

MINUTE ITEM

This Calendar Item No. C47 was approved as Minute Item No. 47 by the California State Lands Commission by a vote of 3 to 0 at its 12/9/04 meeting.

CALENDAR ITEM  
**C47**

A Statewide 12/9/2004  
C2004-044  
W9777.234

S M. Falkner, D. Brown

**AS TRUSTEE OF THE KAPILOFF LAND BANK FUND, AUTHORIZE THE EXPENDITURE OF \$200,000 FOR THE PURPOSE OF CONDUCTING RESEARCH INTO BALLAST WATER EXCHANGE VERIFICATION METHODOLOGY AND AUTHORIZE THE EXECUTIVE OFFICER TO AWARD AND EXECUTE AGREEMENTS AS NECESSARY TO CONDUCT SUCH STUDIES.**

**PARTY:**

California State Lands Commission  
100 Howe Avenue, Suite 100 South  
Sacramento, CA 95825-8202

**BACKGROUND:**

In coastal marine ecosystems, ships are considered the transfer mechanism responsible for most historical and recent invasions by nonnative aquatic species (Cranfield et al. 1998, Hewitt et al., 1999, 2004; Ruiz et al., 2000, Fofonoff et al. 2003). Today, ballast water is considered the largest single vector whereby organisms are transported from points of origin and released variously at subsequent ports of call (e.g., Carlton and Geller 1993, Carlton et al. 1995).

In recent years, several policies have emerged that require ballast water treatment. California passed the Marine Invasive Species Act of 2003, which established a program for the management and control of ballast water carried into the State. The Act requires ballast water exchange (BWE) or an alternate approved treatment for all vessels intending to discharge ballast from foreign and some coastwise sources. The U.S. Coast Guard recently advanced mandatory regulations for treatment of ballast for all vessels delivering foreign ballast to any U.S. port. In addition, similar regulations exist in several countries, and the International Maritime Organization (IMO) has a convention awaiting ratification that specifies standards for the maximum concentrations of organisms allowed in ballast water discharge, as a target for ballast water treatment.

Although existing legislation and the IMO convention focus on ballast water treatment, especially new technologies, no alternatives to BWE have been approved for widespread application. Most technologies are now in a development and testing

CALENDAR ITEM NO. C47 (CONT'D)

phase, and it is likely to be a decade or more before such technologies can be implemented on many ships beyond a "demonstration" scale. Thus, BWE will remain a dominant treatment mode, and its use is being promoted by existing legislation.

Despite the widespread and growing application of BWE, there are several critical gaps in both understanding and verification of this management strategy including: a tool to verify whether ships have conducted BWE, a significant obstacle for enforcement, and resolving the issue of BWE effectiveness.

The Marine Invasive Species Act of 2003 (the Act) establishes a program for the management and control of ballast water carried into the State. Its purpose 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, based on the best available technology economically achievable.

The Act requires the State Lands Commission (SLC) to

*" . . . 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 . . . "* (Public Resources Code Section 71213).

**PROPOSED ACTIVITY:**

To meet this mandate, the Commission's Marine Facilities Division, has determined that research addressing methodology development for ballast water exchange verification was necessary.

In October 2003, the Commission, acting as Trustee for the Kapiloff Land Bank Fund ("the Fund"), accepted funds in the amount of \$200,000 from Carnival Cruise Lines, a division of Carnival Corporation, and deposited in the Fund as settlement for certain questions regarding compliance with ballast water management requirements under Public Resources Code Sections 71200 *et seq.* ("the Act"). These funds were designated for projects relating to ballast water management under Public Resources code Section 71200 through 71271 and successor statutes.

Utilizing the aforementioned Kapiloff Land Bank Funds, Staff proposes entering into an agreement with the Smithsonian Environmental Research Center (SERC) to test explicitly the application of a Ballast Water Exchange verification (BWEv) methodology to vessel traffic arriving to ports along western North America.

CALENDAR ITEM NO. C47 (CONT'D)

In 2000, SERC initiated research for the US Coast Guard to investigate techniques that may be used to verify that a vessel has undertaken mid-ocean exchange. The preliminary results of that research have been extremely encouraging and provided an important 'proof-of-concept', suggesting that several trace elements, colored dissolved organic matter (CDOM), and radium isotopes can distinguish between open-ocean (exchanged) and coastal (unexchanged) water (Murphy et al. 2002, 2004).

The Commission's Marine Facilities Division has assisted the U.S. Coast Guard, Smithsonian Environmental Research Center, and Dakota Technologies since early 2001 on this research to identify repeatable indicators for verification of BWE.

The proposed research builds on this previous work by testing the application of the BWEv chemical tracer method for western North America. The tracer method relies upon consistent differences between oceanic and coastal (port) waters that are present both outside the ship (shipside) and inside ballast tanks. The tracers largely originate from land, declining in concentration with distance from shore, but this decay function is not well defined for western North America. Thus, for several key chemical tracers that are present in seawater, the specific goals are to: measure changes in shipside tracer concentration as a function of distance from shore, using voyages to and from west coast ports; and measure seasonal stability (variation) in tracer concentration as a function of distance from shore and also in several key west coast ports

**STATUTORY AND OTHER REFERENCES:**

- A. Public Resources Code Section 6106 (Delegation to Execute written instruments)
- B. Marine Invasive Species Act of 2003, Chapter 491, Statutes of 2003
- C. Public Resources Code Section 8600 et seq.
- D. State Administrative Manual Section 1200
- E. State Contracting Manual (rev 11/04)

**OTHER PERTINENT INFORMATION:**

- 1. Pursuant to the Commission's delegation of authority and the State CEQA Guidelines (Title 14, California Code of Regulations, section 15061). The staff has determined that this activity is exempt from the requirements of the CEQA because it involves an action taken pursuant to the Kapiloff Land Bank Act, Public Resources Code 8600, et seq.

Authority: Public Resources Code Section 8631.

**RECOMMENDED ACTION:**

IT IS RECOMMENDED THAT THE COMMISSION:

- 1. FIND THE ACTIVITY IS EXEMPT FROM THE REQUIREMENTS OF THE CEQA PURSUANT TO TITLE 14, CALIFORNIA CODE OF REGULATIONS,

000243  
CALENDAR PAGE

002098  
MINUTE PAGE

CALENDAR ITEM NO. C47 (CONT'D)

SECTION 15061 AS A STATUTORILY EXEMPT PROJECT PURSUANT TO PUBLIC RESOURCES CODE SECTION 8631. AN ACTION TAKEN PURSUANT TO THE KAPILOFF LAND BANK ACT, PUBLIC RESOURCES SECTION 8600, ET. SEQ.

2. AS TRUSTEE, AUTHORIZE THE KAPILOFF LAND BANK FUNDS RECEIVED FOR THIS PURPOSE BE AVAILABLE FOR EXPENDITURES FOR BALLAST WATER EXCHANGE VERIFICATION RESEARCH AND OVERSIGHT ACTIVITIES NOT TO EXCEED \$200,000.
3. AUTHORIZE THE EXECUTIVE OFFICER OR HIS DESIGNEE TO AWARD AND EXECUTE CONTRACT IN ACCORDANCE WITH STATE POLICIES AND PROCEDURES