CALIFORNIA OCEAN PROTECTION COUNCIL

Staff Recommendation
February 29, 2008
California Sea Grant Research to Support Improved Management of Ocean and Coastal Resources

File No: 08-017-01
File No: 08-018-01
Project Manager: *Valerie Termini*

RECOMMENDED ACTION: Consideration and possible adoption of 2009 Ocean Protection Council (OPC) Funding Priorities for Sea Grant projects; authorization to disperse up to $1 million to the University of California Sea Grant and University of Southern California (USC) Sea Grant programs to fund research that directly supports the OPC's strategic plan.

LOCATION: Statewide

STRATEGIC PLAN OBJECTIVE: *Research and Monitoring*

EXHIBITS

Exhibit 1: California Sea Grant Call for Proposals
Exhibit 2: USC Sea Grant Call for Proposals

RESOLUTION AND FINDINGS:

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

> "The council hereby adopts the 2009 OPC Funding Priorities for Sea Grant projects and approves the disbursement of an amount not to exceed one million dollars ($1,000,000) to the two California Sea Grant programs, comprised of eight hundred thousand dollars ($800,000) to the California Sea Grant College Program and two hundred thousand dollars ($200,000) 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."

Staff further recommends that the OPC adopt the following findings:

> "Based on the staff report and attached exhibits, the OPC hereby finds that:

1. The proposed project is consistent with the purposes of Division 26.5 of the Public Resources Code, the Ocean Protection Act.
2. The proposed project is consistent with the council's project selection guidelines."

PROJECT SUMMARY:

OPC staff recommends the disbursement of funds to each of the two California Sea Grant programs to fund research which will inform and improve management decisions affecting the ocean and coastal environment. There are two distinct Sea Grant Programs in California: 1) the California Sea Grant College Program housed within the University of California System (UC Sea Grant) and 2) the University of Southern California Sea Grant Program (USC Sea Grant). Each of these programs focuses on separate issue areas and has distinct roles in the Sea Grant college program. The OPC has a solid relationship with both programs and has worked with each over the past several years to promote research projects that benefit state management needs and help inform policy development at the state level. If these projects are authorized, the OPC will continue these partnerships and disburse the following amounts: 1) $800,000 to the California Sea Grant College Program, and 2) $200,000 to the USC Sea Grant Program.

California Sea Grant College Program (UC Sea Grant)

The proposed approach to funding research with the UC Sea Grant program is different this year from past funding cycles. One of the major tasks assigned to the OPC is to improve coordination of the collection and sharing of scientific data related to coastal and ocean resources between scientists and state resource managers. While OPC-funded research projects in past years have resulted in data that can be incorporated into management decisions, staff believes that enhancing these connections during the project development and data collection stages will ultimately result in better products. Thus, this round of proposed funding will support one focused research and outreach initiative. The initiative team will be comprised of researchers from diverse scientific backgrounds, who together can examine all facets of an issue, including how state mangers can apply their findings to improve decision making. For example, a team who takes on the issues of climate change and ocean acidification could examine potential biological impacts but also elucidate secondary economic effects of changes to the marine ecosystem.

As the request for proposals dictates (exhibit A), proposed initiatives will only be considered for funding if they are comprised of a multidisciplinary research team that also must include a state resource manager or scientist. Teams will also be required to:

- Synthesize the current state of the knowledge on their research topic into a series of policy papers;
- Produce applied tools or products (such as useful indicators or predicative models); and
- Disseminate their results to policy makers and other interested communities.

Proposed Priorities for the UC Sea Grant College Program

Climate Change and Ocean Acidification – Proposals focused on climate change and ocean

acidification should improve the state's understanding of the impacts of climate change and ocean acidification on California's ocean and coastal ecosystems with a particular focus on biological resources. Research should lead to the development of products, tools, and recommendations designed to allow the state to adapt management practices to address anticipated climate change impacts.

Harmful Algal Blooms (HABs) – Proposals focused on HABs should generate information that will help coordinate existing efforts and methodologies to advance California's capabilities to predict and monitor such events. The chosen initiative should advance the understanding of the factors, including anthropogenic and natural drivers, which influence HABs. It should lead to the development of a HAB information network, (e.g. data sharing protocols) – coordinated with existing or planned observing systems – that will improve California's predictive capabilities for HAB events.

Invasive Species – Proposals focused on invasive species should provide information that will enable more strategic and effective prevention, detection, and early intervention strategies to deal with this threat. Examples of potential approaches include: quantifying the risks posed by all vectors of marine and estuarine invasive species; developing statewide invasive species detection protocols; and improving the state's capacity to respond to, eradicate, and control invasive species once they have been detected. It will be left to the applicant to decide whether to focus on a specific group of high impact invasive species or all possible invasive species within a particular region.

Water Quality – Proposals focused on water quality will focus on developing a transparent and scientifically-valid basis for pollutant standards, water quality indicators, improved predictive models that include field verification of Total Maximum Daily Loads (TMDLs) and watershed functioning, and/or pollutant origin and dynamics.

Wave and Tidal Energy Development – Proposals focused on wave and tidal energy development issues will assess the potential ecological and economic impacts of wave and tidal energy development in California; identify and assess the effectiveness of methods to reduce or eliminate harmful effects; and develop indicators that can inform development and monitoring plans.

The USC Sea Grant Program

Given the smaller scale of the USC program implementing a similar approach of a single, large-scale initiative is not possible with the two hundred thousand dollars, ($200,000). Therefore, funding for the USC program will be allocated the same way as it has in past years. Proposals will still, however, be required to illustrate a strong connection to management by specifying outreach mechanisms to integrate results with state management needs.

Proposed Priorities for the USC Sea Grant College Program

The USC program focus is on urban water quality. The proposed OPC priorities build from this, requesting projects that provide a better understanding of scientifically-based pollutant standards, water quality indicators, TMDLs, watershed functioning, and/or pollutant origin and dynamics. Please see exhibit B for the complete request for proposals for the USC Sea Grant Program.

Prior Release of 2009 Research Priorities
A partnership with the Sea Grant programs is beneficial to the OPC because the call for proposals, proposal submissions, and the review process happen concurrently with the yearly awards made by the programs. To match the timeline for the two Sea Grant programs, the proposed priority areas for both were released in advance of this OPC meeting. This was necessary to allow applicants sufficient time to prepare proposals and still meet application deadlines. The Request For Proposals (RFPs) (exhibits A and B) note that changes to the priorities could be made at the February OPC meeting. If this happens, staff will post a final, revised list of priority areas immediately following today's meeting.

Proposal Review Process for both programs
Proposals will undergo the same review process as all other California Sea Grant proposal submissions, including review by the Resources Agency Sea Grant Advisory Panel (RASGAP), which will review proposals for OPC priorities. 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 complimentary proposals. Projects selected through this process will be brought back to the council for concurrence at the Fall 2008 meeting.

Each Sea Grant program will provide all post-award grant administration, including reporting and financial accounting on the grants chosen for funding.

PROJECT GRANTEE:

The two Sea Grant programs are natural partners for this endeavor because they have an established, well-respected process for evaluating, prioritizing, and administering research grants related to coastal and ocean resources. Nationally, the Sea Grant College Network consists of 30 university-based programs funded primarily by the National Oceanic and Atmospheric Administration (NOAA) and dedicated to the understanding, conservation and sustainable use of coastal and marine resources. The California Sea Grant College Program is the largest of the 30 Sea Grant programs, and works along the entire state's coastline and coastal watersheds. It is administered by the University of California and is based at Scripps Institution of Oceanography in San Diego. The University of Southern California 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.

The two programs review projects and administer grant awards according to the same national standard; the programs' annual solicitation and review happens concurrently with the proposed OPC process, therefore resulting in minimal extra effort and low overhead costs. Sea Grant's credible review process and compatible mission makes it an obvious partner to review and select research projects that address the priorities of the council.

PROJECT HISTORY:

For the past two years, the OPC has approved grants of $1 million per year to the state's two Sea Grant programs. Due to the shared priorities and the existing relationship between Sea Grant and the council, coordinating OPC research projects with the Sea Grant review process is practical and cost effective. An additional benefit of continuing this partnership for a third cycle of research grants is the ability to collaboratively tackle issues deemed a priority for the OPC and Sea Grant. This is particularly critical as Sea Grant works with the states of California, Oregon, and Washington in developing a regional research plan to support the West Coast Governors' Agreement on Ocean Health.

The proposed project also benefits from an existing relationship between the Resources Agency and Sea Grant. RASGAP was formed through legislation to give the state a role in the review of scientific proposals submitted to Sea Grant. RASGAP reviews project proposals to determine their benefit to the management of the state's ocean and coastal resources. RASGAP is chaired by the Assistant Secretary for Ocean and Coastal Policy and consists of representatives from state government, the state legislature, state universities, and industries related to the ocean and coastal environment.

PROJECT FINANCING:

Ocean Protection Council to California Sea Grant College Program	$800,000
Ocean Protection Council to USC Sea Grant Program	$200,000
Total Project Cost	**$1,000,000**

Staff anticipates using $1 million of the OPC's tidelands oil funds, appropriated to the Secretary of the Resources Agency in the FY 04/05 budget for projects authorized pursuant to the California Ocean Protection Act. The Resources Agency has entered into an interagency agreement with the Coastal Conservancy to administer these funds on behalf of the OPC and recommend projects for funding.

OPC research proposals funded through this partnership require a 50 percent match. In addition, the agreements with the Sea Grant program will place a cap of 25 percent on university overhead for proposed projects.

CONSISTENCY WITH CALIFORNIA OCEAN PROTECTION ACT:

The project is consistent with Division 26.5 of the Public Resources Code, the California Ocean Protection Act (COPA), which allows the OPC to fund research to gather data in order to improve management of coastal waters and ocean ecosystems. Specifically, Section 35650 (b)(2)(F) authorizes the OPC to give grants to projects that will, among other things, "provide monitoring and scientific data to improve state efforts to protect and conserve ocean resources."

Research funded through the Sea Grant programs will meet these directives because the projects chosen will directly focus on collecting and disseminating information that will inform current data gaps for managers.

CONSISTENCY WITH OPC'S STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):

The proposed project is consistent with the OPC's Five-Year Strategic Plan by furthering Section II-B, Research and Monitoring, Objective 1: Improve scientific understanding of our ocean and coastal ecosystems. Section B Objective 1b in Appendix A, specifically states that OPC staff shall "work with the California Sea Grant Programs to review and award grants that meet the OPC guidelines and priorities." By working with the two Sea Grant programs, the OPC fulfills this section of its strategic plan and furthers scientific understanding of ocean and coastal management that has the potential to improve management of the state's ocean and coastal resources. The proposed project has been designed explicitly to meet this objective by creating research priorities that address the needs of the state and that are of a priority to the OPC.

CONSISTENCY WITH OPC'S PROJECT SELECTION CRITERIA & FUNDING GUIDELINES:

The proposed project is consistent with the OPC's Project Funding Guidelines adopted June 14, 2007 in the following respects:

Funding Priorities:

1. **Develop practical approaches to implementing ecosystem-based management:** Sea Grant's approach to selecting research projects will encourage scientists to consider all factors which play a role with respect to that particular issue, thereby fostering ecosystem-based management. For example, if a research team is investigating an invasive species in California, they might look at what factors influence the transport of the species into particular areas, distribution throughout the California current, what role climate change plays in further exacerbating the distribution and occurrence of invasions, and the economic impacts of these events. Researchers can then develop holistic approaches for management based on findings devised from this ecosystem-based approach.

2. **Improve the scientific understanding of our ocean resources:** All research projects chosen will examine components of California's coastal and marine ecosystems. The results from these projects will be published in journals and communicated to policy makers, thereby increasing understanding within both the academic and resource manager communities.

3. **Improve ocean and coastal water quality:** Depending on which projects are selected for funding, the sponsored research could focus exclusively on improving our general knowledge of water quality and providing specific solutions to current water quality problems in California.

4. **Promote ocean and coastal awareness and stewardship**: Supporting the two California Sea Grant programs creates avenues for scientists to reach the public with their findings. The selected research teams will work on issues with existing knowledge gaps so that

research will directly benefit the state in a meaningful way. Through outreach and dissemination of research findings, the Sea Grant program will help inform and educate California residents about issues that directly affect them and their children.

Required Criteria

1. **Directly relate to the ocean and coast**: Projects selected for funding must fit within the proposed priorities. These are climate change and ocean acidification, harmful algal blooms, invasive species, water quality, and wave and tidal energy development. Greater understanding of any one of these areas will improve understanding of ocean and coastal resources and may lead to improved resource management.

2. **Support of the public:** The Sea Grant program has public support because the funded research will lead to improved management decisions affecting our ocean and coastal environment. A healthy a thriving ocean and coastal environment are important drivers for a healthy economy of California. By increasing our knowledge and figuring out solutions to these problems will make a difference for the Californians who rely on a healthy ocean and coast for employment.

3. **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. Projects will also be conducted on a statewide scale, or the findings will have statewide implications.

Additional Criteria

1. **Leverage:** The chosen researchers will be required to provide 50 percent matching funds to support these projects.

2. **Innovation:** Addressing research and management challenges will require *coordinated, long-term, interdisciplinary research efforts* across the state. By design, OPC research projects are innovative because they require researchers to directly link their work to management issues. In particular, it is the first time that Sea Grant will fund a coordinated initiative team that requires scientists to organize themselves, bring a resource manager/scientist into the project from the beginning, and synthesize existing and new data into reports that policymakers can understand.

3. **Coordination:** The Sea Grant program is a unique collaboration between the University of California, University of Southern California, the national Sea Grant College Network, the State Resources Agency, the OPC and other state resource managers. The Sea Grant program allows the OPC to play a critical role in building bridges between scientific research, responsive policy development, 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. This allows the selected researchers access to Sea Grant outreach mechanisms as well as the Sea Grant Advisor network throughout the state. In addition, the UC Sea Grant initiative will promote coordination between the academic community and the state resource departments who are part of the initiative.

COMPLIANCE WITH CEQA

The proposed project is categorically exempt from review under the California Environmental Quality Act (CEQA) pursuant to 14 Cal. Code of Regulations Section 15306 because the project involves only 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.

NEW Focused Research and Outreach Initiative Priorities
Ocean Protection Council and California Sea Grant College Program

This document provides guidance to research teams preparing research proposals to submit to California Sea Grant College Program for possible funding by the California Ocean Protection Council (OPC). This grant to the California Sea Grant program is part of the continuing grants made annually by the OPC for management-oriented coastal and ocean research.[i]

Background

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 resources through a partnership with the two California Sea Grant programs. At its public meeting on February 29, 2008, the OPC will consider furthering this partnership by authorizing a third round of scientific research which will address current OPC priorities. Pending approval, the OPC may disburse up to $1,000,000 to the California Sea Grant College and University of Southern California (USC) Sea Grant programs. These priorities pertain only to the California Sea Grant College Program; details of the USC Sea Grant allocation are available through the USC Sea Grant Program.

This round of funding addresses priority issues derived from the OPC five-year strategic plan *A Vision for Our Ocean and Coast*;[1] the OPC FY2007/2008 Funding Priorities;[2] and the California Ocean and Coastal Information, Research, and Outreach Strategy.[3]

Proposed Priority Issues (not in priority order)

The following are proposed priority issues for consideration and possible adoption at the February 29, 2008 OPC meeting. These proposed priority issues are being released in advance of the meeting to provide sufficient time for research proposal preparation. However, this list of priority areas is subject to change, and a final list of priority issues will be posted immediately following the February meeting if funding is approved.

- Climate Change and Ocean Acidification
- Harmful Algal Blooms (HABs)
- Invasive Species
- Water Quality
- Wave and Tidal Energy Development

See priority issues descriptions below.

NEW Focused Research and Outreach Initiatives

California's coastal environment is facing an increasing number of pressing environmental challenges. Experts agree that addressing these challenges will require coordinated, long-term,

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i The proposed disbursement will be made to the Sea Grant programs ($200,000 to USC Sea Grant Program and $800,000 to California Sea Grant College Program) as a directed project pursuant to the OPC Funding Guidelines updated on June 14, 2007.

interdisciplinary research efforts across the state. Accordingly, the OPC seeks to develop a new approach to support interdisciplinary research and education.

For the first time, pending OPC approval, the California Sea Grant College Program will allocate $600,000 (not including up to 3 years of funding for 2 trainees) of OPC funding to a single research, application, and outreach initiative in an area relevant to state resource management needs (see description of priority issues below). This amount will be disbursed over a 3 year period to one team of several researchers and manager(s).

Initiatives are envisioned as coherent and well-coordinated programs of applied interdisciplinary research and training focusing on one important priority issue. Each proposal should describe a coordinated program of research, application, and training that will enable real-world improvements in how California addresses a key challenge to ocean health and sustainability.

By supporting a single initiative team comprised of multidisciplinary researchers, the OPC hopes to comprehensively address challenging issues and ensure that new data and ideas are incorporated into management. By examining a single issue from a multidisciplinary perspective and by directly linking the research to managers' needs and uses, the initiative should produce effective and applied outcomes.

Initiative Team

The initiative team must consist of a multidisciplinary assemblage of principle investigators (PIs) whose diverse backgrounds serve to benefit the goals of the initiative. The team must include at least one representative of a California resource management agency who should be actively involved early in the proposal development to guide the initiative towards high priority research needs to improve resource management. In addition, each proposal should provide for recruiting at least two Sea Grant Trainees as part of the initiative team. Given the required diversity of participants, the OPC anticipates that proposals may include multiple institutions.

State of Knowledge

The chosen initiative must assess the current state of knowledge. The successful team will be required to write a synthesis of the current state of knowledge and information needs as well as one or more short papers aimed at a broad audience that can be used by managers and others to quickly get up-to-speed on the initiative's focal issue.

Applied Tools and Products

The selected initiative will yield tangible results at the end of 3 years of funding by producing tools and products that will directly improve ocean resource management and establishing mechanisms for ensuring these tools and products reach key user groups. Examples include:

- Identifying useful indicators
- Developing predictive models
- Developing metrics and methods for evaluating the impacts of alternative regulatory choices or management actions

Translation and Integration of Results

The selected initiative will work directly with resource managers to identify needs and deliver results that improve resource management practices. Because translation and dissemination of research results is a critical component of this process, the involvement of one or more Sea Grant advisors or individuals capable of providing an outreach or extension component to the initiative

is recommended. The chosen initiative team will be required to collaborate with California Sea Grant's communication office to further disseminate initiative activities and outcomes.

Priority Issue Descriptions

Climate Change and Ocean Acidification—The initiative should improve the state's understanding of the impacts of climate change and ocean acidification on California's ocean and coastal ecosystems—with a particular focus on biological resources. It should lead to the development of products, tools, and recommendations designed to allow the state to adapt management practices to address anticipated climate change impacts.

Harmful Algal Blooms (HABs)—The initiative should generate information that will help coordinate existing efforts and methodologies to advance California's capabilities to predict and monitor HAB events. The initiative should advance the understanding of the factors, including anthropogenic and natural drivers, which influence HABs. It should lead to the development of a HAB information network, (e.g. data sharing protocols)—coordinated with existing or planned observing systems—which will improve California's predictive capabilities to HAB events.

Invasive Species—The initiative should provide information that will enable more strategic and effective prevention, detection, and early intervention strategies. Examples of potential approaches include quantifying the risks posed by all vectors of marine and estuarine invasive species; developing state-wide invasive species detection protocols; and improving the state's capacity to respond to, eradicate, and control invasive species once they have been detected. Teams may consider focusing on a specific group of high impact invasive species or all possible invasive species within a particular region.

Water Quality—Teams should focus on developing a transparent and scientifically-valid basis for pollutant standards, water quality indicators, improved predictive models that include field verification of TMDLs and watershed functioning, or pollutant origin and dynamics.

Wave and Tidal Energy Development—An initiative focused on this issue should assess the potential ecological and economic impacts of wave and tidal energy development in California; identify and assess the effectiveness of methods to reduce or eliminate harmful effects; and develop indicators that can inform development and monitoring plans.

OPC Funding Considerations

Proposals requesting OPC funds do not have restrictions on the source of the matching requirement, however, proposals have at least a 50% matching fund requirement. Federal sources and state resource manager salaries will be considered eligible as matching funds.

Research conducted with OPC funds must limit the indirect costs rate to 25% or less.

Review Process

Proposals will undergo the same review process as all other California Sea Grant proposal submissions, including review by the Resources Agency Sea Grant Advisory Panel (RASGAP), which will review proposals for OPC priorities. The OPC will have staff 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 complimentary proposals. Before funds are awarded, the OPC will need to provide concurrence on the selected research projects, which will happen in the fall of 2008.

Proposal Submission

In order to submit to this solicitation, you must first contact Russ Moll or Shauna Oh at 858-534-4440 to discuss ideas and intent to submit. Once this has happened, a specific preliminary proposal submission form will be sent to you via email. Do not use the online form.

Proposal Elements

In order to successfully complete an OPC focused research and outreach initiative preliminary proposal, the following five elements must be addressed:

1. Initiative Team
   List team members and provide information on the activities to be conducted by each team member. This section should demonstrate how the initiative is designed to effectively merge the unique attributes and knowledge of each PI to reach the initiative goal. The team must include at least one PI who is a California state resource manager or scientist. The team should also include at least 2 Sea Grant trainees.

2. Statement of Problem
   Include a problem statement of the particular ocean issue of focus and why knowledge and management of this issue would benefit from a multidisciplinary approach.

3. Project Goals and Objectives
   Discuss how the proposed research will advance applied ocean resource management. This should include specific hypotheses to be tested, objectives to be achieved (i.e., product and tool development), and how the objectives relate to OPC priority issue.

4. Intended Approach
   Describe the approach to be used and the methodology involved in meeting the stated objectives. The approach must specify which resource managers will be involved in each step as the initiative progresses—from clarifying the problem statement to developing, testing, and disseminating tools and products.

5. Anticipated Results and Who Will Benefit
   Identify uses and end users for the proposed data and tools. Describe how the initiative will directly improve the effectiveness of California state agencies in their efforts to manage, protect, conserve, or restore coastal or ocean resources. Each proposal must include one or more letters of support from end users (government or non-government) identifying the anticipated value and use of the project results to the public, research community, and/or state government.

6. Consistency with OPC Goals and Priorities
   The proposed research must address the mandatory provisions of California Ocean Protection Act (California Public Resources Code § 35500 et seq.) and be consistent with the actions contained in the OPC five-year strategic plan.

Useful Websites

1. The OPC 5-year strategic plan *A Vision for Our Ocean and Coast*
http://resources.ca.gov/copc/docs/OPC_Strategic_Plan_2006.pdf

2. OPC FY2007/2008 Funding Priorities
http://resources.ca.gov/copc/docs/FinalFundingPriorities2008_amended.pdf

3. California Ocean and Coastal Information, Research, and Outreach Strategy
http://resources.ca.gov/copc/InfoResOut_Strategy_final.pdf

Ocean Protection Council Priorities for University of Southern California Sea Grant Research Proposals

This document provides guidance to researchers preparing proposals to submit to the University of Southern (USC) California Sea Grant program for possible funding by the California Ocean Protection Council (OPC). This grant to the USC Sea Grant program is part of the continuing grants made annually by the OPC for management-oriented coastal and ocean research.[i]

Background

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 resources through a partnership with the two California Sea Grant programs. At its public meeting on February 29, 2008, the OPC will consider furthering this partnership by authorizing a third round of scientific research which will address current OPC priorities. Pending approval, the OPC may disburse up to $1,000,000 to the USC Sea Grant and California Sea Grant College programs. These priorities pertain only to the USC Sea Grant Program; details of the California Sea Grant allocation are available through the California Sea Grant College Program.

This round of funding addresses priority areas derived from the OPC five-year strategic plan *A Vision for Our Ocean and Coast;*[1] the OPC FY2007/2008 Funding Priorities;[2] and the California Ocean and Coastal Information, Research, and Outreach Strategy.[3]

2008 OPC Guidelines for Research – A Focus on Water Quality

At its February 29, 2008 meeting, the OPC will consider and adopt priority areas for the 2008 USC Sea Grant. While many challenging problems currently impact California's coastal marine environment, the OPC and USC Sea Grant Program propose to focus attention in the 2008 grant round on a single overarching priority issue: **Water quality.** By examining a single priority issue through one or more research projects, it is envisioned that more comprehensive and applied outcomes will be produced.

At its February 29, 2008 meeting, the OPC will consider and adopt priority issues for the 2008 USC Sea Grant Program. This proposed priority issue is being released in advance of the meeting to provide sufficient time for research proposal preparation. However, this priority area is subject to change, and a final list of priority area(s) will be posted immediately following the February meeting if funding is approved.

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[i] The proposed disbursement will be made to the Sea Grant programs ($200,000 to USC Sea Grant Program and $800,000 to California Sea Grant College Program) as a directed project pursuant to the OPC Funding Guidelines updated on June 14, 2007.

The OPC and USC Sea Grant Program are requesting that researchers submit proposals with the intent to comprehensively assess an aspect of water quality. Priority will be given to research that provides a better understanding of scientifically-based pollutant standards, water quality indicators (including for emerging pollutants and endocrine disruptors), Total Maximum Daily Loads (TMDLs), watershed functioning, and/or pollutant origin and dynamics

Research projects must address or substantially contribute to improving management decisions, protection, conservation, or restoration of the State's coastal and ocean water quality. These endeavors must support the provisions of the California Ocean Protection Act (California Public Resources Code § 35550, et seq.) and be consistent with the actions contained in the OPC five-year strategic plan.

Pending OPC approval, the USC Sea Grant Program will allocate $200,000 of OPC funding to focused research proposal(s) in an area relevant to water quality and state resource management needs. This amount will be disbursed over a 2-3 year period to one or more research projects. The number of projects to be funded will be determined by proposal quality and relevance.

Proposals that address the following points are encouraged:

- Assess the current state of knowledge and work with resource managers to identify the key information needs to address pressing ocean and coastal resource management issues.
- Illustrate a strong connection to management by demonstrating how the project can assist, complement, or augment the work of state agencies in their efforts to manage, protect, conserve, or restore coastal or ocean water quality.
- Identify mechanisms to translate results to improved management practices.
- Examine status and trends through synoptic and long-term assessments.
- Identify sources and processes of ocean pollution that impact the health of humans and the marine environment.
- Integrate research and monitoring across disciplines and programs optimizing the approach to ecosystem-based management.
- Promote or be of discernible benefit to the public, including current and future generations
- Develop decision support tools for end users.
- Be of greater-than-local interest.

Applied Tools and Products

Successful proposals will promote the development of products and tools that will directly improve ocean resource management and establishing mechanisms for ensuring these tools and products reach key user groups. Examples include:

- Identifying useful indicators
- Developing predictive models
- Developing metrics and methods for evaluating the impacts of alternative regulatory choices or management actions

Translation and Integration of Results

Successful proposals will deliver results that improve resource management practices. Work plans for each proposal must specify which resource managers and/or regulators will be integrated into the work as it progresses from clarifying the problem statement to developing, testing, and disseminating tools and products. Each proposal must include one or more letters of support from end users (government or non-government) identifying the anticipated value and use of the project results to the public, research community, and/or state government. Because translation and dissemination of research results is critical for improving resource management, the involvement of one or more Sea Grant or State Agency advisors is encouraged

Research will be considered that involves cross-boundary or regional aspects, such as regional and international coordination.

OPC Funding Considerations

Proposals must have at least a 50% matching funds, however, research proposals requesting OPC funds do not have restrictions on the *source* of the matching funds. Federal sources will be considered eligible as matching funds.

Research conducted with OPC funds must limit the indirect costs rate to 25% or less.

Review Process

Proposals for OPC funds will undergo the same review process as other Sea Grant proposal submissions, including review by the Resources Agency Sea Grant Advisory Panel (RASGAP), which will review proposals for OPC priorities. There will also be an independent scientific peer review process conducted by USC. The OPC will have staff 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 complimentary proposals. Concurrence on the selected research projects will be required from the OPC before funds are awarded.

Useful Websites

1. The OPC 5-year strategic plan *A Vision for Our Ocean and Coast*
http://resources.ca.gov/copc/docs/OPC_Strategic_Plan_2006.pdf

2. OPC FY2007/2008 Funding Priorities
http://resources.ca.gov/copc/docs/FinalFundingPriorities2008_amended.pdf

3. California Ocean and Coastal Information, Research, and Outreach Strategy
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