

CALIFORNIA OCEAN PROTECTION COUNCIL

Staff Recommendation  
March 27, 2013

**LOCAL COASTAL PROGRAM  
SEA-LEVEL RISE ADAPTATION GRANT ROUND**

File No.: 12-055-01  
Project Manager: *Mary Small*

**RECOMMENDED ACTION:** Approval of grant selection criteria and grant application form for the proposed Local Coastal Program Sea-Level Rise Grant Program.

**LOCATION:** Statewide

**STRATEGIC PLAN OBJECTIVE:** Climate Change

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**EXHIBITS**

Exhibit 1: [November 29, 2012 OPC Staff Recommendation](#)

Exhibit 2: [Draft Grant Application Form](#)

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**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 grant selection criteria and grant application form and administration of the proposed Local Coastal Program Sea-Level Rise Grant Program.

Staff is authorized to solicit and evaluate proposals, subject to the condition that the Ocean Protection Council shall approve final selection of any grants under this program. The State Coastal Conservancy, in coordination with the California Coastal Commission, may administer the grant program.”

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 Ocean Protection Act.

2. The proposed project is consistent with the Ocean Protection Council's grant program funding guidelines.”

**PROGRAM SUMMARY:**

In November of 2012, the Ocean Protection Council (OPC) approved \$2,500,000 for competitive grants to provide funds for local and regional vulnerability assessments and updates to Local Coastal Programs and other Coastal Act authorized plans to address sea-level rise, coastal hazards and other climate change-related impacts (Exhibit 1). This authorization was subject to the condition that the OPC approve the grant criteria prior to soliciting grant proposals. The proposed grant criteria are described in this staff report and a draft grant application form is attached to this staff report as Exhibit 2.

The proposed grant program will be co-managed by staff from the Coastal Conservancy, the Coastal Commission and the Ocean Protection Council. Staff from the three agencies have worked together over the past few months to develop the proposed competitive grant program.

**PROGRAM DESCRIPTION:**

There is consensus that the California coast will experience significant impacts from the combined effect of sea-level rise, extreme high tides, storms and coastal erosion in the future. These impacts will play out differently in each region of the coast depending on the shoreline structure, development patterns and many other variables. Understanding, planning for, and preparing for these impacts must be done at the local, regional, and statewide scale. The purpose of these grants is to support this work, particularly through local coastal planning pursuant to the California Coastal Act.

This grant program is focused on updating Local Coastal Programs (LCPs) and other plans authorized under the Coastal Act such as Port Master Plans, Long Range Development Plans and Public Works Plans (other Coastal Act authorized plans) to address sea-level rise and climate change impacts because they are the fundamental planning documents for the California coast.

LCPs and other Coastal Act authorized plans are required by the Coastal Act for each coastal jurisdiction, and are the basic planning and regulatory tool that guides development in the coastal zone in conformity with Coastal Act goals and policies. These plans must specify the kind, location, and intensity of land uses, the applicable resource protection and development policies and implementing ordinances. LCPs and other Coastal Act authorized plans are prepared primarily by local governments, and once certified, these plans govern most coastal permit decisions that can affect the short- and long-term conservation and use of coastal resources. Following adoption by the local planning authority, an LCP or other Coastal Act authorized plan is submitted to the Coastal Commission, which reviews and certifies as consistent with State law.

The purpose of this grant program is to encourage local governments and other entities responsible for planning under the Coastal Act to develop and adopt updated plans that conserve and protect coastal resources, such as public accessways and recreation sites, environmentally

sensitive habitat areas and other coastal and terrestrial resources, agricultural areas, new and existing development, coastal-dependent and visitor-serving uses, critical infrastructure, and other resources and priority uses identified by the Coastal Act from future impacts from sea-level rise and related climate change impacts such as extreme storms. Grant funds would pay for technical planning work, evaluation of planning alternatives and transfer of this information to other jurisdictions; it is also the intent of this program to develop adaptation planning examples and/or ordinances that could be examples for use by multiple jurisdictions. Finally, it is the goal of this program to encourage proactive planning that will protect public resources (including ecosystem function and public recreation) in the face of rising sea-levels and other impacts.

The proposed grant awards would be anticipated to be between \$50,000 and \$250,000 although there would be no fixed maximum or minimum award. Grants could be offered for less than an applicant requests based on the program priorities and availability of funding. It is anticipated that there would be two grant rounds, with a second grant round in the summer of 2014. Approximately ten to fifteen total grants would be awarded over two years.

Recognizing that local jurisdictions have different needs for planning for sea-level rise and climate change, there are several types of projects that would be eligible for funding under this grant program. Eligible projects are described below.

## **1. Assessment of Risks and Vulnerability**

### **A. Sea-Level Rise Modeling, Mapping, and Science.**

There are significant data sources available to assess the risk posed by sea-level rise or increased storms along the coast, including the recently completed LIDAR elevation data and some regional modeling efforts. Some applicants may wish to apply for funds for a more detailed modeling of physical processes to assess risks. In describing proposed risk assessment, applicants should specifically link the proposed work to the hazards identified in their LCP and the Coastal Act and to future amendments that may be needed to LCP policies or ordinances. Modeling, mapping, and science projects could include:

- Integration of existing data sets such as LIDAR and local tidal data
- Modeling dynamic coastal process, such as erosion, flooding, and storm impacts
- Mapping hydrologic connectivity

### **B. Assessment of Vulnerability to Sea-Level Rise**

A sea-level rise vulnerability assessment for a Local Coastal Program or other plan involves evaluating whether any of the coastal resource topics and community assets addressed in Chapter 3 policies of the Coastal Act are susceptible to harm from impacts that could occur from a range of sea-level rise scenarios. Specifically, the assessment should evaluate how sea-level rise-related hazards (i.e., flooding, inundation, erosion, wave impacts extreme events, and saltwater intrusion, as appropriate) could affect public accessways and recreation sites, environmentally sensitive habitat areas and other coastal and terrestrial resources, agricultural areas, new and existing development, coastal-dependent uses such as harbors and wharfs, critical infrastructure such as wastewater treatment plants, Coastal Highway 1, and other resources and priority uses considered by

the Coastal Act.

Using new data and tools, such as the recently completed high resolution Coastal LiDAR, it is now possible to develop maps of areas that may be vulnerable to inundation for different levels of sea-level rise and storm conditions. Understanding the resources at risk due to sea-level rise is the first step in developing adaptation strategies and in identifying needed amendments to LCPs (or other Coastal Act authorized plans) including amendments to the land use plan and implementing ordinances. Types of vulnerability assessment projects could include:

- Assessments of potential vulnerability of natural resources, recreational resources, priority land uses, or built environment to sea-level rise.
- Mapping important resources, such as natural resources, public recreational resources or infrastructure.

## **2. Development of Adaptation Responses**

### **A. Evaluation of Adaptation Responses**

Communities that have already identified risks and vulnerabilities could apply for funds to evaluate potential planning responses. These activities could include:

- Inventory of existing policies and ordinances that relate to sea-level rise.
- Identification of options to increase the ability to respond to sea-level rise and storms or to adapt to changing conditions while protecting public access and ecosystem values
- Comparison and evaluation of planning alternatives

### **B. Updates to Local Coastal Programs or Other Coastal Plans**

The ultimate goal of this program is to develop updates to LCPs or other Coastal Act authorized plans to address sea-level rise and other climate change impacts. Potential grantees could apply for funds to develop specific updates to their LCPs or other Coastal Act authorized plans.

- New or amended policies or land use designations
- New or amended implementing ordinances or maps, with consideration for transferrable ordinances that can be shared with other jurisdictions.

Proposals will be required to address at least one certified LCP segment or other defined planning segment such as a certified Port Master Plan or University Long Range Development Plan, as applicable. Proposals related to areas without a certified LCP will need to demonstrate that the process to complete the LCP (or other Coastal Act authorized plan) is committed to or underway. Proposals that only address a single development project-driven LCP Amendment will not be eligible for funding.

Applicants will be required to provide a detailed description of the project proposed. The description will need to describe the specific project goals and objectives that will be achieved,

clearly identify the need for the project and its relevance to other work along the coast. Applicants will need to describe how the project addresses the goal of ensuring ongoing public benefits from coastal resources in the face of climate change impacts. Finally, applicants will need to describe specifically how the work funded by the grant will help the community to update its LCP (or other Coastal Act authorized plan), including the specific elements of the plan that will be informed by this work.

## **PROPOSED PROGRAM PRIORITIES AND SELECTION CRITERIA:**

Grant proposals would be evaluated by staff from the three partner agencies against the following selection criteria. Grants recommended for funding would be brought back to the OPC for approval.

### **1. Likelihood of adoption/approval/implementation**

An applicant will need to explain specifically how this grant will support updating of an LCP (or other Coastal Act authorized plan) to address sea-level rise. The applicant will be asked to describe the complete planning process, steps or mechanisms for coordination with the Coastal Commission, and how this grant would advance that process. Applicants will be asked to identify the specific elements of their LCP that they expect to update through this work. A resolution from the applicant committing to addressing sea-level rise and completing an LCP Amendment submittal to the Commission for updating the LCP will be required as part of the application.

### **2. Public Benefit**

Priority in awarding of grant funds will be given to projects that **maximize public benefits of the coast** in addressing sea level rise as articulated in the [Coastal Act](#) and [California Ocean Protection Act](#). These benefits can include: preserving and enhancing habitat such as coastal wetlands and natural lands, conserving biodiversity, protecting, providing and enhancing public access, protecting priority land uses such as coastal dependent development and recreational opportunities and protecting visitor-serving amenities. Applications that address sea-level rise using strategies that expand and protect these public resources will be given priority.

### **3. Use of Best Available Science**

Applicants should use the best available science on sea-level rise in projects, and should consider the recommendations presented in the [State of California Sea-Level Rise Guidance](#). One current source of science is the National Research Council (NRC) recent report [“Sea-level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future”](#) (NRC Report). Preliminary analysis of potential impacts from sea-level rise using the NOAA Coastal Services Center [Sea-level rise and Coastal Flooding Impacts Viewer](#) or other readily-available planning tools will be required as part of the application.

### **4. Effectiveness**

The goal of these grants is to encourage local entities to conserve and protect coastal resources, such as public accessways and recreation sites, environmentally sensitive habitat areas and other coastal and terrestrial resources, agricultural areas, new and existing development, coastal-dependent and visitor-serving uses, critical infrastructure, and other resources and

priority uses identified by the Coastal Act. Applicants will be asked to demonstrate how the proposed project will be effective in conserving and protecting these resources from future impacts from sea-level rise and related climate change impacts through changes in LCPs or other applicable plans, and how the proposed project builds upon or complements existing efforts that may be underway or completed for their local jurisdiction

#### **5. Urgency and Need**

Priority will be given to applications that address an urgent problem. Urgency may be demonstrated by the specific resources that are at risk from sea-level rise and climate change. Urgency could also arise if the applicant is going to make planning decisions that will have long-lasting effects on its ability to adapt to sea-level rise and other climate change impacts. Applicants will need to demonstrate the need for this grant.

#### **6. Transferability**

Projects that address issues in a manner that may be useful as a model for other communities will be given priority. The potential transferability of analysis, strategies, or draft ordinance language will be considered in evaluation of proposals. Grantees will be expected to report on lessons learned during the grant's planning process and to include in the work program specific activities to actively share information with others, including other local governments. Grantees should propose specific means for evaluating success and sharing lessons learned.

#### **7. Matching Funds/Leverage**

Applicants are encouraged to provide matching funds or leverage resources. Grant amounts will be limited and will be targeted to communities that can leverage other resources, provide matching funds or commit significant in-kind resources to the project. Applicants will need to demonstrate their capacity to achieve the proposed work, including identifying key staff and other resources that will be committed to the project.

#### **ELIGIBLE GRANTEES:**

These grants are intended to provide assistance to local governments responsible for adopting and amending Local Coastal Programs and to other entities with authority for adopting and amending other plans under the Coastal Act (Port Master Plans, Public Works Plans or University Long Range Development Plans) under the Coastal Act. The grant applicant must be one of these entities, but partnership and collaboration is encouraged where appropriate. Partners could include other public agencies, nonprofit organizations, academic researchers, or private contractors.

#### **PROGRAM HISTORY:**

The National Research Council recently released its report [“Sea-level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future”](#) which confirms that California has already seen sea-levels rise and is likely to see significant increases in sea-level over the next century. The NRC Report also concludes that over the next several decades the most significant impacts will come from the combined effects of sea-level rise and extreme weather event such as

the El Nino storm cycles and high tides. El Nino events of 1982 and 1997 caused temporary increases in sea-level that combined with storm surges that resulted in significant coastal flooding and erosion. Impacts from these kinds of events will likely be amplified as the sea-level rises. The NRC Report concludes that sea-level change has enormous implications for coastal planning, land use, and development along the California coast. A 2009 Pacific Institute study, funded in part by OPC, estimated that without any proactive planning the economic impacts of sea-level rise by 2100 could exceed \$100 billion.

California's [2009 Climate Adaption Strategy](#) identified the need to support regional and local planning to address sea-level rise impacts, and specifically highlights the importance of updating Local Coastal Programs as a key adaptation strategy. The Coastal and Oceans chapter states that "all coastal jurisdictions, in coordination with the Coastal Commission, should begin to develop amended LCPs that include climate change impacts" (pg 77). The California Natural Resources Agency and California Emergency Management Agency recently released the [California Climate Change Adaptation Policy Guide](#) which emphasizes the importance of starting to plan for climate change impacts immediately and recognizes the critical role of local and regional jurisdictions in this effort.

While a few communities have begun to work on vulnerability assessments, there is a need for assistance to help complete this work. USC Sea Grant conducted a [Coastal California Adaptation Needs Assessment in 2011](#) which found that local communities understand the need to start planning for climate change impacts but lacked the financial resources to complete this work. These grants directly address that need. A December 2012 Local Government workshop held by the Coastal Commission highlighted the need for additional local and technical assistance and Coastal Commission staff resources to assist with the updating of existing LCPs.

## **PROGRAM FINANCING**

<b>Ocean Protection Council</b>	<u><b>\$2,500,000</b></u>
<b>Total Project Cost</b>	<b>\$2,500,000</b>

The anticipated source of funds will be the fiscal year 2008 appropriation from 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 these 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. These purposes include projects that provide funding for adaptive management, planning, coordination, and other activities to minimize the adverse impacts of climate change, including sea-level rise on California's ocean ecosystem. (Pub. Res. Code § 35650(b)(2)(J)). Modernizing local coastal plans will directly improve the management of coastal and ocean resources as specified by this section. Any information developed under the grants which identifies early action measures for the elimination or reduction of emissions from greenhouse sources will be shared with the California Air Resources Board, consistent with PRC § 35650((b)(2)(J)(ii)

**CONSISTENCY WITH CALIFORNIA OCEAN PROTECTION ACT:**

See Exhibit 1: [November 29, 2012 OPC Staff Recommendation](#)

**CONSISTENCY WITH THE OPC'S STRATEGIC PLAN:**

See Exhibit 1: [November 29, 2012 OPC Staff Recommendation](#)

**CONSISTENCY WITH THE OPC'S GRANT PROGRAM FUNDING GUIDELINES:**

See Exhibit 1: [November 29, 2012 OPC Staff Recommendation](#)

**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. While the research to be solicited by this authorization may result in follow-up actions by public agencies, those actions, if any, have not yet been approved, adopted or funded. Staff will file a Notice of Exemption upon approval by the OPC.