



*“Washington Sea Grant Program, a wonderfully hardy exemplar of improving nationally by investing locally.”*

From *Compass and Gyroscope: Integrating Science and Politics for the Environment*.  
By Kai Lee, c. 1993, Island Press, Washington D.C.

Washington Sea Grant Program

Strategic Plan

2000 - 2007



University of Washington

WSG-PM 01-01

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This publication was funded in part by a grant from the Washington Sea Grant Program, University of Washington, pursuant to National Oceanic and Atmospheric Administration Award No. NA76RG0119. The views expressed herein are those of the authors and do not necessarily reflect the views of NOAA or any of its sub-agencies.

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## About this plan

This Strategic Plan describes Washington Sea Grant Program (WSGP) – the context in which it operates, program areas it addresses, and the strategies it will use to attain programmatic goals. While much of the underlying philosophy is intrinsic to WSGP and will vary little over time, the context and activities in this document are primarily intended to cover the period 2000-2007.

This plan was developed over a two-year period by the WSGP strategic planning team, with input from all WSGP staff, key stakeholders and friends of WSGP. Data gathered for this plan came from a series of planning discussions, a survey of stakeholder needs and the records and institutional memory of the WSGP organization. WSGP staff members have drawn on their ongoing contact with the wide range of individuals and organizations with whom they interact, to determine our critical program areas. The NOAA Strategic Plan and the Sea Grant Network Plan provided guidance for the shape of the plan. Other pertinent planning documents are cited in Appendix A, *Resources Used in Developing WSGP Strategic Plan*.

Members of the WSGP planning team solicited comments from staff and stakeholders, for inclusion in this plan. This document and an accompanying triennial program plan for implementation, will guide WSGP as it moves forward to address the challenges of the future.

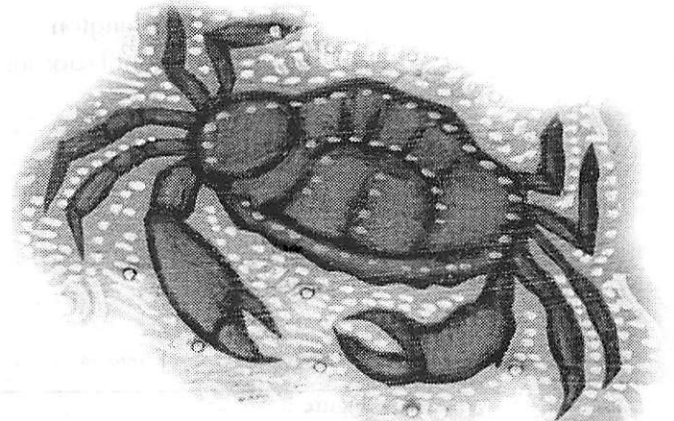
### *Vision*

“Knowledge for Use in the Marine Environment”

### *Mission*

WSGP serves communities, industries and the people of Washington state, the Pacific Northwest and the nation through research, education and outreach by:

- identifying and addressing important marine issues;
- providing better tools for management of the marine environment and use of its resources; and
- initiating and supporting strategic partnerships within the marine community.





# About Washington Sea Grant Program

Established in 1968, Washington Sea Grant Program (WSGP) began as a federal experiment in local investment. The program grew as part of the University of Washington's major interest in marine science, engineering and policy. In 1971, the program became one of the first four programs designated nationally as a Sea Grant College. Today WSGP is part of a national network of 30 Sea Grant colleges administered by the National Oceanic and Atmospheric Administration (NOAA) in the U.S. Department of Commerce.

WSGP uses a partnership approach in all its activities, often including cost sharing, advice and counsel, and hands-on involvement in projects. Frequent partners include other universities and educational institutions, tribal and local, state and federal agencies, business and industry, marine-oriented interest groups, and citizens of the state of Washington.

Located at the University of Washington, WSGP resides within the Office of Marine Environmental and Resource Programs (OMERP), one of five principal operating units of the College of Ocean and Fishery Sciences (Figure 1). OMERP is one of the smaller COFS units and is devoted primarily to planning and management. WSGP/OMERP management and staff participate in research and outreach activities, in addition to providing funding and oversight for them.

WSGP works with multiple colleges within the University of Washington system and with other institutions of higher education throughout the Pacific Northwest. In 1999, active WSGP projects spanned 13 departments and six colleges at University of Washington and six other institutions in Washington and Idaho.

OMERP houses and oversees a variety of marine and aquatic programs in addition to Washington Sea Grant Program, and maintains field offices in Washington's coastal counties.

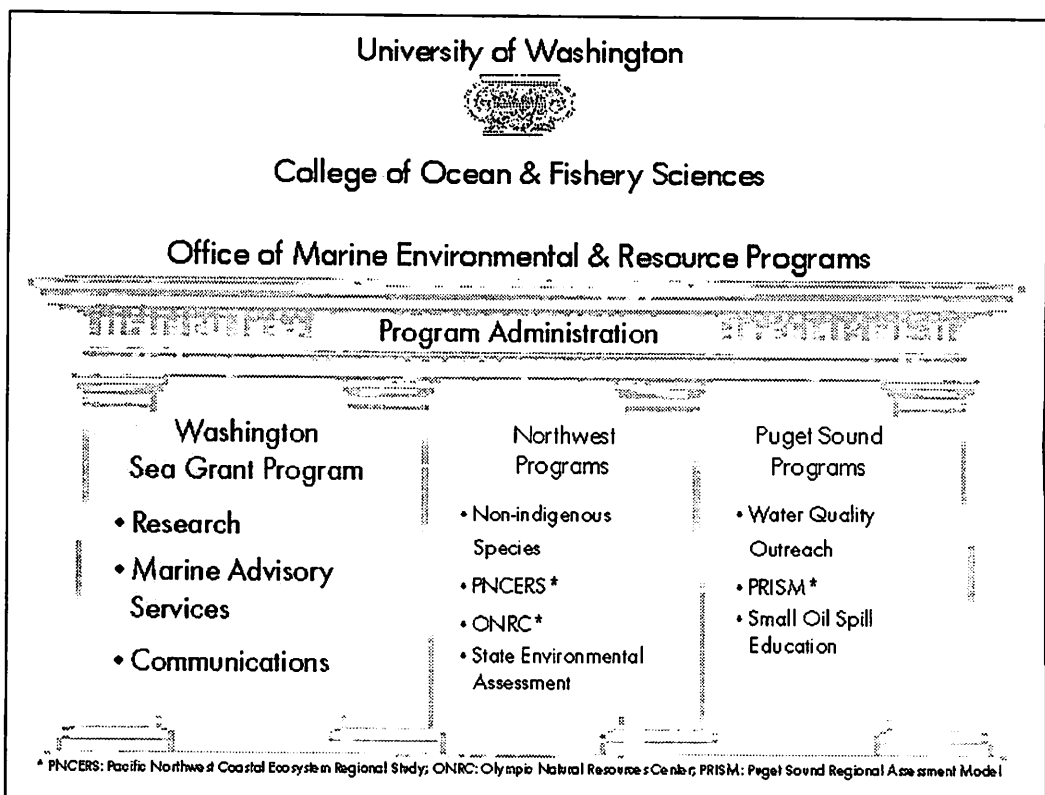


Figure 1

## The program's physical setting

The state of Washington has an extraordinarily broad base of marine resources, including numerous species of fish and wildlife. While no longer pristine, its coastal environment includes lengthy stretches that are not significantly altered by human activities. The richness of the Washington coastal and marine environment, and the state's location as gateway to Alaska and the Pacific Rim, contribute to a strong marine-related economy with high employment in the marine sector.

The state's population has grown by more than 18 percent since 1990, making Washington one of the fastest growing coastal states in the nation, and the ninth fastest growing state overall. Such growth has led to increased impacts on coastal environments and inhabitants. During 1999, listing of numerous salmonid runs under the Endangered Species Act and proposed listings of Puget Sound marine fish have added urgency to the need to understand human-related causes and effects on living marine resources.

Washington Sea Grant Program benefits from close interaction with elements of the National Oceanic and Atmospheric Administration (NOAA) and other federal laboratories and agencies. Three major NOAA laboratories and a substantial part of other NOAA line offices are

located in Seattle and nearby. WSGP also collaborates and interacts extensively with scientists and resource managers at government and academic marine institutions in nearby British Columbia, Canada (Figure 2).

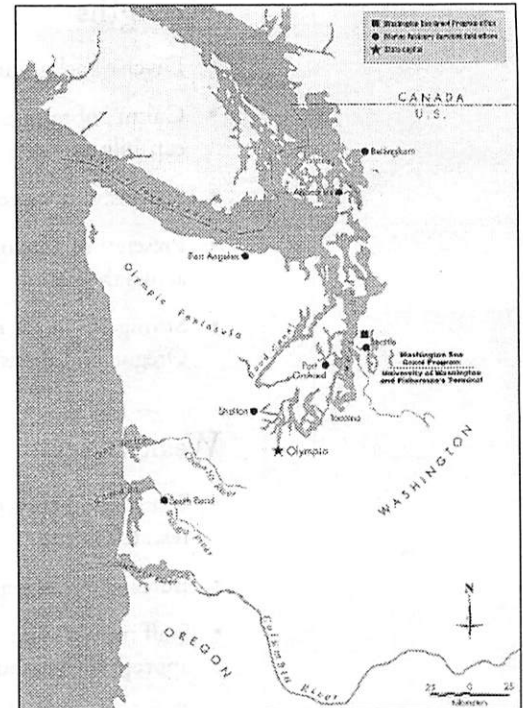


Figure 2

## Key stakeholders

WSGP staff and associates work with a broad range of partners concerned with the use and conservation of the marine environment and its resources, and help support the needs of an even larger set of stakeholders. Stakeholders include the faculty, staff and students in departments and colleges of the University of Washington and other institutions of higher learning, NOAA, state and federal agencies, local and tribal governments, K-12 administrators, schools and teachers, industry and business, the news media, and the public. A more comprehensive list of stakeholders can be found in Appendix B, Stakeholders. Key stakeholders were surveyed to determine their needs and to assess the success WSGP has had in meeting those needs over time. A copy of the survey instrument can be found in Appendix C, Stakeholders Survey. The responses from stakeholders are as varied as the activities undertaken by the organization, reflective of the respondent's discipline or occupation. Stakehold-

ers say they interact with us primarily by participating in WSGP-sponsored events, by reading our publications, and by receiving research funding through WSGP.

Overall, stakeholders felt that WSGP:

- does an above-average to excellent job of delivering services and raising the level of interaction between and among the research community and users of the marine environment;
- plays a unique role in the state;
- engages in useful and credible activities;
- provides access to expertise of faculty and staff for users outside the university system; and
- presents students with opportunities for research, training and horizons beyond the university.

# Factors that affect WSGP

The WSGP Strategic Planning Team identified factors that affect and constrain the ability of management and staff to carry out the program's mission. Factors that are generated from within the program are identified as strengths and weaknesses, while those from outside the program constitute opportunities and challenges to be addressed.

## Strengths

- Diverse backgrounds and skills of faculty, staff
- Culture of responsiveness and unique capabilities
- Successful track record
- Presence of network across the state, and across the nation
- Strong ties in the region (especially with Oregon and British Columbia)

## Weaknesses

- Transaction costs of recruiting and retaining research talent
- Bureaucratic obstacles to investigator funding
- Staff members have more work than they can appropriately handle
- Outside money almost never translates to core funding increases
- Relative importance of Sea Grant funding has dramatically decreased at University of Washington

## Opportunities

- Potential for partnerships
- Favorable industrial trends, regional and national
- Environmental change and resulting industrial opportunities
- Large and open talent base, allowing flexibility for change
- Ability to show impacts of our activities and connections with stakeholders
- Co-location with substantial portions of NOAA

## Challenges

- Lack of state funding and support; diminishing university budgets
- Low priority of Sea Grant within the funding agency
- Pressure to quantify outcomes and constant need for success stories
- Increasing administrative burden, due to NSGO and other requirements
- Level federal funding, which has not kept pace with inflation

## Values

WSGP management and staff, in collaboration with top researchers at academic institutions and federal laboratories, create a program of superior quality — one that serves the needs of a wide and heterogeneous community through research, outreach and education.

Management and staff share a set of values that help identify the types of activities to be undertaken by such a program. These values include a commitment to excellence and scientific integrity, and the desire to forge tools and foster insights that will be most useful in identifying and managing marine resources.

Through their firm adherence to these values, management and staff directly influence the quality of all WSGP-sponsored activities.

# Operations

WSGP plans, oversees and manages marine-related research projects at academic institutions throughout Washington and the Pacific Northwest. The program also provides education and outreach opportunities for targeted groups and the public at large. By supporting education and outreach efforts to share current findings, WSGP adds value to scientific research conducted at universities and colleges. It operates a full-service communications office, through which research findings and progress on key issues can be shared with its user groups.

By bringing together individuals and organizations within the university, the state, the region and the nation, WSGP serves as a catalyst for and facilitator of marine research, education and outreach. Like the marine community with which it works, the program spans state, regional and international boundaries. Benefits of the WSGP-sponsored research and outreach are shared by the region, the nation and the world.

Through the judicious use of partnerships, co-funding and interaction with federal and state agencies, academic institutions and community

and industry groups, the program can accomplish much more than it would on its own. Such partnerships offer far more than the sharing of limited financial resources. They also provide access to markets, audiences and opportunities that might otherwise lie beyond an individual program's reach. By working cooperatively with government agencies, participating in industry projects, and interacting with community groups, WSGP staff become aware of emerging issues and trends in research, education and commerce, as well as the needs of marine user groups and other stakeholders. WSGP uses its network of advisory agents, program staff, faculty members and associates to listen and respond to these needs.

WSGP's ongoing relationship with its researchers reflects both stability and change. Researchers who have maintained long-term WSGP funding have done so by demonstrating progress in their research. Many have changed the direction of their research one or more times. The formal process for recruiting research talent and selecting high quality projects is outlined in Appendix C, *Call for Preproposals*.

## Operating strategies

Guided by the WSGP mission statement, management and staff have drafted a set of operating strategies for directing work. In addition to the mission statement's three themes (identifying and addressing important marine issues, providing better tools for management, and initiating and supporting strategic partnerships), these strategies recognize the need to strengthen staff, expand resources, and bolster the capabilities of WSGP, the state and the region to conduct research, education and outreach activities.

**WSGP staff identify and address important marine issues** by proactively scanning the marine environment for emerging issues; actively recruiting talent to address critical issues; building on strengths and targeting resources to achieve maximum impact; maintaining breadth of portfolio; and enhancing outreach to new audiences.

**WSGP staff provide better tools for management** of the marine environment and use of its resources by supporting high quality research; being responsive to and participating strategically in state, regional and national priorities; linking research outcomes with outreach; and taking calculated risks.

**WSGP management and staff initiate and support strategic partnerships** by linking outreach staff with research projects; connecting state, local and private funding; solidifying and highlighting relationships among WSGP, other University of Washington units and other educational and research institutions; and developing collaborative programs with local, state and regional partners and close working relationships with NOAA labs and units.

**The WSGP management team strengthens staff and resources** by hiring individuals with broad capabilities, striving to improve communication; investing in staff development; encouraging professional interaction; and maintaining and increasing base funding/support.

**Management and staff expand WSGP, state and regional capabilities** by enhancing program visibility; highlighting accountability and program impacts; communicating marine resource issues, needs and opportunities to users; and encouraging capacity-building in participating institutions.

## *Critical program areas*

The goals and objectives defined under each of the critical program areas describe the direction and intent of each activity. The goals are broad and speak to the need to conserve, use, understand or otherwise interact with the natural resources and environment of Washington state and the Pacific Northwest. The role of WSGP is non-regulatory, and non-advocacy; we work as facilitators, supporters, technical experts and educators to achieve these goals.

The mix of research program areas, investigators, staff and disciplines has changed, sometimes radically, over WSGP's three decades of service. Similarly, outreach efforts have grown to place more emphasis on resource management, conservation and local involvement in watershed protection. New areas of interest for WSGP staff and faculty include the management of non-indigenous species and recovery of threatened and endangered populations of fish and invertebrates.

Five critical program areas have been identified, addressing issues of importance to citizens of Washington state and the region, as determined through the program's ongoing needs assessment and rankings by WSGP staff and stakeholders. These critical program areas are compatible with areas of interest to NOAA, identified in the NOAA Strategic Plan.

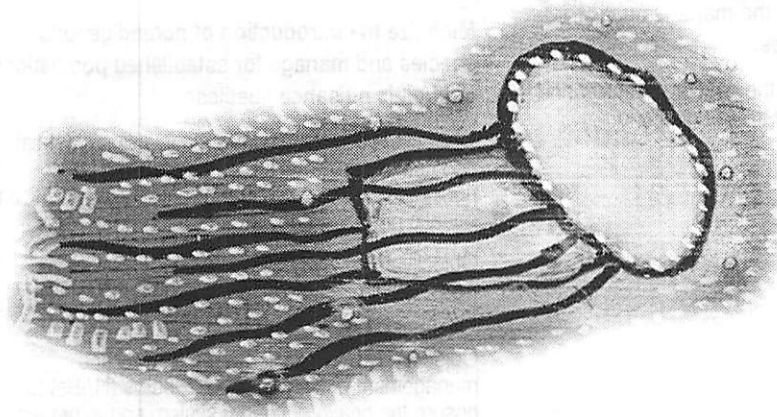


**Living marine resources** – conserving marine resources while providing for their beneficial use and exploitation, thus ensuring sustainable harvests and healthy populations in the future.

The present era of rapid demographic and environmental change has put increasing demand on sources of protein from the sea. As many traditional fisheries have been depleted, alternate species and geographic areas have become the target of capture fisheries. At the same time, enhancement and culture of shellfish and marine fish stocks have become more economically attractive. Scientists and managers are paying more attention to the impact of large-scale oceanic and environmental factors on fish populations, as well as the intersection of those populations with human activities.

In the Pacific Northwest, the listing of numerous Pacific salmon runs under the federal Endangered Species Act and the proposed listing of marine fish species are beginning to have wide-spread implications for the ways people live and do business.

WSGP research and outreach activities identified for strategic investment include quantifying and preventing bycatch from commercial fisheries; studies of fisheries/ocean/atmospheric interactions; potential impacts of global climate change on living resources; understanding the habitat needs of Pacific salmon and marine fish, and developing tools to protect dwindling runs; enhancing production of shellfish in an environmentally sound manner; working with marine industry, tribes and management agencies on sustaining finfish and shellfish resources; and encouraging the consideration of scientifically-based estuarine and marine protected areas as tools for fisheries management.



## Goal 1

**Conserve living marine resources to ensure that healthy populations are sustained into the future.**

Objective 1.1 —Develop an understanding of the interactions between living marine resources and their environment.

Objective 1.2 —Develop tools to minimize the accidental capture of fish and wildlife in commercial and recreational harvest and communicate these developments to user groups and the public.

Objective 1.3 —Understand critical needs of stressed populations, including species listed under the Endangered Species Act, to protect them from further declines.

## Goal 2

**Provide for the sustainable harvest of fish and other living marine resources.**

Objective 2.1 —Develop reliable tools for identifying and describing stocks of living marine resources.

Objective 2.2 —Work with public agencies, tribes and community groups to restore depleted stocks.

Objective 2.3 —Work with industry, public agencies and the tribes to improve the quality and safety of seafood products, and to alleviate human health concerns from exposure to marine products and the marine environment.

## Goal 3

**Enhance or maintain natural and cultured stocks of fish and shellfish to support a healthy industry and to sustain access to recreational harvest.**

Objective 3.1 —Participate in planning and education efforts that protect shellfish from contamination, loss of habitat, and threats from non-indigenous species, in cooperation with state, local and tribal authorities and the shellfish industry.

Objective 3.2 —Understand and mitigate the consequences of essential fish habitat designation on cultured shellfish beds and communicate the results of Best Management Practices to the public.

Objective 3.3 —Identify and develop tools that mitigate the effects of disease on wild and cultured stocks of fish and shellfish.

**Ecosystem health** – understanding the marine environment and protecting it from the deleterious effects of human activities, including contamination from terrestrial and ship-borne sources, degradation of nearshore, upland and open water habitats, overharvesting of fish, shellfish, algae and invertebrates, and introductions of non-native plant and animal species.

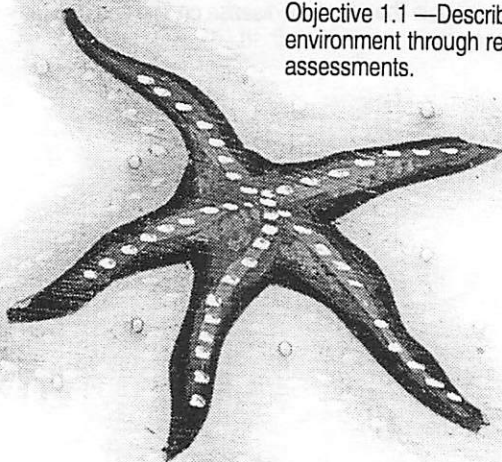
To understand marine and coastal systems and the changes that are taking place in them, it is important to describe these systems and document biodiversity within them. WSGP studies are process-driven and focus on many levels of the natural food web, rather than concentrating only on food fish and top predators. These studies allow for the identification and harvest of organisms and cellular products from the oceans. Descriptions and models of natural systems lead to better understanding of the impacts of conservation and exploitation of resources and the development of improved tools for ecosystem management.

Areas of interest to WSGP identified for strategic investment include bioremediation; harmful algal blooms; functions and values of fish and wildlife habitat; development and assessment of restoration techniques; non-indigenous species invasions; oil spill prevention education; water quality; habitat; potential impacts of global climate change; the use of estuarine and marine protected areas as laboratories for understanding ecological processes and environmental change; and development of training workshops and educational materials on ecosystem health for K-12 and community groups.

## Goal 1

**Understand the coastal, estuarine and marine environment of Washington state and the Pacific Northwest and improve the management of coastal marine resources.**

Objective 1.1 —Describe the coastal and estuarine environment through research studies and assessments.



Objective 1.2 —Develop models of coastal and estuarine systems to better understand the impacts of human activities, including exploitation and conservation of resources.

Objective 1.3 —Develop tools and evaluation criteria for management of the coastal ecosystems of Puget Sound and the Washington coast.

Objective 1.4 —Make results of estuarine and coastal research accessible and useful for natural resource managers, tribal biologists, coastal businesses and the public.

## Goal 2

**Protect and enhance the integrity of marine and coastal habitats from the effects of physical alteration.**

Objective 2.1 —Describe the extent and condition of estuarine and coastal habitats, and the impacts of physical alteration.

Objective 2.2 —Develop tools and techniques to understand and improve the efficacy of habitat restoration, and to characterize, protect and enhance critical habitat for endangered species.

Objective 2.3 —Provide access to new habitat restoration and enhancement tools and techniques for natural resource managers, tribal biologists, coastal businesses, and the public, and publicize results of estuarine and coastal habitat inventories.

## Goal 3

**Protect the marine environment of Puget Sound and coastal Washington from contamination due to human activities.**

Objective 3.1 —Identify and promote solutions to the impacts of biological and chemical contamination in nearshore waters and on resource populations.

Objective 3.2 —Address the impacts of chemical and biological contamination by enlisting the support of strategic partners.

## Goal 4

**Minimize the introduction of nonindigenous species and manage for established populations of aquatic nuisance species.**

Objective 4.1 —Understand the invasion potential and critical pathways for the introduction of nonindigenous species that are most likely to become aquatic nuisance species.

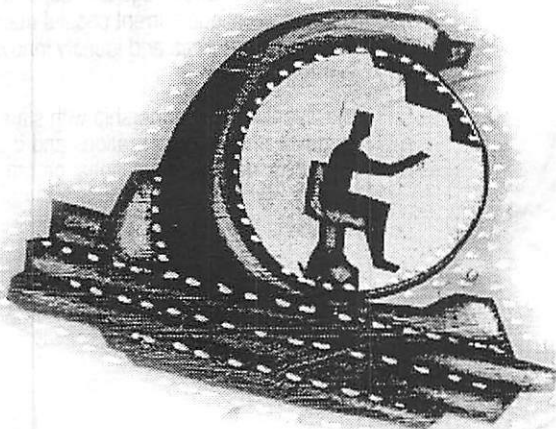
Objective 4.2 —Minimize the introduction of nonindigenous species through education and training.

Objective 4.3 —Investigate the causes and management of Harmful Algal Blooms (HABs) to ensure the health of the ecosystem and to protect public safety.

**New technologies to enhance ocean productivity** – creating and applying technologies that show promise for expanding the horizons of ocean exploration, leading to deeper understanding of marine coastal processes, greater resilience among ocean resources and the development of new products from the sea.

New technologies have greatly accelerated possibilities for ocean exploration, for the development of new tools for fisheries management and for environmental assessment and protection. Modern molecular techniques have allowed for the identification, extraction and development of new products and processes. The explosion of technologies and applications made available through high-speed computing has greatly enhanced the ability of researchers to communicate information and to automate tedious and intricate screening for new products and processes. The challenge of new technologies lies not only in understanding and applying their potential to explorations in the marine realm, but in separating out the essential information and communicating it to managers, decision makers and the public in a useful fashion.

WSGP activities that focus on new technologies include the development of products and processes from organisms living in extreme environments; studies of deep-sea environments, including the identification and ecology of microorganisms and enzyme systems from mid-ocean ridge vents; development of environmental assessment tools; applications of marine biotechnology to resource conservation and management; development of new techniques for fisheries management; modeling of circulation and natural system-response in estuaries and coastal areas; and the interpretation and packaging of large data sets into education and information tools.



## Goal 1

**Create and apply molecular techniques to identify, extract and develop new products and processes.**

Objective 1.1 —Support and enhance activities associated with bioremediation of marine sediments.

Objective 1.2 —Develop new products from marine organisms.

Objective 1.3 —Identify, extract and examine the impacts of naturally occurring biotoxins.

Objective 1.4 —Support the dissemination of information on new techniques and products among the research community and user groups.

## Goal 2

**Develop new technologies and tools to enhance the management of marine resources.**

Objective 2.1 —Develop new techniques for sustainable fisheries management and cleanup of contaminated marine environments.

Objective 2.2 —Create tools for the interpretation and packaging of large data sets for use in education and public information.

Objective 2.3 —Develop new products and processes of commercial interest from non-living marine resources.

Objective 2.4 —Support outreach efforts to make new techniques and tools available to user groups.

## Goal 3

**Understand the diverse environments of the deep sea and ocean/atmosphere coupling.**

Objective 3.1 —Enhance leadership role in biological aspects of deep sea research.

Objective 3.2 —Encourage development of instrumentation that enhances our understanding of the deep sea environment, as well as the interactions between the oceans and atmosphere.

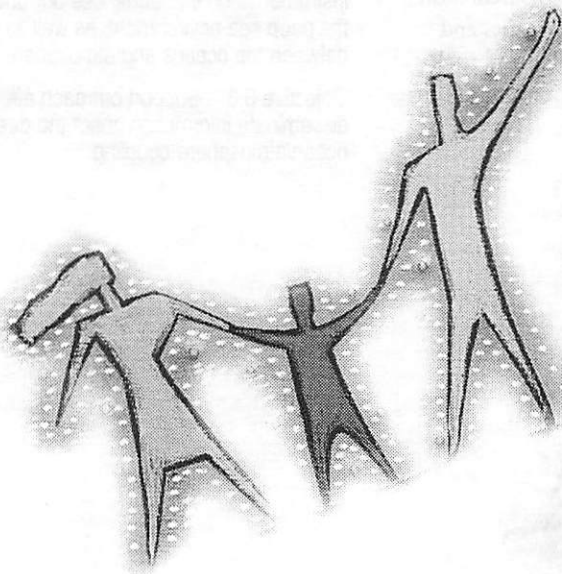
Objective 3.3 —Support outreach efforts to disseminate information about the deep sea and ocean/atmosphere coupling.



**Economic and community development** – assisting marine and coastal-dependent enterprises, agencies and communities in making sound business, planning and development decisions that provide economic benefits to local communities and to the region, while managing resources for sustainability.

Coastal communities are under severe stress. Some areas are developing at a frenzied pace, while others are deteriorating because of the loss of natural resource-based employment. Healthy communities must be safe and reflect the values of the residents. They also benefit from economic vitality and from the involvement of the citizenry and their elected officials in planning for and implementing community development. At the same time, healthy communities can benefit from new resources and technologies that are incorporated in a compatible manner.

WSGP activities enhance the sustainable production of economic goods and services that flow from or depend upon the marine environment, through marine fisheries and aquaculture; marine biotechnology; ports and marine transportation; tourism and recreation in coastal and marine areas; ocean engineering; and emerging marine industries. WSGP also works with communities to revitalize their waterfronts; to incorporate legal regimes for managing marine uses and conflicts; to manage impacts of chronic and episodic coastal hazards on coastal communities, including coastal landslides, flooding, erosion, seismicity and volcanism; and to plan for mitigation of coastal hazards in communities and ports.



Areas for strategic investment of particular interest include the valuation of coastal and marine resources; urban impacts on nearshore habitats and water quality; potential impacts from global climate change; economic assessment of marine sectors; coastal community development and revitalization; accelerating commercial development of new marine processes and products; improvement of tools, skills and practices for coastal businesses and communities; and the use of models and Geographic Information Systems (GIS) in the management of coastal resources.

## Goal 1

**Plan and manage coastal communities in the Pacific Northwest for ecologically sustainable economic futures.**

Objective 1.1 —Understand Washington communities' use of, and impact on, coastal and marine resources.

Objective 1.2 —Document the strengths, weaknesses, problems and opportunities affecting coastal communities in transition.

Objective 1.3 —Enhance the local capacity of coastal communities to plan for sustainable economic futures.

Objective 1.4 —Identify policies and tools to enhance sustainable economic development in Washington's coastal counties.

## Goal 2

**Assess current coastal policy and planning regimes and identify alternative approaches where needed to achieve community sustainability in the Pacific Northwest.**

Objective 2.1 —Identify and assess current approaches to salmon recovery and watershed restoration.

Objective 2.2 —Identify and assess planning mechanisms and industry practices for sustainable coastal and marine tourism.

Objective 2.3 —Encourage and support studies to explore and critique current coastal management policies and practices and identify innovations from other regions.

Objective 2.4 —In partnership with state agencies, non-governmental organizations and the academic community, develop educational programs and forums to explore policy options for improving coastal management in Washington state.

### **Goal 3**

**Mitigate the social and economic impacts of changes to, and events in the natural environment of the Pacific Northwest.**

**Objective 3.1 —Monitor research on coastal hazards and environmental change for application to the region.**

**Objective 3.2 —Develop tools and techniques to analyze the impacts of environmental change and coastal hazards.**

**Objective 3.3 —Disseminate information on coastal hazards, and their mitigation, to state, tribal and local governments and stakeholders in Washington state.**

**Objective 3.4 —Enhance the local capacity of coastal communities to reduce their vulnerability to coastal hazards.**

### **Goal 4**

**Enhance the capacity of coastal industries to adapt to, and prosper in, the changing economic and regulatory environments of the Pacific Northwest.**

**Objective 4.1 —Monitor scientific research and trade literature on selected marine business sectors for applicable innovations.**

**Objective 4.2 —Develop information and tools to help marine industries enhance their efficiency, productivity and sustainability.**

**Objective 4.3 —Disseminate information on emerging marine products and services, and living marine resource culturing techniques having potential application.**

**Objective 4.4 —Work cooperatively with agencies and industry to address issues adversely affecting the future of marine industries.**

**Objective 4.5 —Develop partnerships to facilitate resolution of conflicts among and between marine resource users.**

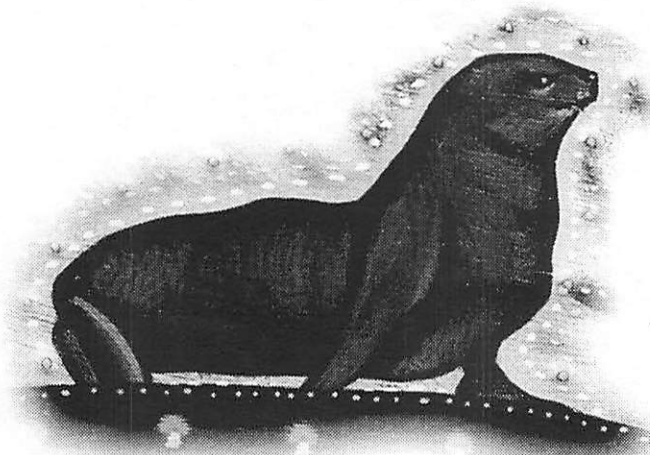


**Education, training and public information** — educating the workforce and informing the public as a means of sustaining the vitality of marine resources and the enviable lifestyle in Washington state and the Pacific Northwest.

WSGP works with institutions of higher learning throughout the state to maintain a high standard of teaching and research; provides K-12 teacher training on marine topics; and works closely with information services to disseminate public information on marine resources and the environment.

Customarily, WSGP research and education projects involve the training of graduate and undergraduate students, as well as post-doctoral investigators. WSGP actively participates in the Dean John A. Knauss Marine Policy Fellowship and the Sea Grant Industrial Fellowship programs, as well as presenting students with opportunities to compete for other fellowships and internships.

Areas of interest for strategic investment include continued support of graduate and undergraduate students; developing partnerships to provide training, workshops and conferences on topics of interest to marine business, management agencies, tribes and government organizations; continued support of K-12 education through teacher training activities and related publications; development of new communication tools and outlets to get appropriate information into the hands of decision makers and the public, with particular emphasis on marine habitats and the critical needs of stressed marine populations; development of our role as an information broker through the use of printed and electronic communications and media relations; and support of staff professional development through in-house and external training.



## Goal 1

**Maintain a highly-trained workforce that sustains the vitality of Washington state's marine and coastal environment.**

Objective 1.1 —Create a diversity of educational programs for users of Washington state's marine and coastal resources that encourage a sustainable environment.

Objective 1.2 —Support graduate and undergraduate students at the university level.

Objective 1.3 —Employ a variety of tools and techniques that provide information to the users of Washington state's marine and coastal resources.

Objective 1.4 —Ensure that the WSGP staff are current in their subject expertise, and have the latest skills in the delivery of programs.

## Goal 2

**Encourage stewardship of Washington's marine and coastal resources by developing a scientifically literate and environmentally informed citizenry.**

Objective 2.1 —Assist the news media and stakeholder groups in obtaining reliable and unbiased science-based information.

Objective 2.2 —Develop educational programs that lead to Washington's citizens' and tribal members' awareness, understanding and action in marine and coastal environmental, economic and social issues.

Objective 2.3 —Communicate critical needs of stressed marine populations, including those listed under the Endangered Species Act (ESA), and work with public agencies, tribes and community groups to disseminate new information.

## Goal 3

**Advance high-quality, interdisciplinary marine education that is tied to the interests of Washington state and local communities.**

Objective 3.1 —Involve experts in a range of academic disciplines in developing new approaches to marine education.

Objective 3.2 —Build on existing inter-agency partnerships among state, county, and local governments and communities that focus on marine educational activities.

Objective 3.3 —Increase the capacity of educational professionals to deliver interdisciplinary marine education in their classrooms.

## *Measures of program success*

WSGP strives to create a diversified portfolio of research, education and outreach activities, focusing on traditional Sea Grant strengths.

Decisions to initiate and support research, education and outreach projects are based on an examination of benefits to be derived and the unique contribution that Sea Grant can make. Such decisions are grounded in many different modes of evaluation and assessment, ranging from standard extension measures (such as user group contact hours) to completed surveys and evaluation forms from conference participants.

Criteria have been developed to determine whether an activity should be included in the WSGP portfolio, warrants additional emphasis and funding, or should be eliminated from the program. These criteria are applied to activities in both current and emerging program areas.

In deciding whether to include new activities in WSGP, the following questions must be addressed:

- Does the activity fall into one of the four critical program areas?
- Will the activity make advancements in one or more of the outcome areas?
- Will the use of strategic partnerships help WSGP researchers and staff succeed?
- Is there an identified funding source for the activity or a strong likelihood that funding will become available?

If the answer to all four questions is “yes,” the activity can be considered for inclusion in the program. In addition, a measure of venture capital is reserved for investment in higher-risk activities — particularly in fields of emerging research — even though these activities may not fit into the five critical program areas or directly meet the prescribed measures of success.

In evaluating the success of an existing activity, positive impacts must be demonstrated in one or more of three outcome areas:

**Behavioral Change** (Figure 3.)

**Economic Change** (Figure 4.)

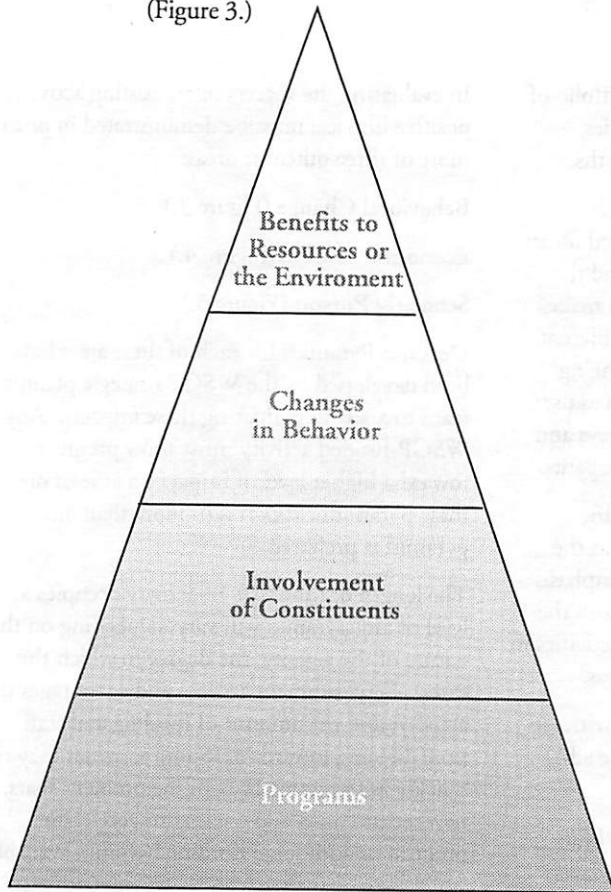
**Scholarly Pursuit** (Figure 5.)

Decision Pyramids for each of these areas have been developed by the WSGP strategic planning team to assist in evaluating these impacts. Any WSGP-funded activity must show progress toward a higher level of impact on at least one of these pyramids. Progress in more than one pyramid is preferred.

The length of time that an activity occupies a level of any pyramid will vary, depending on the nature of the activity, the degree to which the external environment accepts and encourages the activity; and the amount of funding and staff time directed towards it. Some activities may rise quickly as the immediacy of the problem soars, new technologies and paradigms accelerate progress or additional funding becomes available.

Activities that are primarily research-oriented are expected to make progress in the Scholarly Pursuit outcome area but are strongly encouraged to move forward in the other areas through involvement in or cooperation with outreach activities. Similarly, activities that center on outreach efforts are expected to make progress in Behavioral Change among constituents, but will often contribute to Economic Change and Scholarly Pursuit.

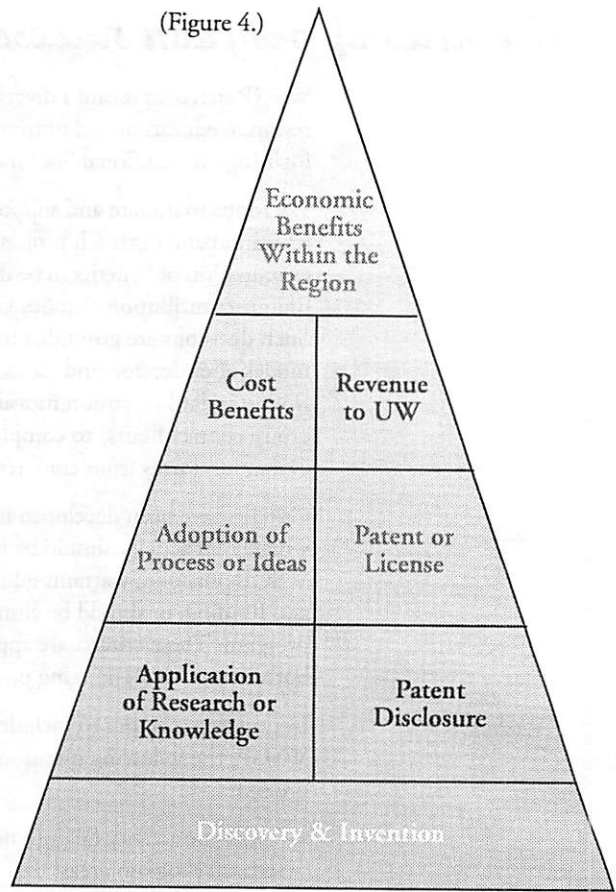
(Figure 3.)



## BEHAVIOR CHANGE

Decision Pyramid I

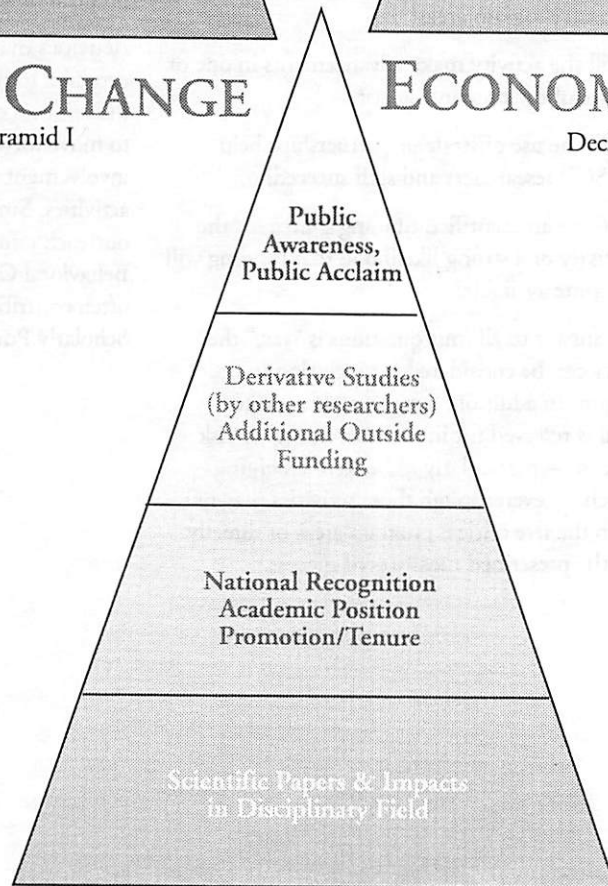
(Figure 4.)



## ECONOMIC CHANGE

Decision Pyramid II

(Figure 5.)



## SCHOLARLY PURSUIT

Decision Pyramid III

# *Implementation*

This strategic plan will be implemented through a triennial program plan. In addition to the program plan, the processes for developing and implementing the program are documented in the project solicitation process (Appendix C). Program progress and outcomes are detailed in WSGP's annual report, program directory and program Web site. WSGP also runs periodic state and national competitions for research and outreach funds. These special competitions have been approached within the context of previously planned program activities.

Detailed activities for the two-year period 1999-2000 are documented in the WSGP Program Plan 1998-2000. WSGP program plans prepared in the years 2000 (for the period 2001-2004) and 2003 (for 2004-2006) will outline future activities. Starting in 2000 a triennial implementation plan will detail progress in achieving our implementation goals and objectives.

## *Appendix A*

References

## *Appendix B*

Washington Sea Grant Program

Organization Chart

## *Appendix C*

Washington Sea Grant Program

Advanced Call for Preproposals

Call for Preproposals

Proposal Process Questions & Answers

## *Appendix D*

Stakeholders

## *Appendix E*

Stakeholder Survey - 1998

## *Appendix F*

Washington Sea Grant Program Activities in Relation to Sea Grant

Newtork Plan



This plan is operative within the context of other plans and goals at the national, regional, state and university levels. Grouped below are other key documents that describe our program and the broader context within which we work.

Washington Sea Grant Program, *Mission, Goals and Objectives, 1986-1996*. (Draft 1986, first revision 1988.) This has been the basic program guidance document since 1986. The current iterative process took place in 1993-94, and again in 1998-99.

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National Association of State Universities and Land-grant Colleges, Board of Oceans and Atmosphere, *Recommendations for the Future of the National Oceanic and Atmospheric Administration* (1998)

National Association of State Universities and Land-grant Colleges, Board of Oceans and Atmosphere, *The National Sea Grant College Program* (1993)

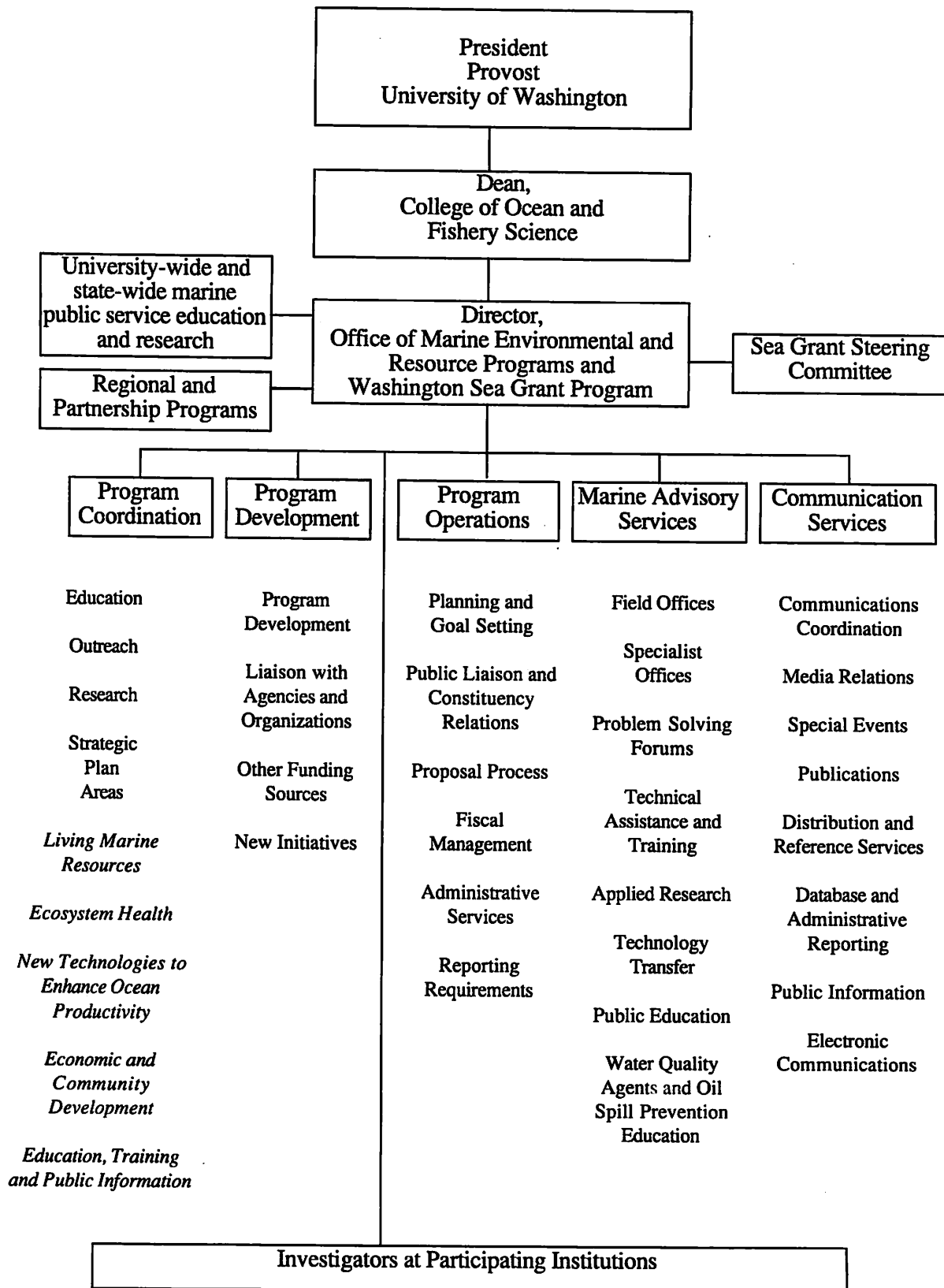
Pacific Northwest Regional Marine Research Program, *Research Plan* (2 vols., 1993)

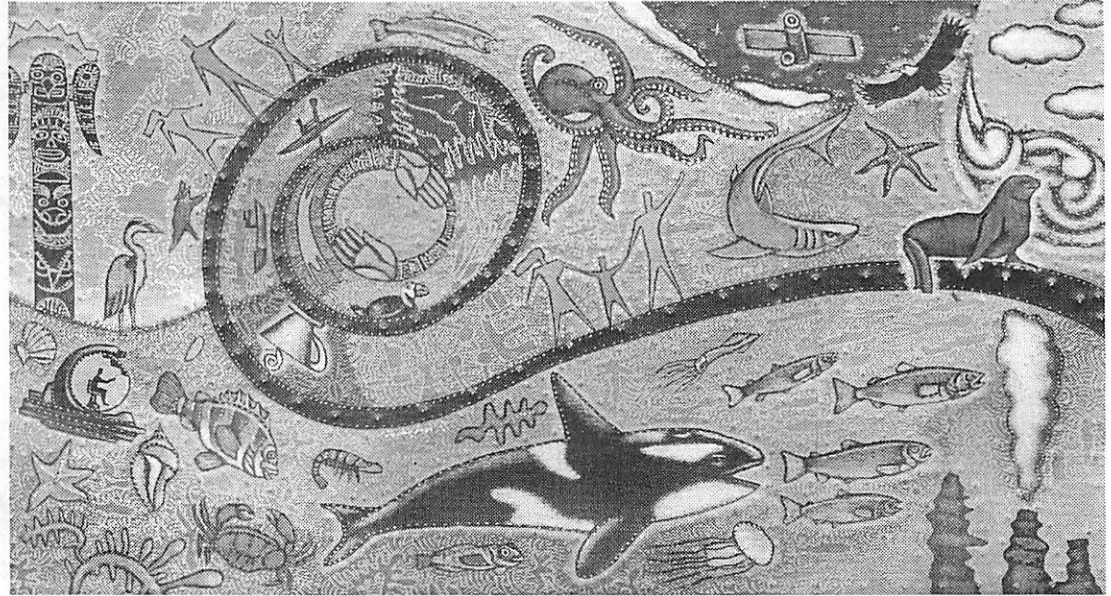
British Columbia / Washington Environmental Cooperation Council, Marine Science Panel, *The Shared Marine Waters of British Columbia and Washington* (1994)

Puget Sound Water Quality Action Team, State of Washington, *Puget Sound Water Quality Action Plan* (updated biennially)

# Appendix B

## Washington Sea Grant Program Organization Chart





## Proposal Development For Calendar Years 2001-2003

Early in 2000 Washington Sea Grant Program will begin development of its program plan for calendar years 2001 through 2003. Projects of 1 to 3 years duration will be solicited. (Up to half of the \$1+ million available annually will be committed for the full three-year period, but a number of projects will be of shorter duration.) Successful research and education proposals on marine issues are likely to fall into one of the following categories:

- Biotechnology
- Environment and Resource Policy
- Estuarine Studies and Nearshore Habitat
- Fisheries and Living Resources
- Marine Products
- Technology in Support of Marine Resources

Information on these or other funding opportunities will be posted on our Web page as soon as we receive it. You may also contact Sue Raub at 206.543.2822 to be added to a special mailing list.

Other outstanding proposals that strategically address specific problems or opportunities in marine areas also will be considered if they present a compelling rationale. We are especially interested in supporting university/industry collaborative projects, investigators who are newly established in institutions in the state, new interdisciplinary partnerships, and strategic workshops or planning processes on marine issues of importance to Washington state.

The call for pre-proposals will be on our home page: [www.wsg.washington.edu](http://www.wsg.washington.edu) and will be distributed widely. For a printed copy contact: Sue Raub, 206.543.2822 Fax 206.685.0380 [scagrants@u.washington.edu](mailto:scagrants@u.washington.edu)

Proposals to Washington Sea Grant Program are judged on scientific merit and the application or potential application of the proposed work to problems or opportunities of broad societal concern. The degree of emphasis on scientific and other considerations will vary according to the activity being proposed, but preproposals and proposals should demonstrate strength in both categories.



There will also be separate national funding competitions later in 1999 for projects dealing with:

- Essential Fish Habitat
- Graduate Fellowships in Population Dynamics and Marine Resource Economics
- Marine Environmental Biotechnology

The announcement for these competitions should be available on or about November 1, 1999.



### Proposed Schedule for Project Review and Funding

#### 2000

- January 4 Call for Preproposals issued
- February 11 Preproposals due
- March 24 Request for full proposals issued on the basis of evaluation
- May 5 Full proposals due
- May - August Review and evaluation of full proposals
- Autumn WSGP program plan submitted to NOAA for funding

#### 2001

- January/February Projects start

See the  
Call for Preproposals  
on our Web site:  
[www.wsg.washington.edu](http://www.wsg.washington.edu)

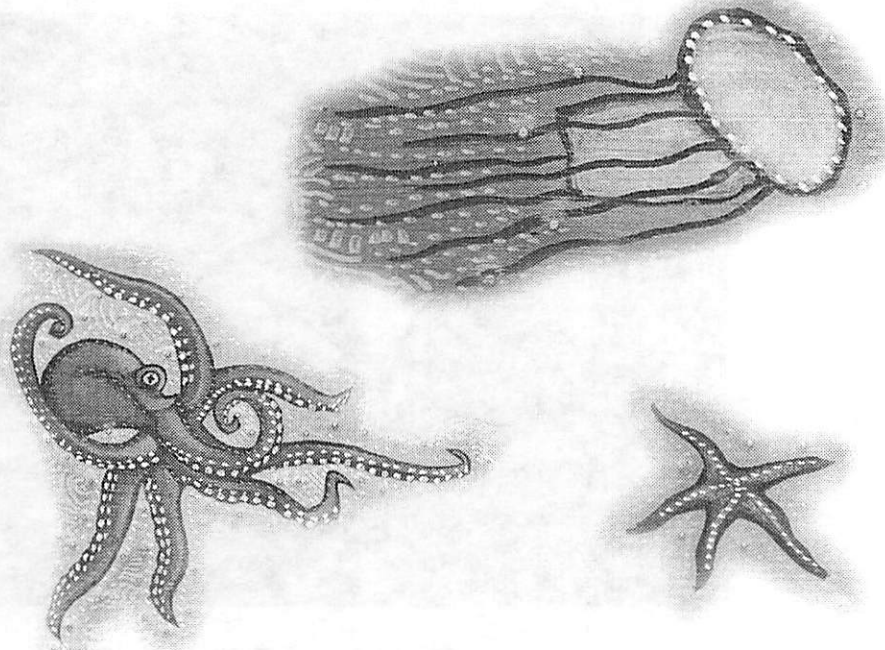
Our mission: *To encourage the understanding, use, conservation and enhancement of marine resources and the marine environment through research, education and outreach.*

Washington Sea Grant Program  
Office of Marine Environmental & Resource Programs  
University of Washington  
3716 Brooklyn Avenue NE  
Seattle, Washington 98105-6716

206.543.6600  
[www.wsg.washington.edu](http://www.wsg.washington.edu)

**Sea Grant**  
Washington

*Knowledge for Use in the Marine Environment*



Call for Preproposals  
for Calendar Years 2001, 2002 and 2003

Preproposals due February 11, 2000



### Special Notice

Simultaneous with this Call for Preproposals, the National Sea Grant Office and the National Marine Fisheries Service are conducting a competition for *Graduate Fellowships for Population Dynamics and Marine Resource Economics*. Applications are due on February 15, 2000. For more information consult the website at <http://www.nsgo.seagrant.org/research/rfp/index.html>. (Additional national competitions have already passed the preproposal stage.)

Washington Sea Grant Program, University of Washington, invites project proposals for possible inclusion in the Sea Grant Program proposal for calendar years 2001, 2002 and 2003. The program is statewide and encourages proposals from other educational institutions throughout the state of Washington.

This document provides instructions for preproposals. Investigators whose preproposals are selected for further consideration will be provided with instructions for developing a full proposal.

Sea Grant proposals are judged on scientific merit and the applications or potential application of the proposed work to problems or opportunities of broad societal concern. The degree of emphasis on scientific and other considerations will vary according to the activity proposed, but preproposals should emphasize and demonstrate strength in both categories.

We are particularly interested in preproposals that:

- \* support university/industry collaboration;
- \* support investigators who are newly established at universities or colleges in Washington state;
- \* involve new interdisciplinary partnerships, and
- \* include workshops or planning exercises that are relevant to the mission of Sea Grant and the needs of coastal resource management in Washington state.

Successful preproposals will most likely fall into one of the following categories:

- \* Marine Biotechnology
- \* Marine Products
- \* Estuarine Studies and Nearshore Habitat
- \* Fisheries and Living Resources
- \* Environmental and Resource Policy
- \* Technology in Support of Marine Resources

Outstanding preproposals that address problems or opportunities in other marine resource or environmental areas will also be considered.

Washington Sea Grant  
Program  
Office of Marine  
Environmental and Resource  
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[www.wsg.washington.edu](http://www.wsg.washington.edu)



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## Preproposal Checklist

- Cover page/Summary  
Narrative (not to exceed 5 double spaced pages):
- Problem/opportunity
- Rationale
- Present status
- Approach
- Expect results
- Budget(s)
- Investigator biographies (one page)

## Schedule for Project Review and Funding

- 2000
- January 4  
Call for Preproposals issued
  - February 11  
Preproposals due
  - March 24  
Request for full proposals issued on basis of evaluation
  - May 5  
Full proposals due
  - May-August  
Review, evaluation, selection and notification of investigators
  - Autumn  
WSGP program plan submitted to NOAA for funding
- 2001
- January-February  
Projects start

## Background

### Mission

Washington Sea Grant Program serves communities, industries and the people of Washington state, the Pacific Northwest and the nation through research, education and outreach by:

- ✳ identifying and addressing important marine issues;
- ✳ providing better tools for management of the marine environment and use of its resources; and
- ✳ initiating and supporting strategic planning partnerships within the marine community.

### Project Selection Criteria

The discussion on "Areas of Particular Interest" in the following section defines the underlying premises of Washington Sea Grant Program for building the strongest possible program. The best Sea Grant proposals combine scientific excellence and a focus on problems or opportunities of broad societal (management, industry, public) concern. Projects will be selected based on the following:

- ✳ Scientific quality
- ✳ Significance of expected scientific contribution
- ✳ Importance of the marine resource/marine environmental need or opportunity which the project addresses
- ✳ Appropriateness as a university-sponsored activity
- ✳ Potential for societal impact
- ✳ Interaction with other projects and activities and potential for leverage of funds
- ✳ National competitiveness

*These criteria should be viewed inclusively and considered carefully in proposal write-ups.*

## Program

### Description

Washington Sea Grant Program is part of a nationwide network of 29 Sea Grant colleges and institutions. One of the first four Sea Grant colleges in the nation, Washington Sea Grant Program has been in operation for more than 30 years. Over time, the program has supported a wide range of activities oriented toward marine problems and opportunities. Investigators and staff have made significant contributions to the understanding of the marine environment and its beneficial uses.

Federal enabling legislation provides up to two-thirds of the total program costs. Non-federal matching funds are required for the remaining program expenses. (Matching funds are discussed later.)

Research projects may range from applied to basic, and over time many projects may include elements of both. Problem-oriented research often involves emphasis on the application of previous basic work. In addition, quite basic research may be needed to fill knowledge gaps in order to reach a desired societal benefit.

Sea Grant has always emphasized a multi-disciplinary approach to marine problems and opportunities, and Washington Sea Grant Program will continue this tradition. Sea Grant is also an education-based program. Only in exceptional cases will research projects be accepted without significant research assistant or other student involvement.

Projects currently under way are described on

WSGP's home page (<http://www.wsg.washington.edu>) and in the WSGP *Program Directory*. This listing is informational only. Emphases change as marine problems and opportunities increase or diminish, and the variety of projects is responsive to the quality of proposals submitted. Even though there is considerable continuity of effort over time, we actively encourage new initiatives and new investigators. The program is constantly evolving. Approximately \$1 million annually should be available for new projects in 2001, 2002 and 2003. We expect to have a healthy mix of studies.

### Decision Process

A four-step decision process will be followed for funding projects.

Step 1. Preproposals following the format outlined on pages 8-10 will be widely sought. We will seek advice on these preproposals from the Washington Sea Grant Steering Committee and other knowledgeable parties. Those projects that, when combined, would form the strongest overall program will be selected for further development.

We discourage investigators from submitting more than two preproposals.

The number of preproposals selected for full write-ups will be based upon an optimistic evaluation of the funding available in 2001 through 2003.

Step 2. Full proposals will be solicited from those investigators whose preproposals are selected in Step 1. The full proposals should be prepared according to the format that will be provided to successful investigators.

Peer review of the full proposals will be sought to provide an independent and knowledgeable evaluation that will help determine which proposals will be selected for the institutional program proposal.

Where possible, investigators will have an opportunity to modify their proposals on the basis of the review comments. The proposed institutional program will then be submitted to the National Sea Grant College Program Office, National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce for funding.

Step 3. The National Sea Grant Office will review the institutional proposal and its elements. Assuming that required procedures have been followed and that quality control criteria have been met, and assuming that federal appropriations have not changed dramatically, the proposal will be approved.

Step 4. In the ensuing three years, the National Sea Grant Office will evaluate the performance of projects and activities and will compare the overall program with other Sea Grant programs nationally. On the basis of program *rankings* and *funds available*, budget levels will be assigned to the program for future competitions.

## Matching Funds

*Non-federal* matching funds for at least one-third of the total program cost (\$1 non-federal for each \$2 federal) are required by law. For education and training projects, at least 50 percent matching support is the norm.

The matching requirement is the major constraint on Washington Sea Grant Program. No special funds are available to the program to use as matching support for research and education projects; they must be raised at the project level. The one-third match is a minimum in all but a few exceptional cases. Where there are likely to be fairly immediate direct beneficiaries, a greater matching component is appropriately required.

It is important to identify matching contributions fully and carefully, since projects selected for funding support will be required to provide after-the-fact documentation of the matching funds claimed. University of Washington departments may be liable for support that cannot be documented or that is disallowed by auditors. Matching funds may be provided "in-kind" as well as in cash. Examples of "in-kind" matching include salaries, wages and benefits of those working on the project, expendable supplies and equipment, ship time and donated supplies, space or equipment. Indirect costs associated with non-federal contributions also may be used for matching. Foundation grants, state and local grants, and state Special Project money are good sources of matching funds. If you are uncertain about

claiming a matching contribution, contact the Sea Grant administrator C. Alan Krekel at 206-543-9966 for additional guidance.

## Project Duration

WSGP's institutional proposal (to be submitted to the National Sea Grant College Program Office in mid-2000) will include projects to be conducted in calendar years 2001, 2002 and 2003. Projects may be scheduled to begin in 2001, 2002 or 2003 and may be of one-, two- or three-year duration. No more than half of the approximate \$1 million available annually for research and education projects will be committed for the three-year duration.

## Conflict of Interest

WSGP subscribes to a strict conflict of interest policy. This policy is consistent with the ethics code of the state of Washington and with government-wide rules adopted by the science-funding agencies of the federal government. For this proposal process, this policy applies to the situation and activities of principal investigators and peer reviewers, and to the proposal decision process.

The University of Washington has adopted a policy entitled "Investigator Significant Financial Interest Disclosure Policy for Sponsored Projects," which applies to all participants in grants and contracts to the University. All University of Washington investigators are required to adhere to this policy.

Other participating institutions may have

adopted their own policies consistent with state codes and federal policies. Where this is the case, project participants will be expected to follow the policies of their institutions. In situations where participating institutions do not yet have formal policies, the University of Washington policy will apply. For a copy of this policy, contact Sue Raub at 206-543-2822.

Peer reviewers and others involved in the proposal review process also are subject to conflict of interest standards. All reviewers must submit a Conflict of Interest form with each review.

## Areas of Particular Interest

Federal funding for 2001 through 2003 is primarily available for research and related technology transfer activities. Research areas of particular interest are briefly highlighted in this section. The WSGP Program Directory included on our web site describes current program activities. This background should be useful for prospective investigators. However, the program is constantly evolving as new ideas and new sets of problems and opportunities arise.

Educational projects that address substantive concerns in these or related areas also will be considered. In addition, WSGP is interested in projects that:

- \* support university/industry collaboration;
- \* support investigators who are newly established at universities or colleges in Washington state;
- \* involve new interdisciplinary partnerships, and
- \* involve workshops or planning exercises that are relevant to the mission of Sea Grant and the needs of coastal resource management in Washington state.

In recent years, Washington Sea Grant Program has funded activities in the following areas. Successful research and education proposals need not necessarily fall into these categories; we remain open to new approaches.

## Marine Biotechnology

Marine organisms develop specialized enzyme and metabolic systems to enable them to live in the often extreme conditions of the oceans. Many of those systems differ significantly from those of land organisms. With the development of molecular and cellular level tools, many systems and activities of marine organisms can be identified and used for human needs. For example, organisms that are specially adapted to feeding off petroleum products can be entrained to clean up contaminated sediments; bacteria and other microorganisms that live in extreme environments can be induced to provide enzymes that thrive in extremes of temperature, salinity or hydrostatic pressure. An increasing number of biotoxins and other biologically active compounds have become accessible to study. The ability to detect and quantify chemical and biological contaminants in the marine realm has been enhanced by coupling molecular and electronic tools to create biosensors and other detection devices.

New molecular and cellular capabilities can also provide improved understanding for fisheries management and assist in the development of marine aquaculture.

WSGP's Marine Biotechnology subprogram seeks to:

- \* identify and enhance the performance of bacterial systems to bioremediate contaminants in marine sediments and seawater;

- \* further the identification of novel organisms and enzymes from extreme ocean environments;
- \* provide opportunities for development and testing of biosensors tailored for the marine environment;
- \* develop applications of biotechnology for marine fisheries and aquaculture;
- \* work with industrial partners to bring these systems and processes to the marketplace; and
- \* work with the University to establish patent rights and responsibilities for marine processes developed under WSGP sponsorship.

## Marine Products

Harvesting of seafood has traditionally supported coastal economies and provided important protein sources for industrialized and emerging nations. As harvests have declined there has been special interest in improving seafood yields and developing new seafood products, through the use of molecular and cellular level tools.

In recent years, sources of other value-added and derivative products from the sea have taken on great importance. Pharmaceuticals, agricultural chemicals, industrial adhesives, enzymes and solvents, as well as many other types of marine products are routinely being discovered in primitive and multi-cellular marine organisms.

WSGP's Marine Products subprogram seeks to:

- \* identify, extract, and characterize products of interest to the seafood, biomedical, aquaculture, pharmaceutical and food products industries from a

- variety of marine organisms;
- \* work with industrial partners to screen marine products that will move them from the laboratory to the marketplace; and
- \* work with the University to establish patent rights and responsibilities for marine products developed under WSGP sponsorship.

## Estuarine Studies and Nearshore Habitat

Estuaries in the United States and other parts of the developed world bear the greatest burdens of population growth, transportation, waste disposal, harvest of marine resources and recreation. Yet we understand little about the basic processes that govern estuarine responses to natural variability and human activities. The estuaries on the West Coast differ markedly in hydrography, soils, slopes, sediment load and productivity from those in other parts of the country. As natural resources including salmon have come under increasing pressure the role of nearshore habitat in estuaries and adjacent coastal areas has been viewed as being of prime importance to sustaining and enhancing resource populations and the integrity of our estuarine ecosystems.

The goals of the Estuarine Studies and Nearshore Habitat subprogram are:

- \* to contribute to the baseline of physical, chemical, biological and geological information on the estuaries and near coastal waters of the Washington state;

- \* to provide new information and understanding of the interactions between natural systems and human activities in the estuaries of the Pacific Northwest;
- \* to advance the understanding of interactions between living marine resources and estuarine habitats in the Pacific Northwest;
- \* to examine the role of nearshore habitat in estuarine and coastal ecosystems and consider the use of a range of conservation techniques to protect threatened habitats; and
- \* to develop information on the distribution and impacts of exotic species in estuarine and coastal areas of the Pacific Northwest in order to manage and control impacts on native species and habitats, and on economic activities.

### Fisheries and Living Resources

As fisheries around the world come under ever-greater stress, the focus in fisheries science is turning increasingly to the conservation of the resource and to finding new ways to effectively use existing fisheries resources in a sustainable manner. In addition, living marine resources that are not the target of commercial or recreational fishing have also suffered from incidental bycatch, impacts of human activities in nearshore waters, and from invasions of non-native species. A better understanding of the status of non-target living resource populations is essential if we hope to ease impacts on the organisms that help maintain the fragile biodiversity of the oceans.

The goals of the WSGP Fisheries and Living Resources subprogram are:

- \* to support the development of information and understanding of fisheries issues that will allow fisheries managers and fishers to manage and exploit North Pacific fisheries in a sustainable fashion;
- \* to help restore and enhance anadromous and groundfish stocks in the Pacific Northwest through a better understanding of factors affecting fish habitat, harvest and hatcheries;
- \* to restore genetic diversity and sustainability to anadromous and groundfish stocks in the Pacific Northwest through the development and use of biotechnology and other techniques;
- \* to develop new information on bycatch and other fisheries management issues that affect species conservation and management in the State of Washington and beyond; and
- \* to develop a better understanding of the role played by non-target organisms in the maintenance of a diverse and sustainable marine ecosystem.

### Environmental and Resource Policy

Increased population growth in coastal areas places a growing burden on natural resources and management systems. At the same time, there is a nation-wide trend toward increased accountability for public expenditures and government actions. Coupled with the expanded reliance on ocean products to provide for the commercial needs and food requirements of industrialized and developing nations, these trends require better understanding of the social and economic systems that underlie their existence.

The goals of the Environmental and Resource Policy subprogram are:

- \* to apply social and policy sciences to issues of broad public concern, where findings can provide improved information and/or public policy alternatives for decision makers and the public;
- \* to examine interactions between natural and social systems in the management of stressed environments, fisheries allocations issues, endangered species problems, and ecosystem management;
- \* to bring new insights to conflict resolution among competing users and differing value systems, including those that pit economic concerns against environmental protection in stressed coastal areas; and
- \* to encourage interaction between the social sciences community and biological and physical scientists to bring clarity to societal problems.

### Technology in Support of Marine Resources

As greater demand is placed on the oceans for food and commercial products, a better understanding of basic processes and interactions among components of the oceanic and estuarine environments is needed to facilitate safe and productive exploration and use. The efficient and appropriate use of technology is a key component in learning more about oceanic processes, measuring change in the marine environment, exploring the oceans and the ocean floor, and engaging the public in a better understanding of marine resources.

The purposes that guide the subprogram on Technology in Support of Marine Resources are:

- \* to provide for the development and testing of new and innovative equipment and techniques for measuring oceanic processes;
- \* to make technological advances with a marine or coastal focus available to researchers, educators and the public;
- \* to encourage stakeholder groups to better understand and embrace the technologies that allow for sustainable use of the oceans; and
- \* to promote the application and use of new computer technologies and other advances in marine research and education.



## Background Information

Investigators should be aware of regional, national and international committee reports and the results of symposia and workshops that have defined research needs. In addition, the National Sea Grant College Program Office publishes a proposal "guidance" paper and a Strategic Plan (1995-2000). These documents should not be seen as prescriptive, but can be useful. For a copies call Sue Raub, 206-543-2822.

## Guidelines for Preproposals

Please provide twelve (12) copies of your preproposal by 5:00 p.m., Friday, February 11, 2000 to:

Washington Sea Grant Program  
University of Washington  
Box 355060  
3716 Brooklyn Avenue N.E.  
Seattle, WA 98105-6716

We do not accept preproposals by email as this medium is not secure.

A preproposal should contain each of the following elements in the order given.

- \* Cover page/Summary
- \* Narrative
- \* Budget(s)
- \* Biography

### Cover Page/ Summary

Use the format of the preproposal cover page/summary included in the back of this pamphlet. We suggest you complete this form before proceeding with the preproposal narrative, in order to provide added focus to your write-up. In addition to a succinct title, the names and affiliations of the principal investigators, the desired grant period and the proposed budget, the page should include the information listed in the sections that follow.

### Program Area

For research projects, list an area mentioned on page 2 of this document that most closely applies to your project. If one does not fit, list "New Applications" (and, if you wish, a one- or two-word description in parentheses). Marine education or training projects should list "Education."

### Key Words

List four or five key words that give a quick summary of activities/areas covered by this preproposal.

### Objective(s)

10 lines maximum

Briefly and clearly state the objectives of the proposed work, including both short-term and long-term objectives. Aim to incorporate both the scientific and societal purposes of the project in these objectives. Where possible, use active, affirmative verbs.

### Methodology

eight lines maximum

Succinctly describe the methods and approach to be used in accomplishing the objectives.

### Rationale

eight lines maximum

Indicate why this project is appropriate for Sea Grant support. Normally one or two sentences can describe the broad problem area, and an additional one or two will state why the proposed scientific or educational approach is a necessary activity. You need not promise to fully solve a problem or realize an opportunity, but you may want to show that the project

is a logical step toward a solution. Where potential users of research have been identified, state who they are.

### Narrative

not to exceed five double-spaced pages

The project title in bold caps followed by a listing of the project investigators and their affiliations should be shown at the top of the first page. Your narrative, exclusive of budget and biographies, may not exceed five double-spaced pages. Longer narratives are not appropriate at this stage. The narrative should cover the subjects outlined below, which expand on the material contained in the cover page/summary and allow you to develop your idea. We suggest that you follow the order of presentation outlined below. However, if you feel more comfortable with a different outline, use your own—but be sure to cover all of the information required.

### Problem or Opportunity Addressed

Describe the problem or opportunity, including a brief statement of its importance to the marine and scientific communities.

### Rationale

In addition to the material in the summary form, include a brief statement of the potential benefits to be gained by applying the results expected from the project. These benefits may be in terms of dollars saved, new industrial products, improved conservation of resources, reduced tensions, needed scientific advancements, or outreach efforts.

### Present Status

Assess the current state of knowledge concerning the problem or opportunity to be addressed, and include a brief summary of previous applicable research.

### Approach

Provide an outline or brief description of the approach you propose to take in addressing the problem or solution. This must be carefully worded to strike a balance between information and brevity. If you propose a multi-year project, indicate the activities that would take place in each year. If you know of other projects being proposed which would strengthen—or be strengthened by—your project, cite them here and describe the interaction.

### Expected Results

Describe the results you expect to achieve, including a statement of how the results can be applied to the problem or opportunity addressed. Include a forecast and tentative timetable of tangible products such as books, papers, reports, computer programs or prototype hardware. Note expected achievements by students, such as degrees earned, papers prepared, etc.

### Budget Justification

Provide written justification for budget needs as described in the following section.

### Budget(s)

Prepare detailed budgets for each of the calendar years 2001, 2002 and 2003 for which you are proposing activities. Any budget information beyond 2003 can be less detailed, but

you must be specific in categories such as salaries and benefits, equipment, supplies, travel, publication costs, other costs (services) and indirect costs. Do not include any "miscellaneous" or "contingency" costs in any category.

Your detailed budgets must provide information for both Sea Grant support and regional contributions (matching funds). A sample budget appears on page 14. The categories to be included follow:

### Salaries

Identify people by name, job category, title; indicate number of months support requested; specify academic quarter(s)—or month(s) if less than full quarters—for which funding is requested; indicate amount of support requested and matching pledged; and percentage of time. If you know what individual salaries will be in 2001, use those figures. Otherwise, increase 1999 salaries by 8% for 2001, 4% more for 2002, and another 4% for 2003.

Research projects are expected to include graduate student (R.A.) support. Sea Grant funds for teaching faculty will be limited to no more than two months of summer salary (all projects), and technicians, fishery biologists, etc. are limited to .5 FTE support—and that much only in exceptional circumstances.

The salaries of administrative and clerical staff should normally be covered under overhead. However, you can include these costs in your budget if you can specifically identify their services with your project. Please provide an itemization and justification for any of these costs.

### Benefits

Use your institution's recommended rates. University of Washington recommended rates, as a percent of salaries, are listed below:

Faculty .....	22%
Professional staff.....	25%
Classified staff .....	28%
Graduate Students .....	9%
Hourly staff/students.....	13%

### Equipment

Equipment is defined as an item of property which has an acquisition cost of \$2,000 or more per unit and having a useful life of more than one year. Specify and justify any item of equipment costing \$2,000 or more in your budget justification. Specify quantity of each equipment item. Remember to include sales tax.

### Supplies

Identify general office supplies, chemical or other laboratory supplies, and other expendable items. For supply requests exceeding a total of \$1,500 (or 5% of the project costs, whichever is greater), a detailed breakdown is required. Such requests should be explained in the budget justification. General office supplies in any amount must be justified.

### Travel

For total travel budgets over \$1,000, a detailed breakdown, including destinations, airfares, per diem, mileage and other costs must be provided. Moreover, you *must* list any proposed foreign travel in the budget and *justify* it in your narrative.

### Publication Costs

Include within your budget the costs of manuscript preparation (word processing and drafting services).

Notice: Reasonable journal page and reprint charges will be paid by the Sea Grant office if all the following conditions are met:

- \* The proposed article is the direct result of work done with Washington Sea Grant Program support.
- \* The article acknowledges Sea Grant support and includes the grant and project number.
- \* Advance written notice of anticipated charges is provided to the Administrator, Washington Sea Grant Program, 3716 Brooklyn Avenue N.E., Seattle, WA 98105. Include article title, authors, journal title and year/month accepted for publication.
- \* Written approval has been received from the Administrator.
- \* 25 reprints are provided to the Sea Grant office for distribution.

If you envision a publication (book, technical report, bulletin) under Sea Grant auspices, address a written notice of your plans to the WSGP Communications Manager, and submit this notice with your proposal. If advance written notice of these publications is not provided, funding cannot be assured.

### Other Costs (Services)

Include such items as photocopying, graduate operating fees, ship time, long distance telephone, postage, rentals, consultants and other services. Postage costs must be justified. Estimated graduate operating fees for University of Washington are:

	<i>acad. yr.</i>	<i>Summer</i>	<i>Total</i>
2001	\$6,000 ... 1,800	....	7,800
2002	\$6,300 ... 2,000	....	8,300
2003	\$6,600 ... 2,200	....	8,800

Each subcontract should be listed as a single separate line item. A separate detailed budget should be attached as well as a sole-source justification. Include a letter from a responsible official for the subcontractor stating their intent to provide the services specified and budgeted.

### Indirect Costs

Use the rate appropriate for your institution. (University of Washington rates are on-campus 52.0% of modified total direct costs; off-campus 26.0% of MTDC.) The following items are excluded from indirect cost at the University of Washington:

- \* equipment
- \* daily use charges for UW research vessels
- \* graduate operating fees
- \* fellowship/traineeship stipends
- \* rental costs of off-campus buildings
- \* subcontract costs above the first \$25,000

On the matching side, exclude from the indirect cost calculation any third party contributions that are to be expended outside the University of Washington accounting system.

### Matching Funds

Guidelines for the matching funds portion of the budget are the same as for Sea Grant funds. Moreover, the source of the funds must be identified, including an address, so that these contributions can be verified by the Washington Sea Grant Program Office. For non-salary University funds, indicate the University budget number and name.

### Restrictions

No federal Sea Grant funds may be applied to the purchase or rental of any land or the rental, purchase, construction, preservation or repair of any building, dock or vessel. With advance approval the purchase, rental, construction, preservation or repair of nonself-propelled habitats, buoys, platforms and other similar devices or structures, or the rental of any research vessel which is used in direct support of activities under any Sea Grant program or project is allowable.

### Current Biography

Please provide a current biography for each investigator, using the format on page 15. Please do not exceed the one-page limit for each biography. In listing selected publications, focus on those most relevant to the proposed project.

### Notice to Previous Sea Grant Investigators

Applicants who have not received Sea Grant funding previously should disregard this section. The absence of previous funding will not prejudice decisions for this proposal cycle—in fact, new investigators are actively encouraged.

Because of stringent new federal requirements, both WSGP and the National Sea Grant office will review past performance of previous Sea Grant investigators; that performance will be a significant factor in decisions on future support.

The following points should be considered.

### Completion Reports

Applicants who have previously received Sea Grant support but who have not yet submitted timely and comprehensive reports about projects completed on or before January 31, 2000 will not be considered for additional support due to the new federal requirements. If you are a potential applicant who falls in this category, you must submit a completion report(s) before submitting a proposal.

### Updated Completion Reports

Frequently investigators send us completion reports listing pending publications, theses and other ongoing activities. If you filed such a report more than six months ago, review your recent publication record. If you have not provided our office with the requisite number of publications, please do so right away. (We need at least 25 copies of journal articles and one abstract of each thesis or dissertation.) If you wish to update the list of accomplishments and benefits reported earlier, please do so over the next several months. Under the new competitive procedures of the National Sea Grant office, this information could be a crucial factor in decisions on project selection.

## Program Development Grants, Pass-Through Grants, and Other Activities

In addition to the periodic two-year funding cycle, Washington Sea Grant Program often supports a range of marine research and education activities that enable us to respond to problems and other situations.

### Program Development Grants

Every effort is made to provide modest grant funds for project opportunities or special needs that arise outside the regular program funding cycle. These funds are not intended to supplement existing projects, but rather:

- \* to start up promising new lines of inquiry;
- \* to provide seed money for exploratory efforts;
- \* to sustain planning efforts for multidisciplinary investigations; and
- \* to respond to urgent needs or opportunities that require a timely response.

Normally program development grants are modest in size and in time frame, but in exceptional cases larger efforts can be supported.

Depending on funds available, proposals can be considered at any time. Interested parties should first discuss ideas for program development support with the program director or his

designee. If the idea seems appropriate and funding is potentially available, a two-page preproposal will be requested as a next step. Once relative priorities among competing requests and the amount of funding actually available can be established, a full proposal may be requested for technical review and final decision.

### Pass-Through Funds

Through cooperative activities with various federal agencies, Washington Sea Grant Program is often able to match agency needs with university resources to complement and extend regular Sea Grant activities. If proposals can meet WSGP standards of quality and relevance, other agencies can transfer funds to our federal grant partner, the National Oceanic and Atmospheric Administration (NOAA), which then passes the funds through to Washington Sea Grant Program. These interagency activities have attracted between \$400,000 and \$1 million annually in calendar years 1996 through 1999. They have involved cooperation with the U.S. Navy, U.S. Army Corps of Engineers, U.S. Geological Survey, Environmental Protection Agency, National Science Foundation and several units of NOAA. Activities have included long-term planning for national science initiatives, oceanographic studies, wetlands research, studies of coastal and offshore fisheries, critical habitat affecting Puget Sound fisheries, global change education activity, and a range of other environmental studies.

Projects must be appropriate to the overall

mission of WSGP, though they can extend into new but significant areas, such as climate sensitivity or water quality. Generally the format of these proposals will follow the one specified in this *Call for Preproposals*, except that the budgets will not require matching funds. This process cannot be used for contract activities that are more appropriate for RFPs under federal procurement guidelines. The statutory provisions that make this process possible are directed solely to research and education grants, consistent with the purposes of the National Sea Grant College Program and the participating universities and educational institutions.

To be eligible under this process, proposals must be approved for further consideration by the director of WSGP *before submission*. The director is the principal investigator of record for all activities funded through WSGP auspices and therefore must agree to serve in that capacity. Proposals will be subject to review and possible rewriting after receipt by WSGP. Moreover, they can be rejected either at the university or national level if deemed inadequate or inappropriate, even if funds from other agencies are available.

The National Sea Grant office requires that pass-through proposals be submitted to them *120 days* before the proposal start date. To ensure adequate peer reviews and processing of the grant, we must receive the pass-through proposals at least 30 days prior to the National Sea Grant office deadline. Proposals are processed six times a year, therefore proposal start dates are limited to the first day of the

month in February, April, June, August, October and December. It is not possible to backdate grants that are processed after the desired project start date. Because of the workload of the offices involved and the processing requirements of the Department of Commerce and the NOAA grants office, it is unlikely that projects, including renewals, received after May 15 can be processed before the end of the fiscal year, which concludes on September 30 of each year. It will be prudent for interested agencies and investigators to proceed in a timely fashion.

Investigators and cooperating agencies should understand that once funds are transferred from an agency to NOAA's National Sea Grant Program office, the funds belong to that office. They cannot be reclaimed or reallocated, and NOAA and Sea Grant rules and procedures apply. Articles, technical reports and the like resulting from a pass-through grant should acknowledge NOAA's (and WSGP's) sponsorship. Investigators will want to maintain appropriate interaction with the agency providing the funds, but with the recognition that that agency has delegated total grant management, quality control, and procedural and reporting authority to NOAA and Sea Grant.

*Note:* Because of the increased work load involved and the fact that the administrative budget is not adequate for this purpose, it may be necessary to add WSGP administrative charges to project budgets. Please check this point in advance, so that these charges can be included in budget submissions.

### Other Activities

From time to time, WSGP is asked to manage other activities that are related to its overall mission. Examples include two initiatives funded by the Washington state legislature—the Ocean Resources Assessment Program and the 1989 Washington Shellfish Studies activity. The Pacific Northwest Regional Marine Research Program, a regional initiative for ecosystem research, was developed in 1992-93 in response to federal legislation and has provided a foundation for subsequent regional activities. Currently the Pacific Northwest Coastal Ecosystems Regional Study (PNCERS)—co-managed by the Oregon Department of Land Conservation and Development, NOAA's Northwest Fisheries Science Center and Washington Sea Grant Program and primarily funded by NOAA's Coastal Ocean Program through WSGP—is a coordinated study designed to improve our understanding of natural variability and human-caused stresses to natural systems on the Washington and Oregon coasts.

In some cases these activities supplement existing Sea Grant projects; but in others they may be handled according to separate guidelines and funding procedures. Announcements will be issued when appropriate.

### Sample Formats

On the following pages are preproposal forms and formats, including:

- \* Cover page/summary
- \* Budget example
- \* Biography guideline

Project summary and biography forms can be submitted online at: <http://www.wsg.washington.edu/funding/cpf20/propstart.html>

**Preproposal Cover Page / Summary**  
**Washington Sea Grant Program 2001, 2002, 2003**

Project Title: \_\_\_\_\_

Principal Investigator(s) \_\_\_\_\_

Affiliation(s) And Address(es): \_\_\_\_\_

\_\_\_\_\_

Desired Project Period: From: \_\_\_\_\_ To: \_\_\_\_\_

Federal Funds Requested: 2001: \$ \_\_\_\_\_ 2002: \$ \_\_\_\_\_ 2003: \$ \_\_\_\_\_

Requested Total: \$ \_\_\_\_\_

Matching Total: \$ \_\_\_\_\_

Program Area: \_\_\_\_\_

Suggested Key Words: \_\_\_\_\_

Objectives: \_\_\_\_\_

\_\_\_\_\_

Methodology: \_\_\_\_\_

\_\_\_\_\_

Rationale: \_\_\_\_\_

\_\_\_\_\_

Signature(s): \_\_\_\_\_

*Note: normally institutional signoffs not required for preproposals, unless departments so require.*

Principal Investigator(s): \_\_\_\_\_

\_\_\_\_\_



## Format for Budget

### Washington Sea Grant Program 2001, 2002, 2003

(Date of Preparation)

	FISH STUDIES Budget - 2001	
	Sea Grant	Regional Contributions
<b>Salaries (1)</b>		
Fac: W. T. Door, Prof. 2 mos. @ 50% (Summer qtr.) 9 mos. @ 15% (9-mo. appointment)	6,615	8,930
Stf: M. I. Wrench, Biologist II 5 mos. @ 50% (Aug-Dec) 6 mos. @ 25% (Winter qtr., Spring qtr.)	7,875	4,725
Std: Research Asst. 9 mos. @ 50%	10,593	
<b>Total Salaries</b>	<b>25,083</b>	<b>13,655 *</b>
Benefits (see rates in Budget section)	4,127	3,009 *
Supplies (if > \$1,500 provide detail and justify)	0	2,000 **
Travel (if > \$1,000 provide detail and justify)	800	500 *
<b>Publication Costs</b>		
Manuscript preparation costs	150	
<b>Other Costs</b>		
Postage (Justify)	100	
Photocopy	100	
Long distance telephone	250	
Ship: 2-days @ \$1,500/day		3,000 ***
Graduate operating fees	5,200	
Subcontract to WDFW (2)	5,000	2,500 ***
<b>Total Direct Costs</b>	<b>41,610</b>	<b>24,664</b>
Indirect Costs (52.0% of MTDC)	18,933	8,925 *
<b>TOTAL PROJECT COSTS - 2001</b>	<b>\$60,543</b>	<b>\$34,629</b>

\* University of Washington (Budget No., Budget Name for non-salary items)

\*\* Northwest Fish Products, 500 Main Street, Olympia, WA 98500

\*\*\* Washington State Department of Fisheries and Wildlife

(1) please specify which quarter(s) salaries are to be used for matching. If appointments are not on a quarterly basis, please specify months. These data are needed for U.W. faculty and staff for input to pre-printed Faculty Effort Certification (FEC) Reports.

(2) for subcontracts, provide a separate budget page with budget details and a sole source justification.

## Format for Biography

Washington Sea Grant Program Investigators  
(Limited to one page)

Name \_\_\_\_\_  
Title \_\_\_\_\_  
Department \_\_\_\_\_  
Institution \_\_\_\_\_  
Day telephone \_\_\_\_\_ Fax \_\_\_\_\_  
E-mail \_\_\_\_\_

Education – degree and subject, name of institution, year (most recent first) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Positions held – title, institution, years (most recent first) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Professional memberships \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Selected publications – (list most recent first) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Further Information

**Washington Sea Grant  
Program**  
3716 Brooklyn Avenue N.E.  
Box 355060  
Seattle, WA 98105-6716  
206-543-6600  
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**Communications Manager**  
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[susan@u.washington.edu](mailto:susan@u.washington.edu)

The University of Washington ensures equal opportunity in education regardless of race, color, creed, religion, national origin, sex, sexual orientation, age, marital status, disability, disabled veteran, or Vietnam era veteran status in accordance with University policy and applicable federal and state statutes and regulations.

12/99



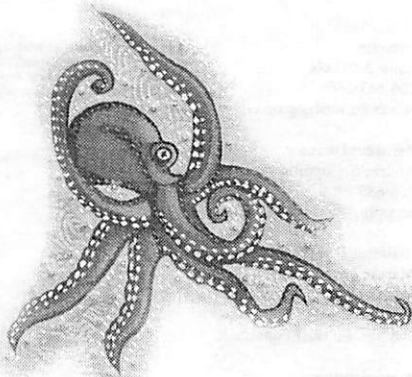
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Proposal Process  
Calendar Years 2001-2003



# Questions & Answers



Washington Sea Grant Program  
Office of Marine Environmental & Resource Programs  
3716 Brooklyn Ave. N.E., Seattle, Washington 98105-6716  
206-543-6600 fax 206-685-0380  
[seagrant@u.washington.edu](mailto:seagrant@u.washington.edu)  
<http://www.wsg.washington.edu>

## General

### What is Sea Grant?

The National Sea Grant College Program is a congressionally authorized program dedicated to the use, preservation and enhancement of marine resources and the marine environment through education, research, outreach and technology transfer. Funded through the National Oceanic and Atmospheric Administration (NOAA), most of its activities are managed by a network of designated Sea Grant colleges and institutions. The University of Washington is the Sea Grant College for the State of Washington and provides the base for Washington Sea Grant Program (WSGP). The programs in the nationwide network are funded on a competitive basis.

### How does Sea Grant operate?

Research and education proposals are solicited, reviewed and selected at the university level, subject to criteria that are established nationwide and to NOAA approval. There are also several special competitions that are managed nationally. Funding levels for each Sea Grant program are established periodically on the basis of their continued performance and relative to other Sea Grant programs. Investigators interested in Sea Grant support apply to the Sea Grant college or institution in their state. If there is no such institution in a particular state, an investigator may apply directly to NOAA.

### What is Washington Sea Grant Program looking for this year?

Activities that are eligible for funding are described in the "Call for Preproposals for Calendar Years 2001-2003," available on or about January 4, 2000. Additional information on program activities is currently available in the most recent Program Directory and in the introduction to the most recent Program Plan (1998-2000), available from the WSGP office and on our web site: [www.wsg.washington.edu](http://www.wsg.washington.edu)

### Who can apply for Sea Grant funding?

- Faculty and others with principal investigator status at universities and colleges in Washington may apply for funding of education and research projects.
- Investigators at other educational institutions may also apply.

While investigators at federal laboratories, state and local agencies, businesses and industry and other institutions may participate in Sea Grant projects, they generally apply in conjunction with faculty or other investigators at universities, colleges and educational institutions.

### How often can I apply?

Regular funding competitions are held every three years. Special competitions may be held on a shorter-term basis.

### Are there other Sea Grant funds available for seed projects or quick response?

Program Development funds for rapid response and seed money activities are generally available in modest amounts throughout the year. If you are interested in applying for such funds, contact the WSGP director or assistant director.

### Can someone in Washington apply in conjunction with investigators at Sea Grant institutions in other states?

Yes. Such joint or parallel projects are encouraged; all Sea Grant colleges and programs are now on similar funding schedules. If you wish to work with an investigator at another institution, you should each apply to the institution in your state, note that you have a cooperative project and outline the activity and budget that is applicable to each of the programs involved.

### What makes a good Sea Grant proposal?

A good Sea Grant proposal displays an understanding of broad societal issues (needs or opportunities), an educational or research strategy designed to address the issue, a solid scientific approach to implement this strategy, and necessary matching funds.

The issues identified may be broad, or they may be specific needs or opportunities tied to concerns of management agencies or industries. The specificity will necessarily vary with the issue addressed. For all issues addressed it is essential to include a strong rationale.

The research or educational strategy must be appropriate for the issue identified and a clear defensible scientific approach must be detailed.

No project will be funded that does not address both the need and the scientific or educational approach. Depending on the issue addressed, the degree of emphasis on need or approach will vary, but both are always important.

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### Is Sea Grant an applied research program?

Sea Grant is a problem-oriented program, which includes an applications orientation. However, a broad spectrum of scientific approaches are funded — from applied to basic research — depending on the nature and importance of the broad issues that are identified. In recent years, we have supported projects that specifically address fairly immediate management and industry needs, but we have also funded long-range scientific development where a fundamental research effort was essential to provide the base of understanding for future applications. In both cases, the projects clearly defined the importance of the issues addressed and the quality of the scientific approach adopted.

### Are partnerships with agencies, industries or other institutions important?

Such partnerships are not a requirement, but they can help demonstrate the reality of certain needs that a project may propose to address. The partnerships are often essential to ensure that the objectives of a project are obtainable. Given Sea Grant's funding constraints, partnerships also may provide the necessary financial support for larger and/or longer term efforts. However, Sea Grant is committed to the tradition of investigator-initiated research that has made science in the United States so successful, and many projects will be based solely on the efforts of a single investigator, along with participating staff and students.

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## **Funding Level, Project Size and Number**

### **What level of funding is available for calendar years 2001 through 2003?**

At this time, it appears that approximately \$1,250,000 will be available for research and education projects in each of calendar years 2001, 2002 and 2003.

### **Are there specific allocations for each of the substantive areas included in WSGP?**

No. Nor is it necessarily the case that projects will be funded in every research and education area covered in the Call for Preproposals. Funding decisions are based on competitive review and appraisal of those projects and areas that are most unique and most likely to make a substantial contribution.

Over the past decade, WSGP has experienced substantial continuity from one competition to the next, but with sufficient turnover to ensure a healthy, vibrant research program. Allocations to specific program areas have varied considerably over time.

In the most recent competition, nearly half the available funds were allocated to projects in marine biotechnology and related areas. Since several of these activities have fairly long time horizons, it is likely that a similar level of funding may pertain during the next several years.

### **How many projects are funded, and at what level?**

Depending on the level of funding available, about 15 projects would normally be funded. In recent years, project size has varied from about \$10,000 to \$150,000— not counting matching funds or co-funding from other federal grant and contract sources. There will be a few projects in the upper 40% range, a number in the lower third, and a few in the middle range.

At these funding levels, it is difficult to support large field efforts unless investigators can raise additional resources from other sources. By cooperating with one another (either within the WSGP program or with other programs) investigators can increase the resources available for related project activities.

### **What is the length of a project supported by Sea Grant?**

Projects normally vary in duration from 1 to 3 years. We expect to fund a number in the 2001 - 2003 period for a full three years, but probably at least half will be for 1 or 2-year periods. (We expect as a result to have a limited competition for projects in each of the succeeding years.) No project will be supported for more than three years at a time, though successive three-year efforts may in fact lead to longer-term funding. At any one time we usually have several such longer-term efforts underway, though we expect and encourage turnover among projects and investigators.

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## **Matching Funds**

### **What are matching funds?**

Each Sea Grant program must be able to document non-federal funds in support of the program equal to at least 50% of the federal total (\$1 non-federal for each \$2 federal). Since Sea Grant research and activities provide substantial benefits for management, industry and institutions, this matching support is viewed as an essential sign of commitment at the state and local level and an indication of program effectiveness.

### **Does WSGP offer state or industry matching funds for support of research and education projects?**

No. Unlike most coastal states, the State of Washington does not provide matching funds for Sea Grant research or education activities, nor is there a pool of funds available from industry sources.

The statutory requirement is met in part from University of Washington funds, which provide a substantial part of the operating base for the Washington Sea Grant Program. In addition, the State of Washington supports part of the required outreach effort of Sea Grant, through funding for several water quality-related activities. While these two sources are significant, they are not adequate to meet the total statutory requirement, which means that the remainder must be raised by industry, agency and institutional support — direct or in-kind — for projects and activities.

### **Does each project have to have matching support equal to 50% of the federal funds requested from Sea Grant?**

The matching requirement is for the total Washington Sea Grant Program, not for each project. We expect each principal investigator to document as much support as he or she can. Due to the nature of the research proposed or the unit that is making a request, it is sometimes difficult for certain projects to show substantial (in some cases any) matching support. Normally this will not be disabling, if the situation can be explained and justified. Education projects will be expected to at least meet the requirement on a project basis as an indication of institutional support. Projects that will benefit an industry or agency also will be expected to demonstrate substantial matching support as an indication of the involvement of the beneficiary. Since the University of Washington is the primary source of matching funds available to the program, projects from other institutions will be expected to demonstrate substantial support from their institutions.

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## Other Questions

### Do you expect students to be involved in research projects?

Student involvement is an expectation, though there may be certain activities or situations where this involvement may not be required. The educational, university-based nature of Sea Grant naturally leads to student involvement with research. Traditionally we have encouraged participation of graduate student R.A.s in research projects, but many of our participating institutions do not have graduate enrollments — and even in graduate institutions undergraduate participation may be most appropriate. (Note: We do not consider use of hourly students for routine laboratory or field services as "student involvement.")

### Do you fund education projects?

Student participation through research assistantships is our leading educational activity, other than fellowships that are awarded through separate (usually national) competitions. However, we do fund targeted substantive educational projects that are developed on the basis of issues, needs or opportunities.

### Sea Grant has a strong outreach and technology transfer commitment. Is every research project required to contain this commitment?

Given the issue/need/opportunity nature of the Sea Grant program and the strong interactions with management, industry and public groups, most Sea Grant research projects will have a strong technology transfer component naturally built into their activities. We strongly encourage a technology transfer orientation. Some projects and investigators will also emphasize an organized outreach approach as an integral part of the activity.

Most of our organized outreach activities are built into our ongoing Marine Advisory Service and Communications components. We encourage close interaction between research and education projects and these outreach activities.

On occasion we will fund separate additional outreach projects in areas of high demonstrated need where our existing capabilities are not sufficient.

### Will you fund research activities in areas other than those specifically noted in your Call for Preproposals and other documents?

Yes. Though the areas we highlight in our Call for Preproposals have been carefully chosen to reflect needs, opportunities and capabilities, we are always open to investigators who have new ideas that can be justified by a strong statement of the issues to be addressed and the scientific approach chosen. These new ideas lead to program growth and healthy change.

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The University of Washington ensures equal opportunity in education regardless of race, color, creed, religion, national origin, sex, sexual orientation, age, marital status, disability, disabled veteran, or Vietnam era veteran status in accordance with University policy and applicable federal and state statutes and regulations.



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## Appendix D

### Stakeholders

WSGP works with a broad array of partners and stakeholders. It is necessary to set priorities among those stakeholders in order to allocate staff and resources for the greatest return on investment. This table divides categories of stakeholders into groups, based on frequency of contact with WSGP and WSGP ability to meet the stakeholder group needs.

#1	#2	#3	#4
(Agency Personnel) Federal & State Resource Managers	University (UW) Community (Administration)	Professional Organizations	The Resources themselves
Public Enterprise	Tribal Governments	Environmental Advisory Groups	Private Foundations
K-20 Teachers	Other Federal Management (Executive Branch)	State Management (Executive Branch)	Organized Youth Groups
Media	Sea Grant National Network	Public	Future Generations
Researchers/ Students	Other Educational Institutions		
NOAA			
Elected Officials			
Local Governments			
Individual Marine Resource Users			
Trade Associations			
Marine Industry Members			



UNIVERSITY OF WASHINGTON

*Office of Marine Environmental & Resource Programs  
Washington Sea Grant Program*

May 11, 1998

**To:** Friends and Constituents of WSGP/OMERP  
**From:** Andrea Copping, Acting Director

Washington Sea Grant Program (also referred to as the Office of Marine Environmental and Resource Programs—OMERP—for our parent organization within the University of Washington) is planning for the next five years. As part of this strategic planning process, we would like to know what you, our constituents and friends, like about the program, what we can do better, and where we should concentrate our efforts in future.

The marine environment has undergone numerous changes in the past 10-20 years, including the discovery of new pharmaceuticals and other useful materials from marine organisms; the development, exploitation and decline of many coastal and open ocean fisheries; and the globalization of trade and marine commerce. Impacts on coastal communities and organizations that depend on the marine environment have been strongly affected. WSGP/OMERP has worked with our constituents to provide impartial information, technical assistance and research support through these changes; As we face new challenges, WSGP/OMERP staff wish to continue providing useful and relevant support to our constituents.

By taking a few minutes to fill in the enclosed questionnaire, you can provide valuable information. We will use your comments (all responses are anonymous, of course) to help evaluate our activities and plan for new and continued actions and programs.

Please fill out the questionnaire and return it in the enclosed postage-paid envelope. Your responses will be most helpful in our planning process if received by May 22, however we will value your feedback at any time.

Many thanks!



Washington Sea Grant Program  
Office of Marine Environmental and Resource Programs, University of Washington

*Constituent Questionnaire*

Please respond to the following nine questions. Check the most appropriate answer and elaborate on questions that request a short, descriptive answer. Your responses will remain anonymous.

1. How do you interact with Washington Sea Grant Program/OMERP? (Check all that apply.)

- receive research funding
- participate in education program, conference or activity
- participate in partnership project
- publications

2. What does Washington Sea Grant Program do that is important to your life, career, business?

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3. Over the last several years, Washington Sea Grant Program has spent time, energy and resources on the areas listed below. In your opinion, what areas should WSGP focus on over the next five years? (Please choose top four and number 1-4 in order of priority.)

- \_\_\_ Aquaculture
- \_\_\_ Sustainable Fisheries
- \_\_\_ Marine Biotechnology/Natural Products
- \_\_\_ Ocean Engineering and Technology
- \_\_\_ Estuarine Studies
- \_\_\_ Resource Management
- \_\_\_ Oil Spill Prevention Education
- \_\_\_ Marine and Global Change Education
- \_\_\_ Marine Recreation (boating safety, boating access, marina management, etc.)
- \_\_\_ Coastal Hazard Education
- \_\_\_ Urban Harbor Management
- \_\_\_ Water Quality
- \_\_\_ Ports and Marine Transportation
- \_\_\_ Waterfront Revitalization
- \_\_\_ Other \_\_\_\_\_

4. Are there other issues/topics that you believe Washington Sea Grant Program should address? Please elaborate in the space below. (Continue on back page or include an additional page if necessary.)

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5. In your experience with Washington Sea Grant Program, how are we doing, on a scale of 1 (inadequate) to 10 (excellent), in terms of:

(circle appropriate number)

Publications?											
-	1	2	3	4	5	6	7	8	9	10	-
Educational opportunities?											
-	1	2	3	4	5	6	7	8	9	10	-
Public outreach?											
-	1	2	3	4	5	6	7	8	9	10	-

Transfer of new technology?  
 - 1 2 3 4 5 6 7 8 9 10 -  
 Research addressing important issues?  
 - 1 2 3 4 5 6 7 8 9 10 -

**6. Within the past year, have you read a publication or attended an event sponsored by Washington Sea Grant Program? If not, go on to the next question. If so, please rank on a scale of 1 (inadequate) to 10 (excellent), in terms of:**

Relevance:  
 - 1 2 3 4 5 6 7 8 9 10 -

Timeliness:  
 - 1 2 3 4 5 6 7 8 9 10 -

Uniqueness:  
 - 1 2 3 4 5 6 7 8 9 10 -

Overall quality:  
 - 1 2 3 4 5 6 7 8 9 10 -

What was the subject of the event you attended or the publication you read? \_\_\_\_\_  
 \_\_\_\_\_

**7. How frequently do you hear about or interact with Washington Sea Grant Program/OMERP?**

- Almost daily
- Frequently (weekly)
- Occasionally (monthly)
- Rarely (once a year or less)
- Never

**8. How can Washington Sea Grant Program/OMERP serve you and your organization best? (Check the most appropriate response.)**

Service	Not useful	Very useful	Not applicable
One-on-one technical assistance	_____	_____	_____
Information via World Wide Web	_____	_____	_____
Publications	_____	_____	_____
Classes	_____	_____	_____
Workshops	_____	_____	_____
Conferences	_____	_____	_____
Research funding opportunities	_____	_____	_____

**9. Is there anything else you would like to add? We welcome your comments. Please write in the space below, use additional space on back, or include a separate page as needed. You can also email comments to us at: [seagrant@u.washington.edu](mailto:seagrant@u.washington.edu)**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

*Thank you!*





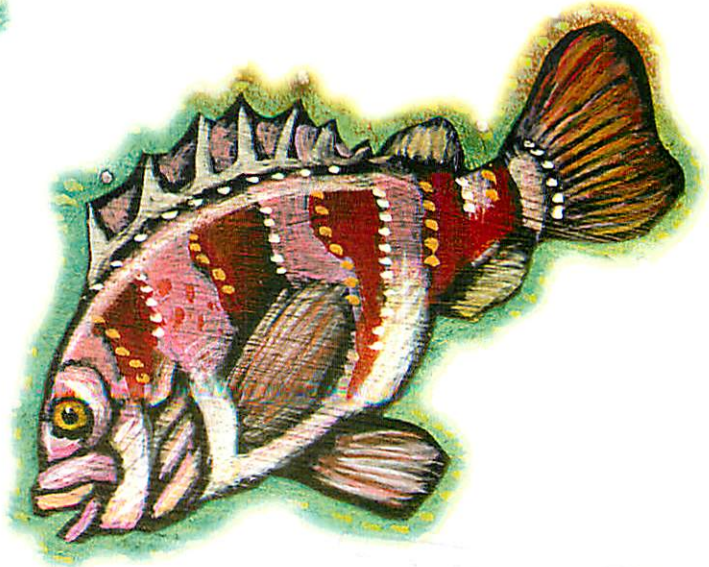
**WASHINGTON SEA GRANT PROGRAM, PROJECT MATRIX**

Sea Grant Network Strategic Plan Categories

ECONOMIC LEADERSHIP      COASTAL ECOSYSTEM HEALTH      EDUCATION & HUMAN RESOURCES

• Advanced Technology for Commercial Products      • A Scientifically & Environmentally Informed Citizenry

Program Elements	Commercial Technology	Environmental Technology	Revolving Commercial Fisheries	Developing Fisheries Products	Advanced Seafood Production	Coastal Economic Development	Coastal Ecosystems	Coastal Ecosystems Health	Coastal Ecosystems Health	Public Safety	Scientists & Engineers	Resource Managers	Technical Training	Percentage Education	Internal Education
Francis	•											•			
Gunderson			•				•					•			
Herwig															
Waaland				•											
Cattolico							•								
Strom							•								
Armstrong								•							
Simenstad							•								
Gregg															
Staley		•					•								
Moore	•														
Baross	•														
Denning	•														
Hadwiger	•														
Furlong		•													
Ryan			•									•			•
Miller			•												
Marine Advisory			•												•
Communications			•												•
Management			•												•
Program Devel.			•												•



**Sea Grant**  
Washington

*Knowledge for Use in the Marine Environment*

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