

May 2, 2005

Brian Baird  
California Resources Agency  
Oceans Program Manager  
1416 9<sup>th</sup> St., 13<sup>th</sup> floor  
Sacramento, CA 95814

Dear Brian,

We want to thank you, California Sea Grant, the UC Marine Council, and the Ocean Science Trust for convening the November 18-19, 2004 meeting in Santa Cruz to discuss the state's ocean research priorities. The meeting provided an excellent opportunity for a broad spectrum of the ocean community to share ideas.

However, we strongly feel that the meeting itself, and the resulting workshop report, should be seen only as a first step towards designing a more focused set of priorities for the state. The workshop structure had some inherent limitations, such as the original division of subject groups. This division gave the impression that the five general topics had already been prioritized as written, and left little opportunity for the development of cross-cutting or interdisciplinary proposals. The groups themselves ended up proposing specific projects, which may indeed be important projects. However, many are both too narrow to be strategic research priorities and too lacking in detail to be free-standing pilot projects on their own.

Rather than picking one of these specific projects and building a research strategy from it, it may be more appropriate for the state to pick certain research emphases and use these as themes for competitive grantmaking and integrated projects that draw on a broad array of public and private resources. We would also suggest that the state bring together a small group of workshop participants to help draft a state-wide science strategy once comments on this draft are received.

This additional meeting should also consider the priorities for pilot projects outlined in the California Ocean Protection Act. We believe these pilot projects are the appropriate place for a high degree of specificity, rather than in a statewide ocean research strategy. To that end, we have submitted a list of possible research projects to the Ocean Protection Council, which draw on themes expressed in the Governor's Ocean Plan. That list is attached in case it may be useful as you develop your research priorities.

We appreciate your dedication to this project and look forward to helping you as it moves forward.

Sincerely,

Kate Wing NRDC	Linda Sheehan California Coastkeeper Alliance	Burr Heneman Commonweal	Rod Fujita Environmental Defense
-------------------	---	----------------------------	-------------------------------------

cc: Leah Akins  
Justin Malan  
Gary Griggs

# FUNDING THE OCEAN: A STRATEGY FOR SUCCESS

*California has long been a leader in ocean science, conservation, and management. The state should continue its leadership by improving and expanding ocean initiatives in the near term and to creating stable, long-term funding for the future. We offer these recommendations as a strategy for success. May 2, 2005*

Chuck Cook, The Nature Conservancy  
Tim Eichenberg, The Ocean Conservancy  
Rod Fujita, Environmental Defense  
Burr Heneman  
Linda Sheehan, California Coastkeeper Alliance  
Kate Wing, NRDC

---

## **NOW IS THE TIME FOR ACTION**

California has become the leader in ocean policy, management, science, and governance in recent years. Today, the legacy of prior conservation laws and regulations is combining with new partnerships and emerging critical needs to create an exceptional opportunity for change.

- The state has begun to apply model policies to maintain or improve both the health of our coastal ecosystems and the economic viability and enjoyment of fisheries that depend on those systems.
- The state is continuing to improve coastal water quality for recreational use and for healthier marine life through its leadership on nonpoint source pollution, invasive species, and special protection for the most ecologically important parts of the coast.
- California is making the largest investment of any state in advanced science for understanding the complex patterns of coastal currents. Integrating that understanding with information from other sources will benefit the full range of the state's coastal ocean management concerns.
- California's new Ocean Protection Act and the high-level Ocean Protection Council it created will bring much-needed coordination and streamlining to the state's ocean resource management.
- Even in tough fiscal times the state is developing mechanisms, such as the Ocean Protection Trust Fund and the Fisheries Revolving Loan Fund, to maintain California's leadership in ocean management and create new models for the sustainable financing of ocean management and conservation.

## THE PROJECTS

The economic and ecological importance of California's coastal ocean make it imperative that the state retain its leadership in ocean policy, management, and science. The needed policies are largely in place. Implementation of most of those policies through management measures and science programs is off to a strong start, but continued leadership will depend on maintaining our momentum. The following project priority list for the Ocean Protection Trust Fund is designed to maintain that leadership:

### 1. Ecosystem-based marine life and fisheries management

#### 1A. Strong science to support fishery and marine protected area management.

Increase nearshore monitoring at the new Channel Islands marine protected areas and at high-priority sites within the Marine Life Protection Act central coast study area through the Cooperative Research and Assessment of Nearshore Ecosystems program (CRANE). CRANE, which is coordinated by the Department of Fish and Game, is a multi-agency and institution monitoring partnership to provide essential information for management of both fisheries and marine protected areas. Through the Coastal Conservancy's Coastal Ocean Observing System program (see below), establish a management system for data from CRANE monitoring and begin immediately to apply CRANE information to fishery and marine protected area management.

#### 1B. Sustainable fisheries financing.

As authorized by the California Ocean Protection Act, create a fisheries revolving loan fund to foster sustainable fisheries and manage fishing capacity. A competitive process would provide loans to fishermen for projects that can demonstrate substantial economic and conservation benefits. Projects could include management reforms to increase efficiency of fishing operations within conservation guidelines; much-needed fleet capacity management; and value-added processing, marketing, and purchasing agreements. Loans would be repaid by the fishermen as fisheries are revitalized, allowing the fund to invest in new projects.

### 2. Coastal water quality/pollution

#### 2A. Water quality monitoring.

Improve coordination and integration of existing coastal and nearshore water quality monitoring by dischargers, agencies and citizens in order to obtain more comprehensive information about the health of nearshore and ocean waters. COPA funds should be used to accelerate efforts at the State Water Board to integrate existing monitoring and to add new monitoring efforts where gaps are evident. This effort shall be coordinated with other marine ecosystem assessment efforts, such as the (see below), through the Coastal Conservancy's Coastal Ocean Observing System program.

#### 2B. Nonpoint source pollution coordination.

Recent studies confirm that polluted runoff significantly harms nearshore marine ecosystems and the marine life that depends on them<sup>1</sup>. COPA funds should be used to implement a pilot project in the Central Coast Regional Water Quality Control Board's

---

<sup>1</sup> See <http://newsservice.stanford.edu/news/2005/march16/gulf-030905.html>

jurisdiction to coordinate efforts among federal, state and local agencies and citizens to control polluted runoff. Lack of coordination has significantly impeded progress towards addressing polluted runoff, which numerous agencies have at least some responsibilities to control. This region is ideal because it is coastal, is affected by a wide range of nonpoint pollution sources (timber, agriculture, septic systems, marinas/boating, urban runoff, etc.), and therefore would bring in a significant number of agencies. The area also includes the Marine Life Protection Act study area and is home to the California sea otter, significant mortalities of which have been traced to land-based pathogens in recent years. The Water Board-Coastal Commission's "Critical Coastal Area" project has identified pilot areas and projects along the Central Coast that are in need of funding, and should be the vehicle for moving this coordination effort forward.<sup>2</sup>

### 2C. Invasive species control and prevention.

In a 2005 University of California study, researchers found that hundreds of non-native species inhabiting the country's coastal waters pose a newly emerging threat that brings aquatic ecosystems closer to an "invasional meltdown." The study, which focused on Bodega Bay, forged new ground by clearly showing indirect effects of invasive species in altering ecosystems, and the danger that poses as the number of invasive species in coastal regions increases. COPA funds should be used to complete and implement the plan for addressing aquatic species that was called for by SB 1573 (Karnette), with a focus on coastal areas at particular risk from direct or indirect impacts of invasive species.

## **3. Integrated coastal ocean observing systems**

### 3A. Complete essential seafloor mapping.

Complete seafloor mapping of high-priority, nearshore state waters, which is needed for fisheries management, marine protected area design, and modeling very nearshore currents that affect beach water quality, sediment transport, and coastal erosion management. High priority areas include beaches with periodic closures related to water quality and the central coast Marine Life Protection Act study area.

### 3B. Initiate the Coastal Ocean Observing System program.

Initiate the Coastal Conservancy's Coastal Ocean Observing System program (CalCOOS) to ensure integration of information from many sources and application of that information to ocean management concerns. First priorities should be applying CRANE and Coastal Ocean Current Monitoring Program information to oil spill response, coastal water quality, marine protected areas, and fisheries management.

---

<sup>2</sup> See <http://www.coastal.ca.gov/nps/ccn-nps.html>

## **BACKGROUND ON CALIFORNIA'S HISTORIC LEADERSHIP**

California is increasingly recognized internationally as a leader in many aspects of ocean resource policy, management, and science, including:

### **1. Ecosystem-based and sustainable marine life and fisheries management**

Under the pioneering Marine Life Management Act (1998) and Marine Life Protection Act (1999), California's standards for marine and fisheries management include recognition that fishing, non-consumptive ocean tourism and recreation, education, and science are all priorities for marine life management; allowing only sustainable fishing or other uses of marine life; precautionary fisheries management to reduce the risk of overfishing; and recognition that a system of marine protected areas is an essential tool for fulfilling all of these management objectives.

Implementation – Highlights of the implementation of these progressive policies include a model ecosystem-based fishery management plan for the nearshore fishery, one of the state's most important; designation of 12 marine protected areas totaling 163 square miles at the Channel Islands; initiation this year of a process to develop a system of marine protected areas for the rest of the California coast; and protection for ecologically important species, such as white sharks, the state's top ocean predator, and krill, an important source of food for many fish, whales, and marine birds.

Ecosystem-based science -- The state and several partners have initiated the model Cooperative Research and Assessment of Nearshore Ecosystems program (CRANE) to support ecosystem-based marine life management. Initiated at the Channel Islands, CRANE is intended to provide the ecosystem information for the entire coast needed for both fisheries management and marine protected area evaluation.

### **2. Coastal water quality and pollution**

Non-point source pollution – California is the only state to mandate controls on agricultural and logging runoff, and the state has begun to develop and implement controls on runoff dischargers. Under the Schwarzenegger Administration, the state has assigned dozens of new staff to this critical problem and will be paying for those staff through fees on the dischargers, another first in the nation.

Marine invasive species from ballast water – California was the first state in the nation to mandate controls of ballast water discharges from vessels to protect against the economic and ecological impacts of new marine invasive species. California's law was quickly hailed as a model and adopted by neighboring Washington and Oregon, and is spurring the establishment of stronger controls at the federal level. Under the current Administration, the State Lands Commission has been working with neighboring states to develop consistent regulations on ballast water discharges from vessels traveling along the coast; these regulations are currently out for public review.

Pollution controls for high priority coastal areas – Under the Schwarzenegger Administration, California has taken the lead on ecosystem-based management by

beginning to enforce in earnest the state's ban on pollution discharges into 34 of the state's most ecologically important areas in the nearshore environment (Areas of Special Biological Significance (ASBS)). The Administration has also supported current efforts to identify "critical coastal areas" that drain to important marine ecosystems such as the 34 ASBSs, and to fund pilot programs to integrate land management in those coastal watersheds with the health of the downstream marine ecosystems.

### **3. Integrated coastal ocean observing systems**

The US Commission on Ocean Policy and the Pew Oceans Commission both urged progress in integrated ocean observing systems (IOOS) that take advantage of both existing monitoring programs and new, cost-effective technologies. The state's many outstanding marine science programs have made California an IOOS leader since launching the California Cooperative Oceanic Fisheries Investigations (CalCOFI) over 50 years ago. We have many other statewide and regional examples of existing biological, physical, and chemical long-term monitoring systems that provide useful information, such as sea surface temperature, beach water quality, wave height, winds, ocean productivity, extent of kelp forest canopy, and annual juvenile rockfish production. Information is gathered from technologies as diverse as satellites, instrumented buoys, and visual surveys by scuba divers. The challenge for the 21<sup>st</sup> century is to integrate information from these and other observing systems and to ensure that the information is available in usable form for management agencies, industry, and the general public. California is making great progress in expanding the scope and effectiveness of its IOOS infrastructure with these new programs:

Surface current mapping – The Coastal Ocean Current Monitoring Program (COCMP) is the backbone of an eventual statewide integrated coastal ocean observing system designed to fit into a national system. This administration has put more funding into IOOS through COCMP than any state and more into surface current monitoring than the federal government. Coastal current monitoring will eventually be useful for a wide range of state ocean management concerns, including beach water quality, coastal processes such as beach erosion, fisheries management, evaluation and design of marine protected areas, oil spill response, safety for recreational boaters, efficiency of maritime shipping operations, Coast Guard search and rescue, and others.

Tracking nearshore ecosystem health – The Cooperative Research and Assessment of Nearshore Ecosystems program (CRANE) will become the source of basic ecological information to support both fisheries and marine protected area management in the nearshore. Begun at the Channel Islands, CRANE is a partnership between the Department of Fish and Game and University of California, California State University, and other marine scientists.

Making existing information more useful – California Coastal Ocean Observing System (CalCOOS) embodies the state's interests in coordination, funding, data management, and useful applications in regard to the many long-term coastwide or regional observing programs that are useful for management agencies, industry, or the general public. CalCOOS will be the key for achieving broad, coast and ocean ecosystem-based management by supporting marine life and fisheries management, beach water quality

monitoring, coastal erosion studies, oil spill response, marine aquaculture, and other concerns. This administration has charged the State Coastal Conservancy with designing and implementing CalCOOS. The initial high priorities for CalCOOS are to help ensure that information from CRANE and COCMP are accessible and useful.