

Attachment D

Summary of Letter Providing Supplemental Information to Alternatives Analysis

In accordance with Section 11546.7 of the California Government Code, an electronic version of the original letter has not been posted online as it does not meet specified accessibility standards. For an electronic copy of the original letter, please contact Selina Louie at selina.louie@waterboards.ca.gov or Kevin Lunde at kevin.lunde@waterboards.ca.gov.

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Summary of Letter Providing Supplemental Information to the Alternatives Analysis for Commercial Oyster Shell Mining by Lind Tug and Barge, Inc. within South San Francisco Bay

On December 8, 2021, Lind Tug and Barge, Inc. (LTB) submitted an alternatives analysis as part of their application for waste discharge requirements and water quality certification of dredge and fill discharges associated with Lind’s commercial shell mining activities in South San Francisco Bay. On December 28, 2021, LTB submitted a letter providing information on cost and greenhouse gases for one alternative as a supplement to the alternatives analysis. A summary of the supplemental information is provided below.

One such alternative to shell mining activities would be for LTB to purchase calcium carbonate from existing mines. The closest high-grade limestone quarry to LTB’s Collinsville procession site is in Paso Robles. The cost of purchasing a similar sized aggregate limestone to the mined oyster shells from the Paso Robles quarry and transporting them by truck to Collinsville is approximately double the cost of mining oyster shells from the Lease Area and transporting them by barge to Collinsville. The cost of purchasing and transporting limestone was based on the purchase and transportation price of similarly sized aggregate limestone in the area at an estimate of 1.22 tons per cubic yard. The cost of mining and transporting oyster shells are based on actual costs incurred by LTB from the last two years, including costs such as royalties to the State of California and environmental mitigation costs. The approximate costs are listed below:

Scenario	60,000 cy/year	80,000 cy/year
Cost to purchase and transport limestone	\$3.43 million	\$4.56 million
Cost to mine and transport oyster shells	\$1.72 million	\$2.28 million

LTB engaged Ramboll US Consulting (Ramboll) to calculate estimated greenhouse gas (GHG) emissions from transporting limestone from the Paso Robles quarry to Collinsville. Ramboll’s original memorandum of results is attached to the letter of supplemental information. GHG emissions were calculated using California Air Resources Board’s Emission Factor model, which estimates emission rates of on-road mobile sources in California. The specified parameters within the model included: area of San Luis Obispo County, operational years 2022-2028, heavy duty diesel-fueled trucks, all speeds, 19 cubic yards per truck load, 60° F and 61% humidity. Results from the model were then compared to estimated GHG emissions from mining and transporting oyster shells previously published in the project’s CEQA document. These estimates are given in Table 3.8-2 on page 3-58 of the CEQA document prepared by the California State Lands Commission – “Initial Study/Mitigated Negative Declaration – Lind Tug and Barge Inc. Oyster Shell Mining Project, November 2018”. The greenhouse gas emissions

from transporting limestone from Paso Robles to Collinsville is nearly six times more than mining the oyster shells from the Lease Area and transporting to Collinsville. Results are shown in the table below:

Scenario	60,000 cy/year	80,000 cy/year
Emission transport limestone from Paso Robles to Collinsville (metric ton/year)	1,500	2,000
Emission to mine oyster shells from the Lease Area and transport to Collinsville (metric ton/year)	256	341

LTB states that increased costs of over \$2 million dollars could render the business infeasible to continue. They also mention that costs are likely underestimated in their analysis due to the specialized grade of the limestone needed for their operations. Additionally, the estimated GHG emissions from limestone transportation are nearly six times that of the estimated emissions from oyster mining and transportation without considering the emissions caused by limestone mining. Given this information, LTB indicates that the alternative is impracticable.