

# CALIFORNIA OCEAN PROTECTION COUNCIL

Staff Recommendation  
June 8, 2006

## Santa Barbara Channel Marine Mapping Project

Developed by: Marina Cazorla

**RECOMMENDED ACTION:** Consideration of the Santa Barbara Channel Marine Mapping Project and possible 1) determination that it is a high priority project, and 2) authorization for the Council Secretary to take actions necessary to provide up to \$400,000 for its implementation.

**NEAREST OCEAN or COASTAL LOCATION:** Santa Barbara Channel and Ventura coast

**AGENCY OR ENTITY RECOMMENDING PROJECT:** U.S. Geological Survey

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### EXHIBITS

Exhibit 1: Project Map

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 Santa Barbara Channel Marine Mapping Project, as herein described, is of high priority for ocean conservation and authorizes the Council Secretary to take actions necessary to provide up to \$400,000 for its implementation.”

### **PROJECT SUMMARY:**

Staff recommends that the Ocean Protection Council (Council) authorize funding for the Santa Barbara Channel Marine Mapping Project. The proposed \$400,000 grant to the Foundation of California State University Monterey Bay (FCSUMB) would augment existing matching funding for the project. The grant would enable CSUMB’s Seafloor Mapping Lab and the U.S. Geological Survey (USGS) to undertake a collaborative data acquisition effort for the Santa Barbara Channel and Ventura Coast.

The proposed project was approved by the Coastal Conservancy at its April 27, 2006 meeting in Ventura. Due to the need to begin fieldwork in June 2006, Conservancy approval was sought before the Council’s determination that this project is a high-priority project. Such a determination by the Council is needed as the proposed project would use Conservancy funds pledged by the Conservancy to the Council for ocean projects. If the proposed project is

approved by the Council, the grantee will use various geo-referenced mapping technologies as appropriate, including side-scan and multi-beam sonar to map areas of the Santa Barbara Channel and Ventura Coast. Using this new data, the grantee and USGS will deliver processed data and map products for the public and resource managers to better understand the current composition of the seafloor and habitat conditions in the project area.

### **Project description**

USGS already performs collaborative seafloor mapping work in the Santa Barbara Channel area focused on habitat characterization, coastal processes and erosion, and geologic hazards. The USGS, Minerals Management Service, the BEACON (Beach Erosion Authority for Clean Oceans and Nourishment) consortium of local government agencies, and the City of Carpinteria currently fund this collaborative work. USGS and CSUMB mapping work planned for 2006 is shown in yellow in Exhibit 1. The proposed project would allow the expansion of already-planned mapping work in the Santa Barbara Channel area and would make data acquisition more cost-efficient by reducing the proportional cost of mobilizing and demobilizing survey ships, equipment and personnel. The proposed expanded 2006 mapping area is shown as blocks A through D in green in Exhibit 1, and is defined roughly as the area between Ventura and Point Mugu. Mapping of areas E through H (defined roughly as the area between Goleta and Ventura) would be completed in 2007, contingent upon federal matching funding from USGS.

### **Applications of seafloor mapping in the Santa Barbara Channel area**

Accurate statewide mapping of seafloor substrate, marine habitat types, and bathymetry (underwater topography) of California's nearshore waters is a crucial component necessary to guide multiple ocean management decisions. Designating marine reserves, understanding sediment transport systems, ensuring shipping safety, identifying dredging and dumping sites, regulation of offshore coastal development, and illuminating the dynamics of fisheries and other marine species, are just a few of the applications that benefit from coastal and marine mapping data and products. In the Santa Barbara Channel area in particular, mapping would inform several important efforts: (a) benthic habitat mapping to support the Marine Life Protection Act (MLPA) and marine protected area design; (b) identification of potential offshore sand bodies for use in nourishing the region's depleted beaches and identification of regional marine sediment budget; (c) assessment of potential earthquake and tsunami hazards through identification of submarine faults and canyons; (d) improvement of information on oil seeps, discharge and potential environmental impacts; (e) provision of an ecological baseline for assessing and addressing potential sediment impacts associated with the planned removal of Matilija Dam.

### **The California Coastal and Marine Mapping Workshop**

The proposed project would conform to the guidelines and standards set at the California Coastal and Marine Mapping Workshop that was held in December 2005. The Ocean Protection Council funded this workshop to (1) update the state mapping priorities defined in 2000 by the California Marine Habitat Task Force based on existing data, data needs, and end-user applications; and (2) develop a consensus on mapping protocols and standards, as well as data interpretation and mapping products. The Workshop Report addresses: collection, management, and storage of both existing and newly acquired data; agreed-upon standards and protocols for data collection, post-processing, and interpretation of data; selection of various mapping products appropriate for resource management applications; and dissemination of mapping data and information to end-

users and the public. All workshop participants voted on geographic priorities for future seafloor mapping in California state waters using maps of coastal fishing blocks. Three of the four blocks judged by workshop participants to have the highest mapping priority for the State will be mapped in the proposed project.

**Grantee description**

The FCSUMB is a 501(c)(3) non-profit organization, a recognized auxiliary to the California State University, and the fiscal agent for CSUMB’s Seafloor Mapping Lab. The mission of the FCSUMB is to use its: fiscal flexibility to provide resources and services not supported by the State General Fund; operational expertise to implement and manage commercial enterprises and activities; and entrepreneurial acumen to generate revenue in support of the University's strategic initiatives. The CSUMB Seafloor Mapping Lab operated by Dr. Rikk Kvittek is one of the major seafloor data acquisition institutions in California, with significant experience in seafloor mapping, a dedicated survey vessel, and high-resolution mapping equipment.

**PROJECT FINANCING:**

**Funding Sources for 2006:**

Ocean Protection Council	\$ 200,000
U.S. Geological Survey	\$ 167,000
BEACON	\$ 40,000
City of Carpinteria	\$ 20,000
<u>Minerals Management Service</u>	<u>\$ 20,000</u>
<b>Total 2006 Project Cost</b>	<b>\$ 447,000</b>

**Funding Sources for 2007:**

Ocean Protection Council	\$ 200,000
U.S. Geological Survey (pending)	\$ 100,000
<u>Other matching sources (pending)</u>	<u>\$ TBD</u>
<b>Total 2007 Project Cost</b>	<b>\$ 300,000</b>

The Ocean Protection Council’s contribution of \$400,000 is expected to come from the Coastal Conservancy’s FY 01/02 and FY 02/03 appropriation from the “California Clean Water, Clean Air, Safe Neighborhood Parks and Coastal Protection Act of 2002” (Proposition 40) for water quality projects. This funding source may be used for the deployment and development of land and water resources in accordance with the provisions of the Conservancy’s enabling legislation, Division 21 of the Public Resources Code. The proposed project serves to assist in the management of water quality and sediment related to the planned removal of Matilija Dam and the management of sediment for beach nourishment along the Santa Barbara Channel, consistent with Chapter 5.5 of the Conservancy’s enabling legislation as described below. Proposition 40 also requires the Conservancy to give priority to projects with matching funds. This project is supported by substantial matching funds from USGS, BEACON, the City of Carpinteria and the Minerals Management Service.

**CONSISTENCY WITH CALIFORNIA’S OCEAN ACTION STRATEGY:**

The project is consistent with Action Item 10, which states California should “pursue, support, implement and establish long-term funding for coordinated ecosystem management approaches at the federal, state and local levels to guide and improve the stewardship of ocean and coastal resources.” It is also consistent with Action Item 13, which states that the State should identify and prioritize issues that may benefit from additional coordination by the California Ocean Council, including issues arising in the context of protection of marine resources and economic uses of the ocean.

**CONSISTENCY WITH LOCAL WATERSHED MANAGEMENT PLAN/STATE WATER QUALITY CONTROL PLAN:**

Water quality control plans, such as the Regional Water Board Basin Plans and the State Water Board’s California Ocean Plan, provide the basis for protecting water quality in California. While these plans must be based on sound science, and certain aspects (e.g., Watershed Management Initiative Chapters of the Basin Plans) do encourage collaborative efforts, their primary function is regulatory. Basin Plans are mandated under the Federal Clean Water Act (CWA) and the State Porter-Cologne Water Quality Act (Porter-Cologne). By law these plans must include water quality objectives, which will ensure the reasonable protection of beneficial uses, and a program of implementation for achieving those water quality objectives.

The Basin Plans and the California Ocean Plan are used as a regulatory tool by the Regional Water Board's technical staff. Regional Water Board permits cite the water quality standards and prohibitions applicable to a particular discharge. The water quality control plans are also used by other agencies in their permitting and resource management activities, and they serve as an educational and reference document for dischargers and members of the public.

The proposed project is consistent with California Ocean Plan and the coastal Basin Plans. The mapping of coastal and marine habitats will provide valuable scientific information to assist State and Regional Board staff in protecting water quality through the implementation of the Basin Plans and the Ocean Plan.

**CONSISTENCY WITH OCEAN PROTECTION COUNCIL’S INTERIM PROJECT SELECTION CRITERIA & GUIDELINES:**

**Mandatory Criteria**

**1. Furthers 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 and mapping of coastal and marine ecosystems, which will support management and conservation of these resources.

- **Improve monitoring, data gathering, and advances in scientific understanding of the ocean and coastal environment:** This project will support new data acquisition and scientific research to manage and conserve the ocean and coastal environment.
  - **Improves the health of fish and fosters sustainable fisheries in ocean and coastal waters:** This project will support sustainable fisheries management.
  - **Helps to coordinate the collection and sharing of scientific data:** This project will benefit from and support the collection and sharing of scientific and mapping data.
2. **Consistent with the purposes of the funding source:** See Project Financing Section above.
  3. **Has demonstrable support from the public:** The proposed project is supported by the California Coastal Commission, California Department of Boating and Waterways, the California Department of Conservation's Geological Survey, the Beach Erosion Authority for Clean Oceans and Management (BEACON) and the City of Carpinteria. Letters of support are located in Exhibit 2.
  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.
  5. **Has greater-than-local interest:** This project will promote regional and statewide marine research, conservation, and management.

#### Additional Criteria

**Helps implement the California Ocean and Coastal Information, Research, and Outreach Strategy (IRO) and other priorities of local, state or federal advisory groups, or scientific or policy reports, adopted by the council:** This project will implement a cross-cutting need identified in the IRO for Seafloor Mapping. As such, the project will help to address multiple IRO recommendations related to research, ocean observing, federal support for California research, and improvement of access to and coordination of ocean and coastal information.

**The project would not occur without Council participation:** This project would not occur without OPC funding and support.

**The project helps resolve more than one issue.** This project will support scientific research, marine resource management, and regulation of coastal and offshore development.

**The project includes a contribution of funds or services by other entities:** This project includes a significant matching funds from federal and local agencies.

**The project is ready to implement (grantee or contractor will start and finish the project in a timely manner):** The CSUMB Seafloor Mapping Lab 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 involves a significant partnership with the U.S. Geological Survey.