CALIFORNIA OCEAN PROTECTION COUNCIL

Staff Recommendation
June 28, 2013

CALIFORNIA OCEAN SCIENCE TRUST: STATEWIDE SCIENCE INTEGRATION AND MARINE PROTECTED AREA MONITORING

File No.: 13-06-28-01
Project Manager: Clare O'Reilly

RECOMMENDED ACTION: Authorization to disburse up to $5,700,000 to the California Ocean Science Trust to continue facilitating the integration of science into State ocean resource management decision-making and supporting scientific monitoring of the state's marine protected areas.

LOCATION: Statewide

STRATEGIC PLAN FOCAL AREA: Science-based Decision-making

EXHIBITS

Exhibit 1: California Ocean Science Trust: Progress Report, October 2009 through September 2012

Exhibit 2: Ocean Protection Council Staff Recommendation: "California Ocean Science Trust: Building Scientific Capacity" (File No. 08-123-01, November 20-21, 2008)

Exhibit 3: Ocean Protection Council Staff Recommendation: "Statewide Marine Protected Area Monitoring Program" (File No. 06-090-01, November 28, 2006)

Exhibit 4: Ocean Protection Council Staff Recommendation: "Future Marine Protected Area Baseline Data Collection: Ensuring Data Collection for all Regions" (November 20-21, 2008)

Exhibit 5: Ocean Protection Council Staff Recommendation: "Statewide Science Integration and Marine Protected Area Monitoring Programs" (March 11, 2011)

Exhibit 6: Letters of Support

RESOLUTION AND FINDINGS:

Staff recommends that the Ocean Protection Council adopt the following resolution pursuant to Sections 35500 *et seq.* of the Public Resources Code:

"The Ocean Protection Council hereby approves the disbursement of an amount not to exceed $5,700,000 to the California Ocean Science Trust (OST) to facilitate integration of science into state ocean resource management decision-making and supporting scientific monitoring of the state's marine protected area network.

This authorization is subject to:

1. The condition that prior to disbursement of funds, the OST shall submit for the review and approval of the Executive Director of the Ocean Protection Council:
    a. A work plan, including schedule and budget.
    b. The names and qualifications of any contractors that the OST intends to employ to carry out either program.
2. Certification by the OPC Executive Director that adequate funds in fiscal year 13/14 appropriation from the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84) are available to the California Ocean Protection Trust Fund."

Staff further recommends that the Ocean Protection Council adopt the following findings:

"Based on the accompanying staff report and attached exhibits, the Ocean Protection Council hereby finds that:

1. The proposed project is consistent with the purposes of Division 26.5 of the Public Resources Code, the California Ocean Protection Act.
2. The proposed project is consistent with the Ocean Protection Council's current strategic plan and grant program funding guidelines."

PROJECT SUMMARY:

Staff recommends that the Ocean Protection Council (OPC) disburse up to $5,700,000 to the California Ocean Science Trust (OST) to continue working with partners to integrate unbiased, rigorous science into state ocean resource management decision-making. OST is a nonprofit 501(c)(3) public benefit corporation established pursuant to the California Ocean Resources Stewardship Act (CORSA) of 2000 to:

1. ensure adequate coordination of ocean resource management science among government agencies and marine science institutions;
2. ensure efficient and effective use of state resources for ocean resource management science, including leveraged resources from federal and nongovernmental sources; and
3. advance science initiatives to meet current and future California ocean resource management needs.

The proposed grant would fund OST's work in accordance with CORSA, its founding statute, through three inter-related activities: Science Advising, Science Initiatives and the Marine Protected Areas (MPA) Monitoring Enterprise. All of these programs support the OPC's goals

of improving stewardship of ocean resources by providing rigorous scientific support for managers and decision-makers. Since 2006 (see Exhibits 2, 3 & 5), the OPC has provided significant funding to OST to support these activities in the past, but the current grant from OPC will be completed in the summer of 2013. This authorization will fund continuation of this important work for four more years.

Science Advising. The OST Executive Director will continue serving as OPC's Science Advisor and co-chair of the multi-disciplinary OPC Science Advisory Team (OPC-SAT). The OPC-SAT will continue its role working with managers and decision-makers to identify science needs, provide relevant information to address management questions, and raise awareness among the scientific community of opportunities to inform state policy.

Science Initiatives. OST will lead initiatives to provide the best-available science to inform specific issues in ocean policy or management. Science initiatives will be conducted by OST in close coordination with OPC staff, with the goal of providing high-quality scientific information to the OPC and other agencies and stakeholders as appropriate.

Marine Protected Areas (MPA) Monitoring Enterprise. The MPA Monitoring Enterprise was established as a program of OST to lead development and implementation of a cost-effective, focused, and cohesive approach to monitoring and evaluation of the statewide network of marine protected areas (MPAs) established under the Marine Life Protection Act (MLPA). This program will continue to ensure that monitoring approaches measure progress towards the goals of the MLPA in a scientifically rigorous, partnerships-based and cost-effective way. Additionally, the MPA Monitoring Enterprise will leverage the investment in the MPAs and monitoring to inform additional ocean resource management challenges, such as fisheries management, water quality monitoring, and climate change adaptation.

PROJECT DESCRIPTION:

Project Background and History:

The Ocean Science Trust is a nonprofit 501(c)(3) public benefit corporation established pursuant to the California Ocean Resources Stewardship Act (CORSA) of 2000. OST was established to advance a constructive role for science in decision-making by promoting collaboration and mutual understanding among scientists, citizens, managers, and policymakers working toward sustained, healthy, and productive coastal and ocean ecosystems.

Since 2007, the OPC has provided more than $7.8 million in grants to OST to support this important work. OST's mission includes leveraging the state's investment by attracting additional funding from other sources, including federal and private. OST has nearly doubled OPC funds with leveraged funds, and will continue to solicit and attract funding going forward, all in support of state priorities.

The OST Progress Report (Exhibit 1) highlights many of its accomplishments in recent years. During this period, OST has become a recognized leader in California providing scientific support for coastal policy and management issues. Specific OST accomplishments include:

Establishment and on-going support of OPC's Science Advisory Team: Formed in 2008, the OPC Science Advisory Team (OPC-SAT) provides ongoing scientific guidance and seeks to

connect the broader academic and research community to state resource managers on a range of issues. OST has worked to ensure that OPC-SAT members come from independent research institutions along the West Coast and beyond, and that members represent a wide range of disciplines, including social scientists, economists, and legal experts, in addition to natural scientists. OST leads meetings and supports the co-chairs of the OPC-SAT in their work. OST works with the OPC-SAT and other partners to articulate science priorities and needs for topics of particular interest to resource and regulatory agencies. For example, in 2011, OST mobilized the OPC-SAT to support the development of the OPC's Strategic Plan update, including helping to develop the topical focal areas of the plan, and identifying many of the research and data priorities highlighted throughout the plan.

Coordinating Scientific Studies and Scientific Peer Review: Working with the OPC-SAT, the Science Advisor implemented a timely process for scientific peer review, ensuring that OPC proposals, projects, and products with a scientific component are thoroughly and independently reviewed by qualified experts. OST coordinated the development of two complex scientific studies, Aquatic Invasive Species Vector Risk Assessments and the Oil and Gas Platform Decommissioning Study, to provide relevant information to inform state management strategies. OST also partnered with USC Sea Grant to produce "Plastic Debris in the California Marine Ecosystem: A Summary of Current Research, Solution Efforts and Data Gaps."

Integration of Scientists and Managers: OST's Executive Director, acting as OPC's Science Advisor, represents the OPC in the scientific community, sharing information through attending meetings and workshops, advising on state management priorities, sitting on a wide range of steering committees, technical groups and governance boards, and encouraging and facilitating scientists in applying their expertise to support management needs.

Marine Protected Areas Monitoring Enterprise: With grants from the OPC (Exhibit 3 & Exhibit 5), the MPA Monitoring Enterprise was launched as a program of OST to lead development of an efficient, cost-effective, statewide MPA monitoring program that will support full implementation of MLPA, including adaptive management. Initial activities included developing monitoring priorities with the Department of Fish and Wildlife (DFW) and other core partners (including the OPC, the Natural Resources Agency, Fish and Game Commission, and the MLPA Initiative). The Monitoring Enterprise created a monitoring framework to assess ocean conditions and MPA performance that was adopted by the Fish and Game Commission in 2010. The Monitoring Enterprise also developed regional monitoring plans and designed baseline monitoring programs for each MPA region and in collaboration with DFW, OPC and California Sea Grant. The OPC authorized $12 million dollars to support baseline monitoring programs (see Exhibit 4). Progress monitoring the MPA regions is as follows:

- *Central Coast:* The Monitoring Enterprise led analysis and reporting on Central Coast baseline monitoring to support the 5-year review of MPA performance. The Monitoring Enterprise produced a comprehensive report, State of the California Central Coast: Results from Baseline Monitoring of Marine Protected Areas 2007-2012 and presented results at the State of the California Central Coast public symposium in February 2013.
- *North Central Coast:* Data collection is complete and integrated analysis is beginning.
- *South Coast*: Data collection by citizen scientists, academic researchers, fishermen and

others is well underway.
- *North Coast*: Following extensive public input, a Request for Proposals for data collection projects was recently released.

The Monitoring Enterprise has increased information dissemination to ensure monitoring information is effectively transmitted to decision-makers, stakeholders, scientists and others interested in California's MPA network through the creation of an online hub, OceanSpaces, the Monitoring Enterprise website and electronic newsletters.

Project Details and Scope of Work:

The proposed authorization would provide funding for OST to continue this important work supporting the science needs of California's ocean resource management agencies. OST will employ its broad suite of tools and approaches to engage diverse partners and deliver useful scientific information to managers and decision-makers. The grant will fund three inter-related activities described below. As needs arise, specific projects under each of these activities may be added to the work plan if approved by OPC Executive Director.

Science Advising**:** The Executive Director of OST will continue her role as OPC's Science Advisor. In this capacity, she will manage the OPC-SAT in its ongoing work with managers and decision-makers to identify science needs, provide relevant information to address management questions, and raise awareness among the scientific community of opportunities to inform state policy. OST will work with the OPC-SAT to:

- Connect science to policy and management; disseminate information between the scientific community and relevant state agencies.
- Develop and implement objective technical review processes of OPC project proposals and project deliverables to ensure that decisions are supported by the highest quality science, as well as the efficient allocation and use of public funds towards improved ocean and coastal management.
- Cultivate understanding of user needs and research priorities to strengthen the relationship between scientists and managers; work among researchers and managers to conduct and present research, analyses, and syntheses in ways that are relevant and useful for decision-makers.
- Prepare consensus/position statements on relevant topics selected with input from the OPC and partner agencies to enhance scientific knowledge and capacity across the state.
- Support and host workshops with decision-makers and scientists on issues the OPC management team has determined are relevant to the OPC's work.
- Convene expert panels to synthesize and translate scientific issues of importance to the state, and build linkages across research efforts that raise their utility and relevance to management.

Science Initiatives: Initiatives to provide the best-available science to inform specific issues in ocean policy or management will be conducted by OST in close coordination with OPC staff, with the goal of providing high-quality scientific information to the OPC and other agencies and stakeholders as appropriate. OST science initiatives will achieve the following objectives:

- Facilitate better understanding of how climate change may impact California's marine

ecosystems, leveraging the opportunity provided by MPA monitoring to inform climate adaptation.
- Provide ongoing support of the California Sustainable Seafood Initiative, including working with the OPC and DFW to integrate the best-available science into priority fisheries improvement projects, and understand how MPA monitoring may inform fisheries management.
- Assessment of critical science needs around aquaculture, and other priority topics before the state.
- Assessment of the needs of an expanded audience for the California Coastal Geoportal, including academic institutions and non-governmental stakeholders.
- Assistance with ongoing agency outreach and staff trainings for the California Coastal Geoportal.

Marine Protected Areas Monitoring Enterprise: The MPA Monitoring Enterprise will continue to support monitoring of California's MPA network to ensure that monitoring approaches answer key MPA design and management questions, and measure progress towards the goals of the MLPA. Furthermore, the Monitoring Enterprise will investigate how MPA assessments can inform ocean health assessments, inside and outside MPAs, by continuing to work with diverse partners across institutional barriers. The data collected to evaluate the performance of the MPA network can be used as "pulse points" for assessing ecosystem conditions and answering management questions, such as ecosystem response to climate change. The Monitoring Enterprise will continue to provide information to policy makers, stakeholders, and scientists through strategic communications, including the online community, OceanSpaces. It is anticipated that the proposed funding will result in:

- Science-based, stakeholder supported ongoing monitoring plan adopted for the North Coast regions. Development of this plan will build off of the extensive community engagement conducted as part of the North Coast baseline program.
- Effective MPA baseline program implemented with community support in the North Coast region
- Integrative analysis and reporting of MPA baseline program data collection in the North Central and South Coast regions, with a region relevant focus (e.g. research opportunities for HABs and climate change in the North Central Coast, water quality monitoring in the South Coast)
- In collaboration with DFW, reporting to the Fish and Game Commission on management-relevant findings from baseline monitoring in the Central, North Central, and South Coast regions to inform adaptive management of the MPA network
- Articulation, in collaboration with DFW, of management priorities in an updated Central Coast Monitoring Plan, and a Central Coast partnership-based ongoing monitoring program launched that draws upon the strengths and opportunities present in the region, with a focus on citizen engagement, science, and stewardship
- Articulation of mechanisms and approaches by which MPAs can support science to advance other priority ocean resource management issues in California, including research and leveraged funding opportunities. OST will convene working groups with the OPC-SAT to identify and communicate opportunities.

- Expansion of content and community engagement features of OceanSpaces to provide relevant and impartial results from MPA baseline programs.
- Additional functionality within OceanSpaces and development of new communications tools, as defined by user needs
- Ongoing coordination with MPA implementation partners, as identified in the MPA Comprehensive Implementation Work Plan

Site Description:

The proposed authorization will support statewide science advising and initiatives, and the MPA Monitoring Enterprise program. The following links to the OceanSpaces' and DFW's websites provide more detailed information about the statewide MPA network: http://oceanspaces.org/ and http://www.dfg.ca.gov/mlpa/.

PROJECT GRANTEE:

The OST is a nonprofit public-benefit corporation under section 501(c)(3) of the Internal Revenue Code and was established pursuant to the California Ocean Resources Stewardship Act of 2000 to encourage coordinated, multi-agency, multi-institution approaches to translating ocean science to management and policy applications. The OST's mission is to ensure that the best available science is applied to California policies and ocean management to successfully maintain a healthy, resilient, and productive ocean and coast.

Consistent with its mission, the OST has successfully provided scientific support to the OPC since early 2007. It is continuing to build the MPA Monitoring Enterprise into an effective program that is efficiently monitoring the State's designated MPAs.

PROJECT FINANCING

Ocean Protection Council	$5.7 million
Total Project Cost	$5.7 million

OST will continue to leverage the OPC's investment at a greater than 2:1 ratio. Sources for leveraged funds and services include state and federal grants and private foundations. The OPC's grant to OST will attract additional funding to meet common needs.

The anticipated source of the funds for this project is the FY 13/14 appropriation from the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84) to the California Ocean Protection Trust Fund.

Proposition 84 authorizes the use of these funds for purposes consistent with Section 35650 of the Public Resources Code (Pub. Res. Code § 75060(g)). Under Section 35650(b), Ocean Protection Trust Fund monies may be expended for projects authorized by the OPC that are identified as appropriate Trust Fund purposes. The project is consistent with the Ocean Protection Trust Fund purposes as discussed in the following section.

This project is also appropriate for prioritization under the selection criteria set forth in Section 75060(g), which provides that the OPC will give priority to projects to develop scientific data needed to adaptively manage the State's marine resources and reserves and conserve marine wildlife. The OST's science advising, science initiatives and MPA Monitoring Enterprise

programs meet these criteria because they seek to develop and integrate science into the State's management of its ocean and coastal resources, including marine protected areas; to protect the structure, function and integrity of marine ecosystems; and to protect the natural abundance and diversity of marine life.

CONSISTENCY WITH CALIFORNIA OCEAN PROTECTION ACT:

The proposed project is consistent with the Ocean Protection Act, Division 26.5 of the Public Resources Code, in the following respects:

Science Advising and Initiatives. The science advising and initiatives component of the proposed authorization remains consistent with the Ocean Protection Act in the following respects:

Under PRC 35650(b)(1), the OPC may fund projects consistent with the Ocean Protection Act, including projects that: coordinate activities of state agencies and establish policies to coordinate the collection of scientific data related to the ocean (PRC § 35615); improve management, conservation, and protection of coastal waters and ocean ecosystems (PRC § 35650(b)(2)(F)); and provide monitoring and scientific data to improve state efforts to protect and conserve ocean resources (PRC § 35650(b)(2)(G)). The overall project is consistent with this section in that the OST will be working with a range of public and private institutions to ensure coordination with the goal of improving management of ocean resources. The information generated by OST will inform state management decisions related to the ocean and coastal environment.

Additionally, pursuant to Public Resources Code § 35621 the Council may award grants, enter into interagency agreements, and provide assistance to public agencies and nonprofit organizations to support implementation of the Ocean Protection Act. This section gives priority to funding state agencies and non-profit organizations that are sharing scientific and geospatial information for coastal- and ocean-relevant decision-making, Specifically, the disbursement project is consistent with this section and Public Resources Code Section 35615, calling for the coordination activities of state agencies (Section 35615(a)(1)).

Marine Protected Areas Monitoring Enterprise. Public Resources Code § 35615(a)(2) directs the OPC to establish policies to coordinate the collection of scientific data related to coastal and ocean resources. In addition, PRC § 35650(b)(2) specifies allowable projects on which the California Ocean Protection Trust Fund may be spent. In particular, subsection (b)(2)(G) identifies projects that "provide monitoring and scientific data to improve state efforts to protect and conserve ocean resources" as appropriate for funding.

The MPA Monitoring Enterprise component of the proposed authorization is consistent with these sections because it seeks to (1) advance development of scientific, efficient and effective approaches to monitoring, including data collection and analysis; (2) steward and share data, results and other information, including baseline and long-term monitoring information; and (3) communicate monitoring results to strengthen understanding and application of MPA monitoring and support adaptive MPA management.

CONSISTENCY WITH THE OPC'S STRATEGIC PLAN:

This project implements several objectives from the OPC's 2012-2017 Strategic Plan:

Focal Area A (Science-Based Decision-Making)

- Objective 1.1: Provide leadership to ensure the availability and use of authoritative geospatial information in decision-making.
- Objective 2.1 Identify high priority management information needs.
- Objective 3.1: Promote and encourage the institutional support, capacity, and leadership role of the OPC-SAT and harness the substantial scientific expertise within California and beyond to inform policy and management decisions.

Focal Area C (Sustainable Fisheries and Marine Ecosystems)

- Objective 6.1: Support science-based approaches to inform fisheries management
- Objective 8.1: Support effective implementation of MPAs consistent with the MLPA through strategic partnerships.
- Objective 8.2: Coordinate MLPA implementation with other ocean management agencies to improve management effectiveness.

CONSISTENCY WITH THE OPC'S GRANT PROGRAM FUNDING GUIDELINES:

The proposed project is consistent with the OPC's Grant Program Funding Guidelines adopted November 20, 2008, in the following respects:

Required Criteria

1. **Directly relate to the ocean, coast, associated estuaries, or coastal-draining watersheds:** The science advising and science initiatives components of the proposed authorization will ensure science is informing California policy and management in order to maintain a healthy, resilient, and productive ocean and coast for the benefit of current and future generations. The MPA Monitoring Enterprise component of the proposed authorization will promote ocean and coastal marine resource management and conservation by improving the collection and use of data on and understanding of marine species, populations, habitat quality, and ecosystem condition.
2. **Support of the public:** The proposed authorization is supported by numerous governmental, academic, and NGO entities. See letters of support in Exhibit 6.
3. **Greater-than-local interest:** Both the science advising and initiatives, and MPA Monitoring Enterprise components of the proposed authorization are statewide in scope.

Additional Criteria

4. **Innovation:** The science advising and initiatives components of the proposed authorization will continue a new approach to the development of ocean policy by promoting coordination between scientists and state agencies, and integrating science into decision-making. The MPA Monitoring Enterprise component of the proposed authorization continues development and implementation of a cost-effective, focused, and cohesive approach to monitoring of and reporting on MPAs established under the MLPA. The newly-defined approach to MPA monitoring includes a globally pioneering approach to tracking the condition of ocean ecosystems, and represents a fundamental advancement for adaptive management of MPAs and support of other ecosystem-based management mandates.

5. **Improvements to management approaches or techniques:** See the "innovation" criterion, above.
6. **Resolution of more than one issue:** The science advising and initiatives components of the proposed authorization will identify science priorities and needs, provide relevant information to address management questions, review project proposals and end products, and integrate science into decision-making. The MPA Monitoring Enterprise component of the proposed authorization will support scientific research, marine resource management, and monitoring mandates under the MLPA.
7. **Coordination:** The science advising and initiatives components of the proposed authorization will involve and improve coordination among scientists, policy makers, and resource managers. The MPA Monitoring Enterprise component of the proposed authorization involves a partnership between the OST and DFW, and coordinates extensively with other state and federal agencies, academic institutions, and private organizations, especially on monitoring implementation.

COMPLIANCE WITH CEQA:

The projects included in the proposed authorization are categorically exempt from review under the California Environmental Quality Act ("CEQA") pursuant to 14 Cal. Code of Regulations Section 15306 because they involve only data collection, research, experimental management and resource evaluation activities that will not result in a serious or major disturbance to an environmental resource. These activities may be a part of a study leading to an action which the OPC or another public agency has not yet approved, adopted, or funded. Staff will file a Notice of Exemption upon approval by the OPC.