

**STAFF REPORT
C73**

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**REQUEST AUTHORITY FOR THE EXECUTIVE OFFICER TO ENTER INTO AN
AGREEMENT WITH THE SMITHSONIAN ENVIRONMENTAL RESEARCH CENTER
TO SUPPORT A STUDY EXAMINING HISTORICAL SHIPPING PATTERNS AND
LINKS TO THE TRANSPORT OF NONINDIGENOUS SPECIES**

PARTIES:

California State Lands Commission

Smithsonian Environmental Research Center

BACKGROUND:

In coastal and estuarine environments, the ballast water of commercial ships has long been recognized as one of the most important mechanisms, or “vectors,” through which nonindigenous species (NIS) are moved to new locations throughout the world. Ballast water is used as a balancing and weight distribution tool necessary for the navigation, stability, and propulsion of large seagoing ships. Vessels may take on, discharge, or redistribute ballast water during cargo loading and unloading, as they encounter rough seas or as they transit through shallow waterways. Typically, a vessel takes on ballast water after cargo is unloaded in one port to compensate for the weight imbalance and will later discharge that ballast water when cargo is loaded in another port. This transfer of ballast water from “source” to “destination” ports results in the movement of thousands of species throughout the globe on a daily basis. Once established, these NIS can cause significant environmental, economic, and human health impacts. Research indicates that invasive species are responsible for \$120 billion in losses and damages annually in the United States (Pimental et al. 2005).

To limit the introduction of NIS in California waters, the California Legislature established the Marine Invasive Species Program in 2000. The legislative mandate of the program is to “move the state expeditiously toward elimination of the discharge of nonindigenous species into the waters of the state or into waters that may impact the waters of the state...” (Pub. Resources Code, § 71201, subd. (d).)

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The Commission has adopted and implemented many regulations to work towards realization of the statutory mandate. One of the continuing challenges is to determine whether the program is being effective. To that end, the California Department of Fish and Wildlife Office of Spill Prevention and Response regularly conducts species surveys in California waters to identify new introductions. However, the Commission lacks historical data on ballast water delivery (including shifts in ballast water discharge volume and source) which impacts the ability to understand the long-term drivers of invasion patterns in California and, therefore, the performance of the current program at reducing the rate of species introductions.

Public Resources Code section 71213, states that the Commission shall identify and conduct:

...any other research determined necessary to carry out the requirements of this division. The research may relate to the transport and release of nonindigenous species by vessels, the methods of sampling and monitoring of the nonindigenous species transported or released by vessels, the rate or risk of release or establishment of nonindigenous species in the waters of the state and resulting impacts, and the means by which to reduce or eliminate a release or establishment....

PROPOSED AGREEMENT:

Staff proposes to provide funds in the amount of \$200,000 from the Marine Invasive Species Control Fund to the Smithsonian Environmental Research Center to support an examination of historical shipping patterns in the San Francisco Bay region to identify links to the transport of nonindigenous species.

The proposed study, contingent upon Commission funding, would consist of two data gathering components:

1. An analysis of archived (1965-1986) and contemporary (1987-2003) records from the Marine Exchange of the San Francisco Bay Region to identify trends in vessel arrivals, including by ship type, to estimate temporal changes in ballast water discharge volume to San Francisco Bay. This vessel and ballast water information will be compared with notable zooplankton species introductions in San Francisco Bay to examine potential cause and effect.
2. A detailed examination of trade routes between Asia and San Francisco Bay, including magnitude and direction of trade, using additional data compiled from regional ports and trade and cargo statistics. This information will allow for a focused analysis by source and arrival ports.

The shipping data will be used in concert with data from biological survey and analyses (gathered through the California Department of Fish and Wildlife's

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Marine Invasive Species Program) to test key hypotheses about the relationship between ballast water delivery, management, and invasion dynamics. The goal is to establish a historical baseline to adequately evaluate the efficacy of existing ballast water management requirements.

STAFF ANALYSIS AND RECOMMENDATION:

Authority:

- A. Public Resources Code section 6106 (delegation to execute written instruments)
- B. Marine Invasive Species Act of 2003, Chapter 491, Statutes of 2003
- C. State Administrative Manual Section 1200
- D. State Contracting Manual (rev. 01/14)

Public Trust and the State's Best Interests Analysis:

The proposed research will further the interests of the Public Trust by providing greater understanding of the patterns of species introductions to California waters. Currently, the introduction of nonindigenous species to California's waters threatens Public Trust resources and values, including ecosystem preservation and the promotion and protection of fishing, water-related recreation, maritime commerce, and water-dependent tourism. The proposed research will provide important historical context and will help the Commission assess the efficacy of the current Marine Invasive Species Program and ensure adequate protection of Public Trust resources and values.

The proposed research will also satisfy the purpose of the Marine Invasive Species Act (Pub. Resources Code, § 71201, subd. (d)) "to move the State expeditiously toward elimination of the discharge of nonindigenous species into the waters of the State." Thus, staff believes that granting authority to the Executive Office to enter into an agreement with the Smithsonian Environmental Research Center to conduct research, as proposed, would further enhance and protect Public Trust resources and is in the State's best interests.

OTHER PERTINENT INFORMATION:

1. This action is consistent with Strategy 1.1 of the Commission's Strategic Plan to deliver the highest levels of public health and safety in the protection, preservation and responsible economic use of the lands and resources under the Commission's jurisdiction.
2. The staff recommends that the Commission find that this activity is exempt from the requirements of the California Environmental Quality Act (CEQA) as a categorically exempt project. The project is exempt under Class 6,

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Information Collection; California Code of Regulations, title 14, section 15306.

Authority: Public Resources Code section 21084 and California Code of Regulations, Title 14, section 15300.

RECOMMENDED ACTION:

It is recommended that the Commission:

CEQA FINDING:

Find that the activity is exempt from the requirements of CEQA pursuant to California Code of Regulations, title 14, section 15061 as a categorically exempt project, Class 6, Information Collection; California Code of Regulations, title 14, section 15306.

PUBLIC TRUST AND STATE'S BEST INTERESTS:

Find that granting authority for the Executive Officer to enter into agreement with the Smithsonian Environmental Research Center for research, as proposed, will not substantially interfere with the public rights to navigation or fishing or the Public Trust needs and values at this time, is consistent with the common law Public Trust Doctrine, and is in the best interests of the State.

AUTHORIZATION:

1. Authorize the Executive Officer or her designee to award and execute an agreement with the Smithsonian Environmental Research Center in accordance with state policies and procedures to evaluate historical shipping patterns and links to transport of nonindigenous species.
2. Authorize and direct the Executive Officer or her designee to take whatever action is necessary and appropriate to implement the provisions of the agreement with the Smithsonian Environmental Research Center.