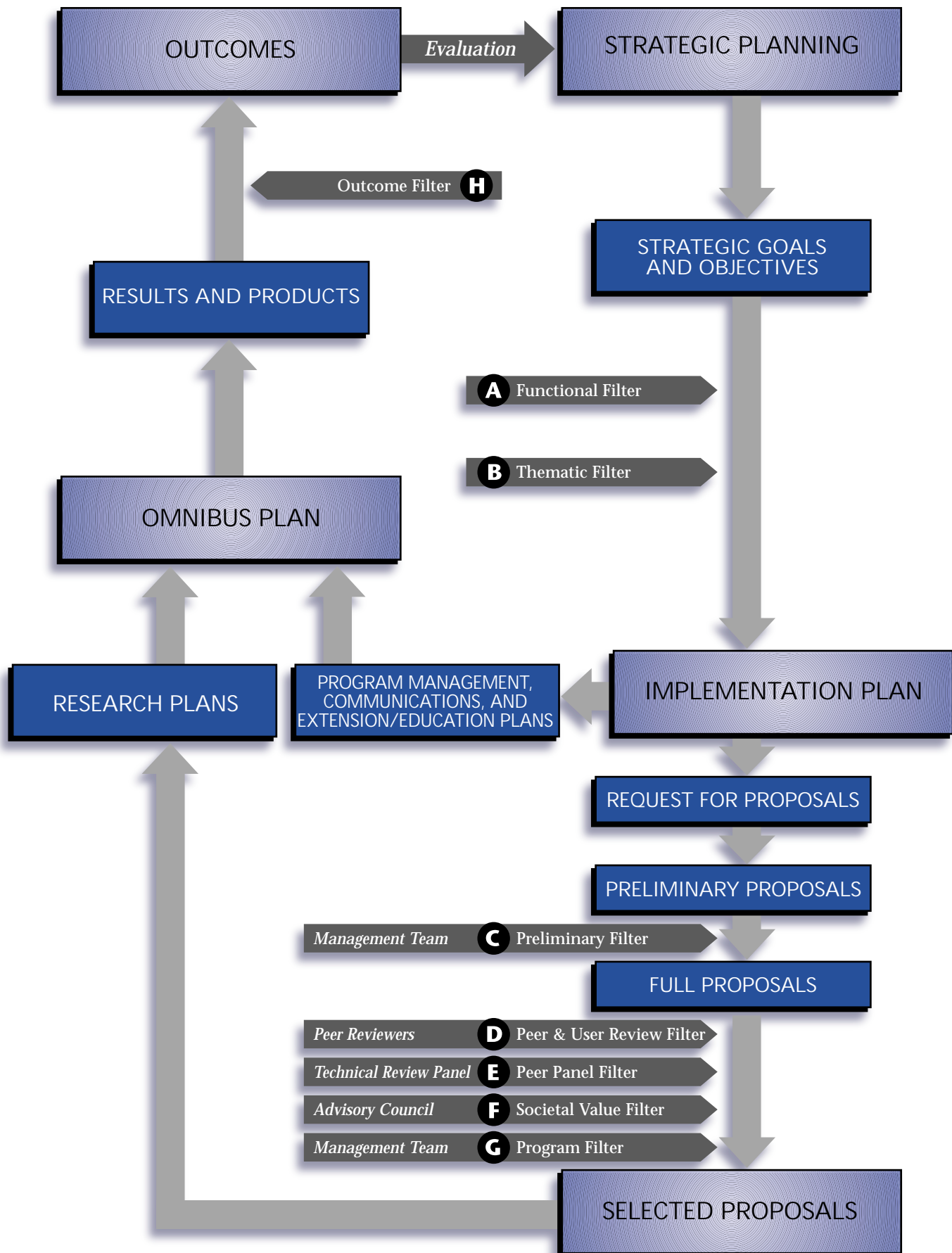Peggy Harris

VISITOR CENTER STAFF

APPENDIX 2

Application of Strategic Planning
to Decision Making and the Management of Oregon Sea Grant

Following is a schematic outline of Oregon Sea Grant's cyclic processes of functional planning (how we operate) and thematic planning (what we do), followed by implementation, evaluation, and again by planning. The lower portion of the figure specifically shows the competitive processes that we use to solicit, review, and select what are primarily research proposals for inclusion in our biennial omnibus plan.

The most important feature of this figure is that it shows how and where we actually apply strategic planning to decision making. (See points where filters intersect the figure.) Our strategic planning is much more than an exercise. Planning guides our most important programmatic decisions, and this figure shows how.

In the figure are eight boxes labeled "filters." These decision filters consist of criteria, or lists of questions, that are derived from and revised through our strategic planning process. The answers to the questions allow us to "filter" the most desirable options from many alternative choices. This process can best be understood by choosing one of the filters (A-H), then turning to the details of that filter in the appropriately labeled table in Appendix 3.

OUTCOMES → *Evaluation* → **STRATEGIC PLANNING**

H Outcome Filter

RESULTS AND PRODUCTS

STRATEGIC GOALS AND OBJECTIVES

A Functional Filter

B Thematic Filter

OMNIBUS PLAN

RESEARCH PLANS

PROGRAM MANAGEMENT, COMMUNICATIONS, AND EXTENSION/EDUCATION PLANS

IMPLEMENTATION PLAN

REQUEST FOR PROPOSALS

PRELIMINARY PROPOSALS

Management Team **C** Preliminary Filter

FULL PROPOSALS

Peer Reviewers **D** Peer & User Review Filter

Technical Review Panel **E** Peer Panel Filter

Advisory Council **F** Societal Value Filter

Management Team **G** Program Filter

SELECTED PROPOSALS

Decision-Making Filters Used to Manage the Oregon Sea Grant Program

Oregon Sea Grant filters are lists of decision criteria. Each of the filters presented in this appendix, except I, which lists criteria used to make decisions about Program Development funding, is shown schematically in Appendix 2 in its appropriate position. The filters themselves are developed and periodically reexamined for consistency with our functional strategic plans. In effect the filters link our strategic planning activities to the decision-making processes that we use to create our biennial omnibus and implementation plans.

Oregon Sea Grant Filters

Filter	Application
A. Functional Filter	Used by the Management Team and the Advisory Council to screen functional goals and objectives for special focus.
B. Thematic Filter	Used by the Management Team and Advisory Council to screen issues for possible Oregon Sea Grant action.
C. Preliminary Filter	Used by the Management Team to screen preliminary proposals for possible development into full proposals.
D. Peer and User Review Filter	Used by the external peer reviewers for their written reviews of full proposals.
E. Peer Panel Filter	Used by the external peer review panel, experts brought in from outside of Oregon, to evaluate the proposals and to help us interpret the written peer reviews of those proposals.
F. Societal Value Filter	Used by the Oregon Sea Grant Advisory Council to further screen only those full proposals that reviewers (D and E above) have given high marks.
G. Program Filter	Used by the Management Team to screen the highest ranked full proposals for funding.
H. Outcome Filter	Used by the Management Team to screen true outcomes from program products and to assess those outcomes.
I. Program Development Filter	Used by the Management Team to screen requests for Program Development funding. (This filter is not shown on Appendix 2.)

A. FUNCTIONAL FILTER

Used by the Management Team and the Advisory Council to screen functional goals and objectives for special focus.

Oregon Sea Grant has six major functional Goals and many more functional objectives. The six goals are derived directly from our program values and mission, and they are therefore integral to our day-to-day decisions and activities. For example, for any two-to-four-year planning horizon there are no conditions under which a goal such as "to solve critical problems and respond to important opportunities" (Goal 2) would be of more or less importance to the program than our goal "to create and sustain innovative formal and informal education opportunities…." (Goal 6). But we obviously cannot give all of the functional objectives within those goals the same relative emphasis at all times. How do we decide where to put our greatest effort at any given time?

A Filter for Choosing from among Functional Goals and Objectives:

This filter is not intended to help us rank the functional goals and objectives themselves. The filter helps put the goals and objectives into the context of existing opportunities. In that way it helps us decide from among various actions, any one of which could conceivably contribute to our pursuit of a functional goals and objectives. The filter consists of the following questions:

1. Would the contemplated action address a functional goal or objective toward which we have already made significant progress? Conversely, would the action be toward an objective that has to date received little or no attention?

2. By this single course of action can we address more than one functional goal or objective at once?

3. Has an unforeseen opportunity presented itself?

4. Is the opportunity to pursue an objective time sensitive, and does it require our immediate attention? In other words, can we wait or must we act immediately if we intend to act at all?

5. Can we shift our efforts and take action to pursue a new opportunity without abandoning or seriously risking our pursuit of other important functional objectives? What, if anything, do we have to stop doing in order to do this? If we take the necessary action, will we be spread too thin?

6. Does Oregon Sea Grant have the resources or can we obtain the resources needed to take the contemplated action in pursuit a functional objective? Do we have the time, money and expertise that would be needed?

7. Could our action in pursuit of an opportunity, whether successful or not, jeopardize Sea Grant's reputation for impartiality or be harmful to our working relationships with other organizations? Are we going to be competing with our partners? By taking this action will we appear to be taking sides on an issue?

A. THEMATIC FILTER

**Used by the Management Team and the Advisory Council to screen issues for possible Sea Grant action.**

1. Does the issue fall within Sea Grant's mission, and would work on it be an appropriate university activity?

2. Is the issue consistent with the strategic plans of NOAA, the National Sea Grant College Program, and Oregon Sea Grant?

3. Is the issue important to the region and to this program's clientele?

4. Is there a reasonable probability that meaningful progress can be made toward addressing the issue within the typical funding limitations of Sea Grant?

5. Is there a reasonable probability that meaningful progress can be made toward addressing the issue within the time frame of most Sea Grant projects (two to three years)?

6. Will Sea Grant support be a meaningful contribution toward addressing the issue? Will the issue be unaddressed without Sea Grant involvement? Relative to the scale of the issue, how much is already being invested by other entities?

7. Are the talent, expertise, and interest available in Oregon or in the region to address the issue? Might Sea Grant support for work on this issue directly or indirectly enhance the talent base in marine and coastal issues in the state or the region?

C. PRELIMINARY FILTER

Used by the Management Team to screen preliminary proposals for possible development into full proposals.
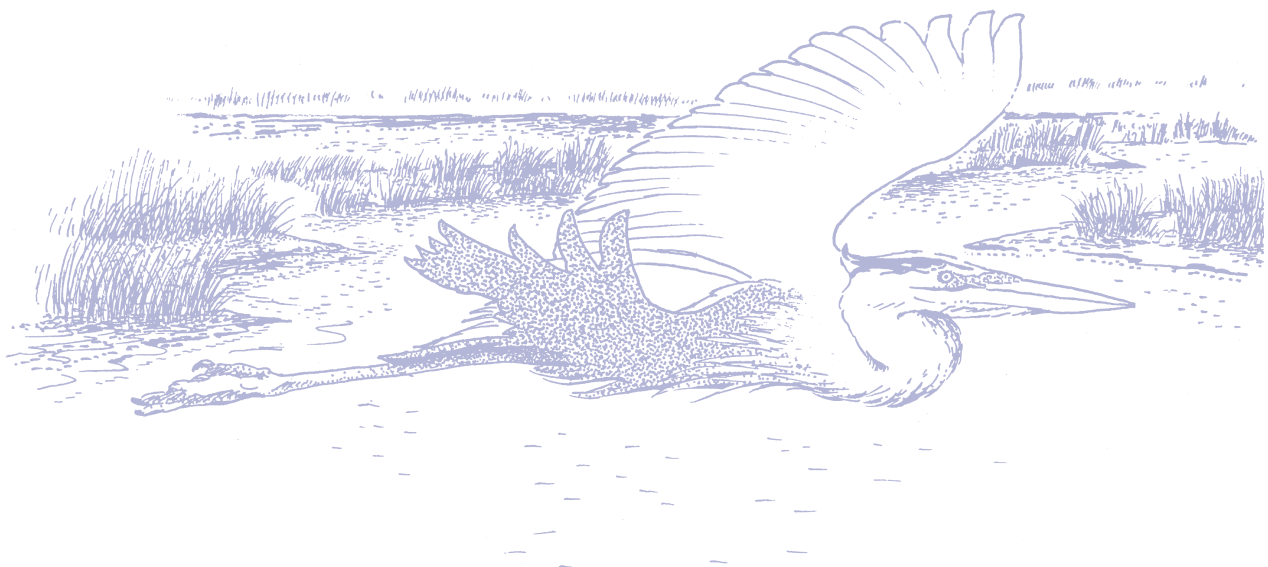
1. Are the principal investigators eligible to receive Sea Grant funding?

2. Does the proposed work duplicate research that is ongoing or has been completed?

3. Is it an issue that falls within Sea Grant's mandate and mission, and is it an appropriate university activity?

4. Is addressing the issue consistent with the strategic plans of NOAA, the National Sea Grant College Program, and Oregon Sea Grant?

5. Is the issue significant or potentially significant to Oregon, the Pacific Northwest, or the nation. Is it an issue that is considered important by Sea Grant's audience or clientele?

6. Is there a reasonable probability that meaningful progress can be made toward addressing the issue within the time frame of most Sea Grant projects (two to three years)?

7. Is there a reasonable probability that meaningful progress can be made toward addressing the issue within the funding limitations of Sea Grant?

8. Will Sea Grant support toward addressing this issue substantially contribute to the overall effort? Will the issue probably remain unaddressed unless Sea Grant becomes involved? Relative to the scale of the issue, how much support is being invested by other sources of research and outreach support?

9. Are the talent, expertise, and interest available within Oregon or the region to address the issue?

10. Will Sea Grant support for work directed toward this issue directly or indirectly enhance the talent base available to address marine and coastal issues in the state or region?
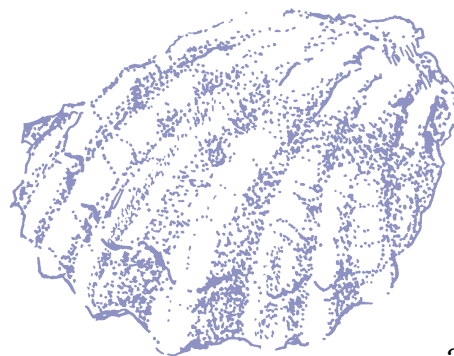
D. PEER AND USER REVIEW FILTER

Used by the external peer reviewers for their written reviews of full proposals. These are based on review criteria set by the National Sea Grant Office.

1. **Rationale**—the degree to which the proposed activity addresses an important issue, problem, or opportunity in development, use, or management of marine or coastal resources.

2. **Scientific or Professional Merit**—the degree to which the activity will advance the state of the science or discipline through the use and extension of state-of-the-art methods.

3. **Innovativeness**—the degree to which new approaches to solving the problems and exploiting opportunities in resource management or development, or in public outreach on such issues will be employed; alternatively, the degree to which the activity will focus on new types of important or potentially important resources and issues.

4. **Qualifications and Past Record of Investigators**—the degree to which investigators are qualified by education, training, and experience to execute the proposed activity; the record of achievement with previous funding.

5. **User Relationships**—the degree to which users or potential users of the results of the proposed activity have been brought into the planning and execution of the activity or will be kept informed of progress and results.

E. PEER PANEL FILTER

Used by the external peer review panel, experts brought in from out-side of Oregon, to evaluate the proposals and to help us interpret the written peer reviews of those proposals.

(Note: The first five criteria are identical to those used by other experts in their written peer reviews.)

1. **Rationale**—the degree to which the proposed activity addresses an important issue, problem or opportunity in development use, or management of marine or coastal resources.

2. **Scientific or professional merit**—the degree to which the activity will advance the state of the art of the science or discipline through the use and extension of state of the art methods.

3. **Innovativeness**—the degree to which new approaches to solving the problems and exploiting opportunities in resource management or development, or in pub-lic outreach on such issues will be employed; alternatively, the degree to which the activity will focus on new types of important or potentially important resources and issues.

4. **Qualifications and Past Record of Investigators**—the degree to which investiga-tors are qualified by education, training, and experience to execute the proposed activity; the record of achievement with previous funding.

5. **User Relationships**—the degree to which users or potential users of the results of the proposed activity have been brought into the planning and execution of the activity or will be kept informed of progress and results.

6. **Written Peer Reviews**—assessment of the proposal's merits made by the several external reviewers, based on the five criteria above, and expressed in the written reviews. In cases where written reviews vary substantially (i.e., two levels or more), the panel member is asked to consider both opinions and to interpret and evaluate the reviews in making his/her own judgement.

7. **Other Members of the Review Panel**—the expressed evaluations of the propos-al's merits made by other members of the review panel may be used or not used by a panel member. That decision rests entirely with the panel member.

8. **The Proposal's Relative Merits**—Unlike the peers who provide written reviews, members of the review panel are exposed to all of the proposals that are under review at one time. Therefore, in addition to evaluating the merits of each pro-posal independently, panel members may adjust their scores for a proposal based on its merits relative to others under consideration at the same time.

F. SOCIETAL VALUE FILTER

Used by the Oregon Sea Grant Advisory Council to further screen only those proposals that reviewers (filters D and E) have given the highest marks.

1. Does the proposed project address an issue that is among the highest priorities for Sea Grant?

2. Is the project likely to make a meaningful contribution toward responding to that issue? Will the results be useful?

3. Does the proposed project have strong outreach elements? Is it linked with Extension or directly with potential users of the results?

4. Is it a "capstone" project that adds to the value and usefulness of completed projects?

5. Does the project involve researchers from a federal agency, particularly NOAA, or is the project otherwise well linked to such an agency?

6. Does the proposed project provide a good opportunity for meaningful Sea Grant involvement in a new and important issue area?
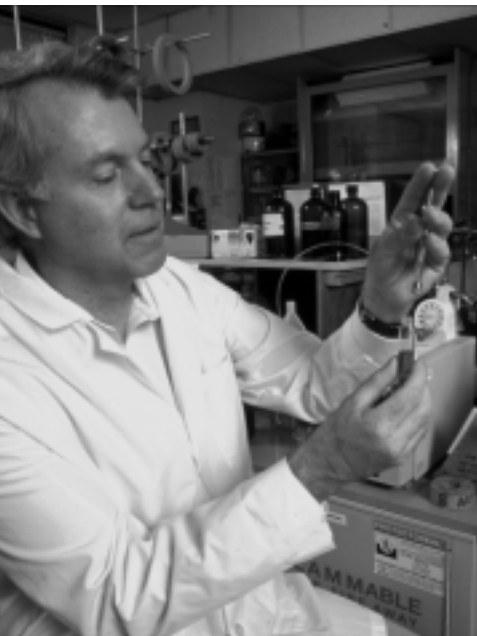
G. PROGRAM FILTER

Used by the Oregon Sea Grant Management Team (see Appendix 1) to screen the highest ranked full proposals for possible funding. I.e., used to make final funding decisions.

(Note: This program filter (G) is unique to the Management Team. However, in making final decisions the Management Team will also rely on filters D, E, and F, particularly on comments resulting from the use of those filters by outside reviewers earlier in the process.)

1. Is the proposed project regional both in the scale of its perspective and in the involvement of researchers from other Sea Grant programs?

2. Does the proposed project in any way duplicate any of the proposed, past, or ongoing work of Sea Grant or any other entity?

3. Based on past performance, is the researcher likely to be a full participant in the Oregon Sea Grant program; e.g., will he/she be willing to confer with clientele or with Extension faculty about the project?

4. Is the researcher from an institution of higher education in Oregon that rarely seeks or receives Sea Grant funding?

5. Does the project involve a researcher who received his/her Ph.D. within the past five years? Would funding this proposal encourage a young researcher to become involved in work that is important to Sea Grant's priorities?

6. Does the project involve a well-established and highly productive researcher who is new to Sea Grant? Would funding this project encourage a highly productive researcher to become involved in work that is important to Sea Grant's priorities?

H. OUTCOME FILTER

Used by the Management Team to screen true outcomes from the results and products of program activities and to assess the value of those outcomes.

Introduction

Oregon Sea Grant uses the following criteria as a "filter" to sort societal benefits from the many products and results that flow from the program's activities. The filter helps us recognize beneficial outcomes and in many cases to measure the absolute or relative benefits of those outcomes. Many of the criteria relate primarily or more readily to research. However, we apply them and find them useful for all Sea Grant-supported activities, which include formal and informal education, communications, and extension, as well as research.

The Scope and Breadth of Outcomes

In addition to the criteria listed below, one additional measure of importance is applied to each of the beneficial outcomes. That measure is the beneficial outcome's geographical or societal scope or breadth. For example, all else being equal, a benefit that is realized over the broadest possible geographical scope, i.e., internationally, is clearly of greater significance than one that is felt only locally, regionally, or even nationally. Again all else being equal, it is also true that a benefit that is realized by all sectors of society is probably of greater significance and is certainly different from one that relates to only one group.

In reality, "all else" is rarely equal. It is likely that an outcome that strongly benefits a relatively narrow societal sector (e.g., one that saves the lives of fishers) could legitimately be considered more significant than one from which many more people receive only marginal benefit (e.g., one through which the general awareness of a large number of people is broadened). Therefore, while scope and breadth are important considerations, we do not use them out of context to make judgements about the relative significant of beneficial outcomes. Scope and breadth are not shown separately for each one of the listings below, because they are measures of relative significance we apply to all outcomes.

1.   Beneficial Outcome: Positive impacts on the scientific or professional field: Advancing the state of the art.

Measures of Success:

A. The number of scientific and technical papers resulting from the work that are accepted for publication by peers.

B. Documented acceptance and use by peers of new methods, approaches, information, and tools resulting from the work.

C. Invitations to the Sea Grant researchers and outreach professionals by peers, especially at other institutions, to speak or to meet to discuss the work.

D. High profile placement of students, particularly graduate students, who were involved in the Sea Grant supported work, whether or not those students were themselves funded by Sea Grant.

2. Beneficial Outcome: Positive impacts on business, government, or industry: Toward sustainable communities and their economies.

Measures of Success:

A. Patents obtained or pending.

B. New products or new businesses developed on a foundation of Sea Grant-supported work

C. Improved product quality or safety as a result of Sea Grant-supported work

D. Documented increases in revenues and profits in existing business or industry resulting from the application of Sea Grant-supported work.

E. Interest by users in further development of Sea Grant outcomes as evidenced by their investment of resources in that development.

F. First-hand testimony by users of Sea Grant work as to the specific ways that their business has benefitted from Sea Grant-supported activities.

3. Beneficial Outcome: Positive impacts on citizens of all ages: Toward a scientifically and environmentally informed and engaged citizenry.

Measures of Success:

A. Public interest in Sea Grant programs and educational materials as indicated by public participation, media interest, and the number of inquiries from citizens, educators, and others.

B. Documented change in target group's belief, attitudes, behavior, or knowledge, as evidenced by surveys and direct observations.

C. Application elsewhere of educational and outreach methods and curricula or other publications developed with Oregon Sea Grant support. Evidence of success must show clear evidence of application of Sea Grant products and methods, but there need not be complete replication of those products or methods.

D. Placement in positions of responsibility of students who have held Sea Grant-supported statewide, regional, or national fellowships. A further measure of success is enhanced awareness of Sea Grant and its programs on the part of individuals and institutions that serve as hosts for Sea Grant Fellows.

4. Beneficial Outcome: Positive impacts on public safety and the environment: Toward safety and sustainable ecosystems.

Measures of Success:

A. Documented increases in public safety or in the safety of workers involved in coastal and marine business and industry as a result of Sea Grant work.

B. Documented application or adoption by individuals, groups, and institutions of methods and tools, either developed with Sea Grant support or distributed by Sea Grant outreach, that result in reduced environmental impacts or contribute to environmental rehabilitation.

C. Documented behavioral change on the part of citizens that results in reduced environmental impacts.

D. Direct testimony from resource managers or other environmental stewards as to (1) the positive effects of Sea Grant work on the environment, whether through improvements in citizen attitudes, knowledge and behavior or (2) the application of business and industry of more environmentally benign methods or equipment

I. PROGRAM DEVELOPMENT FILTER

Used by the Management Team to screen requests for Program Development funding. (Not shown in Appendix 2.)

(Note: Oregon Sea Grant begins each grant year with approximately 5 percent of budget as yet uncommitted to any specific research, outreach, or education activity. These funds are set aside for what are known as Program Development projects and activities. These are generally small projects ($5,000–$10,000) that may be proposed and initiated at any time during the year. Therefore, Program Development projects do not pass through the decision-making process shown in Appendix 2 for projects funded through our regular biennial cycle.)

Oregon Sea Grant's Management Team uses the Program Development filter as an initial screen. Many Program Development proposals, including all of those that request more than $10,000, are subjected to rigorous external peer review (Filter D).

1. Does the proposed work meet the technical and scientific standards for Sea Grant support? Is it good science?

2. Does the proposed work have strong relevance to Sea Grant's mission, mandate, and strategic goals?

3. Does the project have user support and involvement?

4. Would the project be carried out whether Sea Grant supported it or not?

5. Is there a need for preliminary information or "seed" data before a regular proposal can be submitted?

6. Is support requested for a symposium or conference relating to Sea Grant thematic priorities, or is support requested for presentation or publication of the results of work supported by Sea Grant in the past?

7. Is the request from a new researcher, particularly one who could not have responded to our most recent call for proposals?

8. Is it a request for a new project or funds to supplement an existing grant to allow broadening the work to pursue a promising but unforeseen opportunity?

9. Is it a request for special support that would permit the orderly completion and termination of a Sea Grant project or program, particularly support to allow a student to complete his/her degree program?