Berths 163-164 [NuStar-Valero] Marine Oil Terminal Wharf Improvements Project

FINAL MITIGATION MONITORING AND REPORTING PROGRAM

Prepared by:

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Table 1. Mitigation Measures for the Berths 163-164 [NuStar-Valero] MOTEMS Project

| Mitigation Measure, Lease Measure or Standard Condition of Approval | Timing and Methods | Responsible Parties | | | | |
|--|---|---|--|--|--|--|
| Air Quality and Meteorology: Operation | | | | | | |
| LM AQ-1: Periodic Review of New Technology and Regulations. LAHD will require the tenant to review any LAHD-identified or other new emissions-reduction technology, determine whether the technology is feasible, and report to LAHD. Such technology feasibility reviews will take place at the time of LAHD's consideration of any lease amendment or facility modification for the proposed project site. If the technology is determined by LAHD to be feasible in terms of cost and technical and operational feasibility, the tenant will work with LAHD to implement such technology. Potential technologies that may further reduce emissions and/or result in cost-savings benefits for the tenant may be identified through future work on the Clean Air Action Plan (CAAP). Over the course of the lease, the tenant and LAHD will work together to identify potential new technology. Such technology will be studied for feasibility, in terms of cost, technical and operational feasibility, and emissions reduction benefits. As partial consideration for the lease, the tenant will implement not less frequently than once every five years following the effective date of the permit, new air quality technological advancements, subject to mutual agreement on operational feasibility and cost sharing, which will not be unreasonably withheld. The effectiveness of this measure depends on the advancement of new technologies and the outcome of future feasibility or pilot studies. | Timing: During operation, beginning five years after lease agreement, and then every five years thereafter. Methods: LAHD shall include LM AQ-1 in the lease agreement with tenant. LAHD shall monitor implementation of mitigation measures during operation. | Implementation: LAHD, NuStar, and Valero Monitoring and Reporting: Environmental Management Division | | | | |
| Biological Resources: Construction | | | | | | |
| MM BIO-1: Protect marine mammals. Although it is expected that marine mammals will voluntarily move away from the area at the commencement of the vibratory or "soft start" of pile driving activities, as a precautionary measure, pile driving activities occurring as part of the pile installation will include establishment of a safety zone by a qualified marine mammal professional, and the area surrounding the operations (including the safety zones) will be monitored for marine mammals by a qualified marine mammal observer. ¹ | Timing: During construction, throughout pile driving operations. Methods: Tenant and/or LAHD shall include this measure in the contract specifications for construction. LAHD | Implementation: LAHD, NuStar and/or the entity performing construction, and through Construction Contractor | | | | |

¹ Marine mammal professional qualifications shall be identified based on criteria established by LAHD during the construction bid specification process. Upon selection as part of the construction award winning team, the qualified marine mammal professional shall develop site-specific pile driving safety zone requirements, which shall follow NOAA Fisheries Technical Guidance Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (NOAA Fisheries

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| The pile driving site will move with each new pile, therefore, the safety zones will move accordingly ¹ Marine mammal professional qualifications shall be identified based on criteria established by LAHD during the construction bid specification process. Upon selection as part of the construction award winning team, the qualified marine mammal professional shall develop site-specific pile driving safety zone requirements, which shall follow NOAA Fisheries Technical Guidance Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (NOAA Fisheries 2016) in consultation with the acoustic threshold white paper prepared for this purpose by LAHD (LAHD 2017b). Final pile driving safety zone requirements developed by the selected marine mammal professional shall be submitted to LAHD Construction and Environmental Management Divisions prior to the commencement of pile driving. | shall monitor implementation of mitigation measures during construction. | Monitoring and Reporting: Environmental Management Division and Construction Management Division. |
| MM BIO-2: Protect eelgrass. The proposed Project shall comply with Tenant's U.S. Army Corps permit conditions and the California Eelgrass Mitigation Policy. Pursuant to the Policy, the following activities shall be performed: A preconstruction eelgrass survey to map the location and extent of eelgrass that could potentially be affected by wharf demolition and construction; Use of minimization measures or Best Management Practices (BMPs), such as silt curtains, to reduce potential effects to eelgrass during Project construction (if present); A post-construction survey to map the location and extent of eelgrass after completion of wharf demolition and construction; If eelgrass is lost due to Project construction, eelgrass shall be mitigated at a ratio of at least 1.2 to 1. Timing of eelgrass surveys, including frequency of post-mitigation surveys (if applicable), shall comply with the provisions of the California Eelgrass Mitigation Policy (CEMP). | Timing: Timing for pre- and post-construction surveys and submittal of any and all reports and other documents to the U.S. Army Corps of Engineers (Corps), NOAA Fisheries, and other applicable agencies, will be as specified in the Tenant's Corps permit and the California Eelgrass Mitigation Policy (CEMP). Generally, Tenant will be required to perform a pre-construction eelgrass survey 60 days prior to start of inwater construction. If eelgrass is present, Tenant shall implement minimization measures or BMPs, as recommended in the survey report, and as approved by the Corps. Upon completion of in-water construction, Tenant shall complete a post- | Implementation: NuStar and/or the entity performing construction through qualified Biology and Construction Contractors Monitoring and Reporting: NuStar and/or the entity performing construction through qualified Biology Contractor |

²⁰¹⁶⁾ in consultation with the acoustic threshold white paper prepared for this purpose by LAHD (LAHD 2017b). Final pile driving safety zone requirements developed by the selected marine mammal professional shall be submitted to LAHD Construction and Environmental Management Divisions prior to the commencement of pile driving.

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|---|--|---------------------|
| | construction eelgrass survey within 30 days. If the pre- and post-construction surveys determine an impact to eelgrass, the Tenant will create a mitigation plan for construction and monitoring of an eelgrass mitigation site in accordance with the CEMP and submit the plan for approval to the Corps and other applicable agencies. The Tenant will be responsible for implementation of the plan and all reporting within the schedule and timelines within that approved mitigation plan. | |
| | Methods: Eelgrass surveys will be performed as required in the Corps permit and CEMP, including but not limited to visual survey by divers, remotely operated vehicle, or sidescan sonar. All survey reports and, if required, mitigation plans and monitoring reports will be submitted to the Corps, NOAA Fisheries, LAHD, and other applicable agencies. | |