



# MARINE MAMMAL COMMISSION

21 August 2019

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 U.S. Army Corps of Engineers, Portland District (USACE) 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 conducting a test pile program at the mouth of the Columbia River. The Commission also has reviewed the National Marine Fisheries Service's (NMFS) 6 August 2019 notice (84 Fed. Reg. 38227) announcing receipt of the application and proposing to issue the authorization, subject to certain conditions.

USACE plans to investigate the feasibility of different pile installation methods at two of the four Sand Island pile dikes. Operators would install up to 7 24-in steel piles using a vibratory hammer and 32 24-in steel piles using an impact hammer and would remove up to 18 of those piles using a vibratory hammer. They also would remove up to 10 24-in timber piles using a vibratory hammer, direct pull, or cutting at the mudline. USACE expects activities to occur on up to 41 days, weather permitting. It would limit pile-driving and -removal activities to daylight hours only.

NMFS preliminarily has determined that, at most, the proposed activities could cause Level A and/or B harassment of small numbers of four marine mammal species. 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 proposed mitigation, monitoring, and reporting measures include—

- ceasing heavy machinery activities if any marine mammal comes within 25 m of the equipment;
- using standard soft-start, delay, and shut-down procedures;

- using two qualified protected species observers<sup>1</sup> to monitor the Level A<sup>2</sup> and B harassment zones for 30 minutes before, during, and for 30 minutes after the proposed activities;
- using delay and shut-down procedures, if a species for which authorization has not been granted or if a species for which authorization has been granted but the authorized number of takes has been met<sup>3</sup>, approaches or is observed within the Level B harassment zone;
- reporting injured and dead marine mammals to NMFS's Office of Protected Resources and the West Coast Regional Stranding Coordinator using NMFS's phased approach and suspending activities, if appropriate; and
- submitting draft and final marine mammal<sup>4</sup> monitoring reports.

### Take estimates

The Commission informally noted that the numbers of Level A and B harassment takes were underestimated for both harbor porpoises and harbor seals. For harbor porpoises, NMFS indicated that it assumed a conservative sighting rate based on one harbor porpoise per day (84 Fed. Reg. 38241). Both average group size of harbor porpoises and previous sightings data from the same area<sup>5</sup> support using at least two harbor porpoises per day as the basis for all take estimates. NMFS also inadvertently assumed that impact pile driving would occur on only 20 days<sup>6</sup> rather than 38 days<sup>7</sup>. As such, NMFS plans to increase the Level A harassment takes of harbor porpoises from 10 to 78 and the Level B harassment takes<sup>8</sup> of harbor porpoises from 21 to 42.

In addition, NMFS assumed that on average 6.4 harbor seals would be taken per day by Level B harassment during the various activities. Previous monitoring reports indicated that harbor seals were the most frequently observed and most numerous species, with 3 to 10 seals observed per day. Those monitoring activities occurred in an area where harbor seals haul out less frequently due to the presence of California and Steller sea lions<sup>9</sup>, west of the current project area. Harbor seals are more prevalent at Desdemona Sands and Chinook/Baker Bay (Jeffries et al. 2000, 2015), which are adjacent to or within the Level B harassment zones for USACE's proposed activities. In lieu of more recent data from those harbor seal haul-out sites, the Commission suggested that NMFS assume a minimum of 57 harbor seals<sup>10</sup> could be taken by Level B harassment on each day, to which NMFS agreed. NMFS similarly underestimated the Level A harassment takes. NMFS proposed to authorize three Level A harassment takes during the 38 days of impact pile-driving activities. Level

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<sup>1</sup> One would be stationed on land and one in a vessel.

<sup>2</sup> The Commission informally noted a few typos in the parameters used to estimate the extents of the Level A harassment zones in Table 6 of the *Federal Register* notice. NMFS will revise the parameters in the final authorization.

<sup>3</sup> USACE is aware that it must keep a running tally of takes, including extrapolation to the areas unable to be monitored.

<sup>4</sup> Similar to other recent authorizations, the Commission informally noted that some action proponents were not including the marine mammal observational datasheets or raw data as required in authorizations issued in 2017 and 2018 and that specific language requiring those data to be provided had been inadvertently removed from recent authorizations. NMFS indicated that it will include that requirement in the final authorization.

<sup>5</sup> A 2016 monitoring report during previous USACE activities that lasted five days indicated that three porpoises were observed on one day, two were observed on another day, and a single animal was observed on yet another day.

<sup>6</sup> When only impact pile driving would occur.

<sup>7</sup> Which includes 18 days when both impact and vibratory pile driving would occur.

<sup>8</sup> Based on 38 and 21 days, respectively.

<sup>9</sup> At the South Jetty at the mouth of the Columbia River.

<sup>10</sup> Which is the maximum observed at the South Jetty and which was authorized by NMFS recently for the City of Astoria.

A harassment takes could occur when either a harbor seal pops up in the 100-m shut-down zone before the operators are able to cease pile driving or when a seal occurs within the larger Level A harassment zone of 472 m. Accordingly, the Commission suggested that NMFS assume that a harbor seal could be taken by Level A harassment during impact driving of each of the six piles on a given day. NMFS agreed and plans to authorize 6 Level A harassment takes on each of the 38 days that impact pile driving could occur. NMFS plans to increase the Level A harassment takes of harbor seals from 3 to 228 and the Level B harassment takes of harbor seals from 270 to 2,337.

Although the Commission appreciates that NMFS plans to revise the authorization accordingly, NMFS should have identified and rectified these issues prior to *drafting* the proposed authorization. Failure of the agency to identify and rectify these types of issues prior to publishing the proposed authorization undermines the public review process. NMFS must take a more active role in reviewing its proposed authorizations prior to publication and must not rely solely on the Commission or the public to continue to catch issues that should have been identified and rectified during internal review processes. Therefore, the Commission again recommends that NMFS conduct a more thorough review of the applications and *Federal Register* notices to ensure not only accuracy, completeness, and consistency, but also to ensure that they are based on best available science, prior to submitting them to the *Federal Register* for public comment.

### **Appropriateness of the Level A harassment zones**

As the Commission has indicated in previous letters, there are some shortcomings that need to be addressed regarding the method for determining the extent of the Level A harassment zones based on the associated permanent threshold shift (PTS) cumulative SEL ( $SEL_{cum}$ ) thresholds for the various types of sound sources, including stationary sound sources<sup>11</sup>. For determining the range to the  $SEL_{cum}$  thresholds, NMFS uses a baseline accumulation period of 24 hours unless an activity would occur for less time (e.g., 8 hours). The Commission supports that approach *if* an action proponent is able to conduct more sophisticated sound propagation and animat modeling. However, that approach is not ideal for action proponents that either are unable, or choose not, to conduct more sophisticated modeling. In those instances, it is assumed that the receiver is stationary and all of the energy emitted during a 24-hour period is accumulated for the  $SEL_{cum}$  thresholds.

As an example, the Level A harassment zone for high-frequency cetaceans was estimated to be greater than the Level B harassment zone during impact driving of 24-in steel piles (1,050 m vs. 1,000 m, respectively). Based on the extent of those zones, it is assumed that an animal would experience PTS before responding behaviorally and leaving or avoiding the area. That notion runs counter to the logic that permanent and temporary physiological effects are expected to occur closest to the sound source, with behavioral responses triggered at lower received levels, and thus at farther distances.

The Commission understands that NMFS has formed an internal committee to address this issue and is consulting with external acousticians and modelers as well. The Commission continues to believe that animat modeling, that considers various operational and animal scenarios, is the best way to determine the appropriate accumulation time. More importantly, animat modeling could directly inform or be incorporated into NMFS's user spreadsheet that currently estimates the Level

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<sup>11</sup> However, this also could be an issue for moving sound sources that have short distances between transect lines.

A harassment zones. The Commission recommends that NMFS continue to make this issue a *priority* to resolve in the near future and consider incorporating animat modeling into its user spreadsheet.

### **Proposed one-year authorization renewals**

NMFS has indicated that it may issue a second one-year<sup>12</sup> incidental harassment authorization renewal for this and other future authorizations if various criteria are met and after an expedited public comment period of 15 days. The Commission agrees that NMFS should take appropriate steps to streamline the authorization process under section 101(a)(5)(D) of the MMPA to the extent possible. However, the Commission is concerned that the renewal process proposed in the *Federal Register* notice is inconsistent with the statutory requirements—section 101(a)(5)(D)(iii) clearly states that proposed authorizations are subject to a 30-day comment period<sup>13</sup>.

Another potentially significant issue with the proposed 15-day comment period is the burden that it places on reviewers, who will need to review the original authorization and supporting documentation<sup>14</sup>, the draft monitoring report(s), the renewal application or request<sup>15</sup>, and the proposed authorization and then formulate comments very quickly. Depending on how frequently NMFS invokes the renewal option, how much the proposed renewal or the information on which it is based deviates from the original authorization, and how complicated the activities are and the taking authorization is, those who try to comment on all proposed authorizations and renewals, such as the Commission, would be hard pressed to do so within the proposed 15-day comment period. Therefore, the Commission recommends that NMFS refrain from using the proposed renewal process for USACE's authorization. The renewal process should be used sparingly and selectively, by limiting its use only to those proposed incidental harassment authorizations that are expected to have the lowest levels of impacts on marine mammals and that require the least complex analyses. Notices for other types of activities should not even include the possibility that a renewal might be issued using the proposed foreshortened 15-day comment period. If NMFS intends to use the renewal process frequently *or* for authorizations that require a more complex review or for which much new information has been generated (e.g., multiple or extensive monitoring reports), the Commission recommends that NMFS provide the Commission and other reviewers the full 30-day comment period as set forth in section 101(a)(5)(D)(iii) of the MMPA.

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<sup>12</sup> NMFS informed the Commission that the renewal would be issued as a one-time opportunity, after which time a new authorization application would be required. NMFS has yet to specify this in any *Federal Register* notice detailing the new proposed renewal process but should do so.

<sup>13</sup> See also the legislative history of section 101(a)(5)(D), which states "...in some instances, a request will be made for an authorization identical to one issued the previous year. In such circumstances, the Committee expects the Secretary to act expeditiously in complying with the notice and comment requirements." (H.R. Rep. No. 439, 103d Cong., 2d Sess. 29 (1994)). The referenced "notice and comment requirements" specify a 30-day comment period.

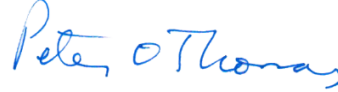
<sup>14</sup> Including the original application, hydroacoustic and marine mammal monitoring plans, take estimation spreadsheets, etc.

<sup>15</sup> Including any proposed changes or any new information.

Ms. Jolie Harrison  
21 August 2019  
Page 5

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

Sincerely,



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

## References

- Jeffries, S.J., P.J. Gearin, H.R. Huber, D.L. Saul, and D.A. Pruett. 2000. Atlas of seal and sea lion haulout sites in Washington. Washington Department of Fish and Wildlife, Olympia Washington. 157 pages.
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