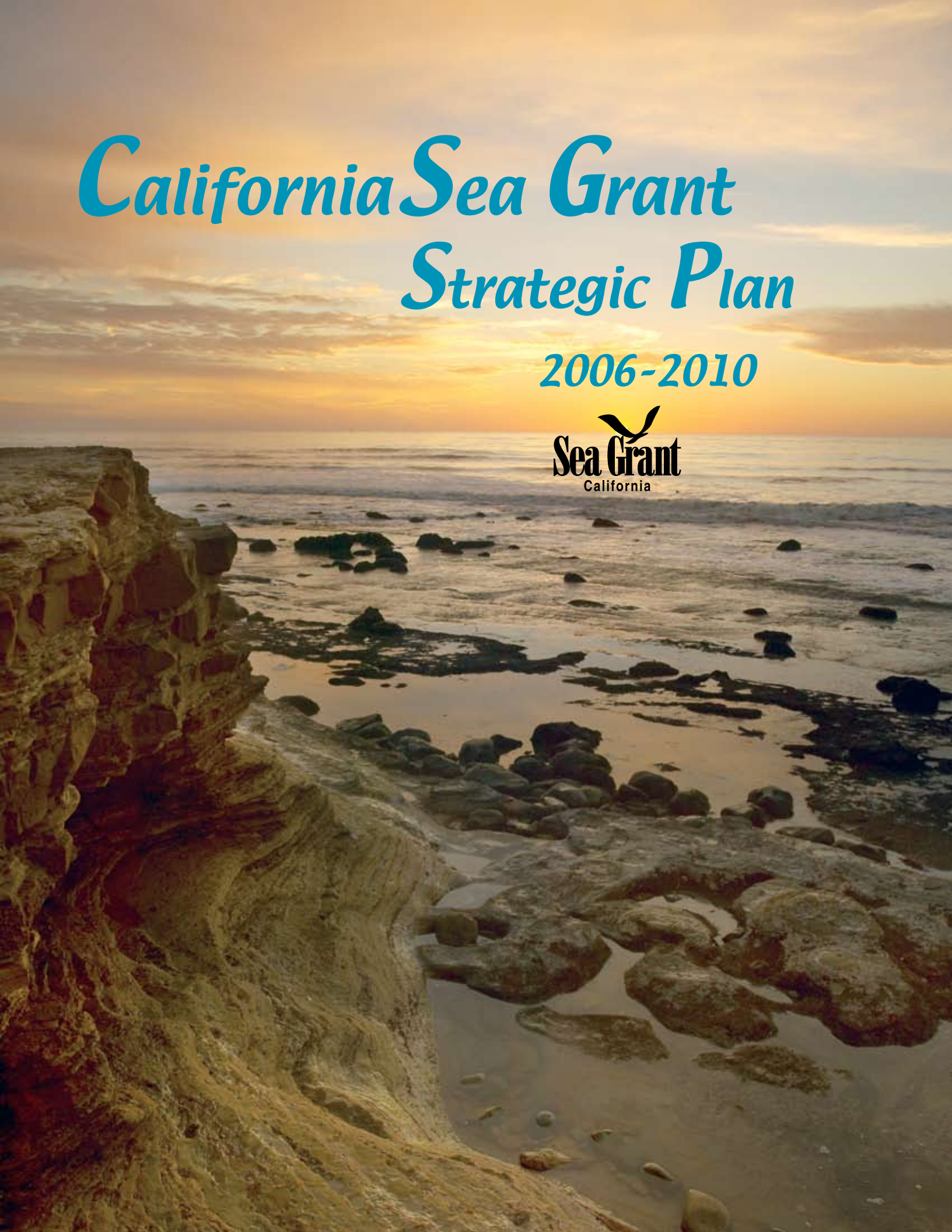

California Sea Grant Strategic Plan

2006-2010

Sea Grant
California

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Sea Grant is a unique partnership of public
and private sectors, combining research, education,
and outreach for public service.
It is a national network of universities meeting
changing environmental and economic needs
of people in our coastal, ocean, and Great Lakes regions.

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Executive Summary

Aerial view of the South Farallone Islands, part of the Gulf of the Farallones National Marine Sanctuary. Photo Jan Roletto

California Sea Grant is moving in a fundamentally new strategic direction for 2006–2010.

In recognition of recent changes in coastal resource conditions and marine policies, our program's activities will now be structured around five new integrated themes. These new themes should not be viewed as extreme departures from our traditional research, outreach and educational priorities. Rather, they represent a refocusing of our approach—a new framework for how we organize our programmatic objectives. These themes, we believe, more strategically align us with anticipated challenges and opportunities in the marine realm and position us to respond more nimbly to unexpected ones.

Our new programmatic themes are: healthy marine ecosystems, sustainable resource use, coastal community development, new technologies, and education, training and public information. These categories bring to the fore the need for—and value of—truly interdisciplinary and collaborative projects. They more fully emphasize the importance of marine stewardship and the vulnerability of marine resources to human activities. Lastly, we continue to place a high priority on education, in the many forms that this can take, and its incomparable value.

In 2006, we also begin a new interdisciplinary research and education program—"Focused Research & Outreach Initiative"—that will concentrate expertise on a single, important emerging topic. We are also pleased to announce a new partnership with the California Ocean Protection Council that will allow us to expand our research portfolio and enhance our partnership with the University of Southern California (USC) Sea Grant Program.

Introduction

California Sea Grant serves the communities, industries and people of California and the nation through research, education and outreach. By identifying and addressing important marine issues and providing scientific information, we strive to provide better tools for managers and information to promote the sustainable use of marine resources.

Established by the National Oceanic and Atmospheric Administration (NOAA) in 1968, California Sea Grant began as a pilot project to create a graduate marine science program for the state. The program grew and diversified. Today California Sea Grant manages an average of $8 million annually in federal and state funds to support research, education and outreach. California Sea Grant coordinates its programs with the National Sea Grant College Program in developing programmatic areas, identifying stakeholders, and communicating results of its research, education and outreach. To further integrate research and outreach, the California Sea Grant Extension Program operates as a partnership within Cooperative Extension and the University of California Division of Agriculture and Natural Resources.

From its headquarters at Scripps Institution of Oceanography, California Sea Grant funds more than 75 public and private institutions throughout the state and nation. Today the program is the largest and most diverse of the nation's 30 Sea Grant programs.

Traditionally, California Sea Grant addressed

(Above) Scripps Institution of Oceanography, La Jolla. Photo SIO Multi Media Group (Right) Marine Science Institute, UC Santa Barbara ©2002–2004 Kenneth & Gabrielle Adelman, California Coastal Records Project, www.Californiacoastline.org

issues affecting coastal and marine resources by focusing on specific subject areas, including fisheries, aquaculture, coastal resources, and education. Now, growing evidence of the uncertainty and variability in marine ecosystems and their vulnerability to the pressures of growing coastal populations points to a critical need for multi-disciplinary efforts in research, education and outreach to sustain California's marine ecosystems in both biophysical and human terms. This need is reinforced by a national call for ecosystem-based management of marine resources, and two California statutes: the Marine Life Management Act and the Marine Life Protection Act.

In response, California Sea Grant has developed a strategic plan for 2006–2010 with five new integrated themes. The goals and objectives under each theme described in this document broadly define our research, education and outreach priorities for the next five years. These activities will be funded through traditional Sea Grant research grants, a new funding partnership with the California Ocean Protection Council, and a new grant program for "Focused Research & Outreach Initiative."

Agate Beach, Humboldt County. Photo: © 2004 Rich Zertuche

Setting

California's remarkably diverse coastal environment stretches more than 1,100 miles, and encompasses two distinct marine zones. The north is characterized by the cold waters of the California Current, high-energy rocky coastlines and northern marine flora and fauna. The southern region is characterized by warm waters of the Davidson current and a marine flora and fauna common to more temperate and subtropical waters. These two dominant water masses converge at Point Conception, an important biogeographic boundary where many marine species reach their northern and southern range limits. In the transition zone of the Santa Barbara Channel, as well as other locations north of Point Conception—where cold nutrient-rich waters are brought to the surface by offshore winds—upwelling supports high productivity along much of the coast.

The diversity and richness of the state's coastal and marine environment is mirrored by its human environment, which is comprised of a variety of social, cultural and economic communities, activities and values. The state's coastal communities are supported by coastal and marine resources through tourism, fisheries, boating, aquaculture, marine transportation and commerce, and offshore oil and gas development. Sea Grant marine advisors serve these communities from San Diego to the Oregon border.

California's coastal counties, which account for 25% of the state's land, are home to

more than three-quarters of its residents, and more than 80% of its jobs. In 2000, California's "ocean economy," the largest in the U.S., had an estimated value of nearly $43 billion.[1] This concentration of the state's population and associated activities in the coastal zone has resulted in considerable pressures on the state's coastal and marine environment.

[1] *Judith Kildow and Charles S. Colgan, California's Ocean Economy, NOEP, July 2005, p. 1.*

Mission

California Sea Grant's mission is to discover and transfer science-based knowledge to help California and its residents balance the competing needs of using and conserving coastal marine resources for future generations.

In support of this mission, our program engages in research, education and outreach activities such as:

- *evaluating the human health risks posed by the invasive Chinese mitten crab*
- *designing a drifter to measure surf-zone circulation and understand the fate of pollutants*
- *educating boaters about alternatives to toxic hull paints to reduce heavy metal contamination in harbors and marinas*
- *organizing "straight talk" forums to foster productive dialogs between fishers and scientists*
- *documenting the movement patterns of mako sharks to better assess their vulnerability to gill-netting, and*
- *testing seismic performance of port facilities to help industry meet state seismic standards*

These types of activities contribute directly to fulfilling California Sea Grant's mission as well as those of our parent organizations, the National Sea Grant College Program and the National Oceanic and Atmospheric Administration (NOAA).

The National Sea Grant College Program's mission is "to produce and transfer science-based knowledge for a sustainable coastal environment and economy by engaging the nation's universities, citizens, businesses and governments."[2]

One of NOAA's four "Mission Goals" is "to protect, restore and manage the use of coastal and ocean resources through ecosystem-based management."[3]

In what follows, we summarize the programmatic philosophy that helps our program work within these broad missions, and we discuss the funding mechanisms that make our activities possible.

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[2] *NOAA Sea Grant Strategic Plan for FY 2003–2008 and Beyond, 2004.*
[3] *New Priorities for the 21st Century, NOAA's Strategic Vision, 2004.*

Program Values

California Sea Grant strives for excellence, innovation and societal benefit. We adhere to strict standards of accountability and scientific integrity through peer review, advisory panels and project performance reviews. Our credibility hinges on an untarnished reputation for impartiality even while working in the middle of contentious marine-related topics.

To achieve this, we engage the best minds at institutions throughout the state, the nation and internationally in research, education and outreach. This effort is leveraged by our network of 10 marine advisors and specialists who are especially adept at building partnerships and finding creative collaborations with stakeholders. Our communication department also develops and disseminates project findings in diverse formats to the public and decision-makers, increasing the reach of our activities. In short, the multi-directional communication among our marine advisors, program staff, researchers and stakeholders allows us to identify and solve problems, building a cumulative understanding of the state's coastal and marine systems, from scientific, social and economic perspectives.

Our program maintains a high-quality, diverse research and outreach portfolio and continually seeks innovative projects and partnerships to leverage our resources and expand our impact. Although we support many researchers who are preeminent in their fields, we also seek to attract promising new investigators who are just beginning their careers.

California Sea Grant's management strategy places high value on:

- *Attracting top researchers*
- *Funding excellent research and outreach*
- *Anticipating emerging issues*
- *Creating partnerships and interdisciplinary teams*
- *Leveraging resources*
- *Striving for continuous program improvement*

As previously stated, to enhance our success, California Sea Grant is moving in a new strategic direction for 2006–2010, and therefore, we are now organizing our programmatic objectives around five new themes:

- *Healthy marine ecosystems*
- *Sustainable resource use*
- *Coastal community development*
- *New technologies*
- *Education, training and public information*

Reflecting favorably on the positive evolution of our program, we now have three funding mechanisms available to support research, education and outreach on these themes:

- *Traditional Sea Grant research proposals*
- *Sea Grant Focused Research & Outreach Initiative*
- *Research projects funded through a partnership with the Ocean Protection Council*

First, funding for traditional Sea Grant research projects will continue, but with a greater emphasis on our new themes. We will continue to use program development and rapid

response funds to strategically take advantage of opportunities and tackle problems that present short time frames within which to act.

Second, we are introducing a "Focused Research & Outreach Initiative" as a new funding opportunity in our 2006 call for proposals that will recognize the value of multidisciplinary, multifaceted projects, This program will provide multiyear funding for one Focused Research & Outreach Initiative to conduct innovative fundamental and/or applied interdisciplinary research and training concentrated on one or more of the themes listed above. The initiative requires that one or more California Sea Grant marine advisors be on the project's management team. Recognizing the importance of graduate research and education, support for up to three Sea Grant trainees is included in the new Focused Research & Outreach Initiative.

Our third funding source comes from California's new Ocean Protection Council, which has allocated $1 million in 2006 for ocean research to be administered by California Sea Grant and USC Sea Grant. We are optimistic that state finances will allow this partnership to continue in future years.

Key Stakeholders

California is a large and diverse state, with 37 million residents. In an effort to effectively disseminate Sea Grant's messages throughout the state, California Sea Grant has carefully developed a database of key stakeholders, which number over 4,000 and are grouped by professional affiliation and cross-referenced by subject area interests. The program uses this database to provide information through targeted distributions by both U.S. mail and email. The database is updated continuously and provides an efficient means of reaching the program's key stakeholders:

- *Federal, state and local coastal and marine resource managers*
- *Federal and state legislators*
- *Marine scientists, extension personnel and students*
- *Academic and research institutions*
- *Libraries*
- *Marine-related industries/businesses (e.g., commercial and recreational fishing, aquaculture, offshore oil and gas*
- *Nongovernmental and conservation organizations*
- *Print and electronic news media*
- *NOAA, the National Sea Grant Office and other Sea Grant programs*
- *Nonconsumptive users of coastal and marine resources (e.g., boating, tourism)*
- *General public*

Strategic Planning Process & Statewide Strategy

Participants at the strategic planning workshop held in Santa Cruz in November 2004.

As California Sea Grant began its strategic planning process in 2004, the state had just issued a report from the governor in response to the two national ocean commission reports.[4] The state report, *Protecting Our Ocean: California's Action Strategy*, called for a statewide ocean and coastal information, research, and outreach strategy, and outlined a plan to restore and maintain coastal and marine resources. The plan called for, among other things, continued investment in research to solve problems and in education to ensure environmental literacy of the general population, two areas in which Sea Grant excels.

The governor's report acknowledged California Sea Grant as an important partner in the identification, development and dissemination of science, education and outreach to assist the state and the nation in the management and conservation of its marine resources. With the state's Resources Agency, Ocean Science Trust and the University of California Marine Council also about to embark on strategic planning, the leadership among the four entities agreed to host a joint workshop to seek input on potential program priorities from their stakeholders.

The *California Ocean and Coastal Information and Research Needs Workshop*, held in November 2004, identified California's high-priority ocean and coastal information, research and outreach needs. More than 60 leaders from academia, government agencies, nongovernmental organizations and industry participated. In addition to participating in this workshop, California Sea Grant created a strategic planning road map to guide its planning process. (See Appendix 01, p. 27.)

[4] *U.S. Commission on Ocean Policy, and Pew Oceans Commission.*

Following the workshop, California Sea Grant held a program-wide retreat in spring 2005 to further define those areas that could best be addressed by Sea Grant. That retreat produced a ranked list of 22 program priority areas that needed further refining and narrowing. Next, the Sea Grant management team, marine advisors and specialists solicited input from a wide range of stakeholders including seafood industry representatives, commercial and recreational fishers, boaters, other marine-related businesses, academics, resource managers, tribal representatives, environmental groups, and federal, state and local government officials. (See Appendix 02, p. 28.)

California Sea Grant staff drafted this strategic plan, which was circulated and revised within the program from November 2005–January 2006. A subsequent draft was posted on the program's Web site in December 2005, and stakeholders' feedback was requested by email. The draft was also presented to the program's Advisory Board and discussed at its January 2006 meeting. It was then revised and posted in its final form on the program's Web site at the end of January 2006.

Future Vision

It is clear that the future of California is closely tied to the future of its coastal resources. People who make decisions about coastal and marine resource use depend on high-quality scientific information; easy access to this wealth of information; and effective coordination among the academic sector, resource managers, marine-related industries and other stakeholder groups.

This plan outlines a program vision for the next five years and seeks to build consensus among stakeholders served by the program. It establishes a framework for prioritizing our research, education and outreach activities. Within this framework we can more readily address issues that fall within the scope of Sea Grant's expertise and that intersect with state and federal priorities.

Strategic Goals of the Program

In what follows, we outline our goals and objectives for our five new strategic program areas:

- *Healthy Marine Ecosystems*
- *Sustainable Resource Use*
- *Sustainable Coastal Communities*
- *New Technologies*
- *Education, Training and Public Information*

Healthy Marine Ecosystems

A healthy marine ecosystem has intrinsic ecological and aesthetic value and is essential for sustaining the diverse marine life and natural features that draw people to California's coast.

A healthy marine ecosystem is the essence—and end result of—successful marine stewardship. It is also the core of the California Sea Grant program. Three main forces drive our efforts to improve and maintain marine health: the desire to understand marine species and their environment, the need to identify the consequences of human activities for these species and environments, and the possibility for alleviating these impacts. California Sea Grant strongly encourages collaborative research through partnerships with fishers, resource agencies and nongovernmental organizations to find effective solutions to problems related to marine ecosystem health.

Goal HME 1

Provide information to conserve, restore and manage coastal and marine ecosystems to ensure their long-term health and productivity

Objective

Study interactions between marine living resources and their environment

Objective

Identify habitats that support areas of high biodiversity and develop tools and techniques to protect and restore these areas and associated species

Objective

Examine impacts of human activity on ecosystems and seek scientifically sound, socially responsible options to reduce or eliminate these impacts

Objective

Study watershed processes as they impact marine ecosystems and contribute to ecosystem-based management

-Goal HME 2

Assist in preventing introductions of non-native plants and animals and manage (and if possible eradicate) already established populations

Objective

Improve the basic biological understanding of non-native species and their dispersal

Objective

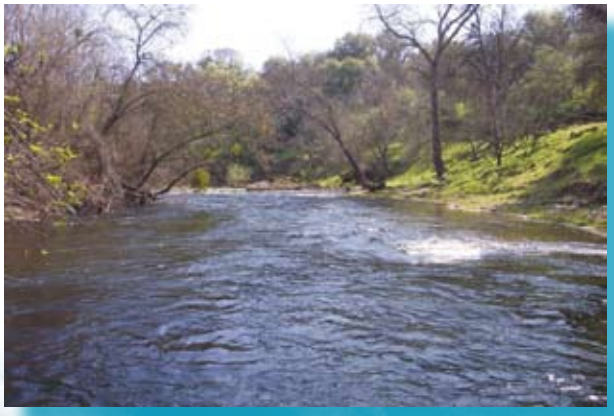
Evaluate relative social, economic and ecological consequences of non-native species to better prioritize and coordinate management strategies

Objective

Study effectiveness of invasive species control technologies and management practices, including ecosystem recovery and vulnerability to re-infestation

Objective

Develop methods and educate audiences about ways to minimize the spread of invasive species and why this is important



Goal HME 3

Assist in reducing coastal water and sediment contamination in the marine environment to protect ecosystem and human health

Objective

Understand sources of contamination, their transport, fate and implications for marine life and public health

Objective

Develop tools for detecting contamination to address emerging concerns, including the increased occurrence of harmful algal blooms, beach closures and toxin bioaccumulation in the marine food web

Objective

Facilitate multi-agency partnerships, research collaborations and grass-roots efforts to minimize the impacts of biological and chemical contamination

Sustainable Resource Use

Population growth and global demand for seafood have surpassed the ocean's ability to supply these resources.

Recent changes in fisheries management and fishery resources have created a need for more and better scientific, economic and social science information. California Sea Grant looks for opportunities to fill these information gaps to better manage these important resources and to help develop environmentally sound aquaculture practices. Sea Grant welcomes collaborations among stakeholders that:

Propagating algae on rope lines for use as abalone feed. Photo Michael Graham

Goal SRU 1

Provide information to sustainably harvest and efficiently use and conserve fish and other marine resources

Objective

Collect and disseminate sound scientific information on the biophysical and human dimensions of marine resources, their use and management, to policy makers and other relevant audiences

Objective

Evaluate resource management strategies, models and tools for their effectiveness in achieving ecological and socio-economic goals, and their ecological and socio-economic impacts

Objective

Support research to develop new and safer seafood products, and new processing technologies and tools to improve seafood quality and safety

Objective

Work with stakeholders to resolve conflicts over resource use and create social and economic incentives to encourage the preservation and sustainable use of marine resources

Goal SRU 2

Provide information to develop a sustainable California aquaculture industry to help meet the growing demand for seafood and minimize environmental impacts

Objective

Improve animal health, well being, production and product quality by advancing culturing systems, diet and nutrition, reproduction and early development, and veterinary care and medicines

Objective

Identify new species suitable for culture and new markets for existing cultured products

Objective

Study interactions between cultured and wild species, including implications for disease transmission, genetic diversity and water quality

Objective

Apply culturing technologies to further conservation goals, including the recovery of rare species and stock enhancement

Objective

Support research to help the state develop regulatory and environmental standards for aquaculture

Coastal Community Development

With more people moving to and living on the coast than ever before, coastal communities face real challenges in balancing economic growth with environmental quality.

Many of California's coastal communities epitomize the challenges of preserving a lifestyle that embraces and preserves nature and accommodates rapid growth. California Sea Grant is participating in a relatively new programmatic theme, coastal community development, which addresses familiar issues such as coastal water quality, shoreline erosion and beach preservation. These historic California Sea Grant activities are, however, now tuned to issues of local and regional planning, land-use, coastal business development and coastal community outreach.

Goal CCD 1

Support research and outreach to help coastal communities manage coastal resources through local and regional planning, and to promote a vibrant economy, clean environment and involved citizenry

Objective

Understand the cumulative impacts of population growth, coastal development and increased beach use on natural resources

Objective

Study connections between these ecological impacts and the coast's economic value to protect the character, vitality and long-term prosperity of communities

Objective

Work cooperatively with agencies and industry to improve the full economic potential and ecological sustainability of communities

Goal CCD 2

Improve coastal water quality to protect ecosystem and public health and the prosperity of communities whose economies rely on coastal tourism, recreation, fishing and other coastal-dependent uses

Objective

Provide information and develop tools to improve coastal water quality and reduce the occurrence of beach closures and moratoriums on fish and shellfish harvesting

Objective

Research strategies and alternatives to help businesses, farms and sanitation departments meet water quality regulations

Goal CCD 3

Assist in protecting human life and property from coastal hazards

Objective

Study the implications of shoreline erosion, sea level rise, earthquakes, tsunamis, and other natural processes on human life and property

Objective

Research, collect and disseminate scientific and socioeconomic information to those involved in land-use decisions, development, emergency planning and other relevant activities

New Technologies

Technology development and transfer are integral parts of practical problem solving and advancing marine science to benefit society

The progression of scientific knowledge requires technology development and transfer, as well as new tools to solve specific problems. These are an integral part of California Sea Grant. A better drifter for measuring ocean currents, refined molecular techniques for detecting fish pathogens, new medicines derived from marine bacteria—these are all examples of Sea Grant's activities in what we broadly call new technologies.

Our activities fall into one of two categories: (1) New instruments, new techniques and new computer programs are developed as needed by marine scientists and engineers and to address specific issues. (2) Marine organisms are studied for the primary purposes of extracting compounds and explaining physiological processes that may lead to new products and/or ideas.

Goal NT 1

Help develop and apply new and existing technologies to address specific problems and enhance marine science studies

Objective

Support the development of new instruments, techniques and computer models that can assist ocean, food and biomedical science and further innovative technology development

Objective

Support technology transfer (e.g., from medical, engineering and space sciences) to improve such things as water quality, marine toxin testing systems, and seafood safety and quality

Objective

With stakeholders, integrate information from ocean observation systems and other data collection platforms to address applications-orientated marine science questions

Objective

Study the complex chemistry and biology of marine organisms to discover and develop new products, medicines and approaches to problem-solving

Education, Training & Public Information

An uneducated and uncaring citizenry is the single greatest threat to the health of Earth and its ocean.

Education is a theme that cuts across all segments of our program. Very broadly, our education activities target three audiences: the general public, those who make a living from the sea, and the next generation of marine scientists. In this capacity, we publish newsletters, educational brochures, books, CDs and posters on our research findings and on timely issues. We provide the news media with information for the general public, post information on the Web, and sponsor workshops and conferences on issues as diverse as seafood safety, nontoxic hull coatings, invasive species, and marine reserves. A major focus is supporting students in marine science and policy through traineeships, fellowships and internships. In addition, the program operates or supports marine education programs for youth.

Goal ETPI 1

Develop a scientifically literate citizenry

Objective

Demonstrate the relevance of marine science and aquatic products to the daily lives of Californians by translating technical reports into materials accessible, and of interest to, lay audiences, and by involving volunteer organizations in research and outreach projects

Objective

Share scientific findings with news media and relevant professional, industrial and governmental organizations and assist these groups in obtaining reliable, science-based information

Goal ETPI 2

Educate the next generation of marine scientists and policy-makers

Objective

Support graduate student stipends, fellowships and scholarships to attract talent to marine disciplines

Objective

Support academic enrichment opportunities for K-12 students and undergraduates through marine science camps, field trips, scholarships, mentoring and curriculum development

Goal ETPI 3

Maintain scientifically knowledgeable workforce

Objective

Translate and disseminate technical scientific research findings to those who can make practical use of the information

Objective

With industry, community and government partners, produce and distribute educational materials (e.g., publications, listservs, Web pages, and DVDs) for targeted stakeholders

Objective

Facilitate and participate in conferences, roundtable discussions, workshops and other forums to exchange information and enhance its relevance to real-world issues

Objective

Provide continuing education for California Sea Grant staff to maintain and enhance their subject expertise and skill in delivery of programs

Coordination & Partnerships

In addition to the program's short-term goals and objectives outlined in the previous section, California Sea Grant has a unique ability and interest in forming partnerships and collaborations with government, business and nongovernmental organizations. Sea Grant also helps the state respond to federal initiatives and meet its own marine resource management goals.

The following chart demonstrates the synergy between California Sea Grant and NOAA Sea Grant themes and priorities.

	California Sea Grant Strategic Program Areas				
Sea Grant Network Theme Areas	Healthy Marine Ecosystems	Sustainable Resource Use	Coastal Community Development	New Technologies	Education, Training and Public Information
Aquaculture	✔	✔	✔	✔	✔
Aquatic Invasive Species	✔	✔		✔	✔
Biotechnology	✔			✔	✔
Coastal Communities & Economics	✔	✔	✔	✔	✔
Coastal Natural Hazards	✔		✔	✔	✔
Digital Ocean			✔	✔	✔
Ecosystems & Habitats	✔	✔	✔	✔	✔
Fisheries	✔	✔	✔		✔
Mar. & Aquatic Science Literacy	✔	✔	✔	✔	✔
Seafood Science & Technology	✔	✔		✔	✔
Urban Coasts	✔	✔	✔	✔	✔
National Priority Areas					
Fisheries Extension	✔	✔	✔		✔
Harmful Algal Blooms	✔	✔		✔	✔
Oyster Disease Research	✔	✔	✔	✔	✔

This next chart illustrates the congruence between California Sea Grant and California's marine research priorities as set forth by the California Ocean Protection Council (COPC).

	California Sea Grant Strategic Program Areas				
COPC* Marine Research Priorities	Healthy Marine Ecosystems	Sustainable Resource Use	Coastal Community Development	New Technologies	Education, Training and Public Information
Fisheries and Aquaculture	✔	✔	✔	✔	✔
Organisms, Habitats and Ecosystems	✔	✔	✔		✔
Coastal Hazards, Shoreline Processes and Beaches	✔	✔	✔	✔	✔
Water, Air and Sediment Quality	✔	✔	✔	✔	✔
Invasive Species	✔	✔	✔	✔	✔

**California Ocean Protection Council*

Strategic Management

A complex program like California Sea Grant needs a variety of mechanisms to keep it in touch with both national issues and local needs. The program's Advisory Board meets at least biannually to provide expertise from marine related businesses, government agencies, the academic research community and nongovernmental organizations. That advice helps the program identify and address the most pressing marine resource issues identified by its stakeholders, provide better tools to manage those resources, and create strategic partnerships to achieve mutual goals.

The program also meets biannually with the Resources Agency Sea Grant Advisory Panel (RASGAP), which gives 17 state resource agency managers input into the program's research and outreach project selection process.

The program's Science Committee meets twice a year to review and comment on preliminary and full research proposals. Its membership is comprised almost entirely of topical experts from outside California and is supplemented as needed to ensure all subjects are adequately covered during proposal reviews. The program also draws on the expertise of numerous specialists throughout the country for blind peer review of full proposals.

In addition, program staff and management attend meetings and serve on numerous boards and committees where they mutually share coastal resource information.

California Sea Grant uses a strategic partnership approach that includes other universities, educational institutions and marine laboratories; tribal and local, state and federal government agencies; business and industry; marine-oriented interest groups; and California residents. California Sea Grant also benefits from close interaction with programs within NOAA and other federal agencies.

Measures of Success

California Sea Grant strives to fund research, education and outreach projects that will leverage its limited resources and fund important topics for which there are no other readily available funds. During program reviews, stakeholders have frequently said, “If it weren’t for Sea Grant, this work would never have been accomplished.”

Both quantitative and qualitative measures of achievement are used to assess individual projects as well as the program overall. Quantitative measures include partnerships created, economic and environmental benefits, numbers of constituents served, documents published, literature citations of Sea Grant research, the diversity and level of non-Sea Grant support for researchers and their students, presentations made, patents or licenses granted, publicity/public education achieved, and awards received.

Qualitative measures include involvement of and feedback from stakeholders; intangible benefits to managers, resources, the public and the environment; changes in policy; and improved public awareness and understanding of marine science issues.

Evaluation, Review & Monitoring

California Sea Grant undergoes a formal external review every four years by the National Sea Grant Review Panel, and this coincides with an internal review by the University of California.

Both of these reviews require substantial advance preparation and documentation, seek external comments from stakeholders, and provide written feedback to the program regarding achievements and areas that could use improvement. This feedback is incorporated into the program's subsequent implementation and strategic plans.

In addition, our management team frequently consults with its assigned program monitor at the National Sea Grant College Program to ensure that changes in research or work plans are reviewed and approved.

Researchers, fellows and trainees annually report their progress, which in turn is summarized for the National Sea Grant College Program and serves as the basis for one-page project summaries that are posted on our Web site and on the University of California's "eScholarship" Web site at http://repositories.cdlib.org/csgc/. The final narrative reports of funded research are also posted on eScholarship. In addition, the most successful projects are highlighted in the program's annual report and distributed as news releases to the media.

For multi-year projects, renewal proposals are required each year prior to award of funds. Changes to work plans are reviewed by program management and the program monitor at the National Sea Grant College Program. Follow-on proposals trigger a review by the management team of the success achieved in the preceding project and require thorough justification for additional funds, as well as standard peer review.

Postlude

This strategic plan is a living document. California Sea Grant welcomes dialogue at any time about the needs of the state and how the program might help meet those needs.

Please call us at 858-534-4440 if you would like to exchange ideas and information. Working together, we can promote a sustainable economy and environment for California's coastal marine resources.

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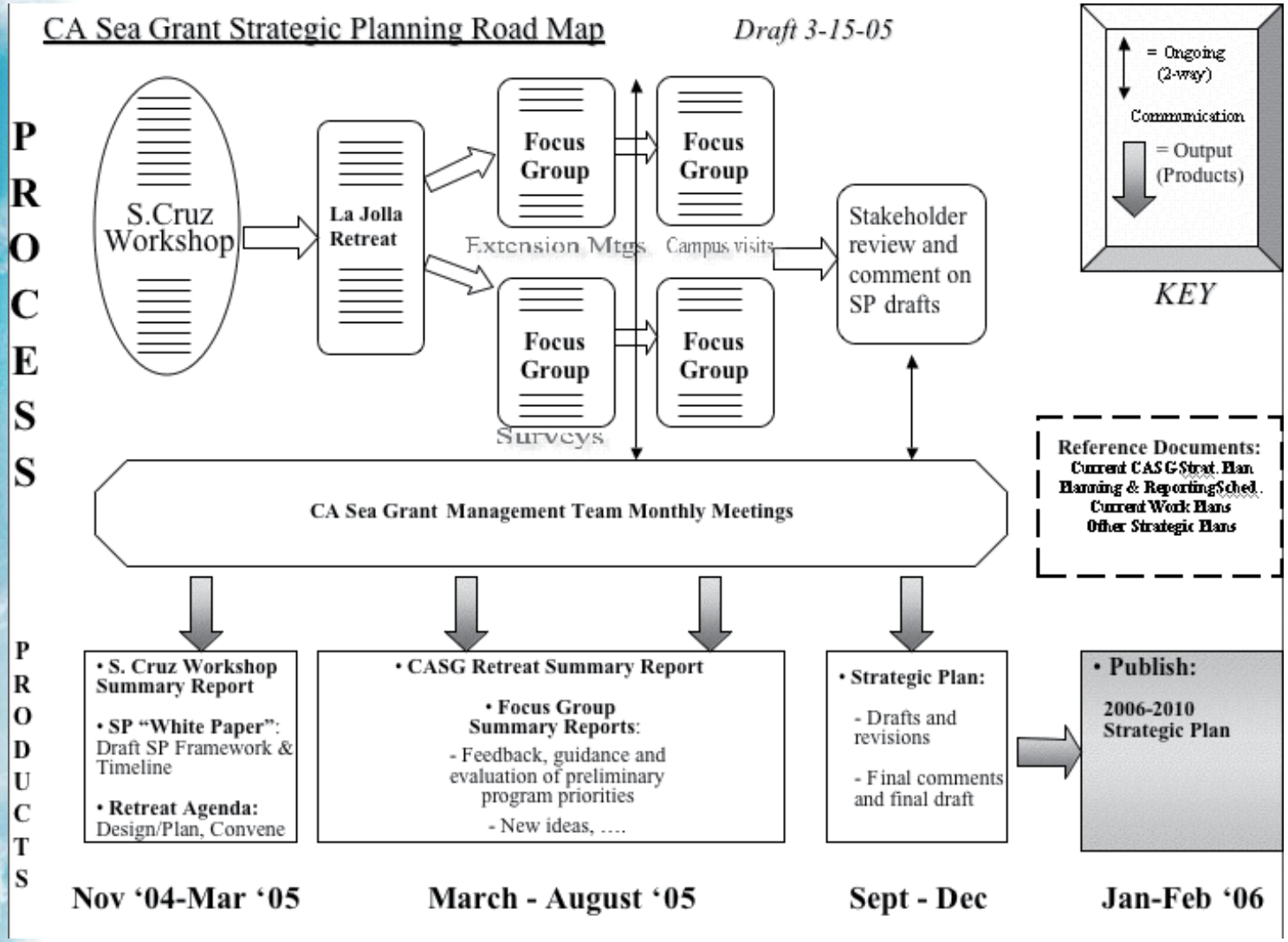

CA Sea Grant Strategic Planning Road Map
Draft 3-15-05
PROCESS
S.Cruz Workshop
La Jolla Retreat
Focus Group
Focus Group
Extension Mtgs
Campus visits
Focus Group
Focus Group
Surveys
Stakeholder review and comment on SP drafts
= Ongoing (2-way) Communication
= Output (Products)
KEY
CA Sea Grant Management Team Monthly Meetings
Reference Documents:
Current CASG Strat. Plan
Planning & Reporting Sched.
Current Work Plans
Other Strategic Plans
PRODUCTS
• S. Cruz Workshop Summary Report
• SP "White Paper": Draft SP Framework & Timeline
• Retreat Agenda: Design/Plan, Convene
• CASG Retreat Summary Report
• Focus Group Summary Reports:
- Feedback, guidance and evaluation of preliminary program priorities
- New ideas, ...
• Strategic Plan:
- Drafts and revisions
- Final comments and final draft
• Publish:
2006-2010 Strategic Plan
Nov '04-Mar '05
March - August '05
Sept - Dec
Jan-Feb '06

Appendix 02

California Sea Grant Constituents who were contacted to gather input for this strategic plan.

Governments

Federal and state marine resource managers
Federal agencies
State agencies
Tribal governments
Local governments

Nongovernmental Organizations

Environmental groups
Marine sanctuaries
Advisory committees

Educational Organizations

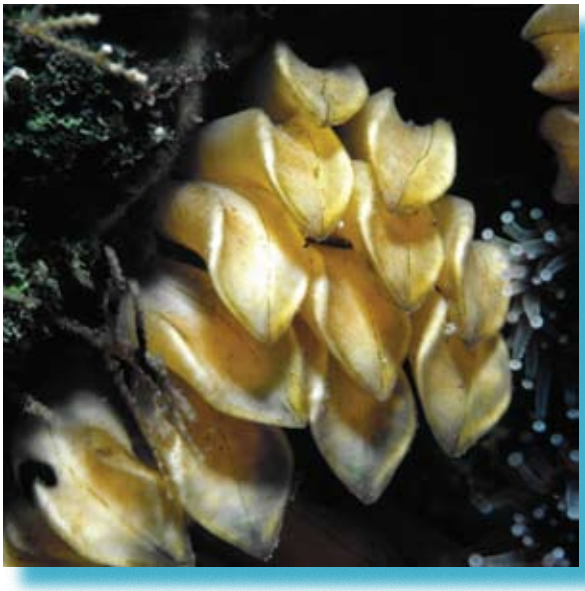
Other Sea Grant programs
University faculty
Consumer groups
Professional and recreational associations

Industry and Trade Organizations

Marine industries
Seafood processors
Boat and marina enterprises
Commercial fishers
Aquaculture interests
Fisheries interests
Harbor districts

General Public

Recreational fishers
Private enterprises



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Covers: California beach sunset © 2005 Max Dolberg
p. 5 San Diego marina—Cesar J. Alvarez, Pidgeon Point lighthouse and
p. 13— Captain Albert E. Theberge, NOAA Corps (ret.); pp. 6, 24 (upper right) Humboldt State University;
p. 5 container ship and pp. 6, 10, 15, 16, 19, 20, 23, 24 (lower left) California Sea Grant archives;
p. 11 (upper right) NOAA Office of Marine & Aircraft Operations, (lower left) Jamie Gonzalez;
p. 12 (upper right) Channel Islands National Marine Sanctuary, (lower left) John S. Pearse;
p. 14 (upper right) chemist analyzing shallow groundwater—Scott Bauer,
(lower left) John D. Wikert, U.S. Fish & Wildlife Service;
pp. 17, 26 Joe Heath; p. 18 Scripps Institution of Oceanography, Multi Media Group;
p. 25 Marc Tule; p. 28 leafy hornmouth egg capsules—© 2005 L. & L. Langstroth.
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