

CALIFORNIA OCEAN PROTECTION COUNCIL

Staff Recommendation  
*May 15, 2008, as amended*

**AQUATIC INVASIVE SPECIES VECTOR RISK ASSESSMENTS**

File No.: 08-053-01  
Project Manager: *Abe Doherty*

**RECOMMENDED ACTION:** Authorization to disburse up to \$1,000,000 to the California Ocean Science Trust to fund aquatic invasive species vector risk assessments.

**LOCATION:** Statewide

**STRATEGIC PLAN OBJECTIVES:** Governance, Research and Monitoring, Ocean and Coastal Ecosystems

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**EXHIBITS**

Exhibit 1: [Letters of Support](#)

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**RESOLUTION AND FINDINGS:**

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

“The Council hereby approves the disbursement of an amount not to exceed \$1,000,000 (one million dollars) to the California Ocean Science Trust (“OST”) to develop the Aquatic Invasive Species Vector Risk Assessments project. This authorization is subject to the following conditions:

1. Prior to disbursement of funds, the OST shall submit for the review and approval of the Secretary to the Council a work plan, including schedule and budget, and the names and qualifications of any contractors that it intends to employ to carry out the project.
2. Staff will develop a process for adding vectors as they become important.”

Staff further recommends that the Council adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the 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 Council's project funding guidelines.

**PROJECT SUMMARY:**

Staff recommends that the Council provide \$1,000,000 to the OST for risk assessments of vectors (pathways) for introductions of aquatic invasive species (“AIS”). In January of 2008, Governor Schwarzenegger signed the *California Aquatic Invasive Species Management Plan* (“*AIS Plan*”). (The *AIS Plan* is available at <http://www.dfg.ca.gov/invasives/plan/>.) The *AIS Plan* provides a framework for agency coordination and identifies actions to minimize the harmful effects of AIS in California. One of the top priorities identified in the *AIS Plan* is to conduct statewide assessments of the risks from specific vectors for introductions of AIS. Since AIS have few natural controls in their new habitat, they spread rapidly and destroy native organisms and threaten coastal dependent recreational and commercial activities. The *AIS Plan* emphasizes the need to prevent introductions. The risk assessments will provide information on different ways that AIS are introduced into the state’s waters, evaluate the risks posed by these various vectors for introductions, and develop recommendations for management actions to strategically target prevention of introductions.

**PROJECT DESCRIPTION:**

**Project Background:**

On January 13, 2005, the Council determined that completion of the *AIS Plan* was a high priority for ocean conservation and authorized the Secretary of the Ocean Protection Council (“Council”) to take actions needed to provide up to \$110,000 for completion of the *AIS Plan*. The Coastal Conservancy contracted with the San Francisco Estuary Project (through the Association of Bay Area Governments) to complete the *AIS Plan*. The San Francisco Estuary Project convened public meetings in various parts of the state to seek input on a draft of the *AIS Plan* and worked with staff from the Department of Fish and Game (“DFG”) and the Coastal Conservancy to complete the plan. Completion of the *AIS Plan* was delayed by the recent introductions of the quagga mussel and zebra mussel into California’s waters. DFG staff had to focus on urgent rapid response actions to control these highly invasive species that have caused immense economic and ecologic damage to other states’ resources. These dangerous introductions highlighted the need for coordinated AIS management and improved prevention programs.

The proposed project is one of the highest priorities identified in the *AIS Plan*. While the introduction of AIS from ballast water discharge by commercial ships and from hull fouling of commercial ships in California are considered to be the largest contributors of AIS, these vectors have been studied and management programs are on-going. In contrast, the vectors that will be examined through this proposed project have not been systematically studied for their significance to California and lack sufficient management programs to prevent introductions. These vectors are thought to be significant sources of new invasive species introductions and the information provided by this project will support the development of new management programs that most effectively target the most risky vectors.

Another high priority identified by the *AIS Plan* is to support early detection and rapid response actions, including by coordinating various AIS monitoring programs. As part of a prior Council grant to OST, staff at the Coastal Conservancy, in consultation with DFG, have also requested that OST work with the Council’s Science Advisory Team to conduct a review of existing

marine and estuarine invasive species monitoring programs and develop recommendations for improvements.

**Project Details and Scope of Work:**

The OST will use a competitive process to select teams of invasive species experts to perform risk assessments and prepare reports for the following vectors for introductions of AIS:

1. commercial fishing,
2. recreational boating,
3. aquaculture,
4. live bait,
5. live imported seafood, and
6. aquariums and aquascaping.

The goal of the proposed project is to better understand the role played by these vectors in the introduction and spread of AIS in the coastal waters of California and how to prevent the introduction and spread of these species. The reports will provide crucial information to resource managers on the significance of the various vectors and how they vary based on geography, AIS life forms, and operational differences within the industries and recreational activities involved in the vectors. The proposed project will also provide information on the important control points for preventing AIS introductions from each vector. This information can improve the allocation of limited resources that are available to take action to minimize the introduction and spread of aquatic invasive species.

The OST will ensure that the studies are performed in a uniform manner that allows comparison between the relative significance and risks of the various vectors. The OST will complete an additional final report that synthesizes the information from the individual risk assessments of each vector. The final report will identify the most risky vectors and recommend potential management actions to most effectively reduce the risk of introduction of new invasive species.

In selecting and managing the teams to complete the risk assessment studies, OST will coordinate with different state resource management agencies to ensure that these studies are performed in a manner that will be most useful for future management and policy actions.

**PROJECT GRANTEE:**

The California Ocean Science Trust is well suited to manage this type of project, which involves working with multiple research institutions and coordinating with other state agencies. OST was established by the California Ocean Resources Stewardship Act (Public Resources Code “PRC” Sections 36990-36995, effective January 1, 2000), and was created specifically to encourage coordinated, multi-agency, multi-institution approaches to ocean resource science. OST’s mission closely corresponds with the Council’s statutory responsibility to “establish policies to coordinate the collection and sharing of scientific data related to coast and ocean resources between agencies.” OST is a unique entity able to combine public resources with those from the private sector and nonprofit organizations to promote new marine research, education, and management approaches within California.

**PROJECT HISTORY:**

The Council played an instrumental role in completing the *AIS Plan*, which was signed by the Governor in January 2008. In November of 2007, the Federal Aquatic Nuisance Species Task Force approved the *AIS Plan*, making the state eligible to receive limited federal funding for implementation of the *AIS Plan*. The *AIS Plan* recognizes the challenge of managing AIS due to the overlapping jurisdictions of many different state agencies. Because of these management challenges, it is logical that the Council provide a leadership role in ensuring effective coordination and development of priority information to support effective management of aquatic invasive species in the coastal region of the state. Conservancy staff worked with DFG staff to develop the proposed project, since it is one of the highest priorities identified in the *AIS Plan* and will support the development of new management programs to prevent introductions of AIS.

The Council has previously taken several other actions relevant to this project. On September 23, 2005, the Council adopted the *California Ocean and Coastal Information, Research and Outreach Strategy*, which identified invasive species as one of the top five information and research priorities for California's coast and ocean. This document specifically identified the need to quantify risks posed by all vectors of invasive species and expand prevention strategies.

On February 7, 2007 the Council designated the Executive Director of the OST as science adviser to the Council and provided \$200,000 for the OST to provide services to the Council to coordinate and disseminate ocean science and technology information among state agencies and the Council. Amber Mace, the current Executive Director of the OST, provided guidance for the development of the proposed project and drafted a request for proposals for the risk assessments, with the financial support provided by the Council's prior authorization of funding for the OST.

**PROJECT FINANCING:**

Ocean Protection Council	\$1,000,000
<b>Total Project Cost</b>	<b>\$1,000,000</b>

The anticipated source of funds for the proposed project will be the fiscal year 07/08 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 Division 26.5 of the Public Resources Code, which established the California Ocean Protection Trust Fund (PRC Section 75060(g)). Ocean Protection Trust Fund monies may be expended for projects authorized by the Council that are consistent with the Ocean Protection Act (See PRC Section 75074).

The proposed project is appropriate for prioritization under the selection criteria set forth in Section 75060(g). Section 75060(g) provides that the Council will give priority to projects that develop scientific data needed to adaptively manage the state's marine resources and reserves, including the development and implementation of projects to conserve marine wildlife. The risk assessments are consistent with these priorities, since they will result in scientific reports that are necessary for the state to prevent impacts to the state's marine resources.

**CONSISTENCY WITH CALIFORNIA OCEAN PROTECTION ACT:**

The proposed project is consistent with the Ocean Protection Act (Division 26.5 of the Public Resources Code). Section 35615 specifically directs the Council to coordinate activities of state agencies, establish policies to coordinate the collection of scientific data related to the ocean, and recommend to the legislature changes in law or identify changes in federal law. The purpose of the *AIS Plan* is to coordinate the actions of state agencies responsible for management of invasive species in coastal regions of the state and the proposed project will implement one of the highest priority actions identified in the *AIS Plan*. The proposed project also coordinates the collection of scientific data related to invasive species in the coastal region of the state. Finally, the project will identify management actions that could prevent introductions of invasive species; these recommended management programs could form the basis for new legislation to improve management of invasive species.

The Ocean Protection Act identifies trust fund allowable projects in PRC Section 35650(a)(2) as including projects that:

- (A) Eliminate or reduce threats to coastal and ocean ecosystems, habitats, and species;
- (F) Improve management, conservation, and protection of coastal waters and ocean ecosystems;
- (G) Provide monitoring and scientific data to improve state efforts to protect and conserve ocean resources; or
- (H) Protect, conserve, and restore coastal waters and ocean ecosystems.

The proposed project is consistent with the trust fund allowable projects listed above in that the project will: (1) help prevent introductions of AIS that threaten coastal and ocean ecosystems, habitats, and species; (2) make recommendations for improving management and protection of coastal waters and ocean ecosystems from invasive species; (3) provide monitoring and scientific data on invasive species to improve the state's efforts to protect and conserve ocean resources threatened by invasive species; and (4) support the protection of coastal waters and ocean ecosystems through the recommendation of management actions to prevent introductions of AIS.

The risk assessments will be used by state resource management agencies to coordinate activities to protect coastal and ocean resources from the impacts of invasive species and will be important to avoid redundancy and conflicts to ensure that state resources to manage invasive species are used in the most efficient manner possible, consistent with PRC Section 35650(d).

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

The proposed project is consistent with the Council's Five Year Strategic Plan by furthering the following goals and objectives:

**Goal A (Governance) Objective 2:** "Maximize the effectiveness of state agency efforts to protect and conserve ocean and coastal resources." The proposed project will identify the vectors for introductions of AIS that are most harmful to the state's coastal and ocean resources and will include recommendations on management actions to most effectively allocate limited resources to prevent introductions and spread of invasive species.

**Goal B (Research and Monitoring) Objective 1:** “Improve scientific understanding of our ocean and coastal ecosystems.” The risk assessments will result in comprehensive reports on various vectors for introductions of AIS in California’s ocean and coastal ecosystems.

**Goal B (Research and Monitoring) Objective 2:** “Monitor and map the ocean environment to provide data about conditions and trends.” The risk assessment reports will result in comprehensive summaries of data and presentation of maps on invasive species introduced through the vectors that are the subject of the studies.

**Goal E (Ocean and Coastal Ecosystems), Objective 3:** “Significantly increase the capacity of public agencies and the private sector to respond to and reduce invasive species.” The risk assessments will enable the state to most effectively design management actions to prevent the introduction and spread of aquatic invasive species. The proposed project will implement one of the top priorities identified in the *AIS Plan*, thus fulfilling the action in the Strategic Plan which calls for the Council to support the full implementation of the *AIS Plan*.

### **CONSISTENCY WITH COUNCIL'S PROJECT FUNDING GUIDELINES:**

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

#### **Required Criteria**

1. **Directly relate to the ocean and coast:** The project is focused on coastal aquatic invasive species.
2. **Support of the Public:** The project is identified as one of the top five priorities in the *AIS Plan*, signed by Governor Schwarzenegger and adopted by the Federal Aquatic Nuisance Species Task Force. The project’s supporters include the Department of Fish and Game, Assemblymember Lois Wolk, the San Francisco Estuary Institute and California Coastkeeper Alliance.
3. **Greater-than-local interest:** The project scope is state-wide and the findings will have state-wide implications for management.

#### **Additional Criteria**

12. **Timeliness or Urgency:** The OST intends to select and contract with the teams to perform the risk assessments this summer and work with the teams to complete the studies as soon as possible. It is urgent to complete these studies in a timely manner to determine how to most effectively develop new management actions to prevent new introductions of aquatic invasive species.
14. **Coordination:** The OST will coordinate with teams of invasive species experts from public and private research institutions and consult with agency staff to complete the project and disseminate the findings.

### **CONSISTENCY WITH COUNCIL’S 2007/2008 FUNDING PRIORITIES**

The topic of invasive species was identified in the 2007/2008 Funding Priorities document as being one of the highest priority research and monitoring needs for this year. The AIS risk

assessments will provide crucial research that was identified as a top priority in the *AIS Plan* recently adopted by the Governor. It is timely for the Council to take a leadership role in supporting the completion of the AIS risk assessments, since the *AIS Plan* was recently completed and invasive species have been identified as a major threat to California's coastal resources.

**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 which will not result in a serious or major disturbance to an environmental resource and which are conducted as part of a study leading to an action that a public agency has not yet approved, adopted, or funded. Staff will file a Notice of Exemption upon approval by the Council.