



# MARINE MAMMAL COMMISSION

11 October 2011

Mr. P. Michael Payne, Chief  
Permits, Conservation, and Education Division  
Office of Protected Resources  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910-3225

Dear Mr. Payne:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the application submitted by the Washington State Department of Natural Resources seeking authorization under section 101(a)(5)(D) of the Marine Mammal Protection Act to take small numbers of harbor seals by harassment. The taking would be incidental to a habitat restoration project in the Woodard Bay Natural Resource Conservation Area in Puget Sound, Washington. Pilings and structures would be removed or repaired from 1 November 2011 through 28 February 2012. The Commission also has reviewed the National Marine Fisheries Service's 12 September 2011 *Federal Register* notice (76 Fed. Reg. 56172) announcing receipt of the application and proposing to issue the authorization, subject to certain conditions. The Commission commented on a similar incidental harassment authorization last year.

## RECOMMENDATIONS

The Marine Mammal Commission recommends that the National Marine Fisheries Service issue the incidental harassment authorization, provided that it—

- requires the Department to monitor the presence and behavior of marine mammals during all proposed activities (i.e., during vibratory pile-removal activities and during vessel and barge use);
- requires the presence of Service-approved observers before, during, and after all soft-starts of pile-removal activities to gather the data needed to determine the effectiveness of this technique as a mitigation measure; and
- conditions the incidental harassment authorization to require the Department to (1) immediately report all injured or dead marine mammals to the Service and local stranding network and (2) suspends the construction activities if a marine mammal is seriously injured or killed and the injury or death could have been caused by those activities (e.g., a fresh carcass)— if further measures are not likely to reduce the risk of additional serious injuries or deaths to a very low level, the Service should require the Department to obtain the necessary authorization for such takings under section 101(a)(5)(A) of the Marine Mammal Protection Act before resuming its construction activities.

## RATIONALE

The Washington State Department of Natural Resources plans to remove approximately 400 creosote timber pilings and 21,858 m<sup>2</sup> of pier superstructure in Chapman Bay to enhance ecological

structure and function. The Department also would repair 929 m<sup>2</sup> of the Chapman Bay Pier to enhance bat roosting habitat. Completion of those activities will depend on funding, but the Department intends to complete the activities in the fewest possible field seasons to minimize short-term disturbance to the harbor seals. The applicant would use a vibratory hammer, direct pull, and/or diver cutting techniques to remove the 12- to 24-in piles and other overwater structures. A maximum of 60 piles would be removed daily, resulting in 60 minutes of hammer vibration per day. Vibratory extraction could occur for approximately 15 days during the 40-day work period. Barges, small vessels, cranes, and heavy equipment also would be used to remove the pilings and superstructure. In addition, the applicant would use power tools and a generator to replace bat stringers and install flashing and lumber to create optimal spacing and heat requirements for bat roosting habitat. Increased human presence could disturb harbor seals during any of the proposed activities.

The Service preliminarily has determined that, at most, the proposed activities temporarily would modify the behavior of small numbers of harbor seals. It also anticipates that any impact on the affected species and stocks would be negligible. The Service does not anticipate any take of marine mammals by death or serious injury and believes that the potential for disturbance will be at the least practicable level because of the proposed mitigation and monitoring measures. The measures include—

- limiting the proposed in-water activities to 1 November through 28 February to minimize effects on salmonids and avoid the harbor seal pupping season;
- surveying the area for seals prior to initiating the activities and approaching the action area slowly from a distance to alert seals to the crew's presence and removing piles at the farthest location from the seal haul-out sites at the beginning of each day;
- removing only those piles that are greater than 30 m from the haul-out sites;
- using soft-starts for the vibratory hammer at the beginning of the work day;
- using a muffler to reduce in-air sound levels from the vibratory hammer;
- suspending activities until seals are at a sufficient distance from the activity to minimize the risk of direct injury from a piling or portion of a structure striking an animal;
- using one protected species observer to monitor the two seal haul-out sites 30 minutes prior to, during, and 30 minutes after the proposed activities for 15 days during the 40-day work period;
- ceasing activities if extreme reactions of seals occur (e.g., apparent abandonment of the haul-out sites) and consulting with the Service before reinitiating activities; and
- submitting a final report.

### **Mitigation and monitoring measures**

Protected species observers will monitor near the two harbor seal haul-out sites to document Level B harassment for 15 days during the 40-day work period. The Service has indicated that it will not require continuous observations during vibratory pile removal and other proposed activities, because it believes that the sound levels from those activities will not cause Level A harassment or mortality. However, the Department is required to report on the number of harbor seals that are

harassed incidental to the proposed activities. To do so, it has extrapolated last year's 14 days of data to the full 40-day work period to estimate the total number of takes and fulfill its monitoring and reporting requirements, which the Department proposes to do again for this year's authorization.

For a number of reasons, the Commission believes that it would be prudent to monitor behavior during all vibratory pile-removal activities and when vessels and barges are used. The impacts of vibratory pile removal are not well studied, but impacts from vessels have been studied. The Service has noted that harbor seals commonly leave their haul-out sites when approached by powerboats. The Service also has indicated that the presence of vessels and barges caused more disturbance than the use of the vibratory hammer during last year's activities. Because marine mammal reactions to different sources of disturbance are not always predictable, continuous monitoring is the only way to ensure that unexpected reactions are detected, documented, and evaluated. In contrast, intermittent and infrequent observations may not provide the data needed for accurate evaluation of the full impacts of the proposed activities. For example, if monitoring does not coincide with the presence of marine mammals and vessels, then the resulting observations may not be indicative of actual impacts and the number of takes may be underestimated. Finally, monitoring during all pile-removal activities and when vessels and barges are present is the only way for the applicant and the Service to ensure that they are causing the least practicable impact. For all of these reasons, the Marine Mammal Commission recommends that the National Marine Fisheries Service require the Department to monitor the presence and behavior of marine mammals during all proposed activities (i.e., during vibratory pile-removal activities and during vessel and barge use).

The Commission has noted in previous correspondence that the effectiveness of ramp-up as a mitigation measure has yet to be empirically verified. As with the ramp-up of airguns, the Service should not assume, absent empirical verification, that using soft-starts when removing piles constitutes an effective mitigation method. Such verification may require not only collecting opportunistic data but also designing and conducting studies to test specific hypotheses regarding the utility of soft-starts and analysis of responses of the various species encountered. Because the vibratory hammer has the potential to harass marine mammals, the Marine Mammal Commission repeats its recommendation that the National Marine Fisheries Service require the presence of Service-approved observers before, during, and after all soft-starts of pile-removal activities to gather the data needed to determine the effectiveness of this technique as a mitigation measure.

### **Level A harassment and mortality**

Although a harbor seal was found entangled and dead in one of the Department's buoy lines last year, it is not seeking authorization to take marine mammals by serious injury or mortality. The Department will not be using buoys to mark the pilings for removal during the proposed activities. It will be using GPS to locate the piles that should be removed, eliminating the risk of future entanglement. However, harbor seals could be injured or killed in another manner, but the *Federal Register* notice does not indicate if the Department would report any injured or dead marine mammals to the Service—a standard monitoring and reporting measure. The Marine Mammal Commission therefore recommends that the National Marine Fisheries Service condition the incidental harassment authorization to require the Department to (1) immediately report all injured or dead marine mammals to the Service and local stranding network and (2) suspend the

Mr. P. Michael Payne  
11 October 2011  
Page 4

construction activities if a marine mammal is seriously injured or killed and the injury or death could have been caused by those activities (e.g., a fresh carcass). The Service should investigate the incident to assess the cause and full impact (e.g., the types of injuries, the number of animals involved) and to determine what modifications in construction activities are needed to avoid additional injuries or deaths. Full investigation of such incidents is essential to provide information regarding the potential impact of construction activities on marine mammals. If further measures are not likely to reduce the risk of additional serious injuries or deaths to a very low level, the Service should require the Department to obtain the necessary authorization for such takings under section 101(a)(5)(A) of the Marine Mammal Protection Act before resuming its construction activities.

Please contact me if you have questions regarding the Commission's recommendations and comments.

Sincerely,

A handwritten signature in blue ink that reads "Timothy J. Ragen". The signature is written in a cursive, flowing style.

Timothy J. Ragen, Ph.D.  
Executive Director