California Ocean Protection Council
Draft Five-Year Strategic Plan

I. Introduction

This plan describes how the California Ocean Protection Council (OPC) intends to improve ocean and coastal management in California through enhanced coordination of all levels of government, the private sector, research institutions, and non-governmental organizations. The plan identifies the unique role of the (OPC) within California state government, and describes how this organization can provide value added services.

The OPC will encourage and help implement integrated and innovative approaches for ocean and coastal protection and management. The organization will focus on issues where coordinated approaches are needed to resolve inefficiencies from overlapping jurisdictions and conflicting mandates. In some cases, the OPC will provide or identify funding for specific initiatives, in others it may recommend changes to state or federal law or regulations, in still others it may commission scientific studies.

This document identifies the coastal and ocean issues that are of concern to the OPC. It outlines measurable goals, objectives, and strategies for addressing these issues in order to significantly improve the coastal and ocean environment over a five year period beginning in 2006.

The OPC staff has developed this plan based on feedback from council members, relevant agencies, and stakeholders. The staff held focus sessions, workshops, and interviews to solicit comments on the draft plan. A list of workshop attendees and other individuals who provided comment can be found in Appendix D.

Mission

The mission of the California Ocean Protection Council is to employ integrated and innovative approaches to protect, manage, and restore California's ocean and coastal ecosystems—from the top of the coastal watersheds to the deep ocean—for their intrinsic value and for the benefit of current and future generations.

Legislative Mandate

In accordance with his Ocean Action Plan, Governor Arnold Schwarzenegger created the Ocean Protection Council in 2004 by signing the California Ocean Protection Act (COPA) into law. COPA created the OPC as a high-level coordinating body with several distinct charges that include:

- Coordinate activities of state agencies to improve the effectiveness of state efforts to protect ocean and coastal resources

- Establish policies to coordinate the collection and sharing of scientific data related to coast and ocean resources
- Identify and recommend to the Legislature changes in law needed to achieve the goals of COPA
- Identify changes in federal law and policy necessary to achieve the goals of COPA
- Recommend to the Governor and Legislature actions the state should take to encourage changes in federal law and policy

Guiding Principles of COPA

The COPA includes guiding principles that California state agencies must follow and that the OPC is to promote. Many of the principles identified in COPA are the direct result of findings of the U.S. Commission on Ocean Policy, the Pew Oceans Commission, and Governor Schwarzenegger's Ocean Action Plan. These guiding principles provide the foundation for all OPC initiatives described in this five-year Strategic Plan. In summary, these principles include:

- Recognizing the interconnectedness of the land and the sea, supporting sustainable uses of the coast, and ensuring overall ecosystem health
- Improving the protection, conservation, restoration, and management of coastal and ocean ecosystems through enhanced scientific understanding, including monitoring and data gathering
- Recognizing the "precautionary principle" that emphasizes the priority for resource protection
- Identifying the most effective and efficient use of public funds by identifying gaps and new and innovative processes for achieving success
- Making aesthetic, educational, and recreational uses of the coast and ocean a priority
- Involving the public in all aspects of the OPC process, through public meetings, workshops, public conferences, or other symposia

OPC Membership and Staff

The OPC consists of the Secretaries for the Resources Agency and the California Environmental Protection Agency, the Chair of the State Lands Commission, and two nonvoting members, one appointed by the Senate and one appointed by the Assembly. Under the direction of the Secretary for Resources, who chairs the OPC, the Executive Officer for the State Coastal Conservancy serves as the Secretary to the OPC, and the staff of the State Coastal Conservancy administers OPC affairs.

The OPC will hire an Executive Policy Officer to assume the lead role for strategic planning and implementation of the OPC's policies, initiatives, and programs as well as coordination among all state entities. The Executive Policy Officer will also be the primary liaison between the OPC and all levels of government, industry, academia, and the non-governmental organization (NGO) community.

The OPC is partnering with the California Ocean Science Trust (CalOST) to hire a CalOST Executive Director who will also serve as the Science Advisor to the OPC. The Science Advisor will work with the OPC to create a standing Science Advisory Team to develop scientific recommendations on issues identified by the OPC.

II. Tools to Implement COPA

The overall goal of the COPA, and the charge to the OPC, is to improve the way that California manages and protects its vast coastal and ocean resources and how it addresses the complex problems facing the coastal and ocean environments. The critical role of the OPC is to facilitate the cooperation necessary to implement solutions to these problems.

The OPC will implement the mandate of COPA by using the tools outlined in this section. These tools will be used by the OPC and staff to achieve the major goals, priorities, and actions identified in Section III and Appendix 1 of this plan.

A. Coordination, Collaboration, and Integration: Making Government Work Better

One of the most critical duties of the OPC will be to spearhead and support collaborative resource management and protection within and across government agencies, and in partnership with non-governmental organizations, research institutions, and the private sector. The OPC will focus on high-priority ocean and coastal management issues involving multiple agencies, jurisdictions, and stakeholders and work to craft the most efficient and effective approaches to address those priorities.

Create a State Agency Steering Committee. Implementation of the strategic plan will require prioritization of the many actions presented in section III and Appendix 1. A State Agency Steering Committee will be established to advise the OPC regarding the priorities for immediate action in collaboration with OPC staff. The Steering Committee will be composed of senior representatives of state departments, boards, and commissions with ocean and coastal responsibilities. The OPC's Executive Policy Officer will chair the Steering Committee, coordinate its activities with the Science Advisory Team, and report to the Council.

The duties of the Steering Committee will include:

- Identifying top priorities for each fiscal year in collaboration with OPC staff
- Identifying strategies and projects within and across agencies to address these top priorities
- Integrating and coordinating state laws by completing an inventory of ocean and coastal laws and determining if these laws are being enforced

- Assessing the capabilities of agencies to carry out these management strategies, including their available funding, authorities, organization, personnel, and potential collaborations
- Examining marine spatial planning approaches for application in California
- Identifying necessary funding for priority actions—either through redeploying existing funds, developing cross-cutting budgets, or identifying new funding
- Recommending any necessary legislative action or regulatory changes to implement priority actions and strategies

Encourage Stakeholder Participation. To ensure that the ocean and coastal community is involved in OPC activities, the OPC will encourage stakeholder participation by:

- Continuing to encourage public involvement at OPC meetings through open public comment and Web casting of meetings
- Convening public workshops before OPC meetings to encourage informal dialogue about OPC actions
- Hosting the California and the World Ocean Conference 2006 (CWO '06), September 17-20 in Long Beach, California, to focus on implementation of the OPC strategic plan

Engage Federal Government Support for California's Priorities. California has called for the implementation of the major recommendations of the U.S. Commission on Ocean Policy and the Pew Oceans Commission. The OPC will continue to advocate for federal support for California initiatives, and for the implementation of key recommendations from both the U.S. and the Pew Ocean Commissions. The OPC will work with senior management of regional federal agencies such as NOAA and the U.S. Fish and Wildlife Service to maximize collaboration.

The focus of this engagement will be on:

- Maintaining California's moratorium on offshore oil and gas leasing
- Supporting California's non-point source pollution program
- Calling for the ratification of the Law of the Sea Treaty
- Supporting California's ocean observing systems
- Re-authorizing a strong Coastal Zone Management Act
- Supporting adequate funding for state and federal ocean and coastal programs

Pursue Regional Governance Approaches. In the spirit of the 2003 multi-state agreement on global warming, the OPC will support the creation of a tri-state agreement focusing on ocean health. The OPC will coordinate with Washington and Oregon on cross-boundary issues, such as those affecting the California Current Large Marine Ecosystem. This agreement could aid the three states in implementing ecosystem-based management approaches, increasing scientific understanding, mitigating offshore

development impacts, increasing ocean awareness, and reducing coastal water pollutant sources.

The OPC will assist the integration of existing regional entities, including the state's two ocean observing Regional Associations (RAs): the Southern California Coastal Ocean Observing System (SCCOOS) and the Central and Northern California Ocean Observing System (CeNCOOS). OPC will support California's ocean observing systems by identifying new funding sources and fostering connections between the RAs and other regional entities to create a truly integrated system.

B. Science and Education: Improving Our Understanding and Awareness

Improving our scientific understanding of the ocean is critical to making sound management decisions. The OPC will focus on supporting research that addresses statewide management issues. Further, the OPC will concentrate on facilitating data sharing and bringing the most up-to-date information into the decision-making process. Public awareness and education of ocean and coastal issues also needs to be elevated to better engage the public in addressing these issues.

Implement the California Ocean and Coastal Information, Research, and Outreach Strategy (IRO Strategy). The IRO Strategy, adopted by the OPC in September 2005, sets forth actions for the council; a policy for state funded research; and information, research, and outreach priorities for the state.

The major actions in the IRO Strategy are:

- Make research part of the council's funding strategy
- Make California's ocean observing system a national model
- Seek federal support for California's research needs
- Improve access to and coordination of ocean and coastal information in California
- Incorporate ocean and coastal science into K-12 and adult education programs
- Build a public outreach strategy in cooperation with federal, state, and local partners

Create a Science Advisory Team. To ensure that the best available science is applied to OPC policy decisions, a Science Advisory Team will be established, composed of leading scientists from all major ocean and coastal scientific disciplines including the social and human sciences. The OPC Science Advisor will chair the Science Advisory Team, coordinate with the State Agency Steering Committee, and report to the Council.

The Science Advisory Team will:

- Develop scientific recommendations on issues identified by the OPC through soliciting expert testimony and synthesizing information for the generation of policy by OPC
- Work with OPC staff to ensure that all staff recommendations and projects proposed to OPC are based on the best available science.
- Convene technical working groups and scientific forums to address critical management problems.

C. Funding: Ensuring Our Goals Can Be Attained

A critical duty of the OPC is to seek sufficient funding to complete the important goals and objectives described in this plan. This plan challenges California to build on its current leadership and expand its ocean and coastal programs, even though state agency budgets are severely strained and there are many competing budgetary pressures.

The OPC is currently conducting a study of potential new state and federal funding sources that may be brought to bear on the range of coastal issues. Upon completion of this study in 2006, the OPC may propose a range of new funding options in for consideration by the Governor, Legislature, federal government, and public/private partners to consider in 2007. The OPC will also complete an analysis of current state and federal investment in ocean and coastal issues to determine if there are ways to redeploy or share resources and create other efficiencies.

To further address funding needs and issues, the OPC staff will:

- Seek to develop annual and five-year cost estimates for all pertinent agencies to meet the goals, objectives, and strategies described in this Plan
- Investigate innovative funding approaches including public-private partnerships and fee structures connecting resource use and permit fees to protection, management, or research of the resource
- Work with departments within Cal EPA, the Resources Agency, and potentially other executive branch agencies to develop cross-cutting budgets to deal with specific identified priorities
- Work closely with the Department of Finance to ensure these cross-cutting budgets are supported in the Governor's budget each year
- Support and help to justify increased state funding for ocean conservation
- Advocate for increased federal spending
- Provide funds from the Ocean Trust Fund for a wide range of efforts, based on advice from partner entities

Section III. Goals and Priorities

The intent of this plan is for the OPC to identify clear goals and priorities that the organization can use to implement improvements to ocean and coastal protection and management. While the OPC will remain flexible and able to address important issues as they arise, it is important that goals and priorities are developed to guide these activities over the next five years.

As the OPC moves forward to implement these goals and priorities, it will seek the advice of its State Agency Steering Committee and its Science Advisory Team to determine the most effective and efficient approaches to pursue.

The following OPC priorities address:

- Ocean and Coastal Ecosystems
- Coastal Water Quality
- Beaches and Coastal Hazards
- Economic Uses of the Ocean
- Education, Outreach, and Stewardship
- Research and Monitoring

Appendix A of this plan provides a preliminary assessment of specific actions that the OPC could pursue to address these goals and priorities.

A. Ocean and Coastal Ecosystems

California has diverse and productive ocean and coastal ecosystems that provide critical ecosystem services, commercial and recreational opportunities, and other social, cultural, and economic benefits. However, these ecosystems—and the human communities that depend on them—are threatened by over-harvesting, habitat destruction, and pollution. A major goal of the OPC is to address and reduce these threats through a comprehensive and adaptive ecosystem-based approach.

Protect and restore valuable marine habitats and species

Scientists and resource managers recognize that marine and estuarine ecosystems are inherently complex, and a comprehensive approach is needed to preserve them. The OPC has funded several ecosystem-based management projects and will to continue to promote ecosystem-based approaches to ocean and coastal management in California.

- **Implement ecosystem-based management pilot projects.** The OPC will support the development of ecosystem-based management pilot programs in several regions throughout California, modeled after the Morro Bay effort recently funded by the OPC and other partners. The Morro Bay program establishes a system for collaboration between research, monitoring, and management efforts

from the top of the watershed to the ocean. The pilot programs will provide models for managing entire ecosystems in a comprehensive, adaptive, and holistic approach. Upon their completion, lessons learned from these programs will be evaluated and integrated into future ecosystem-based management programs.

- **Implement the Marine Life Protection Act (MLPA).** The OPC will support the Department of Fish and Game (DFG) in establishing of a state-wide network of marine protected areas (MPAs) by helping to coordinate state and federal processes and by identifying and securing long-term funding. These efforts will focus on ensuring that a scientifically vigorous system of MPAs is established with the necessary funding for monitoring and enforcement. The MLPA Initiative is providing a model for the nation of a systematic process to design MPA networks. The OPC will support the continuation of this work and focus on overcoming the challenges to long-term implementation.

- **Complete and implement the Aquatic Invasive Species (AIS) Management Plan.** The OPC has provided funding to complete the AIS plan and will help coordinate its implementation. The AIS plan will provide a comprehensive approach to preventing invasive species introductions and eradicating existing and new invaders.

- **Restore marine and coastal areas, including intertidal and subtidal habitats.** In recent years, California has made significant progress in restoring wetlands and other coastal habitats. Now the OPC will work to apply these successes and lessons learned to other marine and coastal areas while continuing to support the planning and implementation of new wetland and estuarine restoration projects. Recognizing the threat of habitat fragmentation, the OPC will also support ongoing efforts to restore habitat connectivity and quality within coastal watersheds.

Achieve sustainable fisheries

Renewed focus on fisheries management is needed to make California's fisheries sustainable in the long term. The passage of the Marine Life Management Act (MLMA) marked an important shift in California toward an ecosystem-based approach to fisheries management, but additional effort is needed to implement this management strategy. The OPC has funded several projects that assist with the implementation of the MLMA, but has not yet provided direct support that would lead to the full implementation of this important program. The OPC has provided funding for market based approaches to fisheries management and will continue support for new and innovative approaches to help California address its fishery management challenges.

- **Implement the Marine Life Management Act (MLMA).** The OPC will support the Department of Fish and Game in the development, implementation, and enforcement of fishery management plans for high priority species. MLMA is a visionary approach to addressing California's fishery management challenges,

and the leadership of the OPC is needed to attain the funding to achieve the vision of MLMA.

- **Support market-based fishery management approaches.** The OPC will support innovative approaches to manage fisheries by working cooperatively with fishers and communities through market-based approaches. Potential strategies include establishing a sustainable fisheries fund and promoting limited entry or quota-based fishery management systems.

B. Coastal Water Quality

California's ocean ecosystems extend from the top of the watersheds, which drain to bays, estuaries, and lagoons, to the nearshore ocean, and ultimately to deep waters off the coast. The ocean is usually the end-point of land-based nutrients and pollutants that flow from coastal watersheds. Nearshore impairment of water quality can result from discharges of industrial waste, dredge spoils, agricultural and urban runoff, and municipal sewer discharges. Although the degree of impairment has been reduced in recent years, increases in population and development offer a constant challenge to those federal, state, and local agencies responsible for water quality control. The OPC has authorized funding to address new and innovative ways to address coastal water quality, and support for these critical issues will continue.

Improve coastal water and sediment quality

As California's coastal population continues to increase, the number and volume of discharges that impact water quality also increases. Primary among the goals of the OPC is to reduce or eliminate point and non-point source pollution.

- **Support the state's coastal point and non-point source pollution control programs.** Governor Schwarzenegger has recently requested additional federal funding for these programs. The OPC will work with Coastal Commission and the Water Boards to support and increase coordination of efforts to reduce point and non-point source pollution and to help identify long-term funding sources.

- **Improve water quality testing programs and warning systems.** The OPC will support technologies and programs that improve the speed and accuracy of coastal water quality testing. California is a leader in the development of these technologies and experts believe that new advances may reduce response time for these tests from days to hours. Advance warning is needed for harmful events such as algal blooms, bacterial contamination, or high concentrations of chemicals.

Reduce coastal and marine debris

Trash in bays, wetlands, or coastal beaches reduces the ability of the public to enjoy coastal activities, endangers marine and coastal wildlife, and poses a health threat to

humans. Whether it comes from direct disposal on beaches, from the land due to runoff, or it washes ashore from other coastal areas, marine debris represents a serious issue. For example, one of the fastest growing threats to pelagic animals is the accumulation of plastic in the water column, including particles that are ingested by filter-feeding organisms.

- **Implement the California Marine Debris Action Plan.** The OPC will help coordinate, and seek funding for, the implementation of this plan. Despite state and local efforts to reduce marine debris in California, it continues to be a major problem along the California coast. The annual Coastal Clean-up and Adopt-a-Beach programs have been helpful in getting the public involved and informed about this issue. The OPC will support new and innovative approaches that will provide added value to the state's existing programs.

C. Beaches and Coastal Hazards

California's beaches and coastal areas are a defining characteristic of California. They support millions of tourists every year, supporting a thriving coastal economy and hundreds of thousands of coastal tourism-related jobs. It is essential to protect these resources and maintain access to recreation opportunities. Yet, the physical configuration of the coastline is consistently changing, creating challenges between natural processes and coastal development.

Plan for healthy beaches and coastal hazards

The majority of the California coast is actively eroding, and the elimination of inland sources of sand, shoreline alterations, and sea level rise are having profound effects on the rate and severity of these processes along the coast. Sediments that form our beaches often end up trapped within port facilities where they must be dredged to maintain boating and shipping channels. The challenge is to develop a system where we can help get these sediment resources where they need to be on a systematic, and not crisis, basis. The state and federal governments and other partners have been working to prepare a Coastal Sediment Management Master Plan to help us better understand these processes and to craft better ways to respond to them.

- **Complete and implement the California Coastal Sediment Management Master Plan.** The OPC will support the ongoing work of the Coastal Sediment Management Work-Group to develop this plan and coordinate its implementation. The plan will provide a systematic approach to addressing coastal erosion, and the long-term maintenance of our beaches, harbors, and ports.

- **Address climate change and other coastal hazards.** Changes in the global climate can possibly change sea-surface temperature, sea-surface height, storm strength, and coastal habitats. These impacts, along with tsunamis and other natural disasters, can result in significant loss of life and coastal property. To better plan for these impending impacts, the OPC will investigate possible future

scenarios and develop statewide adaptive management policies to minimize possible hazards.

D. Economic Uses of the Ocean

California's ocean economy was nearly $43 billion in 2000 supporting more than 700,000 jobs according to California's Ocean Economy report produced by the National Ocean Economics Project. Tourism was the largest sector with transportation (shipping, ports, etc.) a close second. Construction, fishing, oil and mineral extraction, and ship and boat building are also significant contributors to the coastal and ocean economy. These activities will continue to support California's economy if care is taken to ensure sustainability and protection of the ocean and coast.

Promote sustainable approaches to economic uses

According to the National Ocean Economy Report, the ocean and coast are significant drivers of both the California and the national economies. As our population increases, we must take particular care that coastal resources and the productive offshore waters remain healthy and sustainable. It is clear that both our environmental health and our economy are dependent on protecting our important ocean and coastal resources.

- **Encourage environmentally sustainable economic activity, while seeking to eliminate or reduce the impacts from existing or emerging economic uses**. Although coastal tourism is a critical economic driver for California, it will not continue to thrive if the water is not safe to swim in or the fish are not safe to eat. As we look to the future of managing our major economic uses such as coastal tourism, management of our ports, operation of coastal power plants, or new uses such as desalination, liquefied natural gas (LNG) terminals, and offshore aquaculture we must continue to ensure that coastal and ocean resources are protected to the full extent of the law. Judicious investments in new technologies and infrastructure will also help to ensure a strong and sustainable coastal economy while protecting the environmental resources on which much of it depends.

- **Balance public access to the shoreline with resource protection.** Enabling public access to the coast means more opportunities for human interaction with marine habitats and species. It is also closely connected to California's ocean and coastal economic well being, because access to the coast is a vital component of recreation and tourism in this state. Increasing access comes with the responsibility of ensuring that sensitive resources are not impacted. To face these challenges, the OPC will support projects that balance recreational use of the coast with protection of intertidal and coastal strand ecosystems. Pilot projects will be developed in various coastal areas to identify management strategies that best harmonize increasing recreational beach access with resource protection.

E. Education, Outreach, and Stewardship

A strong correlation exists between the public's understanding of the natural environment and that willingness of people to protect and preserve natural resources. Statewide, a lack of knowledge exists about the ocean and its problems, but recent surveys indicate that Californians feel very connected to the oceans and are interested in learning more about them. The OPC is in a unique position to help inform the public about on ocean and coastal issues, and how they can be directly involved in addressing these issues.

Promote ocean awareness and stewardship

The Governor's Ocean Action Plan identified the need to bring ocean education to the classroom and to help get the word out to the general public regarding the importance of the ocean and how individuals can help protect it. Since the release of the Governor's plan, ocean education was made part of California's Education and Environment Initiative and plans are moving forward to support a statewide ocean awareness media campaign. In addition, the OPC is a major sponsor of the upcoming international California and the World Ocean 2006 conference, which will convene the entire ocean community to discuss ways of addressing California's ocean and coastal management needs.

- **Support ocean education for children and adults.** The OPC will continue to collaborate with the CalEPA Education and Environment Initiative to ensure ocean science and education is included in K-12 education.

- **Launch an ocean stewardship media campaign.** The OPC will partner with the recently formed Ocean Communicators Alliance to develop an ocean stewardship media campaign. The goal of this campaign is to increase public awareness and activism on ocean issues.

F. Research and Monitoring

Solving complex ocean resource problems will require a better scientific understanding of the underlying functioning of marine, coastal, and estuarine ecosystems. The activities of existing research, monitoring, and data collection entities must be supported and integrated. Science should be the foundation of ocean and coastal policy, but often it is not. The OPC has committed funds to ocean and coastal research through a partnership with California's Sea Grant programs. The state is also providing a large investment to establish a coastal currents monitoring system, an integral component of California's ocean observing systems.

Improve understanding of ocean and coastal ecosystems

Increased and improved data acquisition, analysis, and monitoring provide critical baselines for measuring future changes in ocean and coastal ecosystems, as well as metrics to assess future success or failure of management measures. California has committed to create an integrated ocean observing system that will provide long-term comprehensive data and analyses. California has already committed $21 million dollars to the development of an ocean currents monitoring system (major component of an ocean observation system) and Governor Schwarzenegger has requested additional funding to support these efforts.

- **Support and expand ocean observing and monitoring programs**. The OPC will support the creation of a state sponsored entity to work with the federal Integrated Ocean Observing System (IOOS) and their designated Regional Associations (RAs). California needs to continue its leadership in the development and implementation of these observing systems which will provide information important to oil spill cleanup, marine life management, and search and rescue operations.

- **Complete a high-resolution statewide sea floor map of habitat and substrate.** The OPC sponsored a workshop and development of a plan of how the state can complete sea floor mapping statewide. The OPC also funded marine mapping of the Northern Central California coast. The OPC will continue to pursue funding and partnerships to complete sea floor maps on all state waters. This mapping will help serve efforts to manage fisheries, other forms of marine life management, and coastal sediments.

- **Support ocean and coastal research.** The OPC will continue its support of research that addresses ocean and coastal management issues through its partnership with California's Sea Grant programs. The combination of federal, state, and other funding sources to carry out these research programs in collaboration with institutions like Sea Grant provide value-added approaches to meeting California's ocean research needs.

Appendix A. Potential Actions

The potential actions contained in this Appendix provide a preliminary assessment of activities that the OPC could pursue to address the goals and priorities identified in Section III. In collaboration with OPC staff, the State Agency Steering Committee will advise the OPC regarding immediate actions. The Science Advisory Team will be consulted regarding scientific questions, and stakeholders will be consulted throughout the process.

The level and nature of OPC support for each of these actions will vary. The OPC will spearhead some, dedicating both staff and capital resources, but a number of these actions will be lead by other government or non-governmental organizations with support from the OPC. An initial assessment of the OPC role for each action can be found in Appendix B.

The OPC will work with necessary agencies and local and regional organizations to accomplish these goals and achieve significant improvements in the ocean and coastal environment over the next five years. An initial assessment of the lead agencies for each action can be found in Appendix C.

The OPC staff has developed this plan based on feedback from council members, relevant agencies, and stakeholders. The staff held focus sessions, workshops, and interviews to solicit comments on the draft plan. A list of workshop attendees and other individuals who provided comment can be found in Appendix D.

A. Ocean and Coastal Ecosystems

PROTECT AND RESTORE VALUABLE MARINE HABITATS AND SPECIES

1. Create, test, and implement ecosystem-based management (EBM) approaches.

a) Develop and implement three or more pilot EBM projects (such as the Morro Bay EBM Program) to help manage entire ecosystems in a comprehensive, adaptive, and holistic manner.

2. Support the Department of Fish and Game (DFG) in the implementation of the Marine Life Protection Act (MLPA).

a) Support the full implementation of the MLPA, expanding the process from the Central region to other areas in the state and provide the necessary resources to enforce these areas.

b) Design and implement a comprehensive MPA monitoring program that can be implemented statewide and that will measure changes in these marine ecosystems and provide information for future management decisions.

3. Prevent and minimize the harmful effects of invasive species on native populations and habitats and eradicate invasive species where possible.

a) Complete the California Aquatic Invasive Species (AIS) Management Plan and the state rapid response plan by November 2006 and support their full implementation, including necessary control, eradication, coordination, research, and enforcement. Implement the California Noxious and Invasive Weed Action Plan and support its full implementation along with other invasive species plans for coastal areas.

b) Improve regulatory coordination and enforcement to prevent or quickly respond to invasive species introductions. Establish a rapid response emergency fund for coastal invasive species in areas determined to be a high priority for response.

c) Improve research and data collection on invasive species and coordinate information dissemination on coastal invasions.

4. Enhance and restore intertidal and subtidal habitats.

a) Test different management regimes for protecting tidepools and rocky intertidal habitat, and establish best management practices based on these investigations.

b) Implement ten subtidal restoration projects including eelgrass, kelp, native oyster or other subtidal habitats.

c) Complete the San Francisco Bay Subtidal Habitat Goals Project by June 2008 and support full implementation of its recommendations. Initiate similar restoration planning projects in key bays and estuaries at representative locations along the coast, such as Humboldt Bay or Tomales Bay.

d) Integrate the San Francisco Bay Subtidal, Baylands, and Uplands Habitat Goals projects to develop a comprehensive protection and restoration plan for the Bay Area.

5. Complete planning and begin implementation for restoration of at least 30,000 acres of coastal or San Francisco Bay wetlands.

a) Complete planning and begin ecosystem-scale wetlands restoration projects (e.g., South Bay Salt Ponds), including adaptive management and monitoring.

b) Support the work of the Southern California Wetlands Recovery Project, San Francisco Bay Joint Venture, Pacific Coast Joint Venture, and other regional restoration coordination efforts.

6. Restore habitat connectivity and quality within coastal watersheds.

a) Complete planning for the restoration of rivers and stream corridors to promote the recovery of native salmonid species, and remove high priority barriers to fish passage. Support large-scale dam removal and associated watershed restoration projects that require additional funds to complete, such as Matilija Dam, Rindge Dam, and San Clemente Dam. Examine the removal of dams on the Klamath River to determine future state roles, and consider restoring the Klamath River as a keystone project.

b) Develop rapid assessments or inventory procedures for watersheds to facilitate prioritization of watershed projects where a comprehensive assessment is not feasible. Investigate and recommend future policies to protect streams and watersheds.

c) Install and establish a system for long-term maintenance of stream gauges statewide. Determine flow rates necessary to protect water quality in coastal lagoons and estuaries consistent with the water pollution control policies of the Regional Water Boards.

ACHIEVE SUSTAINABLE FISHERIES

7. Support the Department of Fish and Game in the implementation of the Marine Life Management Act (MLMA).

a) Support the full implementation of the MLMA, including completion of priority stock assessments and fishery management plans, and enforcement of regulations. Support cooperative research and facilitate data sharing among fishers, academics, and agency personnel to enhance DFG stock assessments and other regulatory decisions.

b) Research and pursue regulatory and legislative changes needed to restructure the DFG fee system.

c) Install new technologies for permitting, such as electronic licensing for commercial and recreational fishers, and investigate and implement new technologies for enforcing regulations.

8. Investigate and support innovative economic approaches for recovering fish stocks and fisheries.

a) Develop a Sustainable Fisheries Capitol Fund or similar strategy that will rationalize fishing effort and incentives, and develop new fishing techniques to reduce bycatch.

b) Investigate the feasibility of various sustainable fishery management approaches, such as vessel buybacks, different quota systems, and limited entry programs. Encourage the development of sustainable fishing gear.

c) Investigate the potential for consumer-oriented market approaches, such as a California sustainable seafood certification program or direct-to-consumer sustainable seafood markets.

B. COASTAL WATER QUALITY

IMPROVE COASTAL WATER AND SEDIMENT QUALITY

9. Reduce or eliminate point and non-point source pollution.

a) Support the State's coastal point and non-point source pollution control programs. Initiate innovative approaches to address non-point source pollution, and encourage new technologies to improve storm water management. Promote source control through improved public information and low impact development.

b) Improve enforcement of Clean Water Act and Porter Cologne Act by increasing enforcement staff at State and Regional Water Boards.

c) Reduce sediment, nutrient, and chemically laden runoff due to forestry, viticulture, and agricultural operations through acquisition of property interests, voluntary certification programs, and grant programs to install source controls.

d) Support local governments in addressing land use planning issues affecting marine and coastal water quality, including updating local coastal programs.

10. Protect human and wildlife health through improvements in water quality monitoring, testing, and advance warning.

a) Investigate options for detection and treatment of pharmaceuticals, pathogens, and endocrine disruptors in wastewater and runoff.

b) Promote improved monitoring and forecasting of harmful algal blooms to provide advance warning of possible beach closures.

c) Investigate solutions to methyl-mercury contamination in the food chain and improve public education on the potential health risks.

11. Establish sediment quality objectives to protect benthic communities, wildlife, and human health for all bays and estuaries.

a) Support investigations of long-term chronic effects of in-place contaminants.

b) Develop consistent statewide standards for sediment testing, including testing for chemicals like PBDE and butyltins.

12. Reduce or eliminate point source pollution from vessels.

a) Work with the U.S. EPA and NOAA toward the prohibition of sewage and graywater disposal from ocean-going ships and large passenger vessels.

b) Promote the use of alternatives to anti-fouling chemicals used on vessels.

c) Support clean marinas and improve water quality at harbors.

REDUCE COASTAL AND MARINE DEBRIS

13. Reduce marine debris and its impacts to ocean ecosystems.

a) Support the implementation of the 2006 California Marine Debris Action Plan, including the creation of a state Interagency Task Force on Litter and Marine Debris.

b) Promote and expand the Adopt-a-Beach program and Coastal Cleanup Day.

c) Support and expand the California Derelict Fishing Gear Program, in cooperation with the fishing community, to reduce impacts from lost commercial and recreational fishing gear.

C. Beaches and Coastal Hazards

PLAN FOR HEALTHY BEACHES AND COASTAL HAZARDS

14. Complete and implement the California Sediment Master Plan by June 2007.

a) Support beach nourishment using opportunistic and alternative sand sources than can be exploited with minimal environmental impacts, and implement projects to restore natural flows of sediment.

15. Address climate change and other hazards to prevent loss of life and minimize coastal property loss.

a) Investigate the long-term impacts of climate change and develop statewide adaptive management policies that will minimize these potential impacts.

b) Support statewide tsunami preparedness, supported by seafloor maps and current model data.

D. Economic Uses of the Ocean

PROMOTE SUSTAINABLE APPROACHES TO ECONOMIC USES

16. Encourage environmentally sustainable economic activity, while seeking to eliminate or reduce the impacts from existing or emerging economic uses.

a) Prepare policy responses and address conflicts between state and federal authorities relating to off-shore development proposals such as liquefied natural gas (LNG) terminals, and open ocean aquaculture.

b) Collaborate with state regulatory and contracting agencies to recommend actions that address the environmental impacts of existing coastal power plants that use once-through cooling technology.

c) Review proposals for co-locating other offshore industries with existing offshore oil platforms and for decommissioning aging platforms to determine potential impacts to coastal and marine resources.

17. Increase public access to and along the shoreline, while balancing recreational use with protection of intertidal and coastal strand ecosystems.

a) Develop and implement strategies to balance increasing recreational beach access with resource protection. Implement three projects to determine the impacts of various management techniques in representative locations.

b) Acquire, and/or construct at least 100 miles of the California Coastal Trail and at least 50 miles of the San Francisco Bay Trail. Open at least 25 new public accessways to the shoreline and construct or retrofit 25 accessways to the shoreline for the mobility impaired.

c) Complete the San Francisco Bay Area Water Trail Plan by January 2008 and begin construction of associated infrastructure. Investigate options for water trails in other coastal locations.

d) Construct three or more interpretive nature centers associated with the coast, ocean, or watersheds.

18. Restore urban waterfronts and ports for economic uses such as commerce and tourism.

a) Develop port and harbor infrastructure and diversify their functions (e.g., fishing, research, tourism, and public access).

b) Assist ports by developing innovative and/or beneficial disposal of dredge materials, and support efforts to improve water and air quality.

c) Promote exhibits, festivals, displays, museums, and educational centers interpreting natural, maritime, and military history associated with the California coast and ocean.

19. Ensure the health and sustainability of leased submerged tidelands.

a) Inventory existing commercial leases of state-owned submerged tidelands and assess the adequacy of standards, practices, and resource protection for these areas. Recommend changes as necessary to current laws and regulations that will ensure adequate protection and valuation of these resources.

E. EDUCATION, OUTREACH, AND STEWARDSHIP

PROMOTE OCEAN AWARENESS AND STEWARDSHIP

20. Elevate public awareness of ocean and coastal issues and encourage a sense of individual responsibility.

a) Coordinate and launch a statewide ocean awareness campaign with the assistance of federal partners and the Ocean Communicators Alliance.

b) Support environmental education for children and adults, including docent programs, nature and interpretive centers, bilingual education, live webcasts to schools, and on-the-water ocean experiences.

21. Enhance ocean education and access to ocean and coastal information.

a) Support the CalEPA Education and Environment Initiative (EEI) process, and work with other state and federal organizations (such as the COSEE centers and the National Ocean Literacy Initiative), to bring ocean and coastal disciplines in the K-12 model curriculum and continuing education programs and to monitor and evaluate the effectiveness of these acts.

b) Revitalize and maintain the State's ocean website (CalOcean) to provide a comprehensive portal to ocean and coastal related information. Include a database of non-government organizations and ocean-oriented educational organizations and provide a clearinghouse for sharing informational and educational materials.

F. RESEARCH AND MONITORING

IMPROVE UNDERSTANDING OF OCEAN AND COASTAL ECOSYSTEMS

22. Create a state-sponsored ocean observing organization that will work with the Regional Associations (RAs) and other entities to strategically plan and build an integrated ocean observing system in California.

a) Within one year, complete a statewide management information needs assessment that will guide the development of future ocean observing systems.

b) Develop and implement a comprehensive state or regional approach for acquiring, managing, and disseminating observing data in a way that is responsive to management priorities and numerous stakeholders. Work to integrate data collection techniques between the California RAs, and among the Californian systems, the pacific regional systems, and the national IOOS.

c) Complete installation of the Coastal Ocean Currents Monitoring Program (COCMP) and ensure it is fully maintained and coordinated with other state and regional observing system components.

23. Coordinate and expand existing ocean observation systems, monitoring programs, and data management capabilities, and support continued operations and necessary improvements.

a) Coordinate and expand existing ocean observation and monitoring programs such as Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO), Cooperative Research and Assessment of Nearshore Ecosystems (CRANE), California Cooperative Oceanic Fisheries Investigation (CalCOFI), and other regional, long-term data collection efforts.

b) Establish a mechanism or organization to provide data synthesis services with the goal of assembling scientific results from state and national efforts and producing products for diverse scientific, public, and policy audiences.

24. Complete mapping of high priority areas in California state waters and work with the federal government to map essential areas of federal waters. Mapping includes data acquisition, interpretation, and creation of habitat maps.

a) Implement the recommendations from the December 2006 Statewide Marine Mapping Planning Workshop and Report, and require all future mapping projects to use standards identified in the Workshop Report.

b) Develop and maintain state and federal partnerships to leverage investment in mapping projects.

c) Develop and implement a system for data management and a standardized approach to the format and distribution of mapping products.

25. Provide annual funding for research that will address priority management needs.

a) Work with the California Sea Grant Programs to review and award grants that meet the OPC guidelines and priorities.

Appendix B. OPC Potential Roles for Implementing Actions

The OPC will assume differing roles in implementing the priorities identified in Section III and in each of the specific actions detailed in Appendix A. These roles are defined below and are listed for each of the actions in the table that follows. The roles employ the "Tools to Implement COPA" in Section II: Coordination, Collaboration, and Integration; Science and Education; and Funding. The table specifies the potential role and level of OPC participation.

Coordination, Collaboration, and Integration

Lead: The OPC will take a lead role in the development and operation of standing advisory committees or processes through the State Agency Steering Committee. The OPC may take the lead in developing other committees or processes to bring about sharing of information, coordinated and integrated action, law and policy development, and public participation in decision-making.

Support: The OPC will participate in committees or processes. The OPC may appoint one or more of its members to, or its staff will participate in, committees, workgroups, or task forces created by other entities. This will bring the OPC's broad perspective, network of organizations, and the possibility of OPC funding, to these ventures.

Science and Education

Lead: The OPC will take a lead role in funding or initiating scientific investigations and the development of technology. The OPC will initiate scientific studies, technology development, or economic or policy analysis in order to resolve issues relating to protection or management of the coastal and ocean environment. As funds permit, it will sponsor basic and applied science, and will seek to integrate science and policy through grant programs and by sponsoring conferences, symposia, and other formal or informal scientific meetings. The OPC will take a lead role in public education and outreach concerning ocean issues or projects.

Support: The OPC will participate in scientific investigations and technology development. The OPC will appoint members to, or OPC staff or consultants will participate in, scientific meetings, investigations, and conferences convened by other organizations to solve priority coastal and ocean protection and management issues. The OPC will participate in public education through supporting the development of education programs or outreach efforts and materials by other entities.

Funding

Direct: The OPC will make direct expenditures. The OPC has received funds for a wide range of purposes through appropriations to the Resources Agency, Coastal Conservancy, and the State Water Resources Control Board. Other departments are considering making funds available for OPC-directed purposes. To the extent available,

the OPC will provide such funds to public agencies, NGOs, and other parties, through grants, contracts, and interagency agreements.

Indirect: The OPC will provide support for other parties to receive funds. Using this and other plans as a guide, the OPC will help develop and support budget proposals for other State departments and will assist in negotiating such proposals through the Resources Agency, CalEPA, the Department of Finance, and the Legislature. It will investigate new funding sources, develop cross-cutting budgets, and promote efficient and effective use of existing funds. It may propose reallocation of existing funds administratively or through changes in law or regulation. It will work to increase federal contributions and funds from foundations.

Action		A. Coordination, Collaboration, and Integration		B. Science and Education		C. Funding	
		Lead	Support	Lead	Support	Direct	Indirect
1a	Develop and implement three or more pilot EBM projects (such as the Morro Bay EBM Program) to help manage entire ecosystems in a comprehensive, adaptive, and holistic manner		X	X	X	X	
2a	Support the full implementation of the MLPA, expanding the process from the Central region to other areas in the state and provide the necessary resources to enforce these areas.		X		X	X	X
2b	Design and implement a comprehensive MPA monitoring program that can be implemented statewide and that will measure changes in these marine ecosystems and provide information for future management decisions.		X		X	X	X
3a	Complete the California Aquatic Invasive Species (AIS) Management Plan and the state rapid response plan by November 2006 and support their full implementation, including necessary control, eradication, coordination, research, and enforcement. Implement the California Noxious and Invasive Weed Action Plan and support its full implementation along with other invasive species plans for coastal areas.	X	X	X	X	X	X
3b	Improve regulatory coordination and enforcement to prevent or quickly respond to invasive species introductions. Establish a rapid response emergency fund for coastal invasive species in areas determined to be a high priority for response.	X	X			X	X
3c	Improve research and data collection on invasive species and coordinate information dissemination on coastal invasions.		X		X	X	X

4a	Test different management regimes for protecting tidepools and rocky intertidal habitat, and establish best management practices based on these investigations.		X		X	X	
4b	Implement ten subtidal restoration projects including eelgrass, kelp, native oyster or other subtidal habitats.		X		X	X	
4c	Complete the San Francisco Bay Subtidal Habitat Goals Project by June 2008 and support full implementation of its recommendations. Initiate similar restoration planning projects in key bays and estuaries at representative locations along the coast, such as Humboldt Bay or Tomales Bay		X		X	X	X
4d	Integrate the San Francisco Bay Subtidal, Baylands, and Uplands Habitat Goals projects to develop a comprehensive protection and restoration plan for the Bay Area.		X			X	X
5a	Complete planning and begin ecosystem-scale wetlands restoration projects (e.g., South Bay Salt Ponds), including adaptive management and monitoring		X	X	X	X	X
5b	Support the work of the Southern California Wetlands Recovery Project, San Francisco Bay Joint Venture, Pacific Coast Joint Venture, and other regional restoration coordination efforts		X		X	X	X
6a	Complete planning for the restoration of rivers and stream corridors to promote the recovery of native salmonid species, and remove high priority barriers to fish passage. Support large-scale dam removal and associated watershed restoration projects that require additional funds to complete, such as Matilija Dam, Rindge Dam, and San Clemente Dam. Examine the removal of dams on the Klamath River to determine future state roles, and consider restoring the Klamath River as a keystone project.		X		X	X	X
6b	Develop rapid assessments or inventory procedures for watersheds to facilitate prioritization of watershed projects where a comprehensive assessment is not feasible. Investigate and recommend future policies to protect streams and watersheds.		X		X	X	X
6c	Install and establish a system for long-term maintenance of stream gauges statewide. Determine flow rates necessary to protect water quality in coastal lagoons and estuaries consistent with the water pollution control policies of the Regional Water Boards		X		X	X	X

7a	Support the full implementation of the MLMA, including completion of priority stock assessments and fishery management plans, and enforcement of regulations. Support cooperative research and facilitate data sharing among fishers, academics, and agency personnel to enhance DFG stock assessments and other regulatory decisions		X	X	X	X	X
7b	Research and pursue regulatory and legislative changes needed to restructure the DFG fee system	X	X				
7c	Install new technologies for permitting, such as electronic licensing for commercial and recreational fishers, and investigate and implement new technologies for enforcing regulations		X	X	X	X	X
8a	Develop a Sustainable Fisheries Capitol Fund or similar strategy that will rationalize fishing effort and incentives, and develop new fishing techniques to reduce bycatch.	X	X	X	X	X	X
8b	Investigate the feasibility of various sustainable fishery management approaches, such as vessel buybacks, different quota systems, and limited entry programs. Encourage the development of sustainable fishing gear	X	X	X	X	X	X
8c	Investigate the potential for consumer-oriented market approaches, such as a California sustainable seafood certification program or direct-to-consumer sustainable seafood markets.	X	X	X	X	X	
9a	Support the State's coastal point and non-point source pollution control programs. Initiate innovative approaches to address non-point source pollution, and encourage new technologies to improve storm water management. Promote source control through improved public information and low impact development		X		X	X	X
9b	Improve enforcement of Clean Water Act and Porter Cologne Act by increasing enforcement staff at State and Regional Water Boards		X				X
9c	Reduce sediment, nutrient, and chemically laden runoff due to forestry, viticulture, and agricultural operations through acquisition of property interests, voluntary certification programs, and grant programs to install source controls	X	X	X	X	X	X
9d	Support local governments in addressing land use planning issues affecting marine and coastal water quality, including updating local coastal programs		X		X	X	X

10a	Investigate options for detection and treatment of pharmaceuticals, pathogens, and endocrine disruptors in wastewater and runoff	X	X		X	X	X
10b	Promote improved monitoring and forecasting of harmful algal blooms to provide advance warning of possible beach closures	X	X		X	X	X
10c	Investigate solutions to methyl-mercury contamination in the food chain and improve public education on the potential health risks		X	X	X	X	X
11a	Support investigations of long-term chronic effects of in-place contaminants.		X		X	X	X
11b	Develop consistent statewide standards for sediment testing, including testing for chemicals like PBDE and butyltins		X		X	X	X
12a	Work with the U.S. EPA and NOAA toward the prohibition of sewage and graywater disposal from ocean-going ships and large passenger vessels	X	X		X	X	
12b	Promote the use of alternatives to anti-fouling chemicals used on vessels		X		X	X	
12c	Support clean marinas and improve water quality at harbors		X		X	X	
13a	Support the implementation of the 2006 California Marine Debris Action Plan, including the creation of a state Interagency Task Force on Litter and Marine Debris		X		X	X	X
13b	Promote and expand the Adopt-a-Beach program and Coastal Cleanup Day		X		X	X	X
13c	Support and expand the California Derelict Fishing Gear Program, in cooperation with the fishing community, to reduce impacts from lost commercial and recreational fishing gear	X	X	X	X	X	X
14a	Support beach nourishment using opportunistic and alternative sand sources than can be exploited with minimal environmental impacts, and implement projects to restore natural flows of sediment		X		X	X	X
15a	Investigate the long-term impacts of climate change and develop statewide adaptive management policies that will minimize these potential impacts	X	X	X	X	X	X
15b	Support statewide tsunami preparedness, supported by seafloor maps and current model data		X		X	X	X
16a	Prepare policy responses and address conflicts between state and federal authorities relating to off-shore development proposals such as liquefied natural gas (LNG) terminals, and open ocean aquaculture	X	X	X	X		

16b	Collaborate with state regulatory and contracting agencies to recommend actions that address the environmental impacts of existing coastal power plants that use once-through cooling technology	X	X	X	X	X	X
16c	Review proposals for co-locating other offshore industries with existing offshore oil platforms and for decommissioning aging platforms to determine potential impacts to coastal and marine resources	X	X	X	X	X	
17a	Develop and implement strategies to balance increasing recreational beach access with resource protection. Implement three projects to determine the impacts of various management techniques in representative locations		X		X	X	X
17b	Acquire, and/or construct at least 100 miles of the California Coastal Trail and at least 50 miles of the San Francisco Bay Trail. Open at least 25 new public accessways to the shoreline and construct or retrofit 25 accessways to the shoreline for the mobility impaired		X		X	X	X
17c	Complete the San Francisco Bay Area Water Trail Plan by January 2008 and begin construction of associated infrastructure. Investigate options for water trails in other coastal locations		X		X	X	X
17d	Construct three or more interpretive nature centers associated with the coast, ocean, or watersheds		X	X	X	X	X
18a	Develop port and harbor infrastructure and diversify their functions (e.g., fishing, research, tourism, and public access).		X		X	X	X
18b	Assist ports by developing innovative and/or beneficial disposal of dredge materials, and support efforts to improve water and air quality		X		X	X	X
18c	Promote exhibits, festivals, displays, museums, and educational centers interpreting natural, maritime, and military history associated with the California coast and ocean	X	X	X	X	X	X
19a	Inventory existing commercial leases of state-owned submerged tidelands and assess the adequacy of standards, practices, and resource protection for these areas. Recommend changes as necessary to current laws and regulations that will ensure adequate protection and valuation of these resources.		X				X

20a	Coordinate and launch a statewide ocean awareness campaign with the assistance of federal partners and the Ocean Communicators Alliance	X	X	X	X	X	X
20b	Support environmental education for children and adults, including docent programs, nature and interpretive centers, bilingual education, live webcasts to schools, and on-the-water ocean experiences		X		X	X	
21a	Support the CalEPA Education and Environment Initiative (EEI) process, and work with other state and federal organizations (such as the COSEE centers and the National Ocean Literacy Initiative), to bring ocean and coastal disciplines in the K-12 model curriculum and continuing education programs and to monitor and evaluate the effectiveness of these acts.		X		X	X	
21b	Revitalize and maintain the State's ocean website (CalOcean) to provide a comprehensive portal to ocean and coastal related information. Include a database of non-government organizations and ocean-oriented educational organizations and provide a clearinghouse for sharing informational and educational materials	x	X	X	X	X	
22a	Within one year, complete a statewide management information needs assessment that will guide the development of future ocean observing systems	X	X	X	X	X	X
22b	Develop and implement a comprehensive state or regional approach for acquiring, managing, and disseminating observing data in a way that is responsive to management priorities and numerous stakeholders. Work to integrate data collection techniques between the California RAs, and among the Californian systems, the pacific regional systems, and the national IOOS	X	X	X	X	X	X
22c	Complete installation of the Coastal Ocean Currents Monitoring Program (COCMP) and ensure it is fully maintained and coordinated with other state and regional observing system components	X	X	X	X	X	X
23a	Coordinate and expand existing ocean observation and monitoring programs such as Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO), Cooperative Research and Assessment of Nearshore Ecosystems (CRANE), California Cooperative Oceanic Fisheries Investigation (CalCOFI), and other regional, long-term data collection efforts		X		X	X	X

23b	Establish a mechanism or organization to provide data synthesis services with the goal of assembling scientific results from state and national efforts and producing products for diverse scientific, public, and policy audiences	X	X	X	X	X	X
24a	Implement the recommendations from the December 2006 Statewide Marine Mapping Planning Workshop and Report, and require all future mapping projects to use standards identified in the Workshop Report	X	X	X	X	X	X
24b	Develop and maintain state and federal partnerships to leverage investment in mapping projects	X	X	X	X	X	X
24c	Develop and implement a system for data management and a standardized approach to the format and distribution of mapping products	X	X	X	X	X	X
25a	Work with the California Sea Grant Programs to review and award grants that meet the OPC guidelines and priorities	X	X	X	X	X	X

Appendix C: Key Agencies

This appendix is currently in progress. It will include a table identifying the lead and major partner agencies anticipated for the actions specified in Section III and Appendix A.

Appendix D. Stakeholder Participants in OPC Workshops and Meetings, January-March 2006

Below are the lists of OPC members, agency personnel, and stakeholders that the staff met with to gather ideas for the draft plan. In addition to speaking with these people directly, the OPC has received 26 letters providing written comment on the draft strategic plan. These letters, along with any letters providing comment on this draft, will be listed in the final plan.

Northern California NGO meeting—San Francisco, February 1

Teri Shore	Bluewater Network
Mike Connor	San Francisco Estuary Institute
Jim Curland	Defenders of Wildlife
Rod Fujita	Environmental Defense
Marilyn Latta	Save the Bay
Mark Massara	Sierra Club
Jaime Kooser	San Francisco State University, Tiburon Center
Tim Eichenberg	The Ocean Conservancy
Grant Davis	The Bay Institute
Kate Wing	Natural Resources Defense Council
Linda Sheehan	Coastkeeper Alliance

Southern California NGO Meeting—Santa Monica, February 9

Mark Gold	Heal the Bay
Leslie Mintz	Heal the Bay
Chris Knight	Reef Check
Edward Cassano	Aquarium of the Pacific
Greg Helms	Ocean Conservancy
Chuck Cook	The Nature Conservancy
Mati Waiya	Venture Coastkeeper. Wishtoyo Foundation
Tracy Egoscue	Santa Monica Baykeeper
Aida Navarro	Wildcoast
Phyllis Grifman	USC Sea Grant Program
Fay Crevoshy	Wildcoast

Science Focus Group Meeting—San Jose, March 1

Dr. Loo Botsford	UC Davis
Dr. Gary Griggs	UC Santa Cruz
Dr. Rikk Kvitek	CSU Monterey Bay
Shauna Oh	UC Sea Grant Program
Dr. Jeff Paduan	Naval Postgraduate School
Dr. Linwood Pendleton	UC Los Angeles

Southern California Public Workshops—Los Angeles, March 22

Richard J. Lindemann	Kapolei High School
Scott Lines	City of Long Beach, Stormwater Management Program
Douglas Campbell	Campbell and Campbell
George L. Robertson	Orange County Sanitation District
Gail Osherenko	UC Santa Barbara
Charlie Saylan	Ocean Conservation Society
Dr. Maddalena Bearzi	Ocean Conservation Society
Carole Lee Walsh, R.N.	Aw2 Enterprises, Inc.
Chad Nelsen	Surfrider Foundation
David Nelson	Coastal Alliance on Plant Expansion
Dr. Jerry C Wilson	Fugro Pelagos
Susan M. Brodeur, P.E.	County of Orange
Donna Schroeder	UC Santa Barbara
Sarah Dunsford	NOAA
David Jacobs	UC Los Angeles
Joe Geever	Surfrider Foundation
David Kushner	Channel Islands National Park
Kate Faulkner	Channel Islands National Park
Jonathan Phinney	NOAA
Sarah Richardson	Heal the Bay

Northern California Public Workshops—Sausalito, March 23

Dave Colpo	Pacific States Marine Fisheries Commission
Mark Hixon	Oregon State University
Jodi L. Cassell	California Sea Grant Extension
Amy Dean	Farallones Marine Sanctuary Association
Claire Thorp	National Fish and Wildlife Foundation
Carol Keiper	Oikonos Ecosystem Knowledge
Dirk Rosen	Marine Applied Research & Exploration
Miriam Gordon	California Coastal Commission
Michelle Chow	Ocean Discovery!
Vic Chow	Ocean Discovery!
Tina Swanson, Ph.D.	The Bay Institute
Bucky Mace	
Rebecca Verity	Science & Technology Program Coordinator UC Office of the President
Ted Grosholz	UC Davis
Adrianne Harrison	NOAA
Becky Smyth	NOAA
Rudy Murillo	UC San Diego
Jennifer L. Palmer, M.S	Marine Conservation Biology Institute
Melinda Dorin	California Energy Commission
Brenna Langabeer Schlagenhauf	PRBO Conservation Science
Richard Charter	National OCS Coalition
Santi Roberts	Oceana
Jennifer Fox	Energy Solutions

Tom Lambert	Cordell Bank National Marine Sanctuary Advisory Council
Angela Haren	California Coastkeeper Alliance
Len Materman	American's River Commodities
Conner Everts	Desal Response Group
Kate Bonzon	
Karen Wolowicz	Redefining Progress
Bob Spies	Applied Marine Sciences
Jim Haussenur	CMANC (California Marine Affairs and Navigation Conference)
Robert Ovetz	Turtle Island Restoration
Jan Roletto	Gulf of Farallones Natural Marine Sanctuary
Judd Boomhower	Environmental Defense
Ted Groshdz	UC Davis
Mike Connor	San Francisco Estuary Institute
Dominic Gregorio	State Water Resources Control Board
Eleanore Rewerts	NCDF
Will Travis	San Francisco Bay Conservation and Development Commission
Toby Garfield	CSU San Francisco
Heather Kerkering	MBARI
Grant Davis	The Bay Institute
Al Wanger	Coastal Commission
Tom Gandesbery	State Coastal Conservancy
Jeff Paduan	National Park Service
Paul Siri	Commonweal Ocean Policy Program
Moira McEnespy	State Coastal Conservancy
Beth Huning	SF Bay Joint Venture
Vincent Huning	Seaman's Training Center
Warner Chabot	The Ocean Conservancy
Vincent Backen	Seamen’s Training Center

Ocean Protection Council Interviews—January-March, 2006

State Agency Interviews

Paul Thayer and Dwight Sanders	State Lands Commission
Sonke Mastrup and Gary Stacey	Department of Fish and Game
Peter Douglas and Al Wenger	Coastal Commission
Dominic Gregorio and Tom Howard	State Water Resources Control Board
Jerry Johns, Rick Soehren, Bill Bennett, and Fawzi Karajeh	Department of Water Resources
David Johnson and Kim Sterrett	Department of Boating & Waterways
Will Travis and Steve McAdam	San Francisco Bay Conservation and Development Commission

OPC Members and Representatives

Assemblymember Pedro Nava and Andrea Graham	Assembly and OPC Ex-officio member
Bill Craven	Office of Senator Sheila Kuehl (Senate and OPC Ex-officio member)
Secretary Allan Lloyd and Ann Baker	CalEPA
Steve Westly, Chair, and Cindy Aronberg	State Lands Commission
Secretary Mike Chrisman	Resources Agency

Others

Jim Hausner	California Marine Affairs and and Navigation Conference
Zeke Grader	Pacific Coast Federation of Fisherman's Associations
Geraldine Knatz	Port of Los Angeles
Tom Raftican	United Anglers of Southern California
Tim Schott	California Association of Port Authorities
Michael Mantell	Resources Law Group
Catherine Reheis-Boyd	Western States Petroleum Association
John Martini	California Independent Petroleum Association
Paul Michel	Coastal America