

CALIFORNIA OCEAN PROTECTION COUNCIL

Staff Recommendation

August 7, 2017

California Sea Grant Research to Support Improved Management of Ocean and Coastal Resources

Jenn Phillips, Policy Advisor

RECOMMENDED ACTION: Authorization to disburse up to \$7,000,000 to the California Sea Grant College program and the University of Southern California Sea Grant program to fund and administer scientific research projects that directly support the OPC's strategic plan and priorities.

LOCATION: Statewide

STRATEGIC PLAN OBJECTIVE(S): Science-based decision making, climate change, sustainable fisheries and marine ecosystems, coastal and ocean impacts from land-based sources, existing and emerging ocean uses

EXHIBITS

Exhibit A: Letters of Support

FINDINGS & RESOLUTION:

Staff recommends that the Ocean Protection Council (OPC) adopt the following findings:

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

- 1) The proposed projects are consistent with the purposes of Division 26.5 of the Public Resources Code, the Ocean Protection Act.
- 2) The proposed projects are consistent with the Ocean Protection Council's grant program funding guidelines (Interim Standards and Protocols, August 2013).
- 3) The proposed project is not a ‘legal project’ that triggers the California Environmental Quality Act (CEQA) pursuant to Public Resources Code section 21068 and Title 14 of the

California Code of Regulations, section 15378. If it were determined to be a 'legal project' under CEQA, the proposed project is categorically exempt from review under CEQA pursuant to 14 Cal. Code of Regulations Section 15306 because the project involves information collection, consisting of data collection, research, and resource evaluation activities that will not result in a serious or major disturbance to an environmental resource."

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

"The California Ocean Protection Council hereby approves the disbursement of up to seven million dollars (\$7,000,000) to the two California Sea Grant programs, comprised of three and a half million dollars (\$3,500,000) to the California Sea Grant College Program and three and a half million dollars (\$3,500,000) to the University of Southern California Sea Grant Program, subject to the condition that projects selected through this review process will be presented to the council for final concurrence on the grant awards."

BACKGROUND AND PROJECT SUMMARY:

The California Ocean Protection Council (OPC) was established to improve the management and protection of ocean and coastal resources and ecosystems. One of the many ways the OPC achieves this purpose is by supporting innovative research that directly informs and improves the stewardship of ocean and coastal resources. The OPC has a strong partnership with the two California Sea Grant programs, and has collaborated with both programs previously to implement competitive grant programs to support OPC priority programs. The overarching goal of this project is to initiate a competitive grant program, administered by the California Sea Grant programs, to implement scientific research projects that directly support the OPC's strategic plan and priorities.

OPC staff recommends the disbursement of funds to each of the two California Sea Grant programs to fund research through a competitive grant process which will inform and improve management decisions affecting the ocean and coastal environment. There are two distinct Sea Grant Programs in California, both of which are part of the National Sea Grant College Program: 1) the California Sea Grant College Program which is administered by Scripps Institution of Oceanography at the University of California, San Diego (California Sea Grant); and 2) the University of Southern California Sea Grant Program (USC Sea Grant). Each of these programs focuses on providing services for coastal and ocean science and policy issues. The OPC has a strong relationship with both programs and has worked with each program over the past decade to advance research projects that benefit state management needs and help inform

policy development at the state level. If authorized, the OPC will continue these partnerships and disburse the following amounts in order to fund a competitive grant program: 1) \$3,500,000 to the California Sea Grant program; and 2) \$3,500,000 to the USC Sea Grant program.

Project Grantee:

The two Sea Grant programs have expertise in administering competitive grant programs and have experience in establishing robust processes for evaluating, prioritizing, and conducting grant management activities to advance research grants related to coastal and ocean resources. Nationally, the Sea Grant College Program network consists of 33 university-based programs funded primarily by the National Oceanic and Atmospheric Administration (NOAA) and dedicated to providing integrated research, communication, education, extension and legal programs to coastal communities to inform the responsible use and management of ocean and coastal resources. The California Sea Grant program is the largest of the 33 Sea Grant programs, and works along the entire state’s coastline and coastal watersheds. It is administered by the Scripps Institution of Oceanography at the University of California, San Diego. The USC Sea Grant program focuses primarily on the state’s southern coastal metropolitan region, with particular emphasis on topics related to the interface between urban areas and the ocean.

California Sea Grant and USC Sea Grant are well suited to oversee this new competitive grant program due to their expertise in developing competitive grant programs, including a credible process for review of proposals, and their compatible mission with OPC. The Sea Grant programs will advertise, receive proposals, review, oversee, and assist in evaluating research projects that address the priorities of the Council. The distribution of proposed priorities identified below was developed collaboratively between OPC staff and both Sea Grant program managers.

Proposed Priorities for the California Sea Grant Program

The California Sea Grant Program’s strategic focus areas are healthy coastal ecosystems, sustainable fisheries and aquaculture, and resilient coastal communities and economies, with cross-cutting themes of education, training and public information and linking science to stakeholders. The proposed OPC priorities for the California Sea Grant program listed below are aligned with these strategic focus areas.

Ocean Acidification and Hypoxia – Proposals focused on ocean acidification, hypoxia and other changing ocean conditions will further California and Ocean Protection Council’s leadership in this field. In particular, research and projects that focus on the effect of ocean chemistry on critical fisheries and ecosystems, and on the adaptive capacity of organisms and ecosystems to

changing ocean conditions, will support smart and swift management decisions in the face of change. Projects and research should build on the state's previous investments, if possible, and be scalable from the local, statewide, regional to international level so that we are continuing to translate emerging science into action across all levels of government and policy.

Sustainable Fisheries and Aquaculture – Proposals focused on sustainable fisheries and aquaculture will promote healthy marine ecosystems and sustainable marine fisheries and aquaculture in order to protect California's living coastal and ocean resources, and the communities and economic activities that rely upon them. Projects and research in this area may include, but are not limited to: projects that incorporate an ecosystem-based approach to fishery management; projects that consider the impacts of a changing climate on California fisheries; projects that advance scientific understanding of the impacts of, and opportunities for, aquaculture in state marine waters; and projects that prioritize collaboration with fishery participants and fishing communities to develop strategies to increase environmental and economic sustainability. Projects and research in this area will enhance the State's ability to support innovative, science-based approaches to inform more efficient, effective and streamlined fisheries and aquaculture management.

Proposed Priorities for the USC Sea Grant Program

The USC Sea Grant program shares the same strategic focus areas as the California Sea Grant program, with particular focus on climate change science and adaptation planning, coastal ecosystems science, science education and literacy, and coastal management policy and planning, including issues associated with marine transportation and ports and harbors, especially in the urban ocean environment. The proposed OPC priorities for the USC Sea Grant program are aligned with these focus areas, requesting projects that include protecting water quality, ensuring shoreline stability and preventing coastal hazards, promoting the sustainable development of coastal areas, and assessing the opportunities and potential impacts of marine renewable energy.

Sea-level Rise Adaptation & Coastal Resilience – Proposals focused on sea-level rise adaptation and coastal resilience should assess how the short- and long-term risks from climate change, such as sea-level rise and other changes in our coastlines, will affect a vast number of people, ecosystems, and industries. Because of the value of California's coastal areas and our dependence on the coast and ocean for recreation, food, and critical infrastructure, it is important to quantify how climate change will impact our ocean and coasts and how we can best anticipate, and plan and prepare for these changing ocean conditions. Proposals should explore how natural infrastructure and other adaptation measures ameliorate the climate risks related to coastal erosion, sea-level rise, and ecosystem degradation.

Coastal Sediment Management – Proposals focused on coastal sediment management will assess the potential ecological and economic impacts of coastal sediment management projects (e.g., beach nourishment, wetlands restoration, beneficial reuse of sand, managed retreat); identify and assess the effectiveness of methods to reduce or eliminate harmful effects of coastal sediment management projects; develop indicators that can inform development and monitoring plans; support implementation of the state’s 13 Coastal Regional Sediment Management Plans; and will increase the understanding of coastal processes affecting the California coast and sediment supply available to the coast.

Marine Pollution – Proposals focused on marine pollution should improve the State’s understanding of the sources, loading, and impacts of marine pollutants. Pollutants considered may include metals, microplastics, and constituents of emerging concern. Proposals under this program may include, but are not limited to, addressing the following themes: projects that focus on cross-cutting issues, for example, assessing the extent to which microplastics transfer plasticizers and other pollutants to the tissues of seafood species, and the implications of this pollutant loading for human health; and projects that advance the State’s ability to effectively and cost-efficiently monitor for and assess the impacts of emerging marine pollution problems, such as constituents of emerging concern.

Marine Renewable Energy – Proposals focused on marine renewable energy issues will assess the potential ecological and economic impacts of wind, wave and tidal energy development in California; identify and assess the effectiveness of methods to reduce or eliminate harmful effects; develop indicators that can inform development and monitoring plans; and assess the technological feasibility of deploying wind, wave and tidal energy devices in California.

It is important to note that although marine protected areas (MPAs) are not listed among the priorities above, they remain a top priority for OPC. MPAs have not been included as a priority for this competitive grant process because OPC has several other funding sources that are continuing to support the ongoing management and implementation of California’s MPA network, including: 1) \$2.6 million of Proposition 84 funds (remaining from \$3 million approved by the Council at its June 10, 2014 meeting) to be spent on long-term MPA monitoring; 2) \$2.5 million annual allocation of General Fund to support ongoing MPA monitoring; and 3) up to \$5.4 million annual allocation of once-through cooling interim mitigation funds to support MPA management including enforcement, compliance, education and research. Future competitive and non-competitive grant processes for OPC’s MPA program are anticipated in Fall 2018 and beyond.

Proposal Review Process and Grant Administration Process for Both Programs

Proposals will undergo a structured and proven review process led by the two California Sea Grant programs. OPC staff will be involved in all stages of the review process, including the technical review and final decision-making. At its discretion, the OPC may request additional review by likely user groups of the research findings or suggest coordination of complementary proposals. Projects selected through this review process will be brought back to the Council for final consideration of grant awards. Each Sea Grant program will provide all post-award grant administration, including reporting and financial accounting on the grants selected for funding.

Project timeline - Up to 5 years. Request for proposals are anticipated in Fall - Winter 2017, with recommendations for final awards presented to the Council in Summer - Fall 2018. All projects would be complete by fall 2022.

PROJECT FINANCING:

Staff recommends that the Ocean Protection Council (OPC) authorize encumbrance of up to \$7,000,000 to the two Sea Grant programs to fund and administer scientific research projects that directly support the OPC’s strategic plan and priorities.

Ocean Protection Council to California Sea Grant College Program	\$3,500,000
Ocean Protection Council to USC Sea Grant Program	\$3,500,000
Total Project Cost	\$7,000,000

The anticipated source of funds will be from the Ocean Protection Council’s appropriation of the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84). Proposition 84 authorizes the use of funds for purposes consistent with Section 35650 of the Public Resources Code, establishing the California Ocean Protection Trust Fund (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, as specified. The project is consistent with the Trust Fund purposes as discussed in the following section.

CONSISTENCY WITH CALIFORNIA OCEAN PROTECTION ACT:

The proposed project is consistent with the Ocean Protection Act, Division 26.5 of the Public Resources Code, because it is consistent with trust-fund allowable projects, defined in Public Resources Code Section 35650(b) as projects which:

- Eliminate or reduce threats to coastal and ocean ecosystems, habitats, and species

- Improve the management of fisheries
- Foster sustainable fisheries
- Improve coastal water quality
- Allow for increased public access to, and enjoyment of, ocean and coastal resources, of those resources
- Improve management, conservation, and protection of coastal waters and ocean ecosystems
- Provide monitoring and scientific data to improve state efforts to protect and conserve ocean resources
- Protect, conserve, and restore coastal waters and ocean ecosystems
- Address coastal water contamination from biological pathogens
- Provide funding for adaptive management, planning coordination, monitoring, research, and other necessary activities to minimize the adverse impacts of climate change on California's ocean ecosystem

Research funded through the Sea Grant programs will meet these directives because the projects chosen will directly focus on collecting and disseminating information and conducting research across a suite of priorities that will inform current data and knowledge gaps for managers.

CONSISTENCY WITH OPC'S STRATEGIC PLAN:

This project implements all of the Focal Areas mentioned in OPC's current Five-Year Strategic Plan (Focal Area A: Science Based Decision Making, Focal Area B: Climate Change, Focal Area C: Sustainable Fisheries and Marine Ecosystems, Focal Area D: Coastal and Ocean Impacts from Land, and Focal Area E: Existing and Emerging Ocean Uses). See proposed priorities for the two programs listed above.

CONSISTENCY WITH PROPOSITION 84 (The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006; Public Resources Code §75060(g):

This project is consistent with the purposes outlined in Proposition 84, specifically it includes the development and implementation of projects to foster sustainable fisheries and conserve marine wildlife. Scientific research projects will address gaps in knowledge, which hinder appropriate and swift management, policy, and protection efforts.

CONSISTENCY WITH OPC'S GRANT PROGRAM FUNDING GUIDELINES:

The proposed project is consistent with the OPC's Grant Program Funding Guidelines for Proposition 84 funds, in the following respects:

Required Criteria

- Directly relate to the ocean, coast, associated estuaries, or coastal-draining watersheds: *Projects selected for funding must fit within the proposed priorities outlined above. Greater understanding of any one of these areas will improve understanding of ocean and coastal resources and may lead to improved resource management.*
- Support of the public: *See Exhibit A; the Sea Grant programs have public support because the funded research will lead to improved management decisions affecting our ocean and coastal environment. A healthy and thriving ocean and coastal environment is an important driver for a healthy economy of California. Increasing our knowledge and identifying solutions to these issues will result in a healthy ocean and coast for the benefit of all Californians.*
- Greater-than-local interest: *The Sea Grant program is of statewide interest because funded research will ultimately lead to a better understanding of our ocean and coastal ecosystems and will inform improved management and policy in California. Projects may also be conducted on a statewide scale, or the findings will have statewide implications or transferability.*

Additional Criteria

- Improvements to management approaches or techniques: *OPC research projects are innovative because they require researchers to directly link their work to management issues and therefore could result in more swift management improvements or techniques.*
- Resolution of more than one issue: *Given the diversity of priorities listed above, this funding has the ability to advance understanding across a range of issues and offer potential solutions.*
- Timeliness or Urgency: *The California Sea Grant programs have extensive experience in executing and administering grants in a timely manner, and all work will be completed in no more than 5 years. The priorities outlined above must be responded to in a timely manner to continue to illustrate and advance California's commitment to ocean and coastal protection.*
- Coordination: *The Sea Grant programs are a unique collaboration between the University of California, University of Southern California, the national Sea Grant*

College network, the California Natural Resources Agency, the OPC and other state resource managers. The Sea Grant programs allow the OPC to play a critical role in building bridges between scientific research, responsive policy development, improved management, and public education. Links are necessary between university natural and social scientists, state resource managers and policy makers to ensure that research informs long-term policies that lead to the recovery and sustainability of the state's coastal resources. The Sea Grant programs work closely with the grantees throughout the project.

COMPLIANCE WITH CEQA:

The proposed project is not a 'legal project' that triggers the California Environmental Quality Act (CEQA) pursuant to Public Resources Code section 21068 and Title 14 of the California Code of Regulations, section 15378. If it were determined to be a 'legal project' under CEQA, the proposed project is categorically exempt from review under CEQA pursuant to 14 Cal. Code of Regulations Section 15306 because the project involves information collection, consisting of data collection, research, and resource evaluation activities that will not result in a serious or major disturbance to an environmental resource. Staff will file a Notice of Exemption upon approval by the OPC.