



# MARINE MAMMAL COMMISSION

27 July 2010

Mr. P. Michael Payne, Chief  
Permits, Conservation, and Education Division  
Office of Protected Resources  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, Maryland 20910

Re: Permit Application No. 15483  
(Bruce Mate, Ph.D., Oregon State University)

Dear Mr. Payne:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the above-referenced permit application with regard to the goals, policies, and requirements of the Marine Mammal Protection Act. The applicant is requesting authorization to take by deliberate harassment specified numbers of gray whales and by incidental harassment six other species of marine mammals, including the endangered southern resident killer whale, in Oregon waters during a five-year period.

## **RECOMMENDATION**

The Marine Mammal Commission recommends that the National Marine Fisheries Service issue the requested permit, provided that the proposed activities have been reviewed and approved by the permit holder's Institutional Animal Care and Use Committee in accordance with section 2.31 of the Animal and Plant Health Inspection Service's Animal Welfare Act regulations.

## **BACKGROUND**

The applicant is requesting authorization to test the effectiveness of an acoustic deterrent device for diverting migrating gray whales away from wave energy buoys and associated mooring cables, which pose a collision and entanglement risk for this species. Behavioral observations would be made between January and mid-April using a theodolite and binoculars during periods with and without the sound source activated. The proposed activities would be conducted daily during daylight hours, weather permitting, along the central Oregon coast. The proposed activities would be concluded before the peak northbound migration of cow/calf pairs from Mexico to reduce the potential for adversely affecting calves. The applicant states that, if the acoustic deterrent is successful in diverting gray whales, it could be a useful tool for mitigating the effects of other nearshore development (e.g., tidal energy, offshore wind farms) or localized pollution (e.g., oil spills).

During the proposed activities, gray whales, as well as harbor porpoises, California sea lions, harbor seals, Steller sea lions, northern elephant seals, and transient and southern resident killer whales, may be taken by Level B harassment as researchers attempt to provoke an avoidance

Mr. P. Michael Payne  
27 July 2010  
Page 2

response using a 1–3 kHz sound source with a nominal source level of 170 dB re 1  $\mu$ Pa at 1 m. The applicant states that harbor porpoises, California sea lions, and harbor seals are the species that most commonly occur in the proposed study area. Transient and southern resident killer whales, Steller sea lions, and northern elephant seals also occur in the study area but much less frequently than the other three species. The applicant estimates “the probability of southern resident killer whales close to our proposed study site at any given time to be extremely small and close to zero.” The applicant also indicates that the proposed source level is not expected to cause injury or death to any marine mammals. The Marine Mammal Commission concurs with these assessments.

The Commission also recognizes that the use of such a device simply adds one more source of human-generated sound to the marine environment at a time when overall sound levels are increasing steadily and may pose a threat to those species that are vulnerable to or use sound in the 1–3 kHz frequency range. Further, the Commission is aware that questions recently have been raised about the status of the eastern North Pacific population of gray whales. Although this population was removed from the endangered species list in 1994, it is being closely tracked because of the large number of strandings recorded around the turn of the century, concerns regarding the effects of climate change to its habitat, and recently introduced uncertainty regarding population structure. Unfortunately, the migratory path of gray whales off western North America places them in potential conflict with nearshore human activities including, but not limited to, the development of alternative energy sources. For all these reasons, the status of the eastern population of North Pacific gray whales warrants continued close monitoring.

At the same time, the proposed experiment is intended to determine whether such a device might increase protection for certain marine mammals, including the gray whale, if alternative energy sources are to be developed on a larger scale in nearshore environments. Evaluating the utility of such a device therefore is a prudent step that will provide useful information for decision-makers as they consider the advisability of approving alternative energy projects. Therefore, the Marine Mammal Commission recommends that the National Marine Fisheries Service issue the requested permit, provided that the proposed activities have been reviewed and approved by the permit holder’s Institutional Animal Care and Use Committee in accordance with section 2.31 of the Animal and Plant Health Inspection Service’s Animal Welfare Act regulations.

The Commission believes that the activities for which it has recommended approval are consistent with the purposes and policies of the Marine Mammal Protection Act.

Please contact me if you have any questions concerning the Commission’s recommendation.

Sincerely,



Timothy J. Ragen, Ph.D.  
Executive Director