

CALIFORNIA OCEAN
PROTECTION COUNCIL

Staff Recommendation
June 14, 2007

Santa Monica Bay Research and Monitoring Gap Analysis

Developed By: **Rebecca Pollock**

RECOMMENDED ACTION: Consideration of the Santa Monica Bay Research and Monitoring Gap Analysis and possible: 1) determination that it is a high priority project and 2) authorization for the Ocean Protection Council's secretary to take actions necessary to provide funding of up to \$210,000 for its completion.

NEAREST OCEAN OR COASTAL LOCATION: Santa Monica Bay, Southern California Bight

AGENCY OR ENTITY RECOMMENDING PROJECT: Ocean Protection Council

EXHIBITS

- Exhibit 1: [Report on the Santa Monica Bay Marine Habitats and Living Resources Inventory](#): "Assessment of the Information Need for Protection of the Bay's Living Resources and Habitats" (2005)
- Exhibit 2: [Public Summary of the Comprehensive Monitoring Program for Santa Monica Bay](#) (2007)
- Exhibit 3: [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 Santa Monica Bay Research and Monitoring Gap Analysis, as herein described, is of high priority for ocean conservation and authorizes its Secretary to take actions necessary to provide funding of up to \$210,000 for its completion."

PROJECT DESCRIPTION:

Staff recommends the Ocean Protection Council (OPC) determine the proposed Santa Monica Bay Research and Monitoring Gap Analysis (Gap Analysis) is a high priority for ocean

conservation and authorize the OPC's secretary to provide funding its completion. Cataloging gaps in research, mapping, and monitoring of the marine resources in Santa Monica Bay will allow the Santa Monica Bay Restoration Commission (SMBRC) and others in the Southern California Bight to prioritize future research projects to address scientific needs, and create a sound knowledge base for future management actions such as the designation of marine protected areas (MPAs). This pilot project will provide a replicable methodology and initial regional coordination within the Southern California Bight for prioritizing and conducting research and monitoring to eliminate identified gaps in research and monitoring data for this economically and ecologically important region.

Background

The Southern California Bight encompasses over 300 miles of coastline and thousands of square miles of coastal waters, used by millions of residents and tourists annually. The natural resources of the region provide ecological and economic value both locally and statewide. The Santa Monica Bay is a special biogeographic feature within the bight. The bay's rich living resources, unique habitats, and proximity to one of the nation's most densely populated metropolitan areas has prompted both the federal and State governments to declare it a nationally significant estuary. A long stretch of nearshore habitats along the northern coast of the bay has also been designated by the State as an Area of Special Biological Significance (ASBS), and it is by far the largest designated ASBS in California.

Southern California's marine ecosystems in general and Santa Monica Bay in particular are stressed and continue to face many threats such as polluted runoff, marine debris, habitat destruction, and overfishing. The well-documented decline in fishery resources is especially alarming. Many targeted stocks in Southern California, such as California sheephead, lingcod, and bocaccio, have been declining for decades. Other important species such as abalone have been locally extirpated and their survival in the region is threatened.

There is a need for implementing further marine protection measures in the Santa Monica Bay. MPAs are a valuable tool for ecosystem protection and have been proven to protect and enhance degraded ecosystems, including kelp forests and fish communities. Yet, the process of establishing MPAs can be hindered by conflict among various uses and the lack of scientific data on social and ecological impacts.

The Marine Life Protection Act (MLPA) was signed by the governor in 1999 (Chapter 10.5 of the California Fish and Game Code, Sections 2850-2863). The first region to successfully implement a network of reserves was the central coast region (Pigeon Point to Point Conception). Currently, the north central coast region (Point Arena to Pigeon Point) is beginning the stakeholder process.

The timeframe for the MLPA process to move to Southern California is presently unknown. Because the MLPA requires that the best science available be used when designating reserves, SMBRC intends to assess the data needs in the region in advance, with the goal of eliminating data gaps before the MLPA stakeholder process begins. This will ensure future decisions are made based on high quality, comprehensive, accessible data.

The proposed Gap Analysis will support numerous other management actions in the region, such as completing Marine Life Management Act (MLMA) stock assessment updates and establishing baselines for water quality prior to runoff reduction efforts.

Project Implementation

As a first step toward providing comprehensive data about the region's marine resources, SMBRC will compile and review existing data, focusing on:

- the state of marine resources in the region
- the conservation needs in the region
- the economic and social values of the many uses of bay resources

SMBRC will collect and disseminate existing knowledge and identify additional needed research, both ecological and socioeconomic. It will develop a general work plan with a timeline and cost estimates for monitoring and technical studies needed to fill identified data gaps.

To complete the Gap Analysis work plan, SMBRC will:

- Identify gaps in existing studies of habitats and species in the region by conducting a literature review to update the Santa Monica Bay Marine Habitats and Living Resources Inventory (Inventory). The Inventory is a bibliographic database that was completed in 2005 to provide a comprehensive picture of the research conducted within Santa Monica Bay and to connect this picture with threats and vulnerabilities facing the bay's living resources (report attached as Exhibit 1). Upon updating the Inventory, SMBRC will compile and generate data summary reports from the Inventory by site location, habitat type, and taxa;
- Develop a spatial database compatible with existing Department of Fish and Game (DFG) databases (namely the geographic information system (GIS) for the central coast MPAs), and populate it with existing information by locating and acquiring data;
- In collaboration with the Southern California Coastal Ocean Observing System (SCCOOS), collect and compile historical physical and biological oceanographic information for trend analysis;
- Evaluate data collected under existing monitoring protocols used throughout the bay (e.g., Cooperative Research and Assessment of Nearshore Ecosystems (CRANE), Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO), Reef Check) to determine their applicability in the MLPA process. The recently completed "Comprehensive Monitoring Program for Santa Monica Bay," a catalog of monitoring designs for five major habitat types within the bay, will be a valuable resource for this task (summary attached as Exhibit 2). The catalog incorporates key ongoing monitoring efforts and provides a regional, long-term picture of the status of the various ecosystems in Santa Monica Bay;
- Review available gap analyses of federal and state resource protection regulations and conduct an analysis of local resource protection regulations to identify gaps (e.g., spatial extent, species, type of limits, etc.);
- Collaborate with Southern California Bight partners to identify key types of marine habitats and develop a master list of species of concern for Santa Monica Bay and the Southern California Bight that will be revised as needed based on new information;
- Compare existing data with the lists of key habitats and species of concern and identify information gaps and study needs; and

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- Coordinate the review of the data summary reports, spatial database, and the work plan by the SMBRC MPA Technical Advisory Committee (MTAC) and stakeholders, and incorporate feedback received.

While completing these tasks to generate the final comprehensive work plan, SMBRC will coordinate with other key groups working in the Southern California Bight to ensure the Gap Analysis' work products will be replicable and acceptable for the rest of the bight.

Products and Outcomes

Completion of the Gap Analysis will advance our understanding of the ecology of critical marine habitats, as well as the status and trends of marine populations and communities along California's coast. The Gap Analysis will also promote the development of new research tools and technology, and the development and application of standard data collection and management protocols in cases where none currently exist. Monitoring programs and studies will be designed in cooperation with researchers in the Southern California Bight and be transferable to studies throughout the region. SMBRC will take advantage of existing knowledge, programs, and funding to coordinate comprehensive ongoing monitoring (see Exhibit 2).

The major products from this project will be:

- (1) an updated resources inventory of Santa Monica Bay;
- (2) a populated GIS database;
- (3) a work plan for further monitoring and studies; and
- (4) a framework for expanding this effort to the entire Southern California Bight based on initial bight-wide stakeholder meetings.

The work plan will include monitoring and studies needed to fill data gaps, along with budgets, timelines, and deliverables. The research identified will be prioritized using clearly-defined criteria and with input from DFG, other resource management agencies, and the public. In addition, the Inventory will be updated with any new information acquired during the Gap Analysis. Both of these products will be delivered to the OPC and DFG, as well as distributed to the SMBRC MPA mailing list of interested parties and made available via the Internet. Data from the GIS database will be reported to the MPA Monitoring Enterprise at the California Ocean Science Trust, and will be made available to agencies, distributed to interested parties, and announced on the SMBRC Web site.

Project Support

The proposed project has the potential to become the first phase of a larger initiative to support needed research and monitoring in concert with agencies and organizations working in the Southern California Bight. Letters were received from Senator Sheila Kuehl (D-23rd Senate District) and Assemblymember Julia Brownley (D-41st Assembly District) in support of the project, including the larger initiative of research and monitoring to fill gaps (Exhibit 3).

SMBRC Description

The proposed grantee is the Santa Monica Bay Restoration Foundation, a non-profit organization that acts as fiscal agent for SMBRC. SMBRC is a non-regulatory state entity that provides stewardship of water quality and habitats within the Santa Monica Bay and its watersheds. The SMBRC Governing Board is comprised of a broad spectrum of federal, state, and local

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representatives. Voting members include the Secretary of the Resources Agency, Secretary for Environmental Protection, an appointee of the Los Angeles Regional Water Quality Control Board, Los Angeles County, cities within Los Angeles County watersheds, and Los Angeles City and County Public Works. In addition, SBMRC has a 28-member technical advisory committee comprised of experts from all over Southern California with a variety of disciplines that provide recommendations to its governing board on technical issues.

SMBRC has a history of working effectively with diverse stakeholders in the assessment, protection, and restoration of Southern California's marine resources and has participated in many regional assessments and monitoring efforts in the Southern California Bight. This makes SMRBC uniquely qualified to compile existing scientific research and then apply this knowledge toward MPA development in Southern California and the Santa Monica Bay. In addition, the technical advisory committee has a history of initiating and overseeing marine research and providing various management agencies with scientific advice.

PROJECT FINANCING

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|---------------------------------|------------------|
| Ocean Protection Council | \$210,000 |
| SMBRC match | <u>\$180,000</u> |
| | |
| Total Project Cost | \$390,000 |

Staff anticipates funding of up to \$210,000 to be derived from the tidelands oil revenues, appropriated to the Secretary of Resources in the FY 04/05 for projects authorized pursuant to the Ocean Protection Act. The Resources Agency has entered into an interagency agreement with the Conservancy to administer these funds for OPC priority projects.

CONSISTENCY WITH OCEAN PROTECTION COUNCIL'S FIVE-YEAR STRATEGIC PLAN:

The Gap Analysis supports the OPC's Five-year Strategic Plan by furthering Section B, Research and Monitoring, Objective 1: Improve scientific understanding of our ocean and coastal ecosystems. The outcome of this project will promote the improvement in scientific understanding of our ocean resources. It also supports Objective 2: Monitor and map the ocean environment to provide data about conditions and trends, by setting the stage for future monitoring and recommending standard protocols appropriate for the region.

Further, the research that will be proposed subsequent to the work plan will support many OPC goals, including improving water quality, implementing the MLPA and MLMA, and setting a baseline for determining the future impacts of climate change. Ultimately, science-based implementation of MPAs and other management approaches will lead to improvement in the quality of ocean and coastal habitats and improve the health and viability of ocean and coastal wildlife populations and communities.