



US Army Corps  
of Engineers®  
San Francisco District

SAN FRANCISCO DISTRICT

Regulatory Division  
450 Golden Gate Ave., 4<sup>th</sup> Floor  
San Francisco, CA 94102-3406

# PUBLIC NOTICE

PROJECT: Commercial Mining of Oyster Shell Deposits in South San Francisco Bay

PUBLIC NOTICE NUMBER: SPN-1999-244030S

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COMMENTS DUE DATE: November 13, 2020

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1. **INTRODUCTION:** Lind Tug and Barge (POC: Mr. Bill Butler; 707-762-7251, 100 East D Street, Petaluma, California 94952, has applied to the U.S. Army Corps of Engineers (USACE), San Francisco District, for a Department of the Army Permit for Lind Tug and Barge (LTB) to harvest historic oyster shell beds in South San Francisco Bay utilizing hydraulic suction dredge and related tug and barge equipment. The harvested oyster shells would be processed and sold commercially as a calcium supplement for poultry and livestock and as an agricultural soil amendment. This Department of the Army permit application is being processed pursuant to the provisions of Section 404 of the Clean Water Act of 1972, as amended (33 U.S.C. § 1344 *et seq.*), and Section 10 of the Rivers and Harbors Act of 1899, as amended (33 U.S.C. § 403 *et seq.*).

## 2. PROPOSED PROJECT:

**Project Site Location:** The project is located within 1,560-acre area in open subtidal waters in South San Francisco Bay, just north of the San Mateo Bridge within California State Lands Commission designated lease area, PRC 5534.1 (Lat. 37.620897°/Long. -122.226799°).

**Project Site Description:** The historic oyster shell deposits, which have been mined since the early 20<sup>th</sup> century, occur primarily in the upper 30 feet of young bay mud deposits and are typically overlaid and intermixed with deposits of fine sediment. Although there is interest in reestablishing oyster populations within the bay, primarily in Central Bay, the fine grained mud substrate and high ambient turbidity and suspended sediment concentrations that occur in the South Bay contribute to unsuitable habitat conditions for oysters within the area of the relic historic oyster shell deposits.

Oyster shells mined by LTB are used mainly as a soil amendment and as a high-grade nutrient additive for poultry diets. Oyster shell calcium has unique physical and chemical characteristics that make it ideal as a dietary supplement and calcium source for livestock and poultry. The use of oyster shell as the source of dietary calcium and other nutrients was found to increase egg production, extend the egg laying duration, increase egg shell durability and reduce shell breakage, and increase egg size and quality when compared to limestone supplements. Calcium derived from oyster shell has been found to be a superior nutrient and mineral source when compared to inorganic limestone and other sources.

**Project Description:** As shown in the attached plans, the applicant proposes to continue mining historic oyster shell deposits using a hydraulic suction dredge, which mines and washes the shell, then transfers the shell into an adjacent hopper barge. The hopper dredge would harvest oyster shell using the "trailing suction method of trolling." A tugboat would be used to push the shell dredge and shell hopper barge to the lease area, and to propel the barges as mining occurs. Shell deposits would be mined from near the substrate surface (typically within approximately 2-3 feet of the surface) by slowing trolling over the deposits within the lease area between 1-2 nautical miles per hour (knots). During mining, a 12" diameter suction pipe equipped with a 24-inch x 32-inch drag head would be lowered to the bottom and into the substrate approximately 2-3 feet below the surface. The suction pipe would be mounted on the side of the barge and raised and lowered by an electric winch. The suction is connected to a shell pump (12 inch diameter pumping approximately 6,000 gpm), which transports a shell, water, and silt slurry from the bay bottom up to the barge. The slurry would be pumped to the raised rear of a large rotating trommel screen for washing

and screening. After the oyster shell materials are extracted, excess water and silt would be released back into bay waters via subsurface pipes. Once the hopper barge is loaded, the tugboat pushes the loaded barge and shell dredge to Mare Island in Vallejo, where the dredge is moored between mining events. The loaded hopper barge is transported by tug to one of two oyster shell processing sites in Petaluma on the Petaluma River or Collinsville (along Montezuma Slough upstream of Suisun Bay), operated by an affiliate of LTB, Lind Marine Incorporated (LMI). The current annual volumes of shell that can be harvested from the shell lease is 80,000 cubic yards (c.y.) (40,000 tons).

**Basic Project Purpose:** The basic project purpose comprises the fundamental, essential, or irreducible purpose of the project, and is used by USACE to determine whether the project is water dependent. The basic project purpose is to harvest historic oyster shell beds for the use of commercial sale to agricultural businesses.

**Overall Project Purpose:** The overall project purpose serves as the basis for the Section 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project while allowing a reasonable range of alternatives to be analyzed. The overall project purpose is to harvest historic oyster shell beds for the use of commercial sale to agricultural businesses within the San Francisco Bay.

**Project Impacts:** The maximum amount of oyster shell volumes that would be dredged annually is 80,000 cubic yards (c.y.) (40,000 tons) within a 1560-acre area of the PRC lease site. The suction pipe of the LTB barge would be equipped with a small opening on the top of the drag head that pulls water into the suction pipe to help create the shell-water slurry when the drag head is buried in the substrate such that insufficient water can be drawn through the shell substrate itself. The drag head, vent and 12-inch diameter pipe connecting the drag head to the suction pump and barge entrains water, and would potentially entrain fish and macroinvertebrates, into the suction pipe. In addition to the shell suction drag head, an additional wash water pump draws water from directly beneath the bottom of the shell dredge hull, for the shell washing process.

An estimate for the maximum amount of incidental fallback into the San Francisco Bay resulting from the annual limit of 80,000 c.y. of dredged oyster shells would be a slurry

comprised of 8,000 c.y. of silt and 465,000 c.y. of water. The released slurry may result in a localized temporary suspended sediment plume during mining. The suspended sediment concentrations and aerial extent of the plume would vary based on a number of factors including the quantity of silt and mud associated with a specific shell deposit, tidal currents, and naturally occurring ambient suspended sediment concentration within the South Bay in the area where mining occurs.

**Proposed Mitigation:** The proposed project would not have permanent impacts to the San Francisco Bay and therefore would not require compensatory mitigation.

**Project Alternatives:** USACE has not endorsed the submitted alternatives analysis at this time. USACE will conduct an independent review of the project alternatives prior to reaching a final permit decision.

### 3. STATE AND LOCAL APPROVALS:

**Water Quality Certification:** State water quality certification or a waiver thereof is a prerequisite for the issuance of a Department of the Army Permit to conduct any activity which may result in a fill or pollutant discharge into waters of the United States, pursuant to Section 401 of the Clean Water Act of 1972, as amended (33 U.S.C. § 1341 *et seq.*). The applicant has recently submitted an application to the California Regional Water Quality Control Board (RWQCB) to obtain water quality certification for the project. No Department of the Army Permit will be issued until the applicant obtains the required certification or a waiver of certification. A waiver can be explicit, or it may be presumed if the RWQCB fails or refuses to act on a complete application for water quality certification within 60 days of receipt, unless the District Engineer determines a shorter or longer period is a reasonable time for the RWQCB to act.

Water quality issues should be directed to the Executive Officer, California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, by the close of the comment period.

**Coastal Zone Management:** Section 307(c) of the Coastal Zone Management Act of 1972, as amended (16 U.S.C. § 1456(c) *et seq.*), requires a non-Federal applicant seeking a federal license or permit to conduct any activity occurring in or affecting the coastal zone to obtain a

Consistency Certification that indicates the activity conforms with the state's coastal zone management program. Generally, no federal license or permit will be granted until the appropriate state agency has issued a Consistency Certification or has waived its right to do so. Section 307(c) of the Coastal Zone Management Act of 1972, as amended (16 U.S.C. § 1456(c) *et seq.*), requires a Federal applicant seeking a federal license or permit to conduct any activity occurring in or affecting the coastal zone to obtain a Consistency Determination that indicates the activity conforms with the state's coastal zone management program. Generally, no federal license or permit will be granted until the appropriate State agency has issued a Consistency Determination or has waived its right to do so.

Coastal zone management issues should be directed to the Executive Director, San Francisco Bay Conservation and Development Commission, 375 Beale St., Suite 510, San Francisco, CA 94105 by the close of the comment period.

**Other Local Approvals:** LTB has an existing general lease agreement issued by the California State Lands Commission for designated lease area, PRC 5534.1 and an existing incidental take permit from the California Department of Fish and Wildlife.

#### 4. COMPLIANCE WITH VARIOUS FEDERAL LAWS:

**National Environmental Policy Act (NEPA):** Upon review of the Department of the Army permit application and other supporting documentation, USACE has made a *preliminary* determination that the project neither qualifies for a Categorical Exclusion nor requires the preparation of an Environmental Impact Statement for the purposes of NEPA. At the conclusion of the public comment period, USACE will assess the environmental impacts of the project in accordance with the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. §§ 4321-4347), the Council on Environmental Quality's regulations at 40 C.F.R. § 1500-1508, and USACE regulations at 33 C.F.R. § 325. The final NEPA analysis will normally address the direct, indirect, and cumulative impacts that result from regulated activities within the jurisdiction of USACE and other non-regulated activities USACE determines to be within its purview of Federal control and responsibility to justify an expanded scope of analysis for NEPA purposes. The final NEPA analysis will be

incorporated in the decision documentation that provides the rationale for issuing or denying a Department of the Army Permit for the project. The final NEPA analysis and supporting documentation will be on file with the San Francisco District, Regulatory Division.

**Endangered Species Act (ESA):** Section 7(a)(2) of the ESA of 1973, as amended (16 U.S.C. § 1531 *et seq.*), requires Federal agencies to consult with either the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) to ensure actions authorized, funded, or undertaken by the agency are not likely to jeopardize the continued existence of any Federally-listed species or result in the adverse modification of designated critical habitat. As the Federal lead agency for this project, USACE has conducted a review of the California Natural Diversity Data Base, digital maps prepared by USFWS and NMFS depicting critical habitat, and other information provided by the applicant to determine the presence or absence of such species and critical habitat in the project area. Based on this review, USACE has made a preliminary determination that the following Federally-listed species are present at the project location or in its vicinity and may be affected by project implementation: green sturgeon (*Acipenser medirostris*) and steelhead, Central California Coast Distinct Population Segment (DPS) (*Oncorhynchus mykiss*). To address project related impacts to these species and their designated critical habitat, USACE will initiate informal consultation with and NMFS, pursuant to Section 7(a) of the Act. Any required consultation must be concluded prior to the issuance of a Department of the Army Permit for the project.

**Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA):** Section 305(b)(2) of the MSFCMA of 1966, as amended (16 U.S.C. § 1801 *et seq.*), requires Federal agencies to consult with the NMFS on all proposed actions authorized, funded, or undertaken by the agency that may adversely affect essential fish habitat (EFH). EFH is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. EFH is designated only for those species managed under a Federal Fisheries Management Plan (FMP), such as the *Pacific Groundfish FMP*, the *Coastal Pelagics FMP*, or the *Pacific Coast Salmon FMP*. As the Federal lead agency for this project, USACE has conducted a review of digital maps prepared by NMFS depicting EFH to determine the presence or absence of EFH in the project area. Based on this review, USACE has made a *preliminary* determination that EFH is present at the

project location or in its vicinity and that the critical elements of EFH may be adversely affected by project implementation, including Pacific salmon, starry flounder, northern anchovy, and English sole. To address project related impacts to EFH, USACE will initiate consultation with NMFS, pursuant to Section 305(5)(b)(2) of the Act. Any required consultation must be concluded prior to the issuance of a Department of the Army Permit for the project.

**Marine Protection, Research, and Sanctuaries Act (MPRSA):** Section 302 of the MPRSA of 1972, as amended (16 U.S.C. § 1432 *et seq.*), authorizes the Secretary of Commerce, in part, to designate areas of ocean waters, such as the Cordell Bank, Gulf of the Farallones, and Monterey Bay, as National Marine Sanctuaries for the purpose of preserving or restoring such areas for their conservation, recreational, ecological, or aesthetic values. After such designation, activities in sanctuary waters authorized under other authorities are valid only if the Secretary of Commerce certifies that the activities are consistent with Title III of the Act. No Department of the Army Permit will be issued until the applicant obtains any required certification or permit. The project does not occur in sanctuary waters, and a *preliminary* review by USACE indicates the project is not likely to affect sanctuary resources. This presumption of effect, however, remains subject to a final determination by the Secretary of Commerce or his designee.

**National Historic Preservation Act (NHPA):** Section 106 of the NHPA of 1966, as amended (16 U.S.C. § 470 *et seq.*), requires Federal agencies to consult with the appropriate State Historic Preservation Officer to take into account the effects of their undertakings on historic properties listed in or eligible for listing in the *National Register of Historic Places*. Section 106 of the Act further requires Federal agencies to consult with the appropriate Tribal Historic Preservation Officer or any Indian tribe to take into account the effects of their undertakings on historic properties, including traditional cultural properties, trust resources, and sacred sites, to which Indian tribes attach historic, religious, and cultural significance. As the Federal lead agency for this undertaking, USACE has conducted a review of the latest published version of the *National Register of Historic Places*, survey information on file with various city and county municipalities, and other information provided by the applicant to determine the presence or absence of historic and archaeological resources within the permit area. Based on this review,

USACE has made a *preliminary* determination the project would have no potential to cause effects to historic or archaeological resources in the permit area.

**5. COMPLIANCE WITH THE SECTION 404(b)(1) GUIDELINES:** Projects resulting in discharges of dredged or fill material into waters of the United States must comply with the Guidelines promulgated by the Administrator of the Environmental Protection Agency under Section 404(b) of the Clean Water Act (33 U.S.C. § 1344(b)). An evaluation pursuant to the Guidelines indicates the project is dependent on location in or proximity to waters of the United States to achieve the basic project purpose. This conclusion raises the (rebuttable) presumption of the availability of a practicable alternative to the project that would result in less adverse impacts to the aquatic ecosystem while not causing other major adverse environmental consequences.

**6. PUBLIC INTEREST EVALUTION:** The decision on whether to issue a Department of the Army Permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the project and its intended use on the public interest. Evaluation of the probable impacts requires a careful weighing of the public interest factors relevant in each particular case. The benefits that may accrue from the project must be balanced against any reasonably foreseeable detriments of project implementation. The decision on permit issuance will, therefore, reflect the national concern for both protection and utilization of important resources. Public interest factors which may be relevant to the decision process include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

**7. CONSIDERATION OF COMMENTS:** USACE is soliciting comments from the public; Federal, State, and local agencies and officials; Native American Nations or other tribal governments; and other interested parties in order to consider and evaluate the impacts of the project. All comments received by USACE will be considered in the decision on whether to issue, modify, condition, or deny a Department of the Army Permit for the project. To make this decision, comments are used to assess impacts on

endangered species, historic properties, water quality, and other environmental or public interest factors addressed in a final environmental assessment or environmental impact statement. Comments are also used to determine the need for a public hearing and to determine the overall public interest in the project.

8. **SUBMITTING COMMENTS:** During the specified comment period, interested parties may submit written comments to Dina Ryan, San Francisco District, Regulatory Division, 450 Golden Gate Avenue, 4<sup>th</sup> Floor, San Francisco, California 94102-3404; comment letters should cite the project name, applicant name, and public notice number to facilitate review by the Regulatory Permit Manager. Comments may include a request for a public hearing on the project prior to a determination on the Department of the Army permit application; such requests shall state, with particularity, the reasons for holding a public hearing. All substantive comments will be forwarded to the applicant for resolution or rebuttal. Additional project information or details on any subsequent project modifications of a minor nature may be obtained from the applicant and/or agent or by contacting the Regulatory Permit Manager by telephone or e-mail (cited in the public notice letterhead). An electronic version of this public notice may be viewed under the *Public Notices* tab on the USACE website: <https://www.spn.usace.army.mil/Missions/Regulatory>.