



# MARINE MAMMAL COMMISSION

10 March 2015

Ms. Jolie Harrison, Chief  
Permits and Conservation Division  
Office of Protected Resources  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910-3225

Dear Ms. Harrison:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the application submitted by the Washington State Department of Transportation Ferries Division (WSDOT) seeking authorization under section 101(a)(5)(D) of the Marine Mammal Protection Act to take small numbers of marine mammals by harassment. The taking would be incidental to replacing structures at the Anacortes ferry terminal in the San Juan Islands, Washington, during a one-year period. The Commission also has reviewed the National Marine Fisheries Service's (NMFS) 4 March 2015 notice (80 Fed. Reg. 11648) announcing receipt of the application and proposing to issue the authorization, subject to certain conditions. As discussed in previous Commission letters regarding WSDOT applications and the proposed taking of southern resident killer whales, NMFS has yet to develop a clear policy setting forth more explicit criteria and/or thresholds for making small numbers and negligible impact determinations. The Commission is aware that NMFS is in the process of developing clearer policies and guidance to address this issue and appreciates the opportunity to work with NMFS as it develops these policies.

WSDOT plans to replace various structures at the Anacortes ferry terminal to allow the ferries to safely moor at the terminal and provide the necessary protection of the terminal from the docking of ferries. During the project, operators would remove 12-in timber piles, remove and relocate 36-in steel piles, install permanent steel piles ranging in size from 24- to 36-in, and install and remove 24-in temporary piles. All piles would be installed and removed<sup>1</sup> using a vibratory hammer. WSDOT expects pile removal and installation to take up to 36 days between 1 September 2015 and 15 February 2016.

NMFS preliminarily has determined that, at most, the proposed activities temporarily would modify the behavior of small numbers of 12 marine mammal species or stocks. NMFS anticipates that any impact on the affected species and stocks would be negligible. NMFS also 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 measures. The mitigation, monitoring, and reporting measures include—

- conducting activities during daylight hours only;
- using no more than one vibratory hammer at any given time to remove/install piles;

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<sup>1</sup> Timber piles also may be removed using direct pull and clamshell bucket.

- using ramp-up, delay, and shut-down procedures;
- using delay and shut-down procedures if (1) a killer whale approaches the Level B harassment zone or (2) the number of marine mammal takes for any species or stock reaches the limit authorized for that species or stock under the incidental harassment authorization and an animal from that species or stock approaches the Level B harassment zone;
- using at least two and up to three<sup>2</sup> protected species observers (land- and/or vessel-based observers in the nearfield and farfield) to monitor the Level B harassment zones 30 minutes prior to, during, and 30 minutes after pile driving and removal;
- obtaining marine mammal sightings data from the Orca Network and/or Center for Whale Research and marine mammal acoustic detection data from the Orca Network to supplement monitoring efforts;
- reporting injured and dead marine mammals to NMFS and local stranding network using NMFS's phased approach and suspending activities, if appropriate; and
- submitting weekly reports and a final report.

### **In-situ acoustic monitoring**

NMFS normally uses 120 dB re 1  $\mu$ Pa as the threshold for Level B harassment for vibratory pile driving. For the proposed authorization, NMFS used a threshold of 123 dB re 1  $\mu$ Pa based on ambient sound levels<sup>3</sup> near the Anacortes ferry terminal. NMFS believes, and the Commission concurs, that marine mammals in the area likely are acclimated to non-impulsive sound at levels above 120 dB re 1  $\mu$ Pa. However, Laughlin (2014) collected the ambient sound data in March, a month during which WSDOT's proposed activities would not occur. NMFS (2012) indicated that ambient data should be collected during the season in which pile driving would occur, because ambient sound levels may differ depending on site-specific characteristics, such as increased recreational boat traffic during summer (e.g., ambient sound is typically 3 dB higher in summer than winter in Haro Strait; Veirs and Veirs 2006). NMFS (2012) has further suggested that if seasonal data cannot be collected, then data should be collected during winter when sound levels likely are lower (i.e., less recreational vessel traffic).

Because ambient data were collected in March (presumably when vessel traffic is greater than December or January) and the Level B harassment threshold was adjusted accordingly, the Commission believes that the Level B harassment zones for the 12- and 24-in piles could be underestimated<sup>4</sup> for winter, which is important when those zones serve as exclusion zones for southern resident killer whales. However, the Commission understands that WSDOT would measure in-situ sound levels during installation and removal of the 30- and 36-in piles and the harassment zones would be adjusted based on those measurements—this could serve as an opportunity for ambient sound levels to be measured and zones for the smaller piles to be adjusted accordingly as well. Therefore, the Commission recommends that NMFS either (1) require WSDOT to measure ambient sound levels during winter and adjust the Level B harassment zones accordingly

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<sup>2</sup> Depending on the size of the Level B harassment zone.

<sup>3</sup> Based on the daytime 50 percent cumulative density function for high-frequency cetaceans from Laughlin (2014). The methodology has been provided by way of guidance in NMFS (2012).

<sup>4</sup> Level B harassment zones for the 30- and 36-in piles intersect land before reaching their maximum and should not be affected by the Level B threshold adjustment (e.g., the zone radius for 30-in piles is 36 km based on 123 dB re 1  $\mu$ Pa, but land is reached at 20 km).

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or (2) base the Level B harassment zones on the 120-dB re 1  $\mu$ Pa threshold and adjust the zones to ensure adequate protection for southern resident killer whales.

The Commission hopes you find its letter helpful. Please contact me if you have questions regarding the Commission's recommendation.

Sincerely,



Rebecca J. Lent, Ph.D.  
Executive Director

## References

- Laughlin, J. 2014. Washington State Ferries underwater background monitoring project: Compendium of background sound levels for ferry terminals in Puget Sound. Washington State Department of Transportation, Seattle, Washington. 56 pages.
- NMFS. 2012. Guidance document: Data collection methods to characterize underwater background sound relevant to marine mammals in coastal nearshore waters and rivers of Washington and Oregon. NMFS Northwest Region and Northwest Fisheries Science Center (NWFSC), Seattle, Washington. 5 pages.
- Veirs, V., and S. Veirs. 2006. Average levels and power spectra of ambient sound in the habitat of southern resident orcas. Unpublished report to NMFS/NWFSC.