



MARINE MAMMAL COMMISSION

19 November 2020

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 (WSDOT) seeking authorization under section 101(a)(5)(D) of the Marine Mammal Protection Act (the MMPA) to take small numbers of marine mammals by harassment. The taking would be incidental to removing piles at the casting basin in Aberdeen, Washington, during a one-year period. The Commission also has reviewed the National Marine Fisheries Service's (NMFS) 21 October 2020 notice (85 Fed. Reg. 66939) announcing receipt of the application and proposing to issue the authorization, subject to certain conditions.

WSDOT plans to remove piles that were used to guide completed pontoons out of the casting basin to replace a floating bridge. Operators would remove¹ up to 19 18- to 48-in steel piles² using a vibratory hammer. WSDOT's activities could occur on up to seven days³, weather permitting, during daylight hours only. WSDOT indicated that activities would occur from 16 July–15 February⁴ to protect fish listed under the Endangered Species Act.

NMFS preliminarily has determined that, at most, the proposed activities could cause Level B harassment of small numbers of five 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—

¹ The Commission informally noted that NMFS stipulated pile driving rather than removal throughout the *Federal Register* notice and draft authorizations. NMFS indicated that the notice for issuance of the final authorization and the final authorization would be revised accordingly.

² The Commission informally noted that NMFS omitted from the *Federal Register* notice that the source levels for vibratory removal of 18- and 24-in piles were based on median values and that source levels for vibratory driving were used as proxies for removal of all sizes of piles because data for removal of 18- and 24-in piles are lacking (85 Fed. Reg. 68051). NMFS indicated it would include that information in the notice for issuance of the final authorization.

³ The Commission informally noted that NMFS specified six rather than seven days in various portions of the *Federal Register* notice. NMFS indicated that the notice for issuance of the final authorization would be revised accordingly.

⁴ The Commission informally noted that this timeframe was not specified in the *Federal Register* notice but should be specified in the notice for issuance of the final authorization.

- ceasing in-water heavy machinery activities if any marine mammal comes within 10 m of the activity and reducing vessel speed to the minimum level required to maintain steerage and safe working conditions;
- using standard delay and shut-down procedures;
- using two land-based qualified protected species observers (PSOs) to monitor the Level A⁵ 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 takes are met, approaches or is observed within the Level B harassment zone⁶;
- reporting injured and dead marine mammals to the Office of Protected Resources and the West Coast Regional Stranding Coordinator and ceasing activities, if appropriate; and
- submitting a draft and final report.

Density and take estimates

NMFS indicated that it used density data from Department of the Navy (2019)⁷ to estimate the numbers of takes for various species. In instances when a range of densities was provided, NMFS indicated that it used the high-end density value in the applicable season (i.e., fall/winter; 85 Fed. Reg. 68054). The Commission informally noted that the greater of the two seasonal densities was not used for certain species⁸ and, more importantly, WSDOT's activities could occur in summer, fall, or winter. As such, the greatest density in those three seasons should have been used, consistent with other recent WSDOT final authorizations. NMFS indicated that it would use the greatest density⁹ among the seasons for California and Steller sea lions and revise the take estimates accordingly¹⁰. Based on those revisions, NMFS indicated that the take estimates would increase from 34 to 46 for California sea lions and 8 to 14 for Steller sea lions.

As noted in previous letters regarding pinniped density data from Department of the Navy (2019)¹¹, the Commission has had and continues to have concerns regarding some of the underlying

⁵ The Commission informally noted that the Level A harassment zones for removal of 24-in piles should be 2 m for mid-frequency cetaceans and 25 m for high-frequency cetaceans and < 1 m for otariids for removal of 18-in piles in Table 8 of the *Federal Register* notice. NMFS indicated it would include the correct zones in the notice for issuance of the final authorization.

⁶ The Commission informally noted that NMFS only specified "harassment zone" rather than "Level B harassment zone" in condition 4(h) of the draft authorization. NMFS indicated it would clarify the condition in the final authorization.

⁷ The Commission informally noted that Department of the Navy (2019) was superseded by Department of the Navy (2020), but the specific densities that were used for WSDOT's activities appear to be the same between the two versions of the density database.

⁸ i.e., California sea lion densities were greater in winter but NMFS used fall densities.

⁹ Based on the summer density for Steller sea lions and the winter density for California sea lions.

¹⁰ NMFS indicated that the high-end January density for gray whales is irrelevant, because it was based on offshore densities and too high to serve as an appropriate proxy for Grays Harbor. As such, NMFS indicated that it plans to retain its proposed 1 take per day for gray whales. NMFS must clarify its rationale in the notice for issuance of the final authorization, since the notice stated that the density data in Department of the Navy (2019) *underestimated* the potential presence of gray whales in Grays Harbor (85 Fed. Reg. 68054) when in fact NMFS has since determined that the high end of the densities *overestimated* the number of takes.

¹¹ See the Commission's [12 June 2020](#) and [1 July 2019, 29 April 2020 letter](#).

data. The Navy adjusted the abundance estimates from 2015 based on relevant growth rates *up to* 2017¹² for Steller and California sea lions. It is unclear why NMFS did not increase the abundances based on the relevant growth rates up to at least 2020, particularly since it has done so for multiple incidental harassment authorizations involving geophysical surveys conducted in the same region (84 Fed. Reg. 35075 and 85 Fed. Reg. 19615). In addition, the abundance estimate for Steller sea lions was based on pup and non-pup count and trend data from 2015 and did not incorporate the more recent trend data from 2017. The Navy also applied non-pup growth rates to the non-pup *and* pup abundance estimates. The non-pup population growth rates should have been applied to the non-pup abundance estimates and the pup population growth rates¹³ applied to the pup abundance estimates, and then the adjusted 2020 abundance estimates added together to estimate the densities.

The Commission supports the Navy's approach for estimating pinniped densities but asserts that the densities from Department of the Navy (2019) and (2020) should not continue to be used as is until the Phase III density data are revised in another five to seven years. By that time, the densities would be a decade old and would not have been informed by more recent data, or considered best available. NMFS should be using the most recent abundance and trend data from the SARs forward-projected into the year that the action proponent's activities will be occurring, which for WSDOT would be at least 2020. For these reasons, the Commission recommends that NMFS re-estimate the (1) summer density for Steller sea lions based on adjusting the 2015 pup and non-pup data using the trend data from 2017, applying the non-pup growth rate to the non-pup counts and the pup growth rates to the pup counts, and applying the relevant growth rates up to at least 2020 and (2) winter density for California sea lions based on applying the relevant growth rates up to at least 2020 and increase the numbers of takes accordingly. The Commission also recommends that, when NMFS uses Department of Navy (2019) or (2020) pinniped densities for all future incidental take authorizations, it revise the density estimates based on the most recent abundance and trend data from the SARs forward-projected into the year that the action proponent's activities are proposed to occur.

This is the third time in recent months that NMFS has used incorrect density estimates based on Department of the Navy (2019) for WSDOT's proposed activities¹⁴. NMFS must ensure that WSDOT is using Department of the Navy (2020) to inform the various density estimates for all future authorizations and must crosscheck the densities provided by WSDOT, and any other action proponent, with the underlying references.

Similarly, the abundance data NMFS used to inform its harbor seal density estimate¹⁵ is inconsistent with the reference provided. NMFS indicated it used the total count of harbor seals in Grays Harbor in 2014 from Jeffries et al. (2015). However, Jeffries et al. (2015) indicated that

¹² Both of which were from the stock assessment reports (SARs).

¹³ Which are much greater than the non-pup population growth rates.

¹⁴ See the Commission's [9 July 2020](#) and [27 July 2020](#) letters. For the proposed authorization at Mukilteo, WSDOT used density estimates from Department of the Navy (2015), even though it referenced Department of the Navy (2019).

¹⁵ The Commission informally noted that the density derivation method described by NMFS in the *Federal Register* notice is not the same as the equation it provided (85 Fed. Reg. 68054) and neither appears to be what was intended. It appears that the average count of harbor seals in Grays Harbor in 2014 was multiplied by the regional correction factor for Grays Harbor and then divided by the area of Grays Harbor to estimate the density. The revised equation using NMFS's proposed total seal count would be: $(10,483 \text{ total seals} / 2 \text{ surveys}) * 1.43 / 243 \text{ km}^2 = 30.85 \text{ seals/km}^2$. NMFS should revise the relevant information in the notice for issuance of the final authorization.

10,668¹⁶ rather than 10,483 seals were observed in Grays Harbor in 2014 as denoted in the *Federal Register* notice (85 Fed. Reg. 68054)—which would increase the density in Table 9 from 30.85 to 31.39 seals/km². Based on the revised density estimate, the number of takes for 48-in piles would increase to 482, with 1,428 takes for 24-in piles and 286 takes for 18-in piles. The total number of takes of harbor seals would be 2,196 rather than 1,877. If, however, Jeffries et al. (2015) included incorrect seal count information for Grays Harbor, then NMFS should specify that. The Commission recommends that NMFS (1) consult with the Washington Department of Fish and Wildlife (WDFW) and determine whether the seal counts for Grays Harbor are correct as referenced in Jeffries et al. (2015), (2) if so, increase the density from 30.85 to 31.39 seals/km² and revise the number of harbor seal takes to be 2,196 in the notice for issuance of the final authorization and the final authorization, and (3) if not, specify that the total seal counts originated from WDFW (pers. comm.) rather than Jeffries et al. (2015) in the notice for issuance of the final authorization.

Daylight hours and periods of low visibility

NMFS did not stipulate in the draft authorization that activities must occur during daylight hours only. It is unclear why it was not included since NMFS indicated that pile removal is planned to occur only during daylight hours, when visual monitoring of marine mammals can be conducted effectively (30 minutes after sunrise to 30 minutes before sunset; 85 Fed. Reg. 68055), and WSDOT specifically stated in its application that pile removal will occur only during daylight hours, when visual monitoring is reasonable (30 minutes after sunrise to 30 minutes before sunset).

More puzzling is that NMFS did include the standard condition in two other recently-issued authorizations to WSDOT¹⁷ in response to the Commission's recommendations. For the final Mukilteo authorization, NMFS stated that WSDOT indicated that all pile-driving and -removal activities would be conducted during daylight hours only and that it included the condition in the final authorization (85 Fed. Reg. 47741). For the final Seattle authorization, NMFS indicated that it agreed with the Commission and included the requirement that WSDOT conduct pile-driving and -removal activities during daylight hours only (85 Fed. Reg. 59740). To ensure that WSDOT is effecting the least practicable adverse impact on the species and stocks and consistent with other WSDOT authorizations, the Commission recommends that NMFS include in the final authorization the requirement that WSDOT conduct pile-removal activities during daylight hours only.

WSDOT indicated in its application that, if weather or sea conditions restrict the PSO's ability to observe, pile-removal activities would cease until conditions allow for monitoring to resume. NMFS specified that WSDOT would be required to conduct pre-activity clearance monitoring during periods of visibility sufficient for the lead PSO to determine the shut-down zone to be clear of marine mammals and that pile removal could commence when that determination is made (see condition 4(f) of the draft authorization). However, NMFS did not include its other standard condition that, should environmental conditions deteriorate such that marine mammals within the entire shut-down zone would not be visible (e.g., fog, heavy rain), pile driving and

¹⁶ 5,674 seals were observed on 3 June 2014 and 4,994 seals were observed on 17 June 2014, equating to a total count of 10,668 seals.

¹⁷ See condition 4(a) in the final authorizations for Mukilteo (<https://www.fisheries.noaa.gov/webdam/download/109266384>) and for Seattle (https://s3.amazonaws.com/media.fisheries.noaa.gov/2020-09/WSDOT_SeattleYear4_IHA_OPR1.pdf?Aeg4bkRrl0qISN30WNijkYA3u1w4pDvD=).

removal must be delayed until the PSO is confident that marine mammals within the shut-down zone could be detected (see condition 4(h) in the final Mukilteo authorization and condition 4(g) in the final Seattle authorization). Absent that standard condition, there is ambiguity regarding what, if any, measures should be taken if conditions deteriorate *during* the activities. To ensure that WSDOT is able to implement shut-down and delay procedures effectively and consistent with other WSDOT authorizations, the Commission recommends that NMFS include in the final authorization the requirement that, if environmental conditions deteriorate such that marine mammals within the entire shut-down zone would not be visible (e.g., fog, heavy rain), pile-removal activities must be delayed until the PSO is confident that marine mammals within the shut-down zone could be detected.

Reporting measures

NMFS again omitted from WSDOT's draft authorization what has become one of its standard conditions for extrapolating and reporting takes for construction-related authorizations, and, in this instance, would not even require WSDOT to report the number of marine mammals taken. Condition 6(b)(ix) in the draft authorization would only require that WSDOT report the number of marine mammals *detected* within the harassment zones, by species. That condition is (1) ambiguous, (2) omits a requirement to specify the numbers of marine mammals *taken* by Level B harassment¹⁸, and most importantly, (3) does not require the applicant to extrapolate takes to the extents of the Level B harassment zones of more than 6 and 25 km.

The Commission provided comments and underlying justification on a similar matter in its [25 August 2020 letter](#) regarding Navy activities at Bangor. In that case, NMFS did require that the Navy include estimates of the number of marine mammals *taken*, by species, in the draft authorizations and the final authorizations and it specified the types of takes¹⁹ consistent with the Commission's recommendation (85 Fed. Reg. 68293). As such, it is unclear why NMFS has taken a step backward by not requiring that WSDOT include estimates of the numbers of marine mammals taken. The Commission recommends that NMFS revise condition 4(b)(ix) in the final authorization to require WSDOT to report the number of individuals of each species detected within the Level B harassment zones and estimates of the numbers of marine mammals taken by Level B harassment, by species.

Regarding the issue of extrapolation, NMFS did not provide a detailed explanation of why it did not adopt the Commission's recommendation. Rather, NMFS stated that—

The final IHA does not include the requirement deemed “standard” by the Commission, that the Navy include in its monitoring report an extrapolation of the estimated takes by Level B harassment based on the number of observed exposures within the Level B harassment zone and the percentage of the Level B harassment zone that was not visible (i.e.,

¹⁸ The Commission also informally noted that condition 4(b)(viii) specified Level A and B harassment zones, while condition 4(b)(ix) specified neither. NMFS must ensure that the terminology is consistent and explicit throughout the authorization. If NMFS is only authorizing Level B harassment takes, then both condition 4(b)(viii) and (ix) should specify Level B harassment zones. This should be rectified in the final authorization.

¹⁹ Which were both Level A and B harassment.

extrapolated takes), and therefore, does not include the additional requirement recommended by the Commission that the Navy include in its monitoring report the total number of Level B harassment takes based on both the observed and extrapolated takes for each species. However, both IHAs do include a requirement for the Navy to report the estimated percentage of the Level B harassment zone that was not visible. 85 Fed. Reg. 68293

As stated in previous letters and in particular the Commission's [14 May 2020 letter](#), if any recommendation is not followed or adopted, NMFS is required to provide a detailed explanation of the *reasons why* those recommendations were not followed or adopted under section 202(d) of the MMPA. A recitation of what is and is not included in the final authorization or notice for issuance of a final authorization does not constitute a detailed explanation why a Commission recommendation was not followed. Requiring the Navy to report the estimated percentage(s) of the Level B harassment zone that was not visible is a basic piece of necessary information, but it does not equate to reporting total takes, both those observed and extrapolated.

Given that NMFS has not provided a detailed explanation why the Commission's previous recommendation was not adopted, the Commission's rationale is provided herein with the expectation that NMFS will provide the required detailed response if it again chooses not to adopt the Commission's recommendation. Briefly, the Commission had worked with NMFS a few years ago to incorporate an additional reporting condition that required action proponents to include in their monitoring report an extrapolation of the estimated takes by Level B harassment based on the number of observed exposures within the Level B harassment zone and the percentage of the Level B harassment zone that was not visible²⁰ (see, e.g., condition 6(b)(xix) in the recently published draft authorization for Alaska Gasline Development Corporation (AGDC)²¹). The Commission understands that, even in situations when it should be relatively straightforward to do so, action proponents are not reporting extrapolated takes appropriately, if at all. However, rather than remove the standard condition, NMFS should retain it and provide appropriate guidance and examples²² that enable action proponents to extrapolate and report takes properly.

Although NMFS may decide to develop a more sophisticated method for extrapolating takes during construction activities²³, the Commission is not convinced that such a method it is necessary

²⁰ This also applies to Level A harassment takes when the Level A harassment zone extends beyond the visual detection range of the PSOs.

²¹ <https://www.fisheries.noaa.gov/webdam/download/108724946>.

²² For example, if a PSO is only able to observe consistently out to 1 km (or an area of 1.5 km²) and two PSOs are monitoring separate portions of a total ensounded area of 6 km², then the number of *observed takes* should be multiplied by two to estimate the number of *total takes*—this method is consistent with NMFS's assumption in its take estimation method that densities are uniform within the Level B harassment zones and should be used absent information indicating otherwise. In addition, action proponents must account for detection ranges that vary among species or groups of marine mammals (e.g., no more than 1 km for pinnipeds and harbor porpoises and 2 to 3 km for killer whales and mysticetes for land- and vessel-based PSOs).

²³ The Commission agrees with NMFS's recent assertion that it is *not appropriate* to use distance sampling methods to extrapolate takes, as it stated for AGDC's activities (85 Fed. Reg. 43409). That is, it is not appropriate to apply vessel-based distance sampling methods to shore-based or stationary vessel-based observations (i.e., applying line-transect methods to point-transect observations). However, NMFS recently contradicted that stance and specified that distance sampling methods *must be used* to properly extrapolate marine mammal takes in the area (85 Fed. Reg. 47740). The

or appropriate for coastal construction projects. Until NMFS develops an alternative method, the Commission contends that NMFS should be including its standard reporting condition for extrapolating takes rather than relying on its basic, more ambiguous condition. The Commission recommends that, for the final authorization, NMFS require that WSDOT include in its monitoring report (1) the estimated percentage(s) of the Level B harassment zones that was not visible consistent with the Navy's recent authorizations for Bangor, (2) an extrapolation of the estimated takes by Level B harassment based on the number of observed exposures within the Level B harassment zone and the percentage of the Level B harassment zone that was not visible (i.e., extrapolated takes) consistent with other authorizations, and (3) the total number of Level B harassment takes based on both the observed and extrapolated takes for each species.

Tally of takes

It is unclear from both the preamble and the draft authorization whether WSDOT will keep a running tally of the total Level B harassment takes. Given that NMFS proposed to authorize only a small number of takes of certain species, it is imperative that WSDOT keep a running tally of takes, both observed and extrapolated, to ensure that the numbers of authorized takes are not exceeded and inform when condition 4(h) in the draft authorization would need to be implemented. The Commission recommends that NMFS *reinforce*²⁴ that WSDOT must keep a running tally of the total Level B harassment takes, both observed and extrapolated, for each species consistent with condition 4(h) of the final authorization.

Proposed one-year authorization renewals

The Commission has raised ongoing concerns regarding NMFS's renewal process for a number of years. NMFS responded to those concerns most recently in summer 2020. The Commission intends to respond in detail to NMFS's letter in separate correspondence. Until that time, the Commission recommends that NMFS refrain from issuing a renewal for any authorization unless it is consistent with the procedural requirements specified in section 101(a)(5)(D)(iii) of the MMPA.

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

Sincerely,



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

Commission is unaware of shore-based, point-transect $f(0)$ values that would apply to marine mammal species that could be taken during coastal construction projects in the United States, let alone $g(0)$ and $f(0)$ values for pinnipeds in general.
²⁴ In response to this similar recommendation for the Navy's activities at Bangor, NMFS provided a response related to *ensuring* that the Navy keep a running tally (95 Fed. Reg. 68293) rather than *reinforcing* with the action proponent that it does so.

References

- Department of the Navy. 2015. Pacific Navy Marine Species Density Database: Revised Final Northwest Training and Testing Technical Report. Naval Facilities Engineering Command Pacific, Pearl Harbor, Hawaii. 488 pages.
- Department of the Navy. 2019. U.S. Navy Marine Species Density Database Phase III for the Northwest Training and Testing Study Area: Final technical report. Naval Facilities Engineering Command Pacific, Pearl Harbor, Hawaii. 262 pages.
- Department of the Navy. 2020. U.S. Navy Marine Species Density Database Phase III for the Northwest Training and Testing Study Area: Final technical report. Naval Facilities Engineering Command Pacific, Pearl Harbor, Hawaii. 272 pages.
- Jeffries S., J. Oliver, and L. Salzer. 2015. Aerial surveys for pinnipeds and sea otters on the Washington coast. Washington Department of Fish and Wildlife, Olympia, Washington. 9 pages.