



# MARINE MAMMAL COMMISSION

6 June 2018

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 Kitsap Transit 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 construction activities at the Annapolis Ferry Terminal in Port Orchard, Washington. The Commission also has reviewed the National Marine Fisheries Service's (NMFS) 16 May 2018 notice (83 Fed. Reg. 22624) announcing receipt of the application and proposing to issue the authorization, subject to certain conditions.

Kitsap Transit plans to upgrade its existing dock at the Annapolis Ferry Terminal. Operators will install up to 12 12- to 24-in steel piles using a vibratory and/or impact hammer. They also would remove up to 10 16.5-in concrete or 18-in steel piles using a vibratory hammer. Kitsap Transit expects activities to occur on up to 17 days, weather permitting. Activities would be limited to daylight hours only<sup>1</sup>.

NMFS preliminarily has determined that, at most, the proposed activities could cause Level B harassment of small numbers of 11 marine mammal species or stocks but 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—

- using a sound attenuation device (e.g., bubble curtain) during impact driving;
- ceasing pile-driving and -removal activities if any marine mammal comes within 10 m of the equipment;
- using one to two qualified protected species observers (PSOs) to monitor the Level A and B harassment zones for 30 minutes before, during, and for 30 minutes after the proposed activities;
- using standard soft-start, delay, and shut-down procedures;

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<sup>1</sup> To protect salmonids, in-water activities are allowed to occur only from 2 July through 2 March.

- using delay and shut-down procedures, if a species for which authorization has not been granted (including killer, humpback and gray whales) or for which authorization has been granted but the number of authorized takes already has been met approaches or is observed within the Level B harassment zone;
- accessing the Orca Network website to obtain marine mammal sightings data each morning of in-water activities and if those activities cease for longer than two hours;
- reporting injured and dead marine mammals to NMFS and the West Coast Regional Stranding Coordinator using NMFS's phased approach and suspending activities, if appropriate; and
- submitting a final report.

### General comments and concerns

In addition to pointing out minor errors<sup>2</sup> and missing information<sup>3</sup> in the preamble to and the proposed authorization, the Commission informally noted some further concerns. Those included—

- using an inappropriate harbor porpoise density for the project area<sup>4</sup>;
- omitting Level A harassment takes for various species<sup>5</sup>; and
- using an insufficient number of PSOs to monitor the extents of the Level A and B harassment zones<sup>6</sup>.

Although NMFS plans to include all related revisions in the final authorization, the Commission notes that these types of issues have been ongoing in NMFS's proposed incidental harassment authorizations<sup>7</sup>. These issues should have been identified and addressed prior to publication of the proposed authorization in the *Federal Register*, specifically when the original application was reviewed internally by NMFS<sup>8</sup>. Therefore, the Commission recommends that NMFS (1) review more

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<sup>2</sup> Including the location of the closest harbor seal haul-out site.

<sup>3</sup> Including describing how the source level for vibratory pile driving of 24-in piles was derived, noting that in lieu of source levels based on sound exposure levels for impact driving of 12-in piles a 10-dB reduction from the source level based on sound pressure levels was assumed, and noting where the source level for vibratory removal of 24-in piles originated.

<sup>4</sup> Smultea et al. (2017) estimated the harbor porpoise density near Bainbridge Island to be 0.53, which is less than the 0.89 harbor porpoises/km<sup>2</sup> density estimate from Jefferson et al. (2016) for all of southern Puget Sound. The revised density estimate was used in other recent incidental harassment authorizations for the project area as well. NMFS plans to amend the takes accordingly for the final authorization.

<sup>5</sup> Kitsap Transit plans to delay or shut down its activities if an animal is observed within the Level A harassment zone. However, the Commission noted that, based on the extents of various Level A harassment zones, an animal could pop up in one of those zones prior to being detected. NMFS consulted with the Commission on the appropriate number of takes and plans to include 36 Level A harassment takes for harbor seals and harbor porpoises, 8 Level A harassment takes for California sea lions, and 4 Level A harassment takes for Steller sea lions in the final authorization.

<sup>6</sup> Based on the size of the harassment zones, the Commission noted that two PSOs should be monitoring for marine mammals during all activities, not just when visibility is diminished as proposed in the *Federal Register* notice. NMFS agreed and plans to require two land-based PSOs to monitor during all activities and a third vessel-based PSO to monitor if the Beaufort sea state exceeds 3. NMFS also worked with the Commission and Kitsap Transit on appropriate placement of PSOs to maximize coverage.

<sup>7</sup> For example, see the Commission's [21 May 2018](#), [8 May 2018](#), [2 January 2018](#), and [5 September 2017](#) letters.

<sup>8</sup> During the early review team meetings.

thoroughly both the applications prior to deeming them complete and its notices prior to submitting them for publication in the *Federal Register* and (2) better evaluate the proposed Level A harassment zones that are to be implemented and the associated numbers of Level A harassment takes requested for each proposed incidental take authorization prior to publication in the *Federal Register*.

The Commission also informally pointed out that NMFS generally requires all applicants that conduct activities in the inland waters of Washington to contact the Orca Network and/or Center for Whale Research to obtain both marine mammal sightings and acoustic detection data (see 83 Fed. Reg. 24289 and 24293 for specifics on this measure). Therefore, the Commission recommends that NMFS require Kitsap Transit to abide by the same mitigation measure regarding contacting the Orca Network and/or Center for Whale Research for both marine mammal sightings and acoustic detection data, as stipulated in 83 Fed. Reg. 24289 and 24293.

The Commission further noted that NMFS did not propose to require Kitsap Transit to implement bubble curtain performance standards during impact pile driving. NMFS began requiring such measures<sup>9</sup> a number of years ago, because operators were not ensuring that bubble curtains were installed and working properly. Similar measures have been included routinely in other recent authorizations<sup>10</sup>. NMFS indicated that it was not planning to require Kitsap Transit to implement performance standards, since a source level reduction was not assumed for the proposed authorization. The Commission contends that assuming a presumed source level reduction has no bearing on whether Kitsap Transit should be implementing the mitigation measure appropriately and that implementation of the performance standards are neither unreasonable nor cost-prohibitive.

NMFS specified in the proposed authorization that Kitsap Transit ‘shall reduce the transmission of impulsive noise into the marine environment by using a bubble curtain during all impact pile driving’ (83 Fed. Reg. 22642). That measure requires the bubble curtain to be installed and operating appropriately. The Commission has questioned the efficacy of bubble curtains in multiple recent proposed authorizations<sup>11</sup>, but NMFS has yet to specify how it plans to handle this issue. If NMFS plans to continue to require that action proponents use bubble curtains as a mitigation measure, the Commission recommends that NMFS require Kitsap Transit and any other action proponent to implement NMFS’s bubble curtain performance standards in all relevant authorizations.

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<sup>9</sup> These measures include that (1) the bubble curtain must distribute air bubbles around 100 percent of the piling perimeter for the full depth of the water column, (2) the lowest bubble ring should be in contact with the mudline for the full circumference of the ring, and the weights attached to the bottom ring should ensure 100 percent mudline contact (no parts of the ring or other objects shall prevent full mudline contact), and (3) the action proponent requires construction contractors to train personnel in the proper balancing of air flow to the bubblers and to submit an inspection/performance report for approval by the action proponent within 72 hours following the performance test—corrections to the attenuation device to meet the performance standards are to occur prior to impact driving.

<sup>10</sup> See 83 Fed. Reg. 18527 as one example.

<sup>11</sup> See the Commission’s [30 May 2018 letter](#), which also includes information on bubble curtains originally being used to minimize impacts on fish rather than marine mammals.

## Appropriateness of the Level A harassment zones

As the Commission has indicated in previous letters, it supports NMFS's use of the updated permanent threshold shift (PTS) thresholds and associated weighting functions used to estimate the Level A harassment zones. However, shortcomings need to be addressed regarding the methodology for determining the extent of the Level A harassment zones based on the associated PTS cumulative sound exposure level ( $SEL_{cum}$ ) thresholds for the various types of sound sources, including stationary sound sources. 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 animal modeling. However, that approach is less than ideal for action proponents that either are unable, or choose not, to conduct more sophisticated modeling.

As an example, the Level A harassment zone for high-frequency cetaceans was estimated to be greater than the Level B harassment zone (162 vs. 136 m, respectively) for impact driving of 12-in piles<sup>12</sup>. Based on the extent of those zones, it is assumed that an animal would experience PTS before responding behaviorally and 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<sup>13</sup>. In addition, the Level A and B harassment zones do not make sense biologically or acoustically due to NMFS's unrealistic assumption that the animals remain stationary throughout the entire day of the activity<sup>14</sup>.

The Commission continues to believe that NMFS should consult with scientists and acousticians to determine the appropriate accumulation time that action proponents should use to determine the extent of the Level A harassment zones based on the associated  $SEL_{cum}$  thresholds in such situations. Those zones should incorporate more than a few hammer strikes (or acoustic pulses) but less than an entire workday's worth of strikes (or pulses). This recommendation is the same as those made in the Commission's [11 July 2017 letter](#) on NMFS's final Technical Guidance and multiple previous letters<sup>15</sup>. Other federal partners, including the Navy, have made similar recommendations. Since the Commission and other federal partners determined that this issue needs resolution, the Commission recommends that NMFS make this issue a *priority* to resolve in the near future. The Commission further recommends that NMFS consult with both internal<sup>16</sup> and external scientists and acousticians to determine the appropriate accumulation time that action proponents should use to determine the extent of the Level A harassment zones based on the associated  $SEL_{cum}$  thresholds for the various types of sound sources, including stationary sound sources, when simple

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<sup>12</sup> The Level A and B harassment zones for low-frequency cetaceans were the same (i.e., 136 m), which also is not realistic.

<sup>13</sup> Numerous Navy environmental impact statements (with which NMFS has been a cooperating agency), as well as a National Research Council (NRC) report (Figure 4-1; NRC 2005), support this logic.

<sup>14</sup> Which generally has been more of an issue for stationary sound sources. However, this also could be an issue for moving sound sources that have short distances between transect lines, for which the user spreadsheet may not be appropriate unless the source level could be adjusted accordingly. It also is particularly problematic when action proponents are using a simple area x density method for take estimation.

<sup>15</sup> Including its 11 May 2017, 11 April 2017, and 31 August 2015 letters.

<sup>16</sup> Including staff in the Marine Mammal and Sea Turtle Conservation Division of the Office of Protected Resources and staff in the Office of Science and Technology.

area x density methods are employed. Estimated swimming speeds and behavior patterns (including residency patterns)<sup>17</sup> of various species should be considered. Evaluating various scenarios using animat modeling should help address this issue as well.

Until such time that this issue is resolved, NMFS is relegated to using the outputs of its user spreadsheet. As such, the Commission informally noted that NMFS did not round up the estimated extents of the Level A harassment zones for the various proposed shut-down zones<sup>18</sup>. NMFS seemed reluctant to revise the shut-down zones and noted similarities between rounding down Level A harassment/shut-down zones and rounding down estimated Level A harassment takes. NMFS postulated that Level A harassment takes of 0.5 should be rounded down based on the unlikelihood that Level A harassment would occur due to the small size of the Level A harassment zone and long duration of the activity. The Commission agrees that context is key, particularly for estimating the number of proposed Level A harassment takes<sup>19</sup>. However, NMFS appears to be parsing this situation in such a way that it actually undermines the Level A harassment zones estimated by its user spreadsheet. The Commission is unaware of any other proposed incidental harassment authorizations that arbitrarily reduce the sizes of those zones by a few meters<sup>20</sup>. Therefore, the Commission recommends that NMFS round up all estimated Level A harassment zones to be used as shut-down zones in the final authorization.

In addition, the Commission informally noted that action proponents would be unable to visually distinguish 29 from 30 m, let alone 394 from 395 m or 1,848 from 1,850 m. This point has been made for other proposed authorizations as well. NMFS should be consistently rounding its estimated Level A and B harassment zones to the nearest 5, 10, 25, or 100 m based on the relative extents of the estimated zones. This has been done for other recent authorizations<sup>21</sup> as well.

### **Rounding of take estimates**

The method NMFS used to estimate the numbers of takes during the proposed activities, which summed fractions of takes for each species across project days, does not account for and negates the intent of NMFS's 24-hour reset policy. As the Commission has indicated in previous letters regarding this matter<sup>22</sup>, the issue at hand involves policy rather than mathematical accuracy. The Commission understands that NMFS has nearly completed revising its draft criteria and plans to share them with the Commission in the near future. The Commission again recommends that NMFS provide those criteria in a timely manner.

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<sup>17</sup> Results from monitoring reports, including animal responses, submitted in support of incidental harassment authorizations issued by NMFS also may inform this matter.

<sup>18</sup> For example, the Level A harassment zone for phocids during vibratory removal was estimated to be 11.8 m based on NMFS's user spreadsheet and Table 6 of the *Federal Register* notice. NMFS stipulated the shut-down zone to be 11 m in Table 9 of the notice. Similarly, the Level A harassment zone for impact driving of 24-in piles was estimated to be 393.8 m in Table 6, but the shut-down zone was stipulated as 390 m in Table 9. Four of the five proposed shut-down zones for high-frequency cetaceans also were less than estimated using NMFS's user spreadsheet and than stipulated in Table 6 of the *Federal Register* notice.

<sup>19</sup> See the Commission's [21 May 2018](#) letter as just one recent example.

<sup>20</sup> Reduced shut-down and exclusion zones often are used when Level A harassment takes are requested to ensure the activities can occur in a timely manner. However, they have never been used in the manner observed in the proposed authorization.

<sup>21</sup> See 83 Fed. Reg. 22027.

<sup>22</sup> See the Commission's [29 November 2016 letter](#) detailing this issue.

### Proposed one-year authorization renewals

NMFS has indicated that it may issue a second one-year<sup>23</sup> incidental harassment authorization renewal for this and other future authorizations on a case-by-case basis without additional public notice or comment opportunity when (1) another year of identical, or nearly identical activities, as described in the ‘Specified Activities’ section of the *Federal Register* notice is planned or (2) the originally planned activities would not be completed by the time the incidental harassment authorization expires and a renewal would allow for completion of the authorized activities beyond the timeframe described in the ‘Dates and Duration’ section of the notice. NMFS would consider issuing a renewal only if—

- the request for renewal is received no later than 60 days prior to the expiration of the current authorization;
- the activities to be conducted either are identical to the previously analyzed and authorized activities or include changes so minor (e.g., reduction in pile size) that they do not affect the previous analyses, take estimates, or mitigation and monitoring requirements;
- a preliminary monitoring report provides the results of the required monitoring to date and those results do not indicate impacts of a scale or nature not previously analyzed or authorized;
- the status of the affected species or stocks and any other pertinent information, including the mitigation and monitoring requirements, remain the same and appropriate; and
- the original determinations under the MMPA remain valid.

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) clearly states that proposed authorizations are subject to publication in the *Federal Register* and elsewhere and that there be a presumably concurrent opportunity for public review and comment. NMFS’s proposed renewal process would bypass the public notice and comment requirements when it is considering the renewal.

The Commission further notes that NMFS recently implemented an abbreviated authorization process by publishing the required information<sup>24</sup> via an abbreviated *Federal Register* notice and by referencing the relevant documents. The abbreviated process preserves the full opportunity for public review and comment, does not appear to be unduly burdensome on either the applicant or NMFS, and is much preferred over NMFS’s proposed renewal process<sup>25</sup>. Thus, the Commission recommends that NMFS refrain from implementing its proposed renewal process and instead use abbreviated *Federal Register* notices and reference existing documents to streamline the incidental harassment authorization process.

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<sup>23</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>24</sup> Including any changes to the proposed activities or assumptions made and results from the draft monitoring report.

<sup>25</sup> See the Commission’s [30 April 2018 letter](#) detailing this matter.

If NMFS believes that its proposed renewal process is consistent with the applicable statutory requirements and intends that process to be generally applicable to all incidental harassment authorizations that meet the specified criteria, it should not seek to adopt such a process through a brief notice at the end of a specific proposed authorization. That process should be adopted through more general procedures, preferably a rulemaking, that provides NMFS's rationale and analysis regarding why it believes the proposed renewal process is consistent with the requirements of section 101(a)(5)(D) of the MMPA and adequate public notice and opportunity for comment. If NMFS adopts the proposed renewal process notwithstanding the Commission's recommendation, the Commission further recommends that NMFS provide the Commission and the public with a legal analysis supporting its conclusion that the process is consistent with the requirements under section 101(a)(5)(D) of the MMPA. Furthermore, if NMFS decides to bypass the notice and comment process in advance of issuing a renewal, it should nevertheless publish notice in the *Federal Register* whenever such a renewal has been issued.

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

Sincerely,



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

## References

- Jefferson, T.A., M.A. Smultea, S.S. Courbis, and G.S. Campbell. 2016. Harbor porpoise (*Phocoena phocoena*) recovery in the inland waters of Washington: Estimates of density and abundance from aerial surveys, 2013–2015. *Canadian Journal of Zoology* 94(7):505–515.
- Smultea, M.A., K. Lomac-MacNair, G. Campbell, S.S. Courbis, and T.A. Jefferson. 2017. Aerial surveys of marine mammals conducted in the inland Puget Sound waters of Washington: Summer 2013–Winter 2016. Smultea Environmental Sciences, LLC, Preston, Washington. 100 pages.