



# CALIFORNIA OCEAN PROTECTION COUNCIL

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Mike Chrisman, *Secretary for Resources, Council Chair*  
Steve Westly, *State Controller*  
Linda Adams, *Secretary for Environmental Protection*  
Sheila Kuehl, *State Senator, Ex officio Member*  
Pedro Nava, *State Assemblymember, Ex officio Member*

## MEMORANDUM

TO: California Ocean Protection Council

FROM: Sam Schuchat, Executive Officer, Coastal Conservancy  
Marina Cazorla, Project Manager, Coastal Conservancy

DATE: June 8, 2006

RE: Consideration of adoption of MPA Monitoring Program Design Principles  
(Agenda Item #7)

### **Requested Action**

Staff recommends that the California Ocean Protection Council ("Council) adopt the following resolution:

"The California Ocean Protection Council hereby adopts the recommended MPA Monitoring Program Design Principles contained in this memorandum."

### **Background**

At its March 14-15, 2006 meeting, the Blue Ribbon Task Force for the Marine Life Protection Act (MLPA) voted to transmit three alternative Central Coast marine protected area (MPA) packages for consideration by the Department of Fish and Game (Department) and the Fish and Game Commission. The Fish and Game Commission is expected to take action on these proposed Central Coast marine protected area packages and a Department preferred package in late 2006.

At the Council's meeting on April 20, 2006, staff briefed the Council on the status of the MLPA process, including the need to establish an MPA monitoring program, and California Department of Fish and Game staff requested that the Council provide leadership in this regard. The Council directed staff to return to the Council with proposed monitoring design principles, and a proposed workplan and budget for initial MLPA monitoring. This Memorandum presents proposed provisional design principles for ocean and coastal monitoring programs for the Council to adopt in the expectation that the Council will eventually consider a proposal to expend the \$2 million that it currently has reserved for this purpose.

## **Authorities and Statutory Guidance**

The California Ocean Protection Act (COPA) requires that “a goal of all state actions shall be to improve monitoring and data gathering, and advance scientific understanding, to continually improve efforts to protect, conserve, restore and manage coastal waters and coastal ecosystems.”<sup>1</sup> In addition, COPA calls for the Council to establish policies to coordinate the collection and sharing of scientific data.<sup>2</sup> COPA also establishes that among the purposes of the California Ocean Protection Trust Fund are provision of monitoring and scientific data to improve conservation and protection, including the acquisition, installation, and initiation of monitoring systems.<sup>3</sup>

The Marine Life Protection Act (MLPA) requires adaptive management to ensure that a system of MPAs meets its stated goals. 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.”<sup>4</sup> The MLPA Master Plan Framework adopted by the California Fish and Game Commission on August 18, 2005 calls for the development monitoring and evaluation plans for MPAs that support adaptive management. The MLPA Final Draft Adaptive Management and Monitoring and Evaluation Framework provides further guidance on a monitoring framework.<sup>5</sup>

Monitoring of MPAs under the MLPA will be one of several programs that will contribute to and benefit from the statewide integrated ocean observing system that is now being designed and assembled. Because of requirements of the MLPA to adaptively manage MPAs, the monitoring program being developed for MPAs on the central coast will provide an opportunity to test approaches for applying data from existing and new monitoring activities to specific management issues. By approving provisional principles on the design of monitoring programs generally, the Council can promote consistency among programs as they are developed, including that for MPAs.

Besides consistency with the provisional design principles for monitoring programs recommended below, a future monitoring system should be consistent with the language of the MLPA statute, the MLPA Master Plan Framework, and the MLPA Adaptive Management and Monitoring and Evaluation Framework. According to this document, the Framework should (1) be useful to decision-makers, managers, scientists and stakeholders for improving MPA design and management; (2) be practical in use and cost; (3) include both scientific and stakeholder input; (4) be flexible for use at different sites and in varying conditions; (5) be holistic in its focus on both natural and human perspectives; and (6) be transparent in process and decision-making to all stakeholders and the public.

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<sup>1</sup> PRC 33510 (b) (4)

<sup>2</sup> PRC 35615 (a) (2)

<sup>3</sup> PRC 35650 (b) (2)

<sup>4</sup> Section 2853 (c) (3)

<sup>5</sup> The MLPA Final Draft Adaptive Management and Monitoring and Evaluation Framework can be obtained online at: [http://www.dfg.ca.gov/mrd/mlpa/pdfs/agenda\\_031406\\_bd6.pdf](http://www.dfg.ca.gov/mrd/mlpa/pdfs/agenda_031406_bd6.pdf) It will be considered for adoption by the MLPA Blue Ribbon Task Force at its May 25, 2006 meeting.

### **Proposed monitoring design principles**

**Monitoring should support Ecosystem-Based Management (EBM) and Adaptive Management.** Ocean and coastal monitoring programs should be based on EBM and adaptive management principles and should be designed to apply new scientific knowledge and changing parameters to management and conservation of coastal and ocean resources by making it possible to do the following: (1) evaluate impacts of specific management choices; (2) build knowledge about managed ecosystems and thereby improve future management decisions; (3) identify emerging threats; and (4) determine the extent to which the ecological and/or socioeconomic management goals for the ecosystem are being met.<sup>6</sup>

**Integration with existing statewide monitoring programs and Ocean Observing systems.** Ocean and coastal monitoring programs should be designed to leverage and integrate with existing statewide monitoring programs as part of the state's ocean observing program. This program should be created in cooperation with Ocean Science Applications to assure coordination with developing observing efforts. The program should consider existing protocols for data collection in nearshore environments, particularly the Cooperative Resource Assessment of Nearshore Ecosystems (CRANE) protocol developed jointly by the Department and various universities and other researchers. The program should also conform to data management and communication standards adopted by the national Integrated Ocean Observing System<sup>7</sup> and to statewide marine mapping standards established at the OPC-supported December 2005 Statewide Marine Mapping Planning Workshop.<sup>8</sup>

**Monitoring System Institutional Functions:** Ocean and coastal monitoring programs should be designed to perform the following functions:

- (1) Leadership and Coordination includes coordination and management of monitoring activities; ensuring that monitoring priorities are responsive to the needs of decision-makers, stakeholders, and other key audiences; maintenance of relationships with partner institutions; coordination of funding for monitoring; and integration of monitoring data with other relevant data, observations and maps.
- (2) Science includes facilitation of the development of monitoring plans and related scientific models, indicators and protocols; ensuring that quality control procedures are implemented; and analysis and interpretation of monitoring information.
- (3) Information Technology and Data Management includes development and maintenance of databases and web-based information systems that provide for long-term data archiving; provision of access to data through search and assembly of data; and provision of links to related systems and users.
- (4) Communication includes provision of an interface for decision-makers, stakeholders, and the public with monitoring activities and results; identification of audiences and development of appropriate online and printed information products and reports; and

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<sup>6</sup> Liz Chornesky, 2005. Ecosystem Monitoring of California's State Marine Protected Areas: Issues and Needs.

<sup>7</sup> See <http://www.ocean.us> for information on the national IOOS program.

<sup>8</sup> The workshop report is online at: <http://seafloor.csumb.edu/StrategicMappingWorkshop.htm>

implementing structured processes to deliver results to decision-makers and to facilitate public comment where appropriate.

**Credibility and Accessibility.** Ocean and coastal monitoring programs should create value and impact by directly linking monitoring to resource decision-making and ensuring that the data are highly credible. The system should begin with an integrated information system and maximize data access, analysis, and reporting in order to support public processes.

**Longevity and Agility.** Ocean and coastal monitoring programs should be designed to ensure longevity by formalizing accountability of the participants and by developing sustained funding streams. Programs should be endowed with adequate dedicated capacity and institutional autonomy, in order to retain agility and the ability to anticipate and plan for change.

### **Proposed Future Steps**

Adoption of the Recommendation will allow your staff to move ahead with development of an MPA Monitoring Work Plan that is consistent with other initiatives on ocean and coastal monitoring, and will provide a basis for further proposals for Council action. Staff will return to the Council at its September (or other Fall Council meeting, if approved by the Council) with a proposed MLPA monitoring Work Plan and budget.

**DEPARTMENT OF FISH AND GAME**<http://www.dfg.ca.gov>

4665 Lampson Avenue, Ste. C  
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(562) 342-7108



May 23, 2006

Mike Chrisman  
Secretary for Resources  
California Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95814

Dear Secretary Chrisman:

I am writing to express the California Department of Fish and Game's (Department's) continued support for the Ocean Protection Council's (Council's) efforts to coordinate and support ocean monitoring, including the monitoring of marine protected areas (MPAs). As noted at your April 20, 2006 meeting, the Department supports the Council's leadership in statewide coordination of multiple monitoring efforts and programs. The Department has reviewed your Staff's outline of proposed monitoring design principles and would like to provide the following specific comments.

A clear emphasis on ecosystem based monitoring with the purpose of supporting adaptive management is key, in particular with regards to MPA monitoring. Your staff has appropriately identified this priority. Existing programs will play a significant role in any coordinated Statewide ecosystem based monitoring and leveraging these existing program efforts is essential. Data collection efforts from the Cooperative Research and Assessment of Nearshore Ecosystems (CRANE) program have provided a good starting point for what could become a much larger shallow subtidal habitat and ecosystem monitoring program. The Department fully supports your staff's inclusion of the CRANE program and protocol in any coordinated monitoring efforts.

Perhaps most important to a coordinated Statewide monitoring program will be the institutional functions mentioned in your staff's report. A clear definition of leadership roles and scientific, information technology, and public communication needs will facilitate the formation of a well coordinated effort. The Department would like to remain closely involved in the formation of these specific functions.

The Department looks forward to working closely with the Council as a Statewide monitoring plan is drafted. If you or your staff have questions or require specific information on the Department's ecosystem management plans, please contact

Mike Chrisman

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Mr. John Ugoretz, Nearshore Ecosystem Coordinator at 20 Lower Ragsdale Drive, Suite 100, Monterey, California, 93940 or by phone at (831) 649-2893, or by email at [jugoretz@dfg.ca.gov](mailto:jugoretz@dfg.ca.gov).

Sincerely,

A handwritten signature in black ink that reads "Gary B. Stacey". The signature is written in a cursive style with a large, stylized initial "G".

Gary B. Stacey  
Regional Manager  
Marine Region

cc: Sonke Mastrup  
Department of Fish and Game  
Sacramento, California

John Ugoretz  
Department of Fish and Game  
Monterey, California