

COASTAL CONSERVANCY

Staff Recommendation

June 30, 2004

**RAPID ASSESSMENT FOR EXOTIC ORGANISMS IN SAN FRANCISCO BAY**

File No. 04-046

Project Manager: Abe Doherty

**RECOMMENDED ACTION:** Authorization to disburse up to \$25,750 to the San Francisco Estuary Institute to conduct a rapid assessment survey of exotic organisms in San Francisco Bay.

**LOCATION:** San Francisco, San Mateo, Alameda, Contra Costa, Solano, Napa, Sonoma, Marin Counties (Exhibit 1)

**PROGRAM CATEGORY:** San Francisco Bay Area Conservancy

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**EXHIBITS**

Exhibit 1: Regional Map

Exhibit 2: Letters of Support

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**RESOLUTION AND FINDINGS:**

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31000 *et seq.* of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes disbursement of an amount not to exceed twenty-five thousand, seven hundred fifty dollars (\$25,750) to the San Francisco Estuary Institute to undertake a rapid assessment survey of exotic organisms in San Francisco Bay. Prior to the disbursement of any Conservancy funds, the San Francisco Estuary Institute shall submit for the review and written approval of the Executive Officer a detailed work program, schedule and budget and the names and qualifications of any contractors and subcontractors that it intends to employ.”

Staff further recommends that the Conservancy adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The rapid assessment survey of exotic organisms in San Francisco Bay is consistent with the purposes and criteria set forth in Public Resources Code Sections 31160-31164 regarding the Conservancy's mandate to address the resource goals of the San Francisco Bay Area, and with the authority of the Conservancy under Public Resources Code Section 31116 to award grants to non-profit organizations for these purposes.

2. The rapid assessment survey of exotic organisms in San Francisco is consistent with the Project Selection Criteria and Guidelines adopted by the Conservancy on January 24, 2001.
  3. The San Francisco Estuary Institute is a nonprofit organization existing under Section 501(c)3 of the U.S. Internal Revenue Code, and whose purposes are consistent with Division 21 of the California Public Resources Code.”
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**PROJECT SUMMARY:** The proposed authorization would provide disbursement of up to \$25,750 to the San Francisco Estuary Institute (“SFEI”) to undertake a rapid assessment survey of exotic organisms in various habitats in San Francisco Bay, where introduced species are expected to be abundant. The survey will be performed by collaboration among scientists from approximately ten scientific institutions and government agencies. The information from this survey will support SFEI’s research on the status of introduced species and will enable the Conservancy and its partners to develop plans to address the problems of introduced species in San Francisco Bay in a timely and informed manner.

Impacts from introduced species in the Bay include the dramatic alteration of species composition; reduction of native populations through competition, predation or other effects; impacts on fisheries; interference with the restoration of native populations and habitats; fouling of boats, waterways and water supply systems; and other economic impacts. The rapid assessment project will address the problem of introduced species in the Bay by assessing the extent of invasion in the Bay; detecting newly-arrived exotic species; improving understanding of how populations of exotic organisms multiply and spread through the Bay; and increasing public and policymaker awareness of introduced organisms.

The first phase of the rapid assessment took place on May 23-28, 2004 and was documented by the *National Geographic* magazine. This magazine intends to publish an article on the problem of biological invasions in San Francisco Bay which will improve public awareness of this problem. The second phase of the study, which will be conducted using Conservancy funds, will involve a buoy-survey. The Conservancy funds will also be used for the taxonomic studies of the organisms collected during the surveys, and for presentation of the results of the survey in a peer-reviewed database and survey report, which will be available from the SFEI through its website, with copies provided to each funding organization. The information and analysis from the survey will be presented in peer-reviewed papers for publication in scientific journals.

**PROJECT FINANCING:**

Coastal Conservancy	\$25,750
Bay/Delta Science Consortium	25,000
National Geographic Society	10,000
Rose Foundation	<u>5,000</u>
Total Project Cost	\$65,750

The Conservancy’s contribution to the proposed project is expected to come from Proposition 50 funds and will fund the buoy survey, post-survey taxonomic work, data analysis, publication and public outreach. Matching funds have been provided to support the field-work performed on May 23-28, 2004 and a limited amount of post-survey analysis and publication.

**CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:**

This project would be undertaken pursuant to Chapter 4.5 of the Conservancy's enabling legislation, Public Resources Code Sections 31160-31164, to address resource goals of the San Francisco Bay Area Conservancy Program. The project will help achieve the goal set forth in §31162(b), "to protect, restore and enhance natural habitats". In addition to supporting the development of restoration plans to reduce the populations of exotic organisms in San Francisco Bay, the project will also help achieve the protection of natural habitats in the Bay, by providing timely identification of new introduced species, so that restoration efforts can target the exotic species before they have time to cause significant impacts to the Bay.

Consistent with §31163(b), the Conservancy will be supporting interagency actions and public/private partnerships in the San Francisco Bay Area, since approximately 10 research institutions and agencies will be participating in the project.

The Conservancy is authorized under Section 31116 of the Public Resources Code to fund nonprofit organizations, in order to implement Division 21. The proposed grant to SFEI would support the identification of introduced species in the Bay, data analysis and publication of the results of the survey, which are important precursors to the development of a restoration plan and actions to reduce exotic organisms in the Bay.

This project is appropriate for prioritization under the selection criteria set forth in §31163(c), for the following reasons:

- (1) The project is multi-jurisdictional and serves a regional constituency by providing information and analysis on the status of exotic organisms in numerous locations throughout the Bay. The protection of native species requires cooperative actions by multiple agencies and organizations.
- (2) The project can be implemented in a timely way because SFEI has already coordinated the participation of expert individuals and organizations and *National Geographic* magazine and obtained matching funds to conduct the field work component of the survey in May 2004, using the rapid assessment technique that has been well-documented and used by the participating scientists in numerous similar surveys, both in the San Francisco Bay and in other locations.
- (3) The survey provides opportunities for benefits that could be lost if the project is not quickly implemented, since early identification of invasive species enables more effective restorative actions to reduce the negative impacts of the invasive species. *National Geographic* magazine decided to focus on this survey at this time, in order to publish an article regarding introduced organisms, which would provide public education and outreach on this important issue; timing of the Conservancy grant is critical if SFEI is to take advantage of this opportunity.
- (4) SFEI has obtained matching funds for the project from several other sources of funding; the funding from the Conservancy will enable SFEI to coordinate a more comprehensive survey and will support the publication of the results of the survey and provide public education on the status of exotic species in the Bay.

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

The authorization is consistent with **Goal 9** of the Conservancy's Strategic Plan, which is to “protect, restore and enhance natural habitats and connecting corridors, watersheds, and other open-space resources of regional importance.” The proposed project is also consistent with Objective B of this goal, which is to develop plans for restoration and enhancement projects. This project is the first step in identifying exotic species in San Francisco Bay in order to develop restoration and enhancement projects to reduce the negative impacts of introduced species in the Bay.

**CONSISTENCY WITH CONSERVANCY'S  
PROJECT SELECTION CRITERIA & GUIDELINES:**

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines adopted January 24, 2001, in the following respects:

**Required Criteria**

1. **Promotion of the Conservancy's statutory programs and purposes:** See the “Consistency with Conservancy's Enabling Legislation” section above.
2. **Consistency with purposes of the funding source:** Conservancy funds are expected to be provided from an appropriation of the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 (Proposition 50) fund for the purposes of the San Francisco Bay Area Conservancy Program, as set forth in Chapter 4.5 of Division 21 of the Public Resources Code. The project would help to protect the SF Bay watershed and is consistent with the purposes of the San Francisco Bay Area Conservancy Program, as described in the Consistency with Conservancy's Enabling Legislation, above.
3. **Support of the public:** This project is sponsored by the non-profit research institution SFEI and supported by nine other research institutions and agencies (see Exhibit 2).
4. **Location:** The proposed project would include numerous sampling locations within San Francisco Bay Area and would focus on various habitats, including subtidal and intertidal areas.
5. **Need:** The proposed project will provide important information needed to develop restoration plans to address the problem of introduced species in the Bay. Seven years have passed since the last rapid assessment survey for exotic species in the Bay was conducted in 1997.
6. **Greater-than-local interest:** In creating the San Francisco Bay Area Conservancy Program, the legislature identified San Francisco Bay as the central feature in an interconnected open-space system of watersheds, natural habitats, scenic areas, agricultural lands and regional trails of statewide importance. The project will provide information on introduced species in many areas within San Francisco Bay.

### **Additional Criteria**

9. **Leverage:** See the “Project Financing” section above.
12. **Readiness:** SFEI and its nine collaborating partners conducted the first phase of the field research portion of the project on May 23-29, 2004, in order to allow the *National Geographic* magazine to document the survey for public education purposes and are prepared to now implement the second phase using Conservancy and other funding.
15. **Cooperation:** This project will involve participation from approximately ten scientific institutions, agencies and non-profit organizations.

### **CONSISTENCY WITH SAN FRANCISCO BAY PLAN:**

The rapid assessment for exotic organisms in San Francisco Bay project is consistent with the San Francisco Bay Plan. Specific policies in Part III of the Bay Plan, entitled “The Bay as a Resource: Findings and Policies”, that support the implementation of this project include Policies 1 and 2 of the “Fish, Other Aquatic Organisms and Wildlife” section, Policy 3 of the “Subtidal Areas” section, and Policy 7 of the “Tidal Marshes and Tidal Flats” section. The project will address various habitats in the Bay, including subtidal and intertidal areas.

The Fish, Other Aquatic Organisms and Wildlife section of the Bay Plan includes two policies that address the rapid assessment project. Policy 1 states, “To assure the benefits of fish, other aquatic organisms and wildlife for future generations, to the greatest extent feasible, the Bay's tidal marshes, tidal flats, and subtidal habitat should be conserved, restored and increased.” Similarly, Policy 2 of Part III of the Bay Plan states, “Specific habitats that are needed to conserve, increase or prevent the extinction of any native species, ... or any species that provides substantial public benefits, should be protected, whether in the Bay or behind dikes.” This project is consistent with these two policies, since it will contribute to the conservation, restoration and increase of the natural habitats and native species of the Bay, through documentation and public outreach on the current status of exotic organisms in the Bay, which are known to cause significant impacts to native species and natural habitats in the Bay. Implementation of this project is an important step in the development of a restoration plan to reduce the impacts of exotic organisms on the native species and natural habitats in the Bay.

The Subtidal Areas section of the Bay Plan includes the following findings, which support authorization of the project:

*d. Populations of many native fresh water and estuarine fish, marine mammals, and birds in the Bay, as well as certain native zooplankton and phytoplankton in Suisun Marsh, have declined due to increased pollutants, decreased freshwater flows, loss of habitat and an increased prominence of invasive species.*

*i. Major gaps in scientific knowledge exist about the subtidal areas of the Bay due to the dynamic nature of the system and the complexity of linkages between subtidal areas and the fish, other aquatic organisms and wildlife which depend upon them to rest, forage and breed. [Emphasis added.]*

The rapid assessment project is supported by these findings, which acknowledge the importance of the development and publication of scientific information on the presence of invasive species in the subtidal regions of the Bay.

Policy 3 of the “Subtidal Areas” section of the Bay Plan states that “Subtidal restoration projects should be designed to: (a) promote an abundance and diversity of fish, other aquatic organisms and wildlife...” The rapid assessment project will promote an abundance and diversity of organisms in the Bay, by providing more information on the invasive species in the Bay that reduce the populations and number of species in the Bay. This information will be used to develop restoration plans to protect the abundance and diversity of organisms in the Bay.

Policy 7 of the intertidal section of the Bay Plan states, in part, “support and encourage the expansion of scientific information on the arrival and spread of invasive plants and animals, and when feasible, support the establishment of a regional effort for Bay-wide eradication of specific invasive species”. The rapid assessment project will result in the analysis and publication of new scientific information on the arrival and distribution of invasive organisms in the Bay, which will be used to develop plans for the eradication of specific introduced species in the Bay.

**COMPLIANCE WITH CEQA:**

Section 21084 of the Public Resources Code requires the identification of classes of projects which have been determined not to have a significant effect on the environment and which shall, therefore, be exempt from the provisions of the California Environmental Quality Act (CEQA). The proposed project is categorically exempt under the class of projects described in Section 15306 of the Categorical Exemptions presented in Title 14 of the Cal. Code of Regulations, which exempts “basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. These may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded.” Conservancy staff will file a Notice of Exemption for this project.