

CALIFORNIA OCEAN PROTECTION COUNCIL

Staff Recommendation

June 10, 2014

CENTRAL COAST LONG-TERM MARINE PROTECTED AREA MONITORING

Project Manager: Clare Waldmann

RECOMMENDED ACTION: Authorization to disburse up to \$3,000,000 for long-term monitoring of the Central Coast marine protected area (MPA) network

LOCATION: Central Coast

STRATEGIC PLAN FOCAL AREA: Sustainable Fisheries and Marine Ecosystems

EXHIBITS

Exhibit 1: Letters of Support

Exhibit 2: [California's Statewide Monitoring Network: Ongoing Monitoring – A Smart Investment in Ocean Health](#)

Exhibit 3: [Draft Central Coast MPA Monitoring Plan](#)

RESOLUTION AND FINDINGS:

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

“The Ocean Protection Council hereby authorizes the disbursement of an amount not to exceed \$3,000,000 for scientific monitoring of the Central Coast marine protected area network.

This authorization is subject to:

1. The condition that prior to disbursement of funds, the Executive Director of the Ocean Protection Council will review and approve:
 - a. A work plan covering the period of the next regional adaptive management cycle that identifies the mechanisms and methods for disbursing the funds, including project selection criteria and plans for sharing the results of monitoring;
 - b. The names and qualifications of any entities who will be carrying out the monitoring, and any required matching component such grantees must have.
2. Adoption by the California Fish and Game Commission of an updated Central Coast Marine Protected Area Monitoring Plan, prepared by the California Ocean Science Trust and California Department of Fish and Wildlife;
3. 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. Long-term scientific monitoring is essential for evaluating MPA network performance and will serve California decision-makers broadly across a variety of agencies and mandates.
2. Monitoring is an essential tool for providing information to assess any future impacts to ocean health, such as climate change, as well as how MPAs are performing as a conservation tool.
3. The proposed project is consistent with the California Ocean Science Trust's proposed MPA ongoing monitoring strategy presented in Exhibit 2.
4. The proposed project is consistent with the purposes of Division 26.5 of the Public Resources Code, the California Ocean Protection Act.
5. The proposed project is consistent with the Ocean Protection Council's current strategic plan and interim grant program funding guidelines.”

PROJECT SUMMARY:

Staff is recommending that the OPC authorize up to \$3,000,000 for marine protected area (MPA) monitoring in the Central Coast region of California. Monitoring of selected MPAs to detect ecological and socioeconomic responses to MPA implementation is necessary to adaptively manage the regional MPA network, in accordance with the Marine Life Protection Act (MLPA). The result of this continued monitoring will be data collected in a scientifically rigorous, cost-effective manner, and synthesis and communication of results by the Central Coast monitoring community in collaboration with the California Ocean Science Trust (OST), California Department of Fish and Wildlife (CDFW), and OPC.

Monitoring will be guided by the state’s MPA monitoring framework.¹ At the top level of this framework are Ecosystem Features that collectively represent and encompass California’s marine ecosystems and human uses. Monitoring deliverables will address the questions that lie at the core of the monitoring framework:

1. What is the condition of an Ecosystem Feature, and how is it changing through time?
2. How are the MPAs affecting the condition of a particular Ecosystem Feature?

In addition to supporting adaptive management of the regional MPA network, MPA monitoring will provide useful information for California’s ocean resource management challenges. Data and findings from MPA monitoring contribute to building a unique body of knowledge to address other issues (e.g. climate change, fisheries management) across different scales and

¹ This monitoring framework was adopted as state policy by the California Fish and Game Commission with adoption of the North Central Coast MPA Monitoring Plan on April 7, 2010.

jurisdictions. OPC support for MPA Monitoring is an opportunity to simultaneously advance California's work on developing management strategies for multiple resource management issues.

The requested authorization is intended for scientific monitoring in the Central Coast region and may be reallocated to other regions based upon future assessments of existing resources and capacity in those regions. The recommended amount will provide a portion of the funding necessary to implement the next phase of monitoring in the Central Coast region and will attract and leverage additional resources necessary to collect scientific information to inform adaptive management. The amount is based upon cost-estimate assessments included in the North Central Coast and South Coast MPA Monitoring Plans. By authorizing funds now, OPC is providing funding to catalyze resource commitments from partner organizations, and will ensure that funding is in place to support initial data collection efforts to begin during the fall 2014 field season, with others to follow over the course of the next five years. This timing is appropriate given the five-year adaptive management cycle identified in the MLPA Master Plan for MPAs, initially adopted by the California Fish and Game Commission (FGC) in February 2008.

The next phase of MPA monitoring will be conducted through a partnerships-based approach, consistent with the [draft MPA Partnership Plan](#) currently under public review. The MPA Partnership Plan provides the state's vision for MPA management going forward using a partnerships-based model, and guides interactions across jurisdictions, sectors, and scales so the state can leverage the extensive resources already being brought to bear on the conservation and protection of these special areas. Through partnerships for MPA monitoring, California can leverage resources, expand the community of people and organizations involved in monitoring, and multiple opportunities for monitoring results to inform processes beyond MPA management. Potential partner resources and regional capacity for Central Coast MPA monitoring are currently under assessment, and findings will inform partnership agreements and disbursement of funds through appropriate mechanisms over the next five years.

The scope of monitoring initiatives will be guided by the Central Coast MPA Monitoring Plan, which is being updated to incorporate the statewide monitoring framework adopted by the Fish and Game Commission (FGC) as state policy. The updated plan also builds upon results from the Central Coast baseline monitoring projects, expertise from a wide range of scientists, and input from community members who participated in community gatherings and other meetings in early 2014. A draft of the Central Coast MPA Monitoring Plan is available in Exhibit 3.

PROJECT DESCRIPTION:

Project Background:

Pursuant to the Marine Life Protection Act (MLPA), in 2007 the Central Coast became the first region within the statewide network in which a network of 29 MPAs were designated. With the support of the OPC, and through a request for proposals and competitive review process administered by California Sea Grant, five projects were selected to collect socioeconomic and ecological data to establish a benchmark of baseline conditions upon which to compare future conditions inside and outside the MPAs. In addition, the Department of Fish and Wildlife's (CDFW) ROV program and an ongoing citizen-science program (California Reef Check) joined the baseline program collaboration. In 2011, with additional OPC support, up-to-date

socioeconomic data were added to the baseline program. Together, these researchers from academic institutions and government agencies, as well as fishermen involved in collaborative fisheries projects, conducted surveys of kelp forests, nearshore fish populations, rocky intertidal habitats and deep-water habitats. Researchers also collected socioeconomic data. This suite of ecological and socioeconomic data established a benchmark of ocean conditions and human activities at the time of MPA designation, against which future changes can be measured.

Following collection of this baseline data and integration with contextual data on oceanographic conditions, seafloor habitats and regulatory compliance, scientific results from Central Coast baseline MPA monitoring were broadly communicated with policymakers, resource managers, stakeholders and scientists. Communication efforts, including the [State of the California Central Coast Symposium](#) and the [State of the California Central Coast Report](#), were conducted to increase understanding of MPAs and monitoring, inform potential management decisions and engage a diverse constituency in long-term MPA monitoring. This was done collaboratively by the CDFW, FGC, OST, and OPC. Baseline monitoring information informed the five-year MPA management review process, culminating with [CDFW recommendations presented to the Fish and Game Commission in November 2013](#).

MPA monitoring is guided by monitoring plans developed for each MLPA region. As part of ongoing adaptive management, CDFW and OST are currently updating the Central Coast MPA Monitoring Plan, which was included as an appendix to the MLPA Master Plan in 2008. The updated plan will apply the statewide monitoring framework adopted by the Fish and Game Commission as state policy in 2010, and incorporate recommendations from the five-year management review. The 2008 Central Coast Monitoring Plan was developed prior to adoption of a statewide monitoring framework. The updated Central Coast MPA Monitoring Plan will be consistent with monitoring plans for other California MPA regions, incorporate findings from the Baseline Program, and reflect input from tribes and stakeholders, including fishermen, citizen scientists, and resource managers. It will provide guidance to the state, and to all future monitoring partners, on a scientifically rigorous, cost-effective, and sustainable approach to MPA monitoring in the Central Coast.

Following technical input by a subcommittee of the OPC Science Advisory Team, a public input opportunity, and discussion at the July 2014 FGC Marine Resources Committee meeting, the Fish and Game Commission may consider adoption of the updated Central Coast Monitoring Plan at its August 6, 2014 meeting.

Project Details:

Moving forward, CDFW, OPC and OST are engaged in a collaborative project to implement scientifically rigorous, sustainable, cost-effective MPA monitoring in the Central Coast in support of the adaptive management cycle described in the MLPA Master Plan for MPAs. Planning and implementation of MPA monitoring includes engagement with state, tribal, academic, citizen science, and other stakeholder partners in the region. This partnership-based approach is consistent with the state's vision for MPA network implementation moving forward, as defined in the MPA Partnership Plan, a draft of which is currently undergoing public comment. OPC's authorization will reserve a portion of the funding necessary for the next phase of MPA monitoring, and will leverage resources and catalyze partner investments to support data collection, data management, and synthesis and communication of results over the next five years.

It is anticipated that data collection will be conducted through collaborative projects that are scoped in accordance with priority information needs identified in the updated Central Coast MPA Monitoring Plan. Projects will address the condition of, and trends in, ecosystem health throughout the region, and how MPAs affect ecosystem health. Activities will include collecting data on Ecosystem Features identified in the statewide monitoring framework, including features characterized during baseline monitoring and others that may not be currently assessed through existing efforts in the Central Coast.

Implementation of Central Coast MPA monitoring will be further refined based on the results of an ongoing assessment of regional capacity and resources. OST has developed a survey examining current monitoring activities and capacity throughout the Central Coast, including geographic and temporal coverage of monitoring activities, and their compatibility with the indicators and metrics identified in the draft Central Coast MPA Monitoring Plan. This survey will be launched in early June 2014. It is anticipated that the results will show gaps, overlaps, potential opportunities for collaboration, and key assets, all of which can form the basis of a work-plan for investing OPC and other funds to support Central Coast MPA monitoring in the most cost-effective manner. Survey results will identify where OPC investment could be of greatest benefit if resources and capacity are lacking, and where existing resources may be useful for assessing ecosystem conditions and identifying effects of MPA design and management, as well as other ocean resource management challenges.

Ongoing assessment also includes engagement of the Central Coast ocean community. These outreach efforts are engaging a diverse constituency to build an MPA monitoring community that supports participation by academics, citizen scientists, tribes, and fishermen, among others. OST's California Citizen Science Initiative (CCSI) is exploring, through collaborative research and engagement, different models for linking cost-effective citizen science with adaptive management in Central Coast MPAs. Engagement with Central Coast tribal communities is strengthening relationships and building a foundation for future collaboration. Additionally, locally based organizations, through the MPA Collaborative Implementation Project, are positioned to both act on regional priorities and reflect local priorities through their participation in Central Coast MPA monitoring.

In order to support continued MPA monitoring by the diverse Central Coast MPA monitoring community in a cost-effective manner, it is anticipated that OPC funds will be distributed through a variety of mechanisms over the next five years contingent upon appropriation, including requests for proposals (RFPs), requests for qualifications (RFQs), and partnership agreements. Multiple distribution methods will ensure that funds are effectively targeted on key data gaps or priority areas, and are well-coordinated with relevant activities funded through other sources.

OPC and partner funds will be used to conduct monitoring that not only supports adaptive management of Central Coast MPAs, but also informs other ocean resource management decisions, thus putting the MPAs to work for California. California is building a unique body of knowledge through MPA monitoring that can be used to address other issues (e.g. climate change, fisheries management) and across different scales. At the same time, data collected through other programs can support adaptive management of MPAs, and may be accessed and integrated through partnership agreements. Through partnerships and collaborations across mandates and jurisdictions, more comprehensive monitoring can provide a greater return on investments in the statewide MPA network.

To ensure that the collected data are stewarded to allow for transparency and future interpretation, a portion of funds may be dedicated for long-term data management procedure development. Data and informational products will be shared on OceanSpaces.org and through communication products developed by OST, CDFW and OPC, in collaboration with the Central Coast MPA monitoring community.

Specific disbursement mechanisms and requirements, such as matching fund requirements, will be further informed by the results of OST's ongoing assessment work, and specified in a work-plan developed by OPC, OST and CDFW staff and submitted for OPC Executive Director approval during mid- to late-summer 2014 prior to disbursement of authorized funds.

Disbursement mechanisms may include requests for proposals, requests for qualifications, and partnerships agreements. The work plan will lay out a funding schedule over the next five years and a structure of disbursement mechanisms, including grantee and subgrantee selection criteria. It will also include plans for sharing the results of monitoring, following guidelines specified in the Central Coast MPA Monitoring Plan. To begin collecting data in the upcoming field season (fall 2014), one or more project solicitations will be developed and released later this summer, with additional project solicitations to follow over the next five years. This approach supports strategic, thoughtful, and transparent decisions about cost-effective investments over the next five years while ensuring that data will be collected in the upcoming field season, keeping the adaptive management cycle on track.

As the first region to enter into the next phase of MPA monitoring, the Central Coast provides the opportunity to identify and implement sustainable financing strategies for continued monitoring. Leveraging of OPC funds in the Central Coast can serve as a learning opportunity for sustainable financing approaches to support continued monitoring efforts in other regions, and identify potential other resources to reduce the state's investment in MPA monitoring in future regions. An investment in MPA monitoring by diverse constituents will build on-the-ground capacity to assess MPA performance and ocean health over the longer term.

PROJECT GRANTEEES:

Specific project grantees and potential subgrantees will be determined based upon appropriate funding mechanisms described above. Selection criteria will be identified as part of the work plan developed based upon ongoing assessments of regional capacity and resources.

SITE DESCRIPTION:

Funds are intended for scientific monitoring in Central Coast, the first region with MPAs adopted by the Fish and Game Commission under the Marine Life Protection Act. More information about Central Coast MPAs can be found on the [CDFW Central California Marine Protected Areas website](#).

PROJECT FINANCING:

Ocean Protection Council	\$3,000,000
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OPC funds will provide a portion of the funding necessary for scientifically rigorous monitoring

in the next phase of the adaptive management cycle. OPC funds will be further leveraged through in-kind services, matching funds, and data sharing from participating entities. Specific match requirements will be developed in grant and partnership agreements, with match requirements estimated to range between 25-50%. While direct investments are important to the success of MPA monitoring, the entire resource base to support MPA monitoring is reliant upon the inclusion of diverse partner resources, including time, expertise, data, and equipment.

The recommended funding allocation is a decrease from OPC's previous allocations for regional MPA baseline monitoring programs (~\$4,000,000 per region), and is intended to attract partner resources that will collectively build the foundation for continued monitoring in the Central Coast. A partnership based approach is crucial for sustainability and broad success of MPA monitoring. Any state investment should be treated as an opportunity to seed monitoring activities that build upon and leverage ongoing activities. The current proposed OPC investment is anticipated to result in further cost-effectiveness of any potential future state investments in MPA monitoring by establishing partnerships and leveraging mechanisms, and will identify partnership-based opportunities for sustainable financing of continued monitoring in other regions. Additionally, data collected from Central Coast MPA monitoring can inform other ocean resource management challenges, and thus will benefit multiple priorities and provide a greater return on investment. Further information about financing scenarios for ongoing MPA monitoring in support of adaptive management can be found in Exhibit 2.

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(b)(2)(F) 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. OPC funds will support development and integration of science into the state's management of its ocean and coastal resources, specifically marine protected areas; protection of the structure, function and integrity of marine ecosystems; and protection of the natural abundance and diversity of marine life.

CONSISTENCY WITH CALIFORNIA OCEAN PROTECTION ACT:

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

The OPC goals of PRC § 35615 include establishing policies to coordinate the collection of scientific data related to the ocean. In addition, the California Ocean Protection Act identifies trust fund allowable projects in PRC § 35650 (b)(2), as including projects that:

(F) Provide monitoring and scientific data to improve state efforts to protect and conserve ocean resources

A significant amount of biological and socioeconomic data will be collected using these funds. In addition, the data and information generated by these efforts will inform state management decisions related to the Central Coast MPA network.

CONSISTENCY WITH THE OPC'S STRATEGIC PLAN:

The project implements Focal Area D (Sustainable Fisheries and Marine Ecosystems), Issue 8: Leveraging Investments and Realizing Benefits of the State's Marine Protected Areas. The Strategic Plan calls for the OPC to support effective implementation of MPAs consistent with the MLPA through strategic partnerships and to 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.

Required Criteria

1. Directly relate to the ocean, coast, associated estuaries, or coastal-draining watersheds: The proposed project will improve scientific understanding of MPA performance and coastal and marine habitats in the Central Coast region. Data collection, analyses, and results will also inform other ocean resource management issues (e.g. fisheries management, climate change).
2. Have demonstrable support from the public: The proposed authorization is supported by numerous governmental, academic, and NGO entities. See letters of support in Exhibit 1.
3. Be of greater-than-local interest: The proposed funding authorization will support projects in the Central Coast region, will serve as a learning opportunity for continued monitoring in other MPA regions, and will provide valuable data and information to inform solutions for multiple ocean resource management challenges.

Additional Criteria

1. Innovation: The project is innovative in that it harnesses the strengths and resources from a variety of entities including academic institutions, citizen scientists, and fishermen, among others, to collect data in the most efficient and cost-effective manner possible.
2. Improvements to management approaches or techniques: Scientific information is necessary in order to adaptively manage the MPA networks as called for in the MLPA, and MPA monitoring data can inform other ocean resource management issues.
3. Resolution of more than one issue: The MPAs, themselves, are a tool to address more than one issue. The MPAs use an ecosystem-based management approach as opposed to traditional single-species management. The data collected as part of continued Central Coast MPA monitoring will aid in the understanding of how other phenomena, such as climate change, are affecting marine resources. MPA monitoring is designed to both inform and benefit from fisheries management, water quality, and other natural resource management

issues facing the state.

4. Coordination: Projects funded with these funds will be conducted as collaborations between state, local, non-governmental, academic and private entities. OPC, OST, and CDFW are already engaged with many different partners who wish to help improve the public's understanding of the MPAs and ocean health in California.

COMPLIANCE WITH CEQA:

The projects to be funded by 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.