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INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

LIND TUG AND BARGE, INC. OYSTER SHELL MINING PROJECT

November 2018



CEQA Lead Agency:

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

Applicant:

Lind Tug and Barge, Inc.
100 East D Street
Petaluma, CA 94952



MISSION STATEMENT

The California State Lands Commission provides the people of California with effective stewardship of the lands, waterways, and resources entrusted to its care through preservation, restoration, enhancement, responsible economic development, and the promotion of public access.

CEQA DOCUMENT WEBSITE

www.slc.ca.gov/Info/CEQA.html

Geographic Location (Lease PRC 5534.1)

Latitude: 37.61387
Longitude: -122.22065
WGS 84 Datum

Cover Photo: William Butler
(Photo courtesy of Lind Tug and Barge, Inc.)

EXECUTIVE SUMMARY

1 The California State Lands Commission (Commission or CSLC) conducted this Initial
2 Study, as lead agency under the California Environmental Quality Act (CEQA) (Pub.
3 Resources Code, § 21000 et seq.), to analyze and disclose the potential environmental
4 effects of the proposed Lind Tug and Barge, Inc. (LTB or Applicant) Oyster Shell Mining
5 Project (Project). The CSLC prepared a Mitigated Negative Declaration (MND) because
6 it determined that, while the Initial Study identified potentially significant effects, measures
7 are incorporated into the Project proposal and agreed to by the Applicant to avoid or
8 mitigate the effects to a point where clearly no significant effect on the environment would
9 occur.

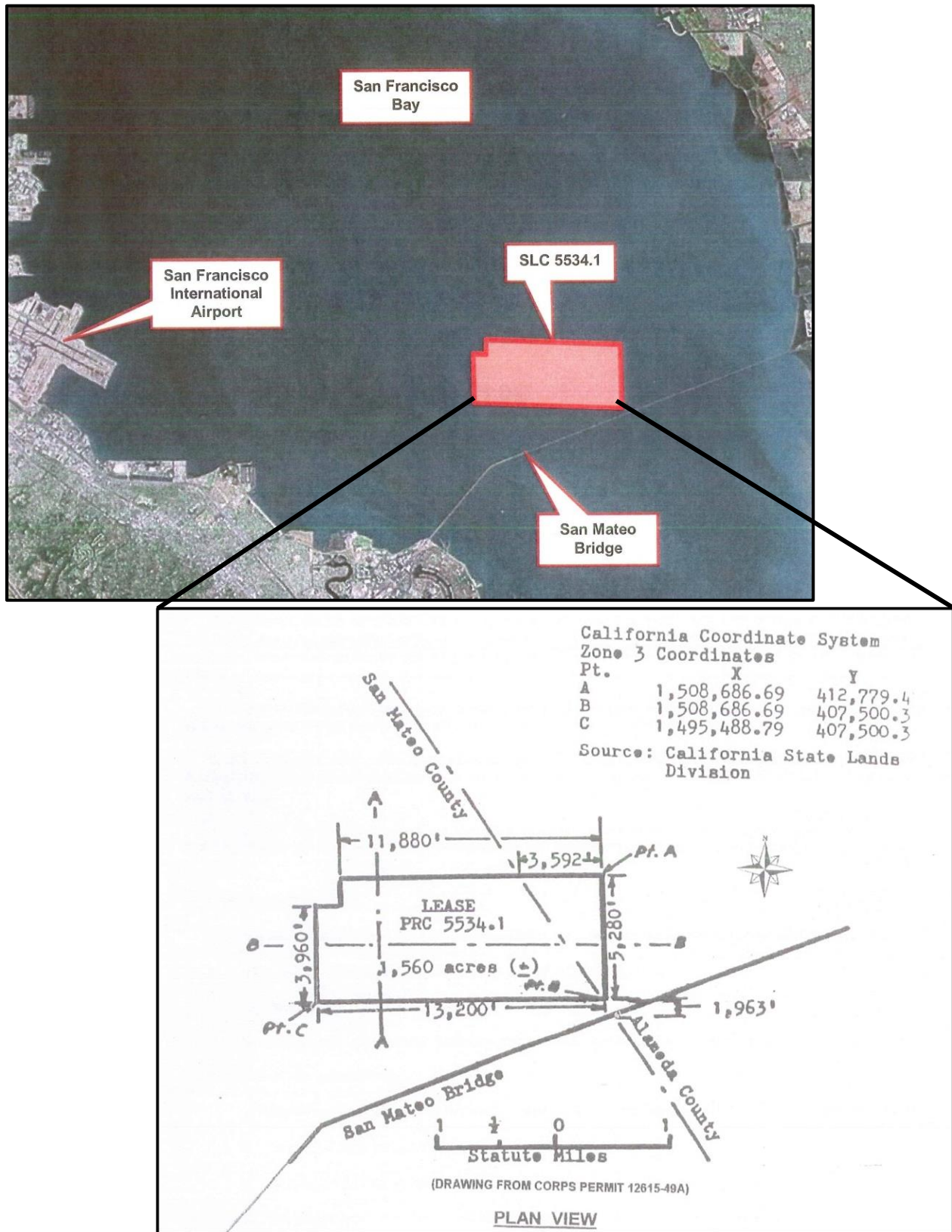
10 PROPOSED PROJECT

11 LTB, formerly Morris Tug and Barge, commercially mines historic oyster shell deposits,
12 pursuant to CSLC Lease No. PRC 5534.1, in the South San Francisco Bay (South Bay)
13 adjacent to the San Mateo Bridge in San Mateo and Alameda counties (Figure ES-1).
14 The approximately 1,560-acre lease area is in shallow (15-foot water depth or less) open-
15 water subtidal areas of the South Bay. In 1978, the Commission awarded a Mineral
16 Extraction Lease (PRC 5534.1) to Morris Tug and Barge ([Item 42, November 27, 1978](#)).
17 The lease was renewed in 1989, for 10 years with a right to renew for two successive
18 periods of 5 years each ([Item 32, August 30, 1989](#)). In 2006, the Commission adopted a
19 Negative Declaration (CSLC 2005) and approved a new lease ([Item C34, December 14,
20 2006](#)). That lease expired on December 31, 2016, and is currently in month-to-month
21 holdover status. LTB has applied for a new lease to continue to mine historic oyster shell
22 deposits within the existing lease area for a 10-year period ending in 2028.

23 Oyster shell was mined from the South Bay as early as 1891, for use in garden walks and
24 other purposes, and has been commercially mined from the South Bay since 1924 (Hart
25 1978). From the mid-1920s through the 1980s, the largest quantities of oyster shell were
26 mined from the South Bay (by companies that no longer mine oyster shell locally) for use
27 as a raw material to manufacture cement. LTB has mined oyster shell from the South Bay
28 for about 40 years, and its parent company has operated for more than 90 years, mining
29 oyster shells and processing them at company facilities in Petaluma and Collinsville. More
30 recently, the oyster shell has been processed and used as a high-grade mineral and
31 nutrient supplement in poultry diets, a soil amendment, pharmaceuticals, and as an
32 amendment to neutralize livestock waste.

33 The type of mining methods and mining location have remained relatively the same for
34 decades and are proposed to remain the same for future operations. The CSLC lease
35 and regulatory permits currently limit LTB to annual mined volumes of 80,000 cubic yards
36 (cy).

Figure ES-1. Oyster Shell Mining Vicinity Map with Detailed Lease Area



- 1 As part of its current oyster shell mining operations, the Applicant employs measures to
 2 avoid or minimize potential adverse effects. As part of its proposed Project description
 3 evaluated in this Initial Study/MND, the Applicant proposes to implement the Applicant
 4 Proposed Measures (APMs) listed in Table ES-1.

Table ES-1. List of Applicant Proposed Measures (APMs)

Air Quality and Greenhouse Gas Emissions	<p>APM-1: Replacement of Tier-0 and Tier-1 Pump Engines with Electric Motors. The Applicant will electrify the oyster mining and wash water pumps to eliminate the use of older less efficient diesel engines to drive the various pumps used for oyster shell mining. The change from diesel powered pumps to electrical motor driven pumps will greatly reduce impacts to air quality.</p> <p>APM-2: Electrification of the Mining Pumps with a Tier-4 Diesel Generator. ¹ The Applicant will use one, state-of-the-art Tier-4 diesel generator to power all barge mining equipment to further contribute to a substantial reduction in air emissions when compared to the environmental baseline. The change to the Tier 4 diesel generator has been proposed and implemented by the Applicant.</p>
Biological Resources	<p>APM-3: Periodic Bathymetric Surveys. The Applicant will conduct bathymetric surveys to assess current and future bathymetric conditions within the lease area. The Applicant proposes to conduct further periodic bathymetric surveys beginning in 2018, then 2022 and 2026 to evaluate potential trends and impacts with regard to South Bay bathymetry. The Applicant will collaborate with regulatory agencies to develop the survey parameters.</p> <p>APM-4: Seasonal Curtailment of Mining. A 2-month seasonal curtailment of mining (no mining activities) will occur between February and June of the calendar year. Prior to January 31 of each year, the Applicant shall request California Department of Fish and Wildlife to determine the appropriate 2-month window to ensure the curtailment is consistent with seasonal avoidance windows in other regions of the San Francisco Bay to avoid take of state listed species.</p>
Hydrology and Water Quality	<p>APM-5: Water Quality Wash Water Plume Study within First 2 Years of New Permits. The Applicant will collaborate with the San Francisco Bay Regional Water Quality Control Board and other interested agencies to design, fund, conduct, and report results of a discharge plume water quality monitoring study as part of the Project within 2 years after execution of a new lease.</p>
Recreation and Transportation/Traffic	<p>APM-6: Local Notice to Mariners. Before and after all transit activities with the oyster shell mining tug, dredge barge and hopper barge, LTB shall contact and notify USCG, District 11 San Francisco Bay Vessel Traffic Control of all transit activities inbound and outbound to and from the lease mining area in South Bay and transiting to Mare Island or the offloading facilities.</p>

Note: ¹ Tier 4 refers to the most recent emission milestone established by the U.S. Environmental Protection Agency and California Air Resources Board applicable to new engines found in off-road equipment including marine vessels and workboats.

1 As discussed in Section 3, *Environmental Checklist and Analysis*, of this MND, the APMs
 2 provide increased protection for air quality, biological resources, and recreation/marine
 3 transportation among other environmental issue areas within the South Bay. For example,
 4 the APMs for air quality include accelerated equipment upgrades to Tier 4 levels several
 5 years before required change-out dates, while the APMs for biological resources provide
 6 increased protection within the South Bay for listed salmonids and smelt and their critical
 7 habitats.

8 **ENVIRONMENTAL IMPACTS AND PROPOSED MITIGATION MEASURES**

9 The environmental factors checked below in Table ES-2 would be potentially affected by
 10 the proposed Project (continued oyster shell mining activities); a checked box indicates
 11 that at least one impact would be a “Potentially Significant Impact” but the Applicant has
 12 agreed to Project revisions, including the implementation of mitigation measures (MMs),
 13 that reduce the impact to “Less than Significant with Mitigation,” as detailed in Section 3
 14 of this MND. Table ES-3 lists proposed MMs designed to reduce or avoid potentially
 15 significant impacts. With implementation of the proposed MMs, all Project-related impacts
 16 would be reduced to less than significant.

Table ES-2. Environmental Issues and Potentially Significant Impacts

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Agriculture and Forestry Resources	<input type="checkbox"/> Air Quality
<input checked="" type="checkbox"/> Biological Resources	<input checked="" type="checkbox"/> Cultural and Paleontological Resources	<input checked="" type="checkbox"/> Cultural Resources – Tribal
<input type="checkbox"/> Geology and Soils	<input type="checkbox"/> Greenhouse Gas Emissions	<input checked="" type="checkbox"/> Hazards and Hazardous Materials
<input type="checkbox"/> Hydrology and Water Quality	<input type="checkbox"/> Land Use and Planning	<input type="checkbox"/> Mineral Resources
<input type="checkbox"/> Noise	<input type="checkbox"/> Population and Housing	<input type="checkbox"/> Public Services
<input type="checkbox"/> Recreation	<input type="checkbox"/> Transportation/Traffic	<input type="checkbox"/> Utilities and Service Systems
<input checked="" type="checkbox"/> Mandatory Findings of Significance		

Table ES-3. Summary of Proposed Project Mitigation Measures

Biological Resources	MM BIO-1: Turbidity Reduction during Mining
	MM BIO-2: Limited Volume per Year
	MM BIO-3: Installation of Positive Fish Barrier Screens
	MM BIO-4: Limited Water Pumping Depths
	MM BIO-5: Mitigation Effectiveness Monitoring
	MM BIO-6: Limited Mining Area
Cultural and Paleontological Resources and Cultural Resources – Tribal	MM CUL-1: Annual Crew Worker Cultural Sensitivity Training MM CUL-2: Unanticipated Discovery of Human Remains
Hazards and Hazardous Materials	MM HAZ-1: Hazardous Material Control and Spill Prevention and Response Plan