



MARINE MAMMAL COMMISSION

21 September 2018

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Dear Mr. Yarde and Mr. Fish:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the draft programmatic environmental assessment (draft PEA) developed by the Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE) for permitted activities in the Southern California planning area. The Commission also has reviewed the associated notice of availability (83 Fed. Reg. 42526).

Oil and gas activities in the Southern California planning area currently are limited to production from existing platforms. The draft PEA evaluates the potential environmental impacts of new production-related activities requested by lessees and operators, including drilling new well bores, installing conductor pipes to guide future well drilling, and downhole activities associated with enhancing production, well maintenance, and water injection wells.

The Southern California planning area contains habitat for a variety of marine mammals, including cetaceans, seals, sea lions, and sea otters. The draft PEA provided an accounting of marine mammals that occur in the planning area, all of which are protected under the Marine Mammal Protection Act (MMPA). Slightly more detailed information was provided for marine mammals that are listed as threatened or endangered under the Endangered Species Act (ESA). As noted in the draft PEA, impacts on marine mammals from the proposed activities include injury and disturbance from sound-generating activities (i.e., conductor pipe installation, well drilling, and vessel and aircraft traffic), turbidity and habitat degradation caused by drilling waste discharge and conductor pipe installation, and vessel strikes.

Of these activities, sound generated by conductor pipe installation is expected to have the most significant impact on marine mammals. Installation of conductor casings using an impact hammer would generate broadband sound that spans the range of frequencies detectable by marine

mammals, at sound levels that exceed the thresholds for Level A and B harassment for all species of marine mammals¹. Exposure to pile driving at close range can result in temporary threshold shift in hearing (Kastelein et al. 2015); exposure to pile driving also can result in temporary displacement away from preferred habitat (Dähne et al. 2013).

Also of concern is the potential for additional vessel traffic to increase the risk of vessel strikes of large whales. Contrary to the assertion made in the draft PEA that ship strikes of cetaceans off southern California are infrequent (Section 4.3.8), ship strikes are a significant source of injury and mortality for several species of large whales along the U.S. west coast (Berman-Kowaleski et al. 2010, Carretta et al. 2015, Rockwood et al. 2017).

Any operator proposing to undertake activities that have the potential to result in injury or harassment of marine mammals is expected to apply for a marine mammal incidental harassment or take authorization, in accordance with section 101(a)(5)(A) or (D) of the MMPA, respectively.² Mitigation and monitoring measures included in incidental harassment or take authorizations should result in the least practicable adverse impact on marine mammal species and stocks and should ensure that there would be no more than a negligible impact on any species or stock and that only small numbers of marine mammals would be taken. Mitigation and monitoring measures for impact pile-driving activities typically include—

- the establishment of exclusion and harassment zones around the sound source;
- visual and acoustic monitoring of those zones before, during, and after pile driving;
- restrictions on operating in low-visibility conditions;
- techniques to reduce sound levels associated with pile driving (e.g., pile cushions/caps, bubble curtains, coffer dams, and double-wall piles); and
- soft-start, delay, and shut-down³ requirements.

Mitigation and monitoring measures for activities that have the potential to increase the risk of marine mammal vessel strikes typically include visual monitoring, speed restrictions, designated shipping lanes, and other measures to avoid interactions between vessels and whales and to minimize the potential for serious injury or mortality of whales in the event of a strike. To minimize the potential to adversely impact marine mammals during the proposed activities, the Commission recommends that BOEM and BSEE require lessees and operators to obtain incidental harassment or take authorizations from the National Marine Fisheries Service (for cetaceans, seals, and sea lions) or U.S. Fish and Wildlife Service (for sea otters) for all activities that have the potential to injure or disturb marine mammals; such authorizations should include appropriate mitigation and monitoring measures to minimize the potential for injury or disturbance.

The draft PEA evaluated a range of alternatives that would determine the degree to which conductor pipe installation and other activities would affect marine mammals in the planning area.

¹ Based on sound levels measured during installation of conductor casings at ExxonMobil's Harmony Platform (MacGillivray and Schlesinger 2015; MacGillivray 2018).

² The issuance of an incidental harassment or take authorization by NMFS for any ESA-listed species also would require consultation under section 7 of the ESA.

³ Shut-down requirements typically apply to any marine mammals observed to be approaching or entering the exclusion zone, as opposed to only the large whales identified at page 4-24 of the draft PEA.

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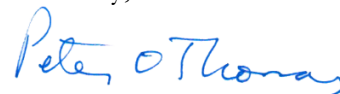
Under Alternative 1, activities considered for authorization include conductor pipe installation, drilling, temporary well abandonments, and downhole operations. Under Alternative 2, applications for conductor pipe installation would be considered but limits would be placed on the timeframe during which those activities could occur. However, the actual timeframe during which installations might be limited was not specified in the draft PEA and would presumably be determined on a case-by-case basis. Under Alternative 3, conductor pipe installation would not be authorized. Under Alternative 4, only downhole operations necessary for safety and pollution prevention would be authorized. Alternative 5 is the No Action Alternative.

All operators and lessees seeking to conduct activities that could injure or disturb marine mammals in the Southern California planning area should include in their applications an analysis of the spatial and temporal distribution of marine mammals in the area. Such an analysis would determine whether adjustments could be made to the timing of activities to help minimize potential adverse impacts on certain marine mammal species that are particularly sensitive to sound-generating activities or vulnerable to vessel strikes (i.e., Alternative 2). Spatially explicit habitat models generated for marine mammals in Southern California have demonstrated considerable seasonal variability in the densities of large whales (Irvine et al. 2014, Becker et al. 2017) and small cetaceans (Becker et al. 2014). As such, and as noted in the draft PEA, no single timeframe is expected to benefit all marine mammals. Therefore, the Commission recommends that BOEM and BSEE (1) adopt Alternative 2 as its Preferred Alternative and (2) require operators and lessees to consider information on the seasonal distribution of marine mammals when planning their proposed activities, including the status of marine mammal species and stocks and their relative vulnerability to the proposed activities to determine the optimal timeframe(s) for restrictions on operations.

The Commission understands that BOEM has funded an assessment program for marine mammals and other protected species in the Pacific Ocean (the Pacific Marine Assessment Program for Protected Species (PacMAPPS)), similar to the Atlantic and Gulf of Mexico Marine Assessment Programs for Protected Species (AMAPPS and GoMMAPPS, respectively). The Commission commends BOEM for initiating these types of broad-scale resource assessment programs which are addressing gaps in our understanding of marine mammal abundance, distribution, and habitat use. These assessments will provide baseline data that can help understand the potential impact of the activities discussed in the draft PEA and the design of appropriate mitigation and monitoring measures.

The Commission appreciates the opportunity to comment on the draft PEA and hopes that BOEM and BSEE find our recommendations helpful. Please contact me if you have any questions concerning the points raised in this letter.

Sincerely,



Peter O. Thomas, Ph.D.,
Executive Director

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