



MARINE MAMMAL COMMISSION

7 December 2020

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

Dear Ms. Harrison:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the U.S. Navy's request to modify its authorization under section 101(a)(5)(D) of the Marine Mammal Protection Act (the MMPA) to take marine mammals by harassment incidental to pile driving and removal in association with the service pier extension (SPE) project at Naval Base Kitsap Bangor (Bangor) in Washington. The Commission also has reviewed the National Marine Fisheries Service's (NMFS) 24 November 2020 notice (85 Fed. Reg. 74989) announcing receipt of the modification request and proposing to modify the authorization, subject to certain conditions. The Navy's current incidental harassment authorization is valid from 16 July 2020–15 July 2021, with an in-water work window extending only through 15 January 2021¹. The Commission provided comments on the Navy's original authorization request in its [2 April 2018 letter](#).

Background

The Navy estimated that it would (1) remove up to 63 timber or steel piles using direct pull, a vibratory hammer, and/or cutting at the mudline and (2) 383 concrete or steel piles using a vibratory and/or impact hammer². Activities were expected to occur on up to 160 days³. The Navy requested to modify its authorization due to an unanticipated, elevated number of Level A harassment takes of harbor seals (85 Fed. Reg. 74989). NMFS indicated that the Navy felt that without an increase in the authorized number of harbor seal takes it would be forced to repeatedly shut down whenever animals entered into the specified Level A harassment zones, likely prolonging the duration of in-water construction activities and adding increased cost to the project (85 Fed. Reg. 74990).

¹ To protect salmonids listed under the Endangered Species Act, activities can occur only from 16 July to 15 January.

² All piles could be up to 36 inches in diameter.

³ With steel piles installed/removed on 125 days and the concrete piles installed on 35 days.

Harbor seal take estimates and shut-down zones

NMFS authorized only 125 Level A harassment takes of harbor seals under the original authorization. However, eight harbor seals⁴ are habituated to the in-water construction work, with three pups occurring in the project area repeatedly throughout the day⁵ on nearly a daily basis (85 Fed. Reg. 74992). NMFS proposed to authorize four Level A harassment takes⁶ for the remaining 80 days of in-water construction work, which would equate to an increase of 320 takes totaling 445 Level A harassment takes. The Commission agrees that the number of Level A harassment takes of harbor seals needs to be increased but contends that the increase in the number of takes should account for at least the known number of seals that frequent the area. NMFS indicated that the Navy has taken 85 harbor seals by Level A harassment with 48 days of in-water work available through 15 January. That would allow for 360 takes available for the remaining 48 days of activities, which is less than 8 takes per day for the animals that frequent the area.

In addition, the Navy conducted in-situ measurements to verify the extent of the Level A harassment zone for phocids during impact installation of 36-in steel piles. Wood et al. (2020) determined that the Level A harassment zone was 92 m for phocids rather than the estimated 217 m in the original authorization⁷. The Navy, with NMFS's concurrence, reduced the shut-down zone from 220 to 95 m for phocids during impact installation of steel piles. NMFS indicated that the three daily-visiting harbor seals also approach within the 30-m shut-down zone during vibratory pile driving⁸ (85 Fed. Reg. 74992). It is unclear why NMFS did not propose to reduce the shut-down zones for phocids across all activities. To minimize the number of unnecessary delays from shutting down activities when harbor seals are present and to ensure that the activities can be completed by the end of the in-water work window, the Commission recommends that NMFS (1) reduce *all* shut-down zones for phocids during vibratory and impact pile driving and removal to at least 25 m, but 10 m could be appropriate in this circumstance as well, and (2) increase the number of Level A harassment takes from 445 to 509 to account for the incidental taking of all harbor seals known to occur in the project area on the remaining in-water work days.

Moreover, NMFS recently authorized the Navy to construct the Transit Protection Program (TPP)⁹ pier approximately 500 m from the SPE beginning on 15 July 2021¹⁰. It appears that the 20 authorized Level A harassment takes of harbor seals for the TPP Year 1 authorization are insufficient, while Level A harassment takes are totally lacking for the Year 2 authorization. To minimize the need for the Navy to request another mid-season authorization modification and to ensure the activities can be completed in a timely manner, the Commission recommends that NMFS (1) reassess the number of Level A harassment takes authorized for harbor seals during TPP Year 1 activities and whether to authorize Level A harassment takes for Year 2 activities and (2) modify the

⁴ Four individually-identifiable pups and adults.

⁵ Remaining for up to 90 minutes.

⁶ Three takes for the "daily visitors" and an additional take for any of the other five individuals that frequent the project area.

⁷ The Commission notes that there are multiple issues with the information NMFS included in the *Federal Register* notice regarding the inputs for determining the Level A harassment zones (see the Addendum included herein).

⁸ And presumably pile removal.

⁹ The Navy would install and remove 36-in steel piles using both a vibratory and impact hammer on 80 days in Year 1 and install and remove 36-in piles using a vibratory hammer on 10 days in Year 2.

¹⁰ https://s3.amazonaws.com/media.fisheries.noaa.gov/2020-10/KitsapBangorTPP_FinalIHA_Y1_OPR1.pdf?null=.

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TPP authorizations preemptively based on the Commission's preceding recommendation herein to reduce all shut-down zones for phocids during vibratory and impact pile driving and removal and to increase the number of Level A harassment takes to account for the eight harbor seals known to occur in the project area on each day of activities.

The Commission hopes you find its letter useful. Please feel free to contact me should you have questions regarding the Commission's recommendations and comments.

Sincerely,

A handwritten signature in blue ink that reads "Peter O. Thomas". The signature is written in a cursive, flowing style.

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

Addendum

The Commission notes that NMFS provided inconsistent information or omitted the necessary information in the *Federal Register* notice for the revised Level A harassment zones for phocids. NMFS incorrectly indicated that—

- the single-strike sound exposure level (SEL_{s-s}) source levels for the original and modified authorization assume an 8 dB attenuation in Table 1 (85 Fed. Reg. 74991).
 - The SEL_{s-s} source levels for the original and modified authorization were not based on a presumed reduction of an unattenuated source level, they were based on actual attenuated source level measured in the field (see Grebner et al. 2016 and Wood et al. 2020). NMFS should specify that the source level for the modified authorization is an attenuated source level where it is described in the text of the notice as well (85 Fed. Reg. 74991).
 - NMFS also omitted from Table 1 that the SEL_{s-s} source levels were weighted based on the phocid weighting function. NMFS should specify the SEL_{s-s} source level inputs as “173 dB (attenuated and phocid-weighted)” for the original authorization and “177 dB (attenuated and phocid-weighted)” for the modified authorization in Table 1 of the notice for issuance of the authorization modification.
 - Footnote 1 in Table 1 of the notice for issuance of the authorization modification also should include Grebner et al. 2016.
- the weighting factor adjustments (WFA) for the original and modified authorization were “weighting override (Grebner et al. 2016)” in Table 1.
 - Averaged one-second SEL spectral data and the phocid weighting function were used to weight the source level for the original authorization (Grebner et al. 2016), while Wood et al. (2020) analyzed each source level pile strike based on the phocid frequency weighting and then averaged across all data (85 Fed. Reg. 74991).
 - Generic WFAs (i.e., 2.0 for impact pile driving) and spectra are not applied when a source level is already weighted¹¹. Either the WFA or spectra are used in conjunction with an unweighted source level *or* a weighted source level is used alone. NMFS should remove any reference to a WFA and denote “N/A” for both the original and modified authorization in Table 1 of the notice for issuance of the authorization modification.
- the number of piles per day for the modified authorization was 2 in Table 1. Wood et al. (2020) used a maximum of 1,600 strikes per day¹² to estimate the revised Level A harassment zone (85 Fed. Reg. 74991). NMFS should reduce the number of piles per day from 2 to 1 in Table 1 of the notice for issuance of the authorization modification.

References

Grebner, D., M. Renken, and M. Slater. 2016. Weighted frequency analysis for auditory effects of underwater construction noise. Naval Undersea Warfare Center, Division Keyport, Keyport, Washington. 7 pages.

¹¹ For example, Grebner et al. (2016) specifically indicated that the SEL_{s-s} source level of 173 dB for 36-in piles was phocid-weighted with the bubble curtain turned on (see Table 3).

¹² Which is the number of strikes needed to install a single pile (see Table 1).

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Wood, J., J. Turner, K. Palmer, S. Tabbutt, and J. Thompson. 2020. Service Pier Extension phocid Level A ZOI. SMRU Consulting North America, Friday Harbor, Washington. 8 pages.