California Sea Grant Strategic Plan 2010–2013

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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, social and economic needs of people in our coastal, ocean, and Great Lakes regions. A searchable database of publications from all Sea Grant programs is available at the National Sea Grant Library: http://nsgl.gso.uri.edu.

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Contents

Introduction & Program Setting	2
Vision & Mission	8
Program Values	9
Key Audiences/Stakeholders	10
Cross-Cutting Theme	11
Strategic Focus Areas	12
Managing for Success	20
Program Resources	21
Evaluation	22
Appendices	23



Introduction & Program Setting

California Sea Grant serves the communities, industries and people of California and the nation through research, education and outreach. By identifying important coastal and marine issues in this strategic plan and supporting research on these issues, we strive to provide better scientific and socioeconomic information to promote the sustainable use of coastal and marine resources.

Established by the National Oceanic and Atmospheric Administration (NOAA) in 1968, California Sea Grant (CASG) began as a pilot project to create a marine science program for California. The program has grown and diversified to the point that today it manages an average of \$12 million annually in federal and state funds to support research, education and outreach. CASG aligns its strategic foci with those of the National Sea Grant College Program to develop shared programmatic areas. To further integrate research and outreach, the California Sea Grant Extension Program operates as a partnership within the University of California Division of Agriculture and Natural Resources, Cooperative Extension. From its headquarters at Scripps Institution of Oceanography, CASG annually funds more than 75 research and outreach projects at public and private institutions throughout the state and nation. Today the program is the largest and most diverse of the nation's 32 Sea Grant programs.

In 2003–2004, two national commissions-the U.S. Commission on Ocean Policy and the Pew Oceans Commissioncalled for ocean and coastal management on an ecosystem-wide basis. In so doing, they recognized the need for comprehensive management of human activities that impact the coasts and oceans and called for regional coordination to manage the relationships among all componentspeople and the coastal and marine species and environments in which they function. In 2006, the two commissions merged to become the Joint Ocean Commission Initiative, which issued a report, From Sea to Shining Sea, Priorities for Ocean Policy Reform.



2 STRATEGIC PLAN 2010-2013

West Coast Region

Also in 2006, the governors of California, Oregon and Washington signed an historic agreement to work together to protect and manage the ocean and coastal resources of the West Coast region. The resulting West Coast Governors' Agreement on Ocean Health (www.westcoastoceans.gov) called for Sea Grant to provide regional marine research planning and for coordination and cooperation to achieve:

- Clean coastal waters and beaches
- Healthy ocean and coastal habitats
- Effective ecosystem-based management
- Reduced impacts of offshore development
- Increased ocean awareness and literacy among the region's citizens
- Expanded ocean and coastal scientific information, research, and monitoring
- Sustainable economic development of coastal communities

Shortly thereafter, NOAA provided targeted funds for regional coastal and marine research planning; and using these funds, the four West Coast Sea Grant programs (Washington, Oregon, California and Southern California) launched a regional marine research planning effort. They gathered input from state, federal and tribal agencies, as well as extensive public comment from Web surveys and 16 public workshops held in the three states in 2007–2008. Participants included:

- Coastal residents
- Scholars and researchers
- Educators
- Industry
- Community organizations
- Marine conservation groups
- Tribal, state and local governments
- State, federal and tribal resource managers
- Individual citizens and community groups



Participants in a CASG November 2007 workshop provide their ideas about West Coast marine research needs.



More than 60 existing research plans were also analyzed. The resulting plan, the *West Coast Regional Marine Research and Information Needs*, was published in 2009. It organized research and information into three priority cross-cutting themes for the West Coast:

- Climate change
- Ocean education and environmental literacy
- Access to information and data

The regional plan also outlines eight broad research and information topics:

- Vitality of coastal communities and maritime operations
- Ocean and coastal governance and management of multiple uses
- Fisheries and aquaculture
- Water quality and pollution
- Marine ecosystem structure and function
- Ocean health and stressors
- Physical ocean processes, related climate change, and physical coastal hazards
- Resilience and adaptability to hazards and climate change

National Sea Grant

CASG functions as part of a national network under the National Sea Grant College Program (NSGCP) within NOAA. NSGCP provides core federal funds to support CASG research, education and outreach activities and requires the individual Sea Grant programs to support the national goals and objectives with a significant amount of individual program resources. In its 2009–2013 strategic plan, the NSGCP identified the following focus areas:

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

In addition, the NSGCP also identified three cross-cutting goals that pertain to all four focus areas and are discussed in its strategic plan, which is available online: www.seagrant.noaa.gov/focus/index.html



4 STRATEGIC PLAN 2010-2013

California

California occupies nearly two-thirds of the West Coast of the contiguous continental United States. California's coast stretches more than 1,100 miles from the Mexican border to Oregon (parallel 42° north).

California is the most populous U.S. state, with 36.5 million residents and the largest ocean-based economy in the country. California's top six coastal-dependent industries alone generate about \$43 billion annually. From 1997 to 2007, California's gross domestic product (GDP) grew 50%. In 2007, shoreline counties comprised 21.6% of the state's land area, were home to 69.4% of its population, provided 66% of employment, 67% of wages, and 69% (\$1.2 trillion) of its GDP. (National Ocean Economics Program, Coastal and Ocean Economic Summaries of the Coastal States, June 2009)



The California coast is characterized by two distinct oceanographic regions, mirrored on land—the highly urbanized and industrialized south, and the more rural and agricultural north. Each has challenges and opportunities in coastal and marine resource management that surpass the state and federal resources available to them.



Because of their differences, the needs of one region may even be in direct conflict with the needs of another, creating special challenges for statewide and regional policy development.

California is home to six major seaports, more than 200 marinas and harbors including fishing communities—and more than 1,000 coastal recreation areas that receive about 100 million visitors a year. This level of activity in the coastal zone places immense pressure on natural resources, poses opportunities and challenges, and creates a need for science-based information and novel approaches to resource management and conservation.

Among the many opportunities, issues and risks facing California are minimizing the social, economic and environmental costs of energy production; understanding and addressing the effects of climate change, such as sea-level rise and ocean acidification; reducing the impacts of shoreline development and beach erosion; maintaining revenue from coastal-related businesses; sustaining harbor infrastructure, fishing communities and fisheries; balancing the need for healthy marine resource populations while meeting seafood demand; and restoring degraded habitats.

California Sea Grant Extension



CASG maintains a diverse Extension Program that has its headquarters at University of California, Davis. CASG Extension consists of a statewide team of ten marine advisors with varied areas of expertise, who are geographically spread along the California coast. They are well known for identifying emerging marine resource problems and opportunities, conducting applied research, and sharing findings with relevant stakeholders. Environmental stewardship, long-term economic development and responsible use of California's resources are at the heart of CASG's mission. In addition to federal Sea Grant funds, the CASG Extension program receives funding from and operates in partnership with the University of California Division of Agriculture and Natural Resources. The Extension personnel have also been extremely successful in applying for and receiving grants from a variety of sources that support research, education and outreach projects that:

- Protect water quality, including effects of fresh water inputs
- Ensure safe and sustainable seafood
- Control aquatic invasive species
- Recover endangered salmon, restore watersheds and protect marine habitats
- Study socioeconomic factors affecting fishing and fishing communities
- Contribute to ecosystem-based management involving diverse stakeholders in an era of climate change
- Create partnerships to address critical needs in aquaculture, coastal community development and fisheries management, among others



State Agency Partners

For 41 years, CASG has successfully applied its unique capability to combine coastal and marine research, education and outreach to benefit the communities, industries and people of California, the region and the nation. In recent years, the program has been invited to collaborate with state agencies to administer research programs of mutual interest that are designed to meet specific state priorities using designated funds.

California's Ocean Protection Council (OPC), established in 2004, sets forth the state's marine research and conservation goals. In its five-year strategic plan dated 2006, the OPC lists state priorities of:

- Governance
- Research and monitoring
- Ocean and coastal water quality
- Physical processes and habitat structure
- Ocean and coastal ecosystems
- Education and outreach

Since 2007, CASG has worked with the OPC to determine where priorities and expertise converge; and by working together, the two organizations have reduced the overhead and management costs of collaborative marine research and outreach.

The result is that CASG administers dedicated OPC funds to assist the state by managing priority research and outreach projects and in collecting baseline data needed to implement California's Marine Life Management Act and Marine Life Protection Act, which will establish a statewide network of marine reserves.

Another significant area of activity for CASG in recent years has been the creation and administration of the CALFED Science Fellows Program. It is funded by the CALFED Bay-Delta Program, a collaboration among 25 state and federal agencies that work together to improve California's water supply and the ecological health of the San Francisco Bay/Sacramento-San Joaquin River Delta. The Science Fellows Program was established to bring together junior scientists with CALFED Program agency scientists and senior research mentors. Fellows work on collaborative data analysis and research projects relevant to ecosystem management and water supply reliability questions, including analyses of the immense monitoring data collected and maintained by the implementing agencies.



Vision & Mission

CASG Vision Statement

The California Sea Grant College Program envisions a future in which people live in balance with coastal and marine resources, noting that the well being of California is closely tied to its human and natural resources. The program envisions an educated and engaged public that makes decisions based on sound, scientific information, resulting in sustainable, thriving human and natural communities.

CASG Mission

CASG's mission is to provide integrated research, outreach and education to help Californians balance diverse coastal and marine interests and adapt to changing conditions and needs. CASG accomplishes this by collaborating with a network of local, state, tribal, regional, national and international partners.



Program Values

CASG has articulated the following set of core values that reflect its strengths and experience and guide its management and decision making to achieve its goals.

- Excellence and innovation
- Accountability and scientific integrity
- Impartiality
- Responsiveness to societal issues
- Problem-driven and solution-oriented focus
- Engagement in partnerships
- Bridging communities and academia
- Diversity
- Flexibility and adaptability
- Thriving natural and human communities
- Stewardship and leadership





Key Audiences/Stakeholders

California is large and diverse both geographically and in terms of its population. In addition to more than 36 million residents, California draws millions of visitors and tourists from around the world each year. More than 100 million people are estimated to annually visit California's coastal areas.

CASG believes that informed use and decision making about coastal and marine resources depends on peoples' awareness of issues and access to reliable information. CASA strives to communicate sound scientific information about those resources to the many people who can benefit from it.

CASG has identified the following key audiences and stakeholders (in no particular order)

- Coastal and marine communities/ business people/fishermen
- Coastal and marine resource managers
- Coastal and marine scientists, university extension personnel and students
- Federal and state legislators
- State and local/municipal government officials
- Nongovernmental and conservation organizations
- NOAA and National Sea Grant
- Recreational users of coastal and marine resources
- K-12 teachers and students
- General public
- International partners







Cross-Cutting Theme

Education, Training and Public Information

CASG embraces the ideals of promoting marine science literacy and educating the next generation of marine and coastal scientists and policy makers. As required by the federal legislation authorizing the Sea Grant programs, CASG makes the results of its publicly funded projects widely available. This is accomplished by asking CASG researchers to incorporate educational and outreach components into their Sea Grantfunded research, and through the activities of the Extension and Communications staff, who collaborate with a variety of partners.

Taking many factors into account, the program has chosen to invest the majority of its resources allocated to "education" in support of graduate-level students in marine science and policy. This is an area where CASG education dollars have demonstrated significant impact in training new generations of marine scientists and policy makers. Among the factors that contributed to this programmatic strategy are: the fact that California is a large state with an immense number of students and a large education infrastructure; the state has two COSEE (Centers for Ocean Sciences Education Excellence) programs funded by the National Science Foundation; CASG's sister program in the Los Angeles area, the University of Southern California Sea Grant Program, employs a full-time Sea Grant educator and supports an education program that targets K-12 education; and there are

a host of excellent informal marine science educational and outreach programs that target K-12 students throughout the state.

CASG's program-wide education, training and public information strategies are to:

- Involve stakeholders in coastal and marine research and outreach projects.
- Study, evaluate and use a variety of tools to disseminate and transfer scientific information.
- Support undergraduate and graduate student stipends, fellowships and scholarships to attract talent to coastal and marine disciplines.
- Provide academic enrichment opportunities for students and educators, such as applied/outdoor educational experiences, scholarships, mentoring and curriculum development.
- Provide opportunities for students and post-graduates to study and gain on-the-ground training in coastal and marine management.
- Translate technical scientific information into language appropriate for nonscientists.
- Disseminate scientific research findings broadly.
- Produce and distribute educational and training programs/materials.
- Facilitate and participate in conferences, discussions, workshops and other events to exchange information and enhance its relevance to real-world issues.

Strategic Focus Areas

A s evidenced by the preceding pages, the opportunities for programming by CASG are almost limitless, necessitating a deliberate plan for wisely allocating available funds and personnel. After considering the aforementioned and meetings with its Advisory Board, Extension Program academic staff and program-wide professional staff, CASG has outlined its priority focus areas, goals and strategies for the years 2010–2013. (Please refer to Appendix 1 for a detailed discussion of the planning process and meetings convened by CASG that contributed to the development of this plan.)

For the years 2010–2013, CASG will focus on the following five strategic areas:

- Healthy Coastal and Marine Ecosystems
- Resilient Coastal Communities
- New Technologies and Products
- Safe and Sustainable Seafood Supply
- Effective Response to Climate Change

(Note: Because these themes overlap, fisheries information and management is addressed under Safe and Sustainable Seafood.)

The following table demonstrates the synergy between the CASG and NOAA National Sea Grant focus areas and strategic national investments:



HEALTHY COASTAL AND MARINE ECOSYSTEMS (HCME)

Healthy coastal and marine ecosystems are foundational to life along the West Coast. They have intrinsic ecological and aesthetic value and are essential for sustaining the diversity of coastal and marine life that draws people to the coast and supports many coastal communities. For 2010–2013, CASG will focus on the following goals and strategies.

HCME Goal 1: Support research and provide information to conserve, restore and manage coastal and marine ecosystems to ensure their long-term health and productivity

- Strategy 1-1: Study interactions between coastal and marine living resources and their environment.
- Strategy 1-2: Identify habitats that support areas of high biodiversity and develop tools and techniques to protect and restore these areas and associated species.
- Strategy 1-3: Identify and measure impacts of human activity on ecosystems and seek scientifically sound options to reduce or eliminate these impacts.
- Strategy 1-4: Study watershed processes as they impact coastal and marine ecosystems and contribute to ecosystem-based management.
- Strategy 1-5: Evaluate impacts of policy and governance on ecosystems.
- Strategy 1-6: Study and evaluate new strategies for coastal and marine conservation.
- Strategy 1-7: Study economic and social benefits of consumptive and nonconsumptive uses of coastal and marine resources.

HCME Goal 2: Help prevent the introduction and spread of invasive, non-native plants and animals and manage and eradicate established populations

- Strategy 2-1: Improve the basic biological understanding of non-native species and their dispersal.
- Strategy 2-2: Evaluate relative social, economic and ecological consequences of non-native species to better prioritize and coordinate management strategies.
- Strategy 2-3: Develop methods to minimize the spread of invasive species.
- Strategy 2-4: Study the effectiveness of invasive species eradication and management practices, including ecosystem recovery and vulnerability to re-infestation.

HCME Goal 3: Help reduce water and sediment contamination in the coastal and marine environment

- Strategy 3-1: Study sources of contamination and the transport, fate and implications of contaminants for coastal and marine life and public health.
- Strategy 3-2: Develop tools for detecting natural and anthropogenic contamination.
- Strategy 3-3: Facilitate partnerships and collaborations to minimize the impacts of biological and chemical contamination on the coastal and marine environment and coastal communities.

RESILIENT COASTAL COMMUNITIES (RCC)

Coastal communities today face a multitude of opportunities and risks, and California is no exception. From its rural towns, to working harbor communities, to mega-cities, predicting sea-level rise, managing population growth, resolving competing uses for natural resources, maintaining infrastructure, managing shortages of fresh water, and developing local responses to regional issues are among the state's needs. CASG will focus effort and work with strategic partners toward the following goals.

RCC Goal 1: Support communities and stakeholders to sustainably use and effectively manage coastal and marine resources

- Strategy 1-1: Study the dynamic connections between human uses and natural resources.
- Strategy 1-2: Study social, cultural and economic values of coastal resources and communities.
- Strategy 1-3: Facilitate community/stakeholder involvement in coastal resource management.
- Strategy 1-4: Work cooperatively with community leaders and other partners to improve the social, economic and ecological sustainability of coastal communities.
- Strategy 1-5: Study the cumulative impacts of population growth, coastal development and increased beach use on natural resources and harbor communities.

RCC Goal 2: Work with communities to improve coastal environmental quality

- Strategy 2-1: Provide information and develop tools to improve coastal conditions for public and environmental health.
- Strategy 2-2: Develop approaches to help individuals and organizations meet environmental needs and regulations.

- Strategy 3-1: Study vulnerability to and effects of shoreline erosion, sea level rise, earthquakes, tsunamis, and other processes on human life, property and well being.
- Strategy 3-2: Provide information to those involved in landuse decisions, development, emergency planning and other relevant activities.

NEW TECHNOLOGIES AND PRODUCTS (NTP)

The globalization of commerce, rapid advancements in technology and the information age offer opportunities to explore new fields of study and apply existing technologies in new settings. CASG has chosen the following goal in which to invest resources in 2010–2013.

NTP Goal 1: Help develop and apply new and existing technologies and products to address specific problems and enhance coastal and marine science studies

- Strategy 1-1: Support the development of new instruments, techniques and computer models to assist ocean, seafood and biomedical science and further innovative technology development.
- Strategy 1-2: Support the application of technology from other disciplines to improve such things as efficiency of resource use, water quality, coastal and marine toxin testing systems, and seafood safety and quality.
- Strategy 1-3: Study the complex chemistry and biology of coastal and marine organisms to discover and develop new products and approaches and support technology transfer.
- Strategy 1-4: Provide information on the risks and benefits of new technologies and new uses of coastal and marine resources.

SAFE AND SUSTAINABLE SEAFOOD SUPPLY (SS)

Fish and shellfish are an important source of protein, and the state of California is well positioned to help supply the growing demand for seafood through commercial fisheries and aquaculture. California's advantageous location on the Pacific Rim also makes it an excellent candidate for developing marine aquaculture techniques, enhancing marine fish stocks and exchanging scientific information with other nations. California's long coastline and rich coastal waters produce a wide variety of seafood. Many of the commercially important fisheries within the California Current have been sustainably harvested and thus remain at low levels of exploitation. Others, such as groundfish and salmon, have sustained commercial fishing closures in recent years. With the advice from both fisheries and aquaculture experts, CASG has identified the following goals for this focus area.

SS Goal 1: Provide information to ensure the sustainable use of living coastal and marine resources and associated communities

- Strategy 1-1: Collect scientific and socio-economic information on fisheries (including species essential life history information), their use and management, and share with policy makers and other stakeholders.
- Strategy 1-2: Work with stakeholders to encourage the sustainability of fisheries and California's fishing communities.
- Strategy 1-3: Evaluate impacts of fisheries' policies on people and species and share information with managers and stake-holders.

SS Goal 2: Provide technical information to improve production and processing techniques to ensure safe, high-quality and profitable seafood products

- Strategy 2-1: Develop tools, techniques and training to help producers and consumers maximize seafood quality, safety and value.
- Strategy 2-2: Support research to develop seafood products and processing technologies and tools to improve seafood quality, safety and profitability.

SS Goal 3: Provide information to support a sustainable California aquaculture industry to help meet the growing demand for seafood and minimize socio-economic and environmental impacts

- Strategy 3-1: Improve the economic viability of aquaculture operations and animal health through research on cultur-ing systems, diet/nutrition, reproduction and early life-stage development.
- Strategy 3-2: Identify new species suitable for culture and new markets for existing cultured products.
- Strategy 3-3: Study interactions between cultured and wild species and ecosystems, including implications for disease transmission, genetic diversity, water quality and ecosystem services.
- Strategy 3-4: Apply culturing technologies to further conservation goals, including the recovery of rare species and restocking.
- Strategy 3-5: Study the synergies and socio-economic interactions between capture and culture fisheries as they affect coastal communities and working waterfronts.



EFFECTIVE RESPONSE TO CLIMATE CHANGE (CC)

The wide-reaching effects of climate change, including ocean acidification, on people, property and living organisms in the coastal and marine environment, are being increasingly recognized at national, regional and local scales. CASG has identified the following strategic goals in this quickly evolving arena.

CC Goal 1: Support research to understand the impacts of climate change and ocean acidification on coastal and marine species and environments

- Strategy 1-1: Identify coastal and marine ecosystems, communities and resources that are at risk related to climate change and ocean acidification.
- Strategy 1-2: Support research and develop solutions to mitigate the ecological and socio-economic impacts of climate change and ocean acidification on coastal and marine species, environments and related communities.

CC Goal 2: Work with communities and partners to plan for and adapt to the effects of climate change and ocean acidification

- Strategy 2-1: Serve as a comprehensive resource for California-specific information about climate change and ocean acidification for coastal and marine species and environments.
- Strategy 2-2: Evaluate data and develop tools to provide and analyze information about climate change and ocean acidification.
- Strategy 2-3: Analyze public understanding of and motivations for responding to climate change and ocean acidification.

Managing for Success

CASG is dedicated to playing a leadership role in coastal and marine resource management to benefit the state, the West Coast region and the nation. This Strategic Plan is designed to take advantage of CASG's proven ability to combine coastal and marine research, education and outreach into effective programming.

The management team meets regularly to review program progress and make decisions about new opportunities, such as short-term proposals submitted for program development funding. Prospects for new partnerships and funding sources are regularly explored and evaluated. The program has been especially successful at attracting additional state funding in recent years and plans to continue seeking similar partnerships, including collaborative research opportunities with fishermen.

The program routinely reports progress and expenditures related to federal funds throughout the year through two online systems: NOAA's Grants Online database, and Sea Grant's National Information Management System (NIMS). The leaders of individually funded projects are required to submit annual financial and progress reports to the program.

Each of the other sources of funds provided by grants or agreements to CASG have their own unique reporting requirements. CASG maintains a project-management database to ensure timely progress and compliance with its many federal and state reporting requirements.



Program Resources

CASG continues to seek collaborations and partnerships to supplement and leverage the core federal funding received from NOAA's NSGCP and to maintain CASG's excellence and flexibility. Recent examples of these partnerships include: focused research specially selected and funded by California's Ocean Protection Council, a series of baseline characterizations in support of developing a state

network of marine protected areas along California's coast, and the CALFED Science Fellowships, which have provided graduate and post-doctoral research opportunities for 40 fellows. As mentioned earlier in this document, the program currently has financial resources averaging \$12 million annually that support its current level of activity.



Evaluation

CASG management strives to wisely invest and account for the public funds it receives and also be alert to emerging trends and opportunities. The program has an external Advisory Board and is regularly reviewed and evaluated by a national review panel assembled by the NSGCP. This review solicits external comments from stakeholders and provides feedback to program management to encourage its continual improvement. Advice and feed-

back are incorporated into future program strategic plans and funded activities.

CASG will regularly revisit this Strategic Plan and its priorities to ensure that it maintains its vision and focus, and continues to play a leadership role in coastal and marine resource research, education and outreach to benefit California, the West Coast region and the nation.



Appendices

APPENDIX 1

Strategic Planning Process

A number of initiatives and documents contributed to and were reviewed in the development of the 2010–2013 CASG Strategic Plan.

CASG followed the process outlined by the National Sea Grant Office (NSGO) to conduct a strategic planning realignment exercise, with the goal being to compare and modify CASG's former strategic plan (2006-2010) with the NSGO's new strategic plan. With that intent, a full-day meeting was held with CASG's management team and Advisory Board on May 5, 2008. At that meeting, the goals and objectives of the state and federal plans were reviewed, compared and discussed. CASG's Advisory Board recommended that because the two plans were quite similar, that CASG wait until late 2009 to begin an entirely new strategic planning process and create a new plan that would take effect in 2011. Approximately six months later, written guidance was received on the strategic planning realignment process from the NSGO dated October 3, 2008. Based on that memo, CASG prepared a side-by-side comparison of the two plans and forwarded that to the NSGO on December 12, 2008.

The CASG Advisory Board met again January 16, 2009 to discuss, among other things, the next national program review, the strategic planning process, and a stopwork order from the state of California that affected a large number of CASG statefunded projects. On March 2, 2009, the NSGO issued a second guidance memo detailing Phase II requirements for state plan alignment. It was about March 12 when the program received information from NSGO that an entirely new CASG strategic plan would need to be completed by fall 2009.

Extensive stakeholder workshops had recently been held at a variety of locations in Washington, Oregon and California in preparation for developing the West Coast Sea Grant Regional Research Plan, 2009. These meetings served the dual purpose of informing CASG's new strategic plan, as well as a regional research plan written by the four West Coast Sea Grant programs. CASG, USC Sea Grant, Oregon Sea Grant and Washington Sea Grant worked cooperatively for nearly three years, gathering input from state, federal and tribal agencies, as well as extensive public comment gathered from Web surveys and from 16 public workshops held in California, Oregon and Washington in 2007-2008. The joint effort was led by Oregon Sea Grant and incorporated about 5,300 comments from nearly 1,000 coastal residents, business owners, community organizations, decision-makers, conservationists, fishing interests, researchers and resource managers. More than 60 existing research plans were also analyzed.

CASG next scheduled a facilitated strategic planning meeting attended by the CASG Extension personnel and the program director in Eureka, CA, on May 18–19, 2009. Then, a second facilitated CASG strategic planning meeting was held with members of the management team, CASG Extension personnel, Advisory Board members and an administrator from UC Cooperative Extension on June 11–12, 2009, in Bodega Bay, California. A number of documents were reviewed in the course of developing this strategic plan, including the documents listed in Appendix 2. Meetings were also held to solicit input from officials of the University of California (UC), particularly the Agriculture and Natural Resources Division, UC Cooperative Extension and Scripps Institution of Oceanography.

The resulting 2010–2013 CASG Strategic Plan closely aligns in many areas with the NOAA National Sea Grant College Program Strategic Plan 2009–2013: Meeting the Challenge. Even more importantly, this plan focuses on West Coast regional needs and a select number of California's pressing needs as identified by California's Ocean Protection Council.

APPENDIX 2

References

Documents reviewed in preparation of this strategic plan included:

National Documents

- NOAA National Sea Grant College Program Strategic Plan 2009–2013: Meeting the Challenge
- NOAA Research Strategic Plan, 2005–2010
- NOAA Strategic Plan, 2009–2014
- From Sea to Shining Sea, Priorities for Ocean Policy Reform, Joint Ocean Commission Initiative, June 2006
- U.S. Coastal Management Act of 2009
- U.S. Ocean Action Plan, The Bush Administration's Response to the U.S. Commission on Ocean Policy, 2004
- America's Living Oceans: Charting a Course for Sea Change, Pew Ocean Commission, Final Report, June 2003
- *An Ocean Blueprint for the 21st Century,* U.S. Ocean Commission on Ocean Policy Report, 2004

Fisheries Economics of the United States, NOAA NMFS, 2006

Regional Documents

West Coast Regional Marine Research and Information Needs, 2009 http://westcoastoceans.gov/action Final Action Plan for the West Coast Governors' Agreement on Ocean Health, July 29, 2008 West Coast Governor's Agreement on Ocean Health, September 18, 2006

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