

CALIFORNIA OCEAN  
PROTECTION COUNCIL

Staff Recommendation  
November 28, 2006

**Central Coast Marine Protected Area Monitoring**

Developed By: Marina Cazorla

**RECOMMENDED ACTION:** Consideration of the Central Coast Marine Protected Area Monitoring project, involving data acquisition, fieldwork, monitoring and socio-economic research in Central Coast marine protected areas designated under the Marine Life Protection Act, and possible: 1) determination that it is a high priority project and 2) authorization for the Secretary to take actions needed to provide up to \$2,275,000 for its planning or implementation.

**OCEAN or COASTAL LOCATION:** Central Coast, in state waters

**AGENCY OR ENTITY RECOMMENDING PROJECT:** State Coastal Conservancy, California Resources Agency, California Department of Fish and Game, California Sea Grant

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**EXHIBITS**

Exhibit 1: Fish and Game Commission preferred alternative maps for Central Coast MPAs

Exhibit 2: Letters of Support

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**RESOLUTION:**

“The Ocean Protection Council finds pursuant to Sections 35600 *et seq.* of the Public Resources Code that the Central Coast Marine Protected Area Monitoring project, as herein described, is of high priority for ocean conservation and authorizes the Secretary to take actions necessary for its planning or implementation, including the allocation of up to \$2,275,000 for the purposes of this project.”

**PROJECT DESCRIPTION:**

Staff recommends that the Ocean Protection Council authorize an initial monitoring program for Central Coast marine protected areas (MPAs) pending their designation under the Marine Life Protection Act. The proposed project anticipates a grant of \$2,275,000 to the Regents of the University of California for the California Sea Grant College Program (Sea Grant) to oversee and contract for fieldwork and data acquisition for Central Coast MPAs, including socio-economic research. Data will be collected in priority habitat types, inside MPAs and in appropriate control areas, using various geo-referenced methods and technologies. The focus will be on acquisition

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of baseline data for Central Coast MPAs that can be used in the future for adaptive management and to assess compliance with the goals and objectives of the Marine Life Protection Act.

### **Background**

The Marine Life Protection Act was passed by the California legislature in 1999 (Chapter 10.5 of the California Fish and Game Code, Sections 2850 - 2863) and required the California Department of Fish and Game (CDFG) to develop a plan for establishing a network of MPAs in California state waters to protect habitats and preserve ecosystem integrity, among other things. The MLPA required a comprehensive master plan which approaches MPA selection and design on a regional basis through “study regions.” The Central Coast (defined as Pigeon Point to Point Conception) was selected as the first MLPA study region.

In August 2004, the California Resources Agency, CDFG, and the Resource Legacy Fund Foundation signed a Memorandum of Understanding launching the MLPA Initiative, which in turn established the MLPA Blue Ribbon Task Force, a Science Advisory Team (SAT), a statewide stakeholder interest group, and MLPA Initiative staff. Following an extensive public process, in April 2006 the MLPA Blue Ribbon Task Force formally transmitted a set of Central Coast MPA packages and a preferred alternative to the Fish and Game Commission. On August 15, 2006, the Fish and Game Commission (“Commission”) made a final vote for a “preferred alternative” package of Central Coast MPAs. These MPAs are expected to be implemented by CDFG in 2007, pending completion of administrative law proceedings and California Environmental Quality Act review.

### **Central Coast marine protected areas**

The areas that the Commission voted to make its “preferred alternative” for Central Coast MPAs fall into three categories with varying degrees of protection: state marine park (“SMP”); state marine conservation area (“SMCA”); and state marine reserve (“SMR”). The specific MPAs and their proposed level of protection are shown in the maps in Exhibit 1. In addition to these maps, the Commission document “Detailed description, maps, objectives and rationale for the Commission's preferred alternative” describes each of the MPAs in detail, including proposed regulations, habitat type, and MPA objectives under the MLPA.<sup>1</sup> Figure 1 below lists and summarizes each proposed Central Coast MPA, its size, length and depth range.

### **Role and need for MPA monitoring**

The MLPA requires adaptive management to ensure that a system of MPAs meets its stated goals [Section 2853 (c) (3)]. The MLPA defines adaptive management as “a management policy that seeks to improve management of biological resources, particularly in areas of scientific uncertainty, by viewing program actions as tools for learning. Actions shall be designed so that, even if they fail, they will provide useful information for future actions, and monitoring and evaluation shall be emphasized so that the interaction of different elements within marine systems may be better understood” (Section 2852 (a)). According the MLPA *Final Draft Adaptive Management And Monitoring And Evaluation Framework*, “adaptive management requires learning from current experience to improve the process of achieving the goals of the MLPA over time. Success requires: (a) Appropriately scaled, sustained institutional capacity to

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<sup>1</sup> See <http://www.dfg.ca.gov/mrd/mlpa/pdfs/commission082206.pdf>

make legitimate choices; (b) Possession, broad communication, and use of relevant information; and, (c) Use of (a) and (b) to effect desired changes in policies, programs, and human behaviors intended to achieve the goals of the MLPA.”

**Figure 1**

Individual MPAs in Commission Preferred Package (8/15/06 version)			
MPA Name <sup>A</sup>	Size (mi <sup>2</sup> )	Along-shore Span (mi) <sup>B</sup>	Depth Range (ft)
Año Nuevo SMR	11.07 mi <sup>2</sup>	8.4 mi	0-176 ft
Greyhound Rock SMCA (*)	11.81 mi <sup>2</sup>	3.1 mi	0-216 ft
Natural Bridges SMR	0.58 mi <sup>2</sup>	4.1 mi	3-21 ft
Soquel Canyon SMCA (***)	23.41 mi <sup>2</sup>	7.8 mi	247-2113 ft
Portuguese Ledge SMCA (***)	10.91 mi <sup>2</sup>	5.4 mi	302-4838 ft
Elkhorn Slough SMR	1.48 mi <sup>2</sup>	4.4 mi	0-10 ft
Elkhorn Slough SMP (^)	0.09 mi <sup>2</sup>	1.4 mi	0-10 ft
Moro Cojo SMR	0.46 mi <sup>2</sup>	5.0 mi	0-10 ft
Edward F. Ricketts SMCA (*)	0.22 mi <sup>2</sup>	1.0 mi	0-74 ft
Lovers Point SMR	0.30 mi <sup>2</sup>	1.0 mi	0-98 ft
Pacific Grove SMCA (*)	0.93 mi <sup>2</sup>	1.5 mi	3-151 ft
Asilomar SMR	1.51 mi <sup>2</sup>	2.3 mi	0-172 ft
Carmel Pinnacles SMR	0.53 mi <sup>2</sup>	1.0 mi	89-223 ft
Carmel Bay SMCA (*)	2.12 mi <sup>2</sup>	3.1 mi	0-471 ft
Point Lobos SMR	5.38 mi <sup>2</sup>	4.7 mi	0-408 ft
Point Lobos SMCA (**)	8.95 mi <sup>2</sup>	3.2 mi	288-1868 ft
Point Sur SMR	9.72 mi <sup>2</sup>	5.4 mi	0-183 ft
Point Sur SMCA (***)	9.96 mi <sup>2</sup>	5.4 mi	139-824 ft
Big Creek SMCA (**)	10.11 mi <sup>2</sup>	2.5 mi	0-1864 ft
Big Creek SMR	12.35 mi <sup>2</sup>	3.3 mi	0-2393 ft
Piedras Blancas SMR	10.40 mi <sup>2</sup>	6.4 mi	0-157 ft
Piedras Blancas SMCA (***)	8.76 mi <sup>2</sup>	4.9 mi	94-337 ft
Cambria SMP (^)	8.26 mi <sup>2</sup>	5.8 mi	0-105 ft
Cambria SMR	2.32 mi <sup>2</sup>	3.5 mi	0-99 ft
Morro Bay SMRMA (*northern portion, *** southern portion)	3.01 mi <sup>2</sup>	9.4 mi	0-22 ft
Morro Bay East SMR	0.30 mi <sup>2</sup>	1.4 mi	0-10 ft
Point Buchon SMR	8.86 mi <sup>2</sup>	2.9 mi	0-208 ft
Point Buchon SMCA (***)	11.55 mi <sup>2</sup>	5.9 mi	191-377 ft
Vandenberg SMR	32.84 mi <sup>2</sup>	14.3 mi	0-127 ft

A. Listed north to south. Symbols following proposed MPA name indicate level of protection as determined by the MLPA Master Plan Science Advisory Team (SAT). (\*\*\*) indicates SMCA High, (\*\*) indicates SMCA Moderate, (\*) indicates SMCA Low, and (^) indicates SMP Low. Level of protection was used in the SAT evaluation.

B. Alongshore span measured as direct line from one end of the MPA to the other.

In order to meet these requirements, a well designed monitoring, evaluation, and adaptive management program must be implemented in California. The first step in implementing such an effort is to ensure proper acquisition of quality baseline data for the Central Coast study region, so that future monitoring efforts have reliable reference points for evaluating changes that may occur over time inside and outside of the MPAs.

**Project description**

The Central Coast Marine Protected Area Monitoring project will focus on fulfilling the immediate need for baseline and some initial monitoring for the proposed Central Coast MPAs. The monitoring will have both bio-physical and socio-economic components. Of the bio-physical monitoring, fieldwork will be completed in the following priority habitats, although other habitats and survey types may be added to the project description as needed and identified.

Deepwater canyon, coral and rocky reef habitats. Fieldwork would assess distribution, diversity, relative abundance, and sizes of species and habitat attributes for deep canyons, coral, and rocky

reef habitats. Submersible submarine surveys to study deepwater species and habitats inside and outside of designated MPAs in the Central Coast. Surveys will focus on approximately 60-80 species of fish and 20-30 species of invertebrates at depths ranging from 50-300 meters.

Kelp forest habitats. Fieldwork would assess distribution, diversity, relative abundance, and sizes of species and habitat attributes for kelp forest habitats. SCUBA surveys will study kelp forest species and habitats inside and outside of designated MPAs in the Central Coast. Surveys will focus on approximately 25 species of fish, 30 species of invertebrates, and 10 species of algae. Another method, fishing gear surveys, will compare kelp forest species inside and outside of designated MPAs in the Central Coast. Surveys would focus on approximately 25 species of fish and would require multiple days of surveys at each location.

Soft bottom habitats. Fieldwork would assess distribution, diversity, relative abundance, and sizes of species and habitat attributes for soft bottom habitats. Sled or ROV surveys will study soft bottom species and habitats, focusing on fish, inside and outside of designated MPAs in the Central Coast.

Rocky intertidal habitats. Fieldwork would assess distribution, diversity, relative abundance, and sizes of species and habitat attributes for rocky intertidal habitats. Visual surveys will study rocky intertidal species and habitats inside and outside of designated MPAs in the Central Coast. Surveys will focus on algae and invertebrates.

Socio-economic research. Human use and socio-economic research may also be included in the scope of the project. Such research would include analysis of commercial consumptive use, recreational consumptive use, and non-consumptive use of resources within and near marine protected areas.

### **California Sea Grant**

Nationally, the Sea Grant College Network consists of 30 university-based programs funded primarily by the National Oceanic and Atmospheric Administration and is dedicated to the understanding, conservation, and sustainable use of coastal and marine resources. The California Sea Grant College Program is the largest of the 30 Sea Grant programs, and works along the entire state coastline and coastal watersheds. It is administered by the University of California and is based at Scripps Institution of Oceanography in San Diego.

The California Sea Grant College Program will partner with the Council by coordinating the request for proposals, the review process, and post-award administration of contracts for data collection and research projects funded through this proposed grant. Sea Grant has an established, highly respected process for evaluating, prioritizing and administering research grants related to coastal and ocean resources. The California Sea Grant College Program is experienced at managing large contracts and grants, and has excellent knowledge of and familiarity with the state's scientific community.

## PROJECT FINANCING

### Funding Sources:

Ocean Protection Council (Coastal Conservancy) \$2,275,000

**Total Project Cost \$2,275,000**

Staff anticipates using \$2,275,000 of the funds appropriated to the Coastal Conservancy in the California FY 06/07 State Budget for projects implementing a workplan (\$8 million total) jointly developed by the Ocean Protection Council and the California Department of Fish and Game to implement the Marine Life Protection Act and the Marine Life Management Act. The budget item requires the workplan to be submitted to the Legislature at least thirty days prior to any expenditure of these funds. The workplan's approval by the OPC is expected at its October 26, 2006 meeting. If the workplan is approved and this resolution is authorized by the Council, Conservancy staff will recommend this grant for consideration at the Conservancy's next meeting on November 9, 2006.

In addition, an unknown but likely significant contribution of matching funds and/or in-kind resources will come from respondents to Sea Grant's request for proposals from the state's scientific and academic institutions.

**CONSISTENCY WITH OCEAN PROTECTION COUNCIL STRATEGIC PLAN:** The project is consistent with Section II, Priority Goals and Objectives, Goal E, Objective 1 of the OPC Five-Year Strategic Plan (adopted by the Council in June 2006) which states that OPC should "identify and fill critical needs in executing the MLPA" and "make resources available to design and implement a comprehensive MPA monitoring program." The project is also consistent with Section II, Priority Goals and Objectives, Goal B, Objective 2, which states that OPC should "support the establishment of a comprehensive monitoring program focused on Marine Protected Areas established under the Marine Life Protection Act and structured to be beneficial to other programs, including the Marine Life Management Act."

### CONSISTENCY WITH OCEAN PROTECTION COUNCIL'S INTERIM PROJECT SELECTION CRITERIA & GUIDELINES:

#### Mandatory Criteria

#### 1. **Furtheres the following statutory purposes and policies of the Ocean Protection Act:**

- **Improves management, conservation, and protection of coastal waters and ocean ecosystems:** This project will provide essential data to support marine protected areas, which will support management and conservation of marine ecosystems.
- **Improve monitoring, data gathering, and advances in scientific understanding of the ocean and coastal environment:** The main objective of this project is to acquire scientific data needed to manage marine protected areas and the ocean environment.
- **Improves the health of fish and fosters sustainable fisheries in ocean and coastal waters:** This project will support sustainable fisheries management by improving scientific data and adaptive management for marine protected areas. Marine protected areas are one tool for fostering more effective fisheries management.

- **Helps to coordinate the collection and sharing of scientific data:** This project will benefit from and support coordination, collection, and sharing of scientific data by promoting multi-institutional scientific cooperation and making project data public.
- 2. **Consistent with the purposes of the funding source:** See Project Financing Section above.
- 3. **Has demonstrable support from the public:** This project has support from the Department of Fish and Game, The Ocean Conservancy, the UC Office of the President, and the MLPA Initiative. See Exhibit 2 for letters of support.
- 4. **Relates directly to the ocean, coast, associated estuaries, and coastal-draining watersheds:** This project will promote ocean and coastal marine resource management and conservation by improving the quality and quantity of marine species abundance data.
- 5. **Has greater-than-local interest:** This project will promote regional and statewide marine resource scientific research, conservation, and management by supporting an initial step in developing a statewide marine protected area monitoring program.

### **Additional Criteria**

**The project would not occur without Council participation:** This project would not occur without Council funding and support because there is currently no other effort to fund marine protected area monitoring.

**The project includes a contribution of funds or services by other entities:** This project anticipates a significant matching funds or in-kind services are expected from respondents to the RFP process that Sea Grant will oversee.

**The project is ready to implement (grantee or contractor will start and finish the project in a timely manner):** Sea Grant is ready to begin implementing the proposed project as soon as funds are available.

**The project involves a combination of local, state, or federal agencies or is a public/private partnership:** This project is a partnership with Sea Grant and the Department of Fish and Game. Respondents to the proposed grant are also expected to bring in other project partners.