



BILLING CODE 3510-22-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648-XA055]

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to the Old Sitka Dock North Dolphins Expansion Project in Sitka, Alaska

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; issuance of an incidental harassment authorization.

SUMMARY: In accordance with the regulations implementing the Marine Mammal Protection Act (MMPA) as amended, notification is hereby given that NMFS has issued an incidental harassment authorization (IHA) to Halibut Point Marine Services, LLC (HPMS) to incidentally harass, by Level A and Level B harassment only, marine mammals during construction activities associated with the Old Sitka Dock North Dolphins Expansion Project in Sitka, Alaska.

DATES: This Authorization is effective from October 1, 2020 through February 28, 2021.

FOR FURTHER INFORMATION CONTACT: Leah Davis, Office of Protected Resources, NMFS, (301) 427-8401. Electronic copies of the application and supporting documents, as well as a list of the references cited in this document, may be obtained online at: <https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under->

marine-mammal-protection-act. In case of problems accessing these documents, please call the contact listed above.

SUPPLEMENTARY INFORMATION:

Background

The MMPA prohibits the “take” of marine mammals, with certain exceptions. Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (as delegated to NMFS) to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed incidental take authorization may be provided to the public for review.

Authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s) and will not have an unmitigable adverse impact on the availability of the species or stock(s) for taking for subsistence uses (where relevant). Further, NMFS must prescribe the permissible methods of taking and other “means of effecting the least practicable adverse impact” on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stocks for taking for certain subsistence uses (referred to in shorthand as “mitigation”); and requirements pertaining to the mitigation, monitoring and reporting of such takings are set forth.

The definitions of all applicable MMPA statutory terms cited above are included in the relevant sections below.

Summary of Request

On July 30, 2019, NMFS received a request from HPMS for an IHA to take marine mammals incidental to dock expansion activities. The application was deemed adequate and complete on October 21, 2019. HPMS's request is for take of a small number of seven species of marine mammals by Level B harassment and Level A harassment. Neither HPMS nor NMFS expects serious injury or mortality to result from this activity and, therefore, an IHA is appropriate.

Description of the Specified Activity

HPMS is proposing to add two additional dolphin structures and modify two existing dolphin structures at their deep-water dock facility in Sitka Sound. The cruise industry is a major sector of Sitka's economy, and the current HPMS facility currently does not meet the industry-required specifications for mooring newer, larger cruise vessels that are becoming increasingly more common. Construction at the dock facility will include vibratory pile installation and removal of temporary, template pile structures, vibratory and impact installation of permanent piles comprising the dolphins, and down-the-hole drilling to install bedrock anchors for the permanent piles. Vibratory pile removal and installation, impact pile installation, and drilling activity will introduce underwater sounds that may result in take, by Level A and Level B harassment, of marine mammals across approximately 55.9km² in Sitka sound.

A detailed description of the planned project is provided in the **Federal Register** notice for the proposed IHA (85 FR 3623; January 22, 2020). Since that time,

no changes have been made to the planned construction activities. Therefore, a detailed description is not provided here. Please refer to that **Federal Register** notice for the description of the specific activity.

Comments and Responses

A notice of NMFS's proposal to issue an IHA to HPMS was published in the **Federal Register** on January 22, 2020 (85 FR 3623). That notice described, in detail, HPMS's planned activity, the marine mammal species that may be affected by the activity, the anticipated effects on marine mammals and their habitat, planned amount and manner of take, and planned mitigation, monitoring and reporting measures. During the 30-day public comment period, NMFS received a comment letter from the Marine Mammal Commission (Commission); the Commission's recommendations and our responses are provided here, and the comments have been posted online at:

<https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-construction-activities>. Please see the Commission's letter for full detail regarding justification for their recommendations.

Comment 1: The Commission recommends that NMFS finish its review and finalize its recommended proxy source levels for both impact and vibratory installation of the various pile types and sizes.

Response: NMFS concurs with the Commission's recommendation, and intends to finalize the referenced information as soon as possible.

Comment 2: The Commission recommends that NMFS (1) re-estimate the Level A harassment zones for DTH drilling based on source levels provided either by Reyff and Heyvaert (2019) or Denes et al. (2019) and NMFS' Level A harassment thresholds for

impulsive sources and (2) increase the numbers of Level A harassment takes accordingly. If NMFS believes that sufficient data are not available to characterize DTH drilling appropriately at this time, then the Commission recommends that NMFS require all applicants that propose to use a DTH hammer to install piles, including HPMS, to conduct in-situ measurements and adjust the Level A and Level B harassment zones accordingly.

Response: In this instance, NMFS tentatively agrees that the limited data available support considering the applicant's use of DTH drilling to be an impulsive sound source for the purposes of calculating the Level A harassment zones. However, at this time, we do not agree with the specific recommendations concerning source levels, and have used the initial source level selected (166.2dB RMS SPL at 10m, (Denes *et al.*, 2016)) to calculate the Level A harassment zones against NMFS' Level A harassment thresholds for impulsive sources. NMFS updated Level A harassment takes accordingly. Please see the **Estimated Take** section for the Level A harassment zones and take calculations. NMFS is evaluating the available DTH drilling Sound Source Verification (SSV) data and will fill information gaps as possible, but is not requiring HPMS to conduct in-situ measurements.

Comment 3: The Commission recommends that NMFS increase the number of Level A harassment takes from five to at least 10 for harbor seals and from five to at least 15 for harbor porpoises, notwithstanding the previous recommendation to revise the Level A harassment takes accordingly for DTH drilling. The Commission also recommends that NMFS increase Level B harassment takes from 532 to 627 for harbor

seals, from 95 to 275 for harbor porpoises, and from 304 to no fewer than 627 for Steller sea lions.

Response: NMFS thanks the Commission for its recommendation, but does not concur. A complete rationale for the authorized take numbers is included in the **Estimated Take** section, below.

Comment 4: The Commission recommends that NMFS ensure HPMS keeps a running tally of the total takes, based on observed and extrapolated takes, for both Level A and B harassment.

Response: We agree that HPMS must ensure they do not exceed authorized takes but do not concur with the recommendation. NMFS is not responsible for ensuring that HPMS does not operate in violation of an issued IHA.

Comment 5: The Commission recommends that NMFS include certain requirements that the Commission deems “standard.” Specifically, the Commission recommends that we include requirements that (1) HPMS conduct pile driving and removal activities during daylight hours only and (2) if the entire shutdown zone(s) is not visible due to darkness, fog, or heavy rain, HPMS delay or cease pile driving and removal activities until the zone(s) is visible.

Response: We do not fully concur with the Commission’s recommendations, or with their underlying justification, and do not adopt them as stated. While HPMS has no intention of conducting pile driving activities at night, it is unnecessary to preclude such activity should the need arise (e.g., on an emergency basis or to complete driving of a pile begun during daylight hours, should the construction operator deem it necessary to do so). Further, while acknowledging that prescribed mitigation measures for any specific

action (and an associated determination that the prescribed measures are sufficient to achieve the least practicable adverse impact on the affected species or stocks and their habitat) are subject to review by the Commission and the public, any determination of what measures constitute “standard” mitigation requirements is NMFS’ alone to make. Even in the context of measures that NMFS considers to be “standard” we reserve the flexibility to deviate from such measures, depending on the circumstances of the action. We disagree with the statement that a prohibition on pile driving activity outside of daylight hours is necessary to meet the MMPA’s least practicable adverse impact standard, and the Commission does not justify this assertion.

As included in the draft authorization, the final authorization includes a measure stating that “Should environmental conditions deteriorate such that marine mammals within the entire shutdown zone would not be visible (e.g., fog, heavy rain), pile driving and removal must be delayed until the PSO is confident marine mammals within the shutdown zone could be detected,” though this need not preclude pile driving at night with sufficient illumination.

Comment 6: The Commission recommends that NMFS continue to include in all draft and final incidental harassment authorizations, the explicit requirements to cease activities until NMFS reviews the circumstances involving any injury or death that has been attributed to the activity and determines what additional measures are necessary to minimize additional injuries or deaths.

Response: NMFS concurs with the Commission’s recommendation as it relates to this IHA and has added the referenced language to the *Monitoring and Reporting* section

of this notice and the Reporting section of the issued IHA. We will continue to evaluate inclusion of this language in future IHAs.

Comment 7: The Commission reiterates programmatic recommendations regarding NMFS' potential use of the renewal mechanism for one-year IHAs.

Response: NMFS does not agree with the Commission and, therefore, does not adopt the Commission's recommendation. NMFS will provide a detailed explanation of its decision within 120 days, as required by section 202(d) of the MMPA.

Changes from the Proposed IHA to Final IHA

The effective period for the final IHA is October 1, 2020 to February 28, 2021, rather than one year as described in the proposed IHA.

Additionally, NMFS made several adjustments to the source levels included in the proposed IHA. The Commission informally noted that the reference distance for the impact pile driving source levels (Austin *et al.*, 2016) should have been 11m, rather than the 10m used for calculations in the proposed IHA. NMFS agrees and has updated the Level A and Level B harassment zones to reflect the 11m reference distance. As informally noted by the Commission also, the peak source level for impact pile driving has been updated to 212.5dB, rather than 212dB. Also as recommended by the Commission, NMFS has reevaluated the impacts of DTH drilling, considering it to be an impulsive source for the purposes of calculating Level A harassment zones, rather than continuous as considered in the notice of proposed IHA. NMFS recalculated the Level A harassment zones using 166.2dB RMS SPL at 10m (Denes *et al.*, 2016) and, accordingly, increased the authorized numbers of take by Level A harassment from five to seven for

both harbor seal and harbor porpoise. Please see the *Estimated Take* section for the revised Level A harassment zones and final Level A harassment take authorizations.

NMFS also made several changes to the take estimate included in the proposed IHA. As described further in the *Estimated Take* section, NMFS estimates that 2.2 percent of Steller sea lions in the project area are from the Western DPS, rather than the 3.1 percent estimated in the proposed authorization. Additionally, several take estimates were updated based on informal recommendations by the Commission. The harbor seal take estimate has been increased to 532 takes to reflect the latest Alaska Fisheries Science Center counts (August 2011) for the CE49 haul out sites, the minke whale take estimate has been increased from three to four individuals, and the killer whale take estimate has been increased from 24 to 32 animals.

NMFS made several changes to the mitigation measures included in the proposed IHA (see *Mitigation*). The final IHA reflects an updated shutdown zone for low-frequency and high-frequency cetaceans during down-the-hole drilling (due to changes to the Level A harassment zones previously described) and during impact pile driving (due to changes to the Level A harassment zones resulting from the source level adjustments described above). The final IHA does not include the note that NMFS may adjust the shutdown zones pending review and approval of an acoustic monitoring report, as the applicant is not proposing to conduct hydroacoustic monitoring. Additionally, the final IHA reflects that during soft starts, the applicant will implement a one-minute waiting period, as described in the Federal Register notice for the proposed IHA, rather than a thirty-second waiting period as described in the proposed IHA itself. Finally, measure 4(e) of the final IHA states that after a shutdown has been implemented, pile driving may

not commence or resume until either the animal has voluntarily left and been visually confirmed beyond the shutdown zone or 15 minutes have passed without subsequent detections, rather than 15 minutes for small cetaceans and pinnipeds and 30 minutes for large cetaceans, as described in the proposed IHA.

Based on the Commission's recommendation, NMFS has also updated the reporting requirements for dead or injured marine mammals to require HPMS to cease the specified activities until NMFS notifies HPMS that they may resume.

Description of Marine Mammals in the Area of Specified Activities

Sections 3 and 4 of the application summarize available information regarding status and trends, distribution and habitat preferences, and behavior and life history, of the potentially affected species. Additional information regarding population trends and threats may be found in NMFS's Stock Assessment Reports (SARs; <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments>) and more general information about these species (*e.g.*, physical and behavioral descriptions) may be found on NMFS' website (<https://www.fisheries.noaa.gov/find-species>).

Table 1 lists all species with expected potential for occurrence in Sitka, AK and summarizes information related to the population or stock, including regulatory status under the MMPA and ESA and potential biological removal (PBR), where known. For taxonomy, we follow Committee on Taxonomy (2019). PBR is defined by the MMPA as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population (as described in NMFS' SARs). While no mortality is anticipated

or authorized here, PBR and annual serious injury and mortality from anthropogenic sources are included here as gross indicators of the status of the species and other threats.

Marine mammal abundance estimates presented in this document represent the total number of individuals that make up a given stock or the total number estimated within a particular study or survey area. NMFS' stock abundance estimates for most species represent the total estimate of individuals within the geographic area, if known, that comprises that stock. For some species, this geographic area may extend beyond U.S. waters. All managed stocks in this region are assessed in NMFS' U.S. 2018 SARs and draft 2019 SARs (e.g., Muto *et al.* 2019). All values presented in Table 1 are the most recent available at the time of publication and are available in the 2018 and draft 2019 SARs (Muto *et al.*, 2019 and Carretta *et al.*, 2019).

Table 1 -- Marine Mammals That Could Occur in the Project Area

Common name	Scientific name	Stock	ESA/MMPA status; Strategic (Y/N) ¹	Stock abundance (CV, N _{min} , most recent abundance survey) ²	PBR	Annual M/SI ³
Order Cetartiodactyla – Cetacea – Superfamily Mysticeti (baleen whales)						
Family Eschrichtiidae						
Gray whale	<u>Eschrichtius robustus</u>	Eastern North Pacific	-, -, N	26,960 (0.05, 25,849, 2016)	801	139
Family Balaenidae						
<i>North Pacific Right Whale</i>	<u>Eubalaena japonica</u>	Eastern North Pacific	E, D, Y	31 (0.226, 26, 2015)	0.05	0
Family Balaenopteridae (rorquals)						
Humpback whale	<u>Megaptera novaeangliae</u>	Central North Pacific	-, -, Y	10,103 (0.300, 7,891, 2006)	83	26
<i>Fin whale</i>	<u>Balaenoptera physalus</u>	Northeast Pacific	E, D, Y	see SAR (see SAR, see SAR, 2013)	5.1	0.4
Minke whale	<u>Balaenoptera acutorostra</u>	Alaska	-, -, N	N/A (N/A, N/A, see SAR)	UND	0
Superfamily Odontoceti (toothed whales, dolphins, and porpoises)						
Family Physeteridae						
<i>Sperm whale</i>	<u>Physeter microcephalus</u>	North Pacific	E, D, Y	see SAR (see SAR, N/A, 2015)	see SAR	4.7

Family Delphinidae						
Killer whale	<u>Orcinus orca</u>	Eastern North Pacific Alaska Resident	-, -, N	2,347 (N/A, 2,347, 2012)	24	1
		Gulf of Alaska, Aleutian Islands, Bearing Sea Transient	-, -, N	587 (N/A, 587, 2012)	5.87	1
		Eastern North Pacific Northern Resident	-, -, N	302 c (N/A, 302, 2018)	2.2	0.2
		West Coast Transient	-, -, N	243 (N/A, 243, 2009)	2.4	0
<i>Pacific white-sided dolphin</i>	<u>Lagenorhynchus obliquidens</u>	North Pacific	-, -, N	26,880 (UNK, UNK, 1990)	UND	0
Family Phocoenidae (porpoises)						
<i>Dall's porpoise</i>	<u>Phocoenoides dalli</u>	Alaska	-, -, N	83,400 (0.097, NA, 1991)	UND	38
Harbor porpoise	<u>Phocoena phocoena</u>	Southeast Alaska	-, -, Y	see SAR (see SAR, see SAR, 2012)	8.9	34
Order Carnivora – Superfamily Pinnipedia						
Family Otariidae (eared seals and sea lions)						
<i>California sea lion</i>	<u>Zalophus californianus</u>	U.S.	-, -, N	257,606 (N/A, 233,515, 2014)	14,011	≥321
<i>Northern fur seal</i>	<u>Callorhinus ursinus</u>	Eastern Pacific	-, D, Y	620,660 (0.2, 525,333, 2016)	11,295	399
Steller sea lion	<u>Eumetopias jubatus</u>	Eastern	-, -, N	43,201 a (see SAR, 43,201, 2017)	2592	113
Steller sea lion	<u>Eumetopias jubatus</u>	Western	E, D, Y	53,624 a (see SAR, 53,624, 2018)	322	247
Family Phocidae (earless seals)						
Harbor seal	<u>Phoca vitulina</u>	Sitka/Chatham Straight	-, -, N	13,289 (see SAR, 11,883, 2015)	356	77

1 - Endangered Species Act (ESA) status: Endangered (E), Threatened (T)/MMPA status: Depleted (D). A dash (-) indicates that the species is not listed under the ESA or designated as depleted under the MMPA. Under the MMPA, a strategic stock is one for which the level of direct human-caused mortality exceeds PBR or which is determined to be declining and likely to be listed under the ESA within the foreseeable future. Any species or stock listed under the ESA is automatically designated under the MMPA as depleted and as a strategic stock.

2- NMFS marine mammal stock assessment reports online at: www.nmfs.noaa.gov/pr/sars/. CV is coefficient of variation; Nmin is the minimum estimate of stock abundance. In some cases, CV is not applicable [explain if this is the case]

3 - These values, found in NMFS's SARs, represent annual levels of human-caused mortality plus serious injury from all sources combined (e.g., commercial fisheries, ship strike). Annual M/SI often cannot be determined precisely and is in some cases presented as a minimum value or range. A CV associated with estimated mortality due to commercial fisheries is presented in some cases.

4- These values are the best estimate of pup and non-pup counts which have not been corrected to account for animals at sea during abundance surveys.

NOTE - Italicized species are not expected to be taken or proposed for authorization

All species that could potentially occur in the project area are included in Table 1. However, the temporal and/or spatial occurrence of western north Pacific gray whales, northern right whale, fin whale, sperm whale, pacific white-sided dolphin, Dall's porpoise, California sea lion, and Northern fur seal is such that take is not expected to occur, and they are not discussed further beyond the explanation provided here.

Marine mammal monitoring reports are available for three recent construction projects in the Sitka area (Gary Paxton Industrial Park Dock Modification Project, 82 FR 47717, October 13, 2017; Biorka Island Dock Replacement Project, 82 FR 50397, October 31, 2017; O'Connell Bridge Lightering Float Pile Replacement Project, 84 FR 27288, June 12, 2019). These reports were referenced in determining marine mammals likely to be present within the Old Sitka Dock project area. NMFS acknowledges seasonal differences between the Old Sitka Dock project and available monitoring reports.

North Pacific Right Whale, fin whale, sperm whale, Dall's porpoise, and northern fur seal have not been reported in monitoring reports available for the recent Sitka-area, and were not observed during the Straley *et al.* (2017) surveys. Straley *et al.* (2017) only observed seven Pacific white-sided dolphins during eight years of surveys, however, no observations were reported in monitoring reports available for the recent Sitka-area. California sea lions are rarely sighted in southern Alaska. NMFS' anecdotal sighting database includes four sightings in Seward and Kachemak Bay, and they were also documented during the Apache 2012 seismic survey in Cook Inlet. However, California sea lions have not been reported in monitoring reports available for the recent Sitka-area construction projects.

In addition, the northern sea otter may be found in Sitka. However, northern sea otters are managed by the U.S. Fish and Wildlife Service and are not considered further in this document.

A detailed description of the of the species likely to be affected by the project, including brief introductions to the species and relevant stocks as well as available information regarding population trends and threats, and information regarding local occurrence, were provided in the **Federal Register** notice for the proposed IHA (85 FR 3623, January 22, 2020); since that time, we are not aware of any changes in the status of these species and stocks; therefore, detailed descriptions are not provided here. Please refer to that **Federal Register** notice for these descriptions. Please also refer to NMFS' website (<https://www.fisheries.noaa.gov/find-species>) for generalized species accounts.

Potential Effects of Specified Activities on Marine Mammals and their Habitat

Underwater noise from impact and vibratory pile driving and down-the-hole drilling activities associated with the Old Sitka Dock North Dolphins Expansion Project have the potential to result in harassment of marine mammals in the vicinity of the action area. The **Federal Register** notice for the proposed IHA (85 FR 3623, January 22, 2020) included a discussion of the potential effects of such disturbances on marine mammals and their habitat, therefore that information is not repeated in detail here; please refer to that **Federal Register** notice (85 FR 3623, January 22, 2020) for that information.

Estimated Take

This section provides an estimate of the number of incidental takes authorized through this IHA, which will inform both NMFS' consideration of "small numbers" and the negligible impact determination.

Harassment is the only type of take expected to result from these activities. Except with respect to certain activities not pertinent here, section 3(18) of the MMPA defines “harassment” as any act of pursuit, torment, or annoyance, which (i) has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment); or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering (Level B harassment).

Authorized takes are primarily by Level B harassment, as use of the acoustic sources (*i.e.* pile driving and removal, down-the-hole drilling) has the potential to result in disruption of behavioral patterns for individual marine mammals. There is also some potential for auditory injury (Level A harassment) to result, primarily for high frequency species and phocids because predicted auditory injury zones are larger than for mid-frequency species and otariids. Auditory injury is unlikely to occur for other species/groups. The mitigation and monitoring measures are expected to minimize the severity of such taking to the extent practicable.

As described previously, no mortality is anticipated or authorized for this activity. Below we describe how the take is estimated.

Generally speaking, we estimate take by considering: (1) acoustic thresholds above which NMFS believes the best available science indicates marine mammals will be behaviorally harassed or incur some degree of permanent hearing impairment; (2) the area or volume of water that will be ensonified above these levels in a day; (3) the density or occurrence of marine mammals within these ensonified areas; and, (4) the number of days of activities. We note that while these basic factors can contribute to a basic

calculation to provide an initial prediction of takes, additional information that can qualitatively inform take estimates is also sometimes available (e.g., previous monitoring results or average group size). Below, we describe the factors considered here in more detail and present the take estimate.

Acoustic Thresholds

Using the best available science, NMFS has developed acoustic thresholds that identify the received level of underwater sound above which exposed marine mammals would be reasonably expected to be behaviorally harassed (equated to Level B harassment) or to incur PTS of some degree (equated to Level A harassment).

Level B Harassment for non-explosive sources – Though significantly driven by received level, the onset of behavioral disturbance from anthropogenic noise exposure is also informed to varying degrees by other factors related to the source (e.g., frequency, predictability, duty cycle), the environment (e.g., bathymetry), and the receiving animals (hearing, motivation, experience, demography, behavioral context) and can be difficult to predict (Southall *et al.*, 2007, Ellison *et al.*, 2012). Based on what the available science indicates and the practical need to use a threshold based on a factor that is both predictable and measurable for most activities, NMFS uses a generalized acoustic threshold based on received level to estimate the onset of behavioral harassment. NMFS predicts that marine mammals are likely to be behaviorally harassed in a manner we consider Level B harassment when exposed to underwater anthropogenic noise above received levels of 120 dB re 1 microPascal (μPa) root mean square (rms) for continuous (e.g., vibratory pile-driving, drilling) and above 160 dB re 1 μPa (rms) for non-explosive impulsive (e.g., seismic airguns) or intermittent (e.g., scientific sonar) sources.

For the purpose of Level B harassment zone calculation, HPMS’s activity includes the use of continuous (vibratory pile driving and removal, down-the-hole drilling) and impulsive (impact pile driving) sources, and therefore the 120 and 160 dB re 1 μ Pa (rms) are applicable.

Level A harassment for non-explosive sources - NMFS’ Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 2.0) (Technical Guidance, 2018) identifies dual criteria to assess auditory injury (Level A harassment) to five different marine mammal groups (based on hearing sensitivity) as a result of exposure to noise from two different types of sources (impulsive or non-impulsive). HPMS’s activity includes the use of impulsive (impact pile driving, down-the-hole drilling) and non-impulsive (vibratory pile driving and removal) sources.

These thresholds are provided in the table below. The references, analysis, and methodology used in the development of the thresholds are described in NMFS 2018 Technical Guidance, which may be accessed at <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance>.

Table 2 -- Thresholds Identifying the Onset of Permanent Threshold Shift

Hearing Group	PTS Onset Acoustic Thresholds* (Received Level)	
	Impulsive	Non-impulsive
Low-Frequency (LF) Cetaceans	<i>Cell 1</i> $L_{pk,flat}$: 219 dB $L_{E,LF,24h}$: 183 dB	<i>Cell 2</i> $L_{E,LF,24h}$: 199 dB
	<i>Cell 3</i> $L_{pk,flat}$: 230 dB $L_{E,MF,24h}$: 185 dB	<i>Cell 4</i> $L_{E,MF,24h}$: 198 dB
High-Frequency (HF) Cetaceans	<i>Cell 5</i> $L_{pk,flat}$: 202 dB $L_{E,HF,24h}$: 155 dB	<i>Cell 6</i> $L_{E,HF,24h}$: 173 dB

Phocid Pinnipeds (PW) (Underwater)	<i>Cell 7</i> $L_{pk,flat}$: 218 dB $L_{E,PW,24h}$: 185 dB	<i>Cell 8</i> $L_{E,PW,24h}$: 201 dB
Otariid Pinnipeds (OW) (Underwater)	<i>Cell 9</i> $L_{pk,flat}$: 232 dB $L_{E,OW,24h}$: 203 dB	<i>Cell 10</i> $L_{E,OW,24h}$: 219 dB
<p>* Dual metric acoustic thresholds for impulsive sounds: Use whichever results in the largest isopleth for calculating PTS onset. If a non-impulsive sound has the potential of exceeding the peak sound pressure level thresholds associated with impulsive sounds, these thresholds should also be considered.</p> <p><u>Note:</u> Peak sound pressure (L_{pk}) has a reference value of 1 μPa, and cumulative sound exposure level (L_E) has a reference value of 1μPa²s. In this Table, thresholds are abbreviated to reflect American National Standards Institute standards (ANSI 2013). However, peak sound pressure is defined by ANSI as incorporating frequency weighting, which is not the intent for this Technical Guidance. Hence, the subscript “flat” is being included to indicate peak sound pressure should be flat weighted or unweighted within the generalized hearing range. The subscript associated with cumulative sound exposure level thresholds indicates the designated marine mammal auditory weighting function (LF, MF, and HF cetaceans, and PW and OW pinnipeds) and that the recommended accumulation period is 24 hours. The cumulative sound exposure level thresholds could be exceeded in a multitude of ways (i.e., varying exposure levels and durations, duty cycle). When possible, it is valuable for action proponents to indicate the conditions under which these acoustic thresholds will be exceeded.</p>		

Ensonified Area

Here, we describe operational and environmental parameters of the activity that will feed into identifying the area ensonified above the acoustic thresholds, which include source levels and transmission loss coefficient.

The sound field in the project area is the existing background noise plus additional construction noise from the project. Marine mammals are expected to be affected via sound generated by the primary components of the project (*i.e.*, impact pile driving, vibratory pile driving and removal, down-the-hole drilling). The maximum (underwater) area ensonified above the thresholds for behavioral harassment referenced above is 55.9km² (21.6mi²), and the calculated distance to the farthest behavioral harassment isopleth is approximately 15.8km (9.8mi). Both are governed by landmasses in the Sound.

The project includes vibratory and impact pile installation of steel pipe piles, vibratory removal of steel pipe piles, and down-the-hole drilling. Source levels of pile installation and removal activities are based on reviews of measurements of the same or similar types and dimensions of piles available in the literature. Source levels for each pile size and activity are presented in Table 3. Source levels for vibratory installation and removal of piles of the same diameter are assumed to be the same.

Table 3 -- Sound Source Levels for Pile Driving Methods and Down-the-Hole Drilling

Pile Size and Method	Source Level ^a			Literature Source
	dB RMS	dB SEL ^c	dB peak	
30-inch steel vibratory installation/removal	168.0 ^b			Denes <i>et al.</i> , 2016
48-inch steel vibratory installation	168.0 ^b			Denes <i>et al.</i> , 2016
33-inch drilled anchor shaft (down-the-hole drilling)^e	166.2			Denes <i>et al.</i> , 2016
48-inch steel impact installation (and 30-inch steel impact installation, as necessary)^d	197.9	186.7	212.5	Austin <i>et al.</i> , 2016

^a All source levels are referenced to 10m, except for impact pile driving which is referenced to 11m.

^b Source levels used for the impact analyses of vibratory installation/removal of 30-inch and 48-inch piles are the same. The most reasonable proxy source level for the 30-inch pile (including comparison of water depth and substrate) was 168.0 dB RMS, the median vibratory summary value from the Auke Bay site in Denes *et al.* (2016). For the 48-inch piles, NMFS determined that the median value from pile IP5 in Table 11 of Austin *et al.* (2016), 166.8 dB RMS, was the most appropriate proxy source level; however, this source level was lower than the proxy source level for the 30-inch pile. Typically, pile driving source levels are louder for installation/removal of larger piles. In effort to conduct a conservative analysis of the effects, NMFS adopted 168.0 dB RMS as a proxy source level for vibratory installation of the 48-inch piles as well.

^c Sound exposure level (dB re 1 $\mu\text{Pa}^2\text{-sec}$).

^d As previously noted, the applicant does not expect impact pile driving of the 30-inch piles to be necessary. However, if it is, the applicant will conservatively use source levels and Level A and Level B

harassment zone calculations, and monitoring zones for impact pile driving of 48-inch steel piles.

^e As noted in the **Changes from Proposed to Final** section, the analysis of the applicant’s DTH drilling activity considers sound produced as both a continuous and an impulsive noise source. NMFS has tentatively determined that Denes *et al.*, 2016 provides the most appropriate source level for this analysis. However, this method is not intended to set precedent for future evaluation of DTH drilling as NMFS continues to analyze available data, and more data becomes available.

Transmission loss (TL) is the decrease in acoustic intensity as an acoustic pressure wave propagates out from a source. TL parameters vary with frequency, temperature, sea conditions, current, source and receiver depth, water depth, water chemistry, and bottom composition and topography. The general formula for underwater TL is:

$$TL = B * \text{Log}_{10} (R_1/R_2),$$

where

TL = transmission loss in dB

B = transmission loss coefficient

R₁ = the distance of the modeled SPL from the driven pile, and

R₂ = the distance from the driven pile of the initial measurement

Absent site-specific acoustical monitoring with differing measured transmission loss, a practical spreading value of 15 is used as the transmission loss coefficient in the above formula. Site-specific transmission loss data for Old Sitka Dock are not available, therefore the default coefficient of 15 is used to determine the distances to the Level A and Level B harassment thresholds.

Table 4 -- Pile Driving Source Levels and Distances to Level B Harassment Thresholds

Pile Size and Method	Source level^a (dB re 1 μPa rms)	Level B threshold (dB re 1 μPa rms)	Propagation (xLogR)	Distance to Level B threshold (m)
30-inch steel	168.0 ^b	120	15	15,849

vibratory installation/removal				
48-inch steel vibratory installation	168.0 ^b	120	15	15,849
33-inch drilled anchor shaft (down-the-hole drilling)	166.2	120	15	12,023
48-inch steel impact installation <i>(and 30-inch steel impact installation, as necessary)</i>	197.9	160	15	3,699

^a All source levels are referenced to 10m, except for impact pile driving which is referenced to 11m.

^b As noted in Table 3, source levels for the 30-inch and 48-inch steel pipe piles are the same.

When the NMFS Technical Guidance (2016) was published, in recognition of the fact that ensonified area/volume could be more technically challenging to predict because of the duration component in the new thresholds, we developed a User Spreadsheet that includes tools to help predict a simple isopleth that can be used in conjunction with marine mammal density or occurrence to help predict takes. We note that because of some of the assumptions included in the methods used for these tools, we anticipate that isopleths produced are typically going to be overestimates of some degree, which may result in some degree of overestimate of Level A harassment take. However, these tools offer the best way to predict appropriate isopleths when more sophisticated 3D modeling methods are not available, and NMFS continues to develop ways to quantitatively refine these tools, and will qualitatively address the output where appropriate. For stationary sources such as pile driving, NMFS User Spreadsheet predicts the distance at which, if a marine mammal remained at that distance the whole duration of the activity, it would incur PTS. Inputs used in the User Spreadsheet, and the resulting isopleths are reported below.

Table 5 - User Spreadsheet Input Parameters used for Calculating Level A Harassment Isopleths

File Size and Installation Method	48-inch Pile Vibratory Installation	30-inch Pile Vibratory Installation/Removal	33-inch drilled anchor shaft (down-the-hole drilling)	48-inch Pile Impact Installation (and 30-inch steel impact installation, as necessary) (SEL_{cum})	48-inch Pile Impact Installation (PK)
Spreadsheet Tab Used	A.1) Vibratory pile driving	A.1) Vibratory pile driving	E) Impulsive-Stationary	E.1) Impact pile driving	E.1) Impact pile driving
Weighting Factor Adjustment (kHz)	2.5	2.5	2	2	2
Source Level	168.0 dB rms SPL	168.0 dB rms SPL	166.2 dB rms SPL	186.7 dB SEL	212.5 dB peak
Number of piles within 24-h period	2	2		2	
Duration to drive a single pile (minutes)	60	30			
Pulse Duration (seconds)			0.1		
1/Repetition Rate			0.1		
Number of strikes per pile				135	
Activity Duration within 24-h period	7200 (seconds)	3600 (seconds)	2 (hours) ^a		
Propagation (xLogR)	15	15	15	15	
Distance from source level measurement (meters)	10	10	10	11	11

^a The applicant estimates that DTH drilling work will last approximately eight hours in one day, with seven hours of active drilling. NMFS does not expect that an animal would remain in the area for seven hours. Rather, NMFS expects that an animal is likely to be exposed to a maximum of two hours of drilling noise,

and as such, calculated the Level A harassment zones based on an activity duration of two hours within a 24-hour period.

Table 6 -- Calculated Distances to Level A Harassment Isopleths

Activity	Level A harassment zone (m)				
	Low-Frequency Cetaceans	Mid-Frequency Cetaceans	High-Frequency Cetaceans	Phocid Pinnipeds	Otariid Pinnipeds
30-inch Pile Vibratory Installation/Removal	20.0	1.8	29.6	12.2	0.9
48-inch Pile Vibratory Installation	31.8	2.8	46.9	19.3	1.4
33-inch drilled anchor shaft (down-the-hole drilling)	282.5	10.0	336.5	151.2	11.0
48-inch Pile Impact Installation (and 30-inch steel impact installation, as necessary) (SEL_{cum})	809.8	28.8	964.6	433.4	31.6
48-inch Pile Impact Installation (and 30-inch steel impact installation, as necessary) (PK)	4.1	-	55.1	4.7	-

Marine Mammal Occurrence and Take Calculation and Estimation

In this section we provide the information about the presence, density, or group dynamics of marine mammals that will inform the take calculations. We describe how the information provided above is brought together to produce a quantitative take estimate.

Gray Whale

Straley *et al.*, 2017 documented a group of three gray whales during surveys between 2002 and 2015, however, no gray whales were observed during monitoring for

other recent construction projects in the area (CBS, 2019; Turnagain Marine Construction, 2017; Turnagain Marine Construction, 2018). NMFS estimates that one group of three gray whales may occur within the Level B harassment zone during construction (3 animals x 1 group x 1 month= 3 Level B harassment takes) and therefore, authorized three Level B harassment takes of gray whales.

The largest Level A harassment zone for low-frequency cetaceans extends 809.8m from the source during impact pile driving of 48-inch piles (or impact pile driving of 30-inch steel piles, as necessary) (Table 6). HPMS is planning to implement activity-specific shutdown zones (Table 8), which, especially in combination with the already low likelihood of gray whales entering the area, NMFS expects to eliminate the potential for Level A harassment take of gray whale. Therefore, Level A harassment takes of gray whale are not authorized.

Minke Whale

Two minke whales were taken during the Biorka Island Dock Replacement project at the mouth of Sitka Sound (Turnagain Marine Construction, 2018). Based on monitoring data from Biorka Island, three Level B harassment takes of minke whale were authorized for the Sitka O'Connell Bridge project, however, no minke whale takes were reported. Both projects occurred in the month of June. Straley *et al.* (2017) did not report any observations of minke whales. However, because they were observed during the Biorka Island Dock Replacement project, NMFS estimated in the proposed authorization that one group of three minke whales may occur within the Level B harassment zone during the project, and therefore, planned to authorize three Level B harassment takes. However, based on informal correspondence with the Commission, NMFS is modifying

the take authorization to include a Level B harassment take of one minke whale during each project week, as minke whales typically occur as individuals in Alaska (Dalheim *et al.*, 2009; Navy, 2018). NMFS and the applicant originally considered the project a three-week project; however, the Commission informally recommended considering it a four-week project, as the contractor will likely work a five-day week. NMFS agrees with the Commission, and authorized four Level B harassment takes of minke whales.

The largest Level A harassment zone for low-frequency cetaceans extends 809.8m from the source during impact pile driving of 48-inch piles (or impact pile driving of 30-inch steel piles, as necessary) (Table 6). HPMS will implement activity-specific shutdown zones (Table 8), which, especially in combination with the already low likelihood of minke whales entering the area, are expected to eliminate the potential for Level A harassment take of minke whale. Therefore, takes of minke whale by Level A harassment were not requested, and are not authorized.

Humpback Whale

Humpback whales frequent the action area and are likely to enter the Level B harassment zone during construction. Humpback whales typically occur in groups of two to four animals in the area (Straley *et al.*, 2017). Given the large Level B harassment zone, HPMS estimated, and NMFS concurred, that four groups of two humpback whales may occur within the Level B harassment zone on each of the 19 days of in-water construction (2 animals in a group x 4 groups each day x 19 days = 152 Level B harassment takes). Therefore, NMFS is authorizing 152 Level B harassment takes of humpback whales.

For ESA Section 7 consultation purposes, NMFS estimates that 93.9 percent of humpback whales in the project area are from the non-listed Hawaii DPS, and 6.1 percent of humpback whales in the project area are from the threatened Mexico DPS (Wade *et al.*, 2016). Therefore, per guidance from the Alaska Region, of the 152 Level B harassment takes requested, 142 takes are expected to be of humpback whales from the Hawaii DPS and 10 takes are expected to be of humpbacks from the Mexico DPS.

The largest Level A harassment zone for humpback whale extends 809.8m from the source during impact pile driving of 48-inch piles (Table 6). HPMS will implement activity-specific shutdown zones (Table 8), which, given the behavior and visibility of humpback whales, are expected to eliminate the potential for Level A harassment take of humpback whale. Therefore, takes of humpback whale by Level A harassment were not requested, and are not authorized.

Killer Whale

Forty-four (44) killer whales were observed during 190 hours of observation from Whale Point between September and May from 1994 to 2002 (Straley *et al.*, 2017). Three killer whales were documented in Sitka Channel on one day in January 2017 during the Petro Marine Dock construction (Windward 2017). Seven killer whales were observed in June, but no killer whales were seen in July, August, or September in 2018 at Biorka Island (Turnagain Marine Construction, 2018). No killer whales were observed in October or November 2017 on the western side of Eastern Channel or Silver Bay (Turnagain Marine Construction, 2017).

During work on GPIIP Dock, groups of five and 10 individuals were seen a few times, but, typically, single whales were observed near the mouth of Silver Bay

(Turnagain Marine Construction, 2017). Straley *et al.*'s (2017) survey data indicates a typical killer whale group size between 4 and 8 individuals in Sitka Sound. Therefore, taking all of this information into consideration, NMFS proposed to authorize 24 Level B harassment takes, expecting that one group of eight killer whales may enter the Level B harassment zone on each of three project weeks (8 animals in a group x 1 group per week x 3 weeks of activity = 24 Level B harassment takes). However, as noted above, the Commission informally recommended considering the project a four-week project. NMFS agrees and is instead authorizing 32 Level B harassment takes (8 animals in a group x 1 group per week x 4 weeks of activity). Killer whales from all four stocks listed in Table 1 have the potential to be taken by Level B harassment.

The largest Level A harassment zone for mid-frequency cetaceans extends 28.8m from the source during impact installation of the 48-inch piles (or impact pile driving of 30-inch steel piles, as necessary) (Table 6). HPMS will implement activity-specific shutdown zones (Table 8), which, given the small size of the zone and the visibility of killer whales, are expected to eliminate the potential for Level A harassment take of killer whale. Therefore, takes of killer whale by Level A harassment were not requested, and are not authorized.

Harbor Porpoise

Harbor porpoises commonly frequent nearshore waters, but are not common in the project vicinity. Monthly tallies from observations from Sitka's Whale Park show harbor porpoises occurring infrequently in or near the action area in March, April, and October between 1994 to 2002 (Straley *et al.*, 2017). However, no harbor porpoises have been observed more recently during monitoring. No harbor porpoises were seen during

the Petro Marine Dock construction monitoring in January 2017 (Windward, 2017), during monitoring for the GPIIP dock between October of November of 2017 (Turnagain Marine Construction, 2017), or during monitoring for the Sitka O'Connell Bridge project in 2019 (CBS, 2019). Halibut Point Marine Services staff indicated that they have not seen a harbor porpoise near the project site during the past 5 years (HPMS, 2019).

The mean group size of harbor porpoise in Southeast Alaska is estimated at two to three individuals (Dahlheim *et al.* 2009), however, Straley *et al.* (2017) found that typical group size in the project area is five animals. HPMS conservatively estimates, and NMFS concurs that one group of five harbor porpoises may enter the Level B harassment zone on each project day (5 animals in a group x 1 group per day x 19 project days = 95 Level B harassment takes). Therefore, NMFS has authorized a total of 95 Level B harassment takes of harbor porpoise.

Given the size of the Level A harassment zones for impact pile driving and DTH drilling and the relative expected frequency of harbor porpoises entering the zone, we are requiring a shutdown zone that is smaller than the area within which Level A harassment could occur in order to ensure that pile driving and DTH drilling are not interrupted to the degree that the activities are extended over additional days. Therefore, there is a small chance that Level A harassment could occur. NMFS authorized Level A harassment take of one harbor porpoise on each day that impact pile driving is expected occur (see *Description of Proposed Activity* in the **Federal Register** notice for the proposed IHA (85 FR 3623; January 22, 2020)). NMFS recognizes that HPMS may install the piles at a slightly slower rate resulting in more impact pile driving days; however, given the extremely short duration of impact pile driving on each pile, NMFS still does not expect

that Level A harassment will exceed five takes during impact pile driving. NMFS also authorized Level A harassment take of one harbor porpoise on half of the days that the applicant expects to conduct DTH drilling, for a total of seven Level A harassment takes ((1 Level A harassment take x 5 impact pile driving days) + (1 Level A harassment take x 2 DTH drilling days) = 7 Level A harassment takes). No Level A harassment takes of harbor porpoise were recorded in the Sitka GPIP Dock project (Turnagain Marine Construction, 2017) despite Level A harassment takes included in the authorizations. However, the Old Sitka Dock project has a longer work period and larger Level A harassment zones than the Sitka GPIP Dock project.

Harbor seal

Harbor seals are common in the inside waters of southeastern Alaska, including in Sitka Sound and within the project action area. They were observed during most months of monitoring (September through May) from Whale Park between 1994 and 2002, except in December and May (Straley *et al.*, 2017). Harbor seals were seen on 10 out of the 21 days of monitoring for GPIP dock construction between October and November 2017, and two out of eight days of monitoring for the Petro Marine dock in January 2017 (Turnagain Marine Construction, 2017 and Windward 2017).

Straley *et al.*'s (2017) data indicate that a typical group size is between one and two harbor seals. Observations during the original construction of the Halibut Point Marine Services dock facility recorded zero harbor seals within the 200-meter shutdown zone during pile driving operations. Observers indicated only observing individual seals outside the 200-meter zone two to three times per week. (McGraw, pers. com., 2019).

Harbor seals haul out of the water periodically to rest, give birth, and nurse their pups.

According to the Alaska Fisheries Science Center's (AFSC) list of harbor seal haul-out locations, the closest listed haulout (id CE49) is located in Sitka Sound approximately 6.4 km (3.5 nmi) southwest, of the project site (AFSC, 2019).

NMFS proposed to authorize 171 Level B harassment takes (3 animals in a group x 3 groups per day x 19 days = 171 Level B harassment takes), estimating that three groups of three harbor seals may enter the Level B harassment zone on each project day. However, as suggested by the Commission, NMFS contacted the AFSC regarding the haulout numbers at the CE49 haulouts, as these locations are in close proximity to the Level B harassment zone. AFSC advised that the current abundance estimate for the CE49 haulouts is 28 individuals from August 2011 (Erin Richmond, pers. comm., January 2020). As such, NMFS is instead authorizing 532 Level B harassment takes of harbor seals, estimating that each of the 28 seals at haulout CE49 is likely to enter the Level B harassment zone on each in-water work day (28 animals x 19 project days = 532 Level B harassment takes).

Given the size of the zone and the relative expected frequency of harbor seals entering the zone, we are proposing a to require a shutdown zone that is smaller than the area within which Level A harassment could occur to ensure that pile driving and DTH drilling are not interrupted to the degree that the activities are extended over additional days. Therefore, there is a small chance that Level A harassment could occur. NMFS authorized Level A harassment take of one harbor seal on each day that impact pile driving is expected occur (see *Description of Proposed Activity* in the **Federal**

Register notice for the proposed IHA (85 FR 3623; January 22, 2020)) NMFS recognizes that HPMS may install the piles at a slightly slower rate resulting in more impact pile driving days; however, given the extremely short duration of impact pile driving on each pile, NMFS still does not expect that Level A harassment will exceed five takes during impact pile driving. Additionally, NMFS authorized Level A harassment take of one harbor seal on half of the four days that DTH drilling is expected to occur, for a total of seven Level A harassment takes ((1 Level A harassment take x 5 impact pile driving days) + (1 Level A harassment take x 2 DTH drilling days) = 7 Level A harassment takes). No Level A harassment takes of harbor seal were recorded for either the Sitka O'Connell Bridge project (CBS, 2019), or the Sitka GPIP Dock project (Turnagain Marine Construction, 2017), however, the Old Sitka Dock project has a longer work period, and larger Level A harassment zones than the Sitka GPIP Dock project.

Steller Sea Lion

Steller sea lions are common in the project area. They were observed during every month of monitoring (September to May) between 1994 and 2002 (Straley *et al.*, 2017). Steller sea lions were also observed on 19 of 21 days in Silver Bay and Easter Channel during monitoring for GPIP dock construction between October and November 2017 (Turnagain Marine Construction, 2017). During eight days of monitoring for the Petro Marine dock in January 2017, Steller sea lions were seen on three days (Windward, 2017).

During Straley *et al.*'s (2017) surveys, sea lions typically occurred in groups of two to three; however, a group of more than 100 was sighted on at least one occasion. Steller sea lions in groups of one to eight individuals were observed around Sitka GPIP

dock construction (Turnagain Marine Construction, 2017), while all Steller sea lions were observed individually in Sitka Channel during Petro Marine Dock construction monitoring (Windward, 2017). Observations during the original construction of the Halibut Point Marine Services dock facility recorded zero Steller sea lions within the 200-meter shutdown zone during pile driving operations. Observers indicated observing individual sea lions outside the 200-meter zone four to five times per week (McGraw, pers. comm., 2019).

During the summer months, sea lions are seen in the project area daily. Two to three individual sea lions feed on fish carcasses dumped adjacent to the project site from fishing charter operations in a nearby private marina. However, during the project timing of fall and winter, the charter fishing operations are not underway and the sea lions are not as active in the area (McGraw, pers. comm., 2019).

HPMS estimated, and NMFS concurred, that two groups of eight Steller sea lions (maximum group size observed during the Sitka GPIIP dock construction (Turnagain Marine Construction, 2017)) may occur within the Level B harassment zone on each of the 19 days of in-water construction (8 animals in a group x 2 groups each day x 19 days = 304 Level B harassment takes). Therefore, NMFS authorized 304 Level B harassment takes of Steller sea lions.

The largest Level A harassment zone for otariids extends 28.7m from the source during impact pile driving of 48-inch piles (Table 6). HPMS is planning to implement activity-specific shutdown zones (Table 8), which, given the small size of the Level A harassment zones, are expected to eliminate the potential for Level A harassment take of

Steller sea lion. Therefore, Level A harassment take of Steller sea lions was not requested, and is not authorized.

Recognizing that western distinct population (WDPS) and eastern distinct population (EDPS) Steller sea lions overlap in northern Southeast Alaska, NMFS has determined that for management purposes the proportion of WDPS Steller sea lions in that area will be calculated based on Table 5 from Hastings et al. (2020) using the row for all non-pups 1+ years old from the "western stock region" (i.e., the second row from the bottom in Table 5). Hastings *et al.* (2020) used mark/recapture models, 18 years of resighting data from over 3,500 branded Steller sea lions, and mitochondrial DNA haplotypes from the WDPS and EDPS to estimate minimum proportions of Steller sea lions in regions within Southeast Alaska (east of 144° W. longitude). As such, NMFS expects that 2.2 percent of Steller sea lions in the project area will be from the ESA-listed Western DPS, with the remaining 97.8 percent expected to be from the Eastern DPS. Therefore, of the 304 Level B harassment takes requested, 7 takes are expected to be of Steller sea lions from the ESA-listed Western DPS (western stock) and 297 are expected to be of Steller sea lions from the Eastern DPS (eastern stock).

Table 7 -- Estimated Take by Level A and Level B Harassment, by Species and Stock

Common Name	Stock	Level A Harassment Take	Level B Harassment Take	Total Take	Stock Abundance	Percent of Stock
Gray Whale	Eastern North Pacific	0	3	3	26,960	0.01
Minke Whale	Alaska	0	4	4	NA	NA
Humpback Whale	Central North Pacific	0	152	152 ^a	10,103	1.5

Killer Whale	Eastern North Pacific Alaska Resident				2,347	1.4
	Gulf of Alaska, Aleutian Islands, Bering Sea Transient	0	32	32 ^b	587	5.5
	Eastern North Pacific Northern Resident				302	10.6
	West Coast Transient				243	13.2
Harbor Porpoise	Southeast Alaska	7	95	102	975	10.5
Steller Sea Lion^c	Eastern U.S.	0	297	297	43,201	0.7
	Western U.S.		7	7	53,624	0.01
Harbor Seal	Sitka/ Chatham Strait	7	532	539	13,289	4.1

^a Of the authorized 152 Level B harassment takes, 142 takes are expected to be of humpback whales from the Hawaii DPS and 10 takes are expected to be of humpbacks from the Mexico DPS.

^b It is unknown what stock taken individuals may belong to. Therefore, for purposes of calculating the percent of each stock that may be taken, it is assumed that up to 24 takes could occur to individuals of any of the stocks that occur in the project area.

^c Eastern U.S. and Western U.S. stocks correspond to the Eastern DPS and Western DPS, respectively.

Mitigation Measures

In order to issue an IHA under section 101(a)(5)(D) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to such activity, and other means of effecting the least practicable impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stock for taking for certain subsistence uses (latter not applicable for this action). NMFS regulations require applicants for incidental take authorizations to include information about the availability and feasibility (economic and technological) of equipment, methods, and manner of conducting such activity or other

means of effecting the least practicable adverse impact upon the affected species or stocks and their habitat (50 CFR 216.104(a)(11)).

In evaluating how mitigation may or may not be appropriate to ensure the least practicable adverse impact on species or stocks and their habitat, as well as subsistence uses where applicable, we carefully consider two primary factors:

(1) the manner in which, and the degree to which, the successful implementation of the measure(s) is expected to reduce impacts to marine mammals, marine mammal species or stocks, and their habitat. This considers the nature of the potential adverse impact being mitigated (likelihood, scope, range). It further considers the likelihood that the measure will be effective if implemented (probability of accomplishing the mitigating result if implemented as planned), the likelihood of effective implementation (probability implemented as planned), and;

(2) the practicability of the measures for applicant implementation, which may consider such things as cost, impact on operations, and, in the case of a military readiness activity, personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

In addition to the measures described later in this section, HPMS will employ the following standard mitigation measures:

- Conduct briefings between construction supervisors and crews and the marine mammal monitoring team prior to the start of all pile driving activity and when new personnel join the work, to explain responsibilities, communication procedures, marine mammal monitoring protocol, and operational procedures;

- For in-water heavy machinery work other than pile driving (*e.g.*, standard barges, *etc.*), if a marine mammal comes within 10 m, operations shall cease and vessels shall reduce speed to the minimum level required to maintain steerage and safe working conditions. This type of work could include the following activities: (1) Movement of the barge to the pile location; or (2) positioning of the pile on the substrate via a crane (*i.e.*, stabbing the pile);
- HPMS will drive all piles with a vibratory hammer until achieving a desired depth or refusal prior to using an impact hammer;
- For those marine mammals for which Level B harassment take has not been requested, in-water pile installation/removal will shut down immediately if such species are observed within or on a path towards the Level B harassment zone; and
- If take reaches the authorized limit for an authorized species, pile installation will be shut down as these species approach the Level B harassment zone to avoid additional take.

The following mitigation measures apply to HPMS's in-water construction activities.

Additionally, HPMS is required to implement all mitigation measures described in the biological opinion (issued on April 2, 2020).

Establishment of Shutdown Zones- HPMS will establish shutdown zones for all pile driving/removal and drilling activities. The purpose of a shutdown zone is generally to define an area within which shutdown of the activity will occur upon sighting of a marine mammal (or in anticipation of an animal entering the defined area). Shutdown

zones will vary based on the activity type and marine mammal hearing group (see Table 8). The largest shutdown zones are generally for low frequency and high frequency cetaceans as shown in Table 8. For low-frequency cetaceans, the shutdown zones contain the entire Level A harassment zones to help prevent Level A harassment takes, as the project area overlaps with humpback and gray whale BIAs.

The placement of PSOs during all pile driving and removal and drilling activities (described in detail in the *Monitoring and Reporting* section) will ensure that the entire shutdown zone is visible during pile installation. Should environmental conditions deteriorate such that marine mammals within the entire shutdown zone will not be visible (e.g., fog, heavy rain), pile driving and removal must be delayed until the PSO is confident marine mammals within the shutdown zone could be detected.

Table 8 -- Shutdown Zones during Pile Installation and Removal, and Down-the-Hole Drilling

Activity	Shutdown Zone (m)				
	LF Cetaceans	MF Cetaceans	HF Cetaceans	Phocids	Otariids
30-inch Vibratory Pile Driving/Removal	50	10	50	25	10
48-inch Vibratory Pile Driving	50	10	50	25	10
Down-the-hole Drilling	300	10	200	100	25
48-inch Impact Pile Driving (and 30-inch impact pile driving, as necessary)	825	50	100	100	50

Monitoring for Level A and Level B Harassment- HPMS will monitor the Level B harassment zones (areas where SPLs are equal to or exceed the 160 dB rms threshold for impact driving and the 120 dB rms threshold during vibratory driving and drilling) and

Level A harassment zones. Monitoring zones provide utility for observing by establishing monitoring protocols for areas adjacent to the shutdown zones. Monitoring zones enable observers to be aware of and communicate the presence of marine mammals in the project area outside the shutdown zone and thus prepare for a potential cease of activity should the animal enter the shutdown zone. Placement of PSOs on the shorelines around Sitka Channel allow PSOs to observe marine mammals within the Level A and Level B harassment zones. Due to the large Level B harassment zones (Table 4), PSOs will not be able to effectively observe the entire zone. Therefore, Level B harassment exposures will be recorded and extrapolated based upon the number of observed takes and the percentage of the Level B harassment zone that was not visible.

Soft Start- Soft-start procedures are believed to provide additional protection to marine mammals by providing warning and/or giving marine mammals a chance to leave the area prior to the hammer operating at full capacity. For impact pile driving, contractors will be required to provide an initial set of three strikes from the hammer at forty-percent energy, followed by a one-minute waiting period. This procedure will be conducted three times before impact pile driving begins. Soft start will be implemented at the start of each day's impact pile driving and at any time following cessation of impact pile driving for a period of thirty minutes or longer.

Pre-activity Monitoring- Prior to the start of daily in-water construction activity, or whenever a break in pile driving/removal or drilling of 30 minutes or longer occurs, PSOs will observe the shutdown and monitoring zones for a period of 30 minutes. The shutdown zone will be considered cleared when a marine mammal has not been observed within the zone for that 30-minute period. If a marine mammal is observed within the

shutdown zone, a soft-start cannot proceed until the animal has left the zone or has not been observed for 15 minutes. If the Level B harassment zone has been observed for 30 minutes and no species for which take is not authorized are present within the zone, soft start procedures can commence and work can continue even if visibility becomes impaired within the Level B harassment monitoring zone. When a marine mammal for which Level B harassment take is authorized is present in the Level B harassment zone, activities may begin and Level B harassment take will be recorded. If the entire Level B harassment zone is not visible at the start of construction, pile driving or drilling activities can begin. If work ceases for more than 30 minutes, the pre-activity monitoring of both the Level B harassment zone and shutdown zones will commence.

Based on our evaluation of the applicant's measures, as well as other measures considered by NMFS, NMFS has preliminarily determined that these mitigation measures provide the means effecting the least practicable impact on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.

Monitoring and Reporting

In order to issue an IHA for an activity, section 101(a)(5)(D) of the MMPA states that NMFS must set forth requirements pertaining to the monitoring and reporting of such taking. The MMPA implementing regulations at 50 CFR 216.104 (a)(13) indicate that requests for authorizations must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected

to be present in the action area. Effective reporting is critical both to compliance as well as to ensuring that the most value is obtained from the required monitoring.

Monitoring and reporting requirements prescribed by NMFS should contribute to improved understanding of one or more of the following:

- Occurrence of marine mammal species or stocks in the area in which take is anticipated (*e.g.*, presence, abundance, distribution, density);
- Nature, scope, or context of likely marine mammal exposure to potential stressors/impacts (individual or cumulative, acute or chronic), through better understanding of: (1) action or environment (*e.g.*, source characterization, propagation, ambient noise); (2) affected species (*e.g.*, life history, dive patterns); (3) co-occurrence of marine mammal species with the action; or (4) biological or behavioral context of exposure (*e.g.*, age, calving or feeding areas);
- Individual marine mammal responses (behavioral or physiological) to acoustic stressors (acute, chronic, or cumulative), other stressors, or cumulative impacts from multiple stressors;
- How anticipated responses to stressors impact either: (1) long-term fitness and survival of individual marine mammals; or (2) populations, species, or stocks;
- Effects on marine mammal habitat (*e.g.*, marine mammal prey species, acoustic habitat, or other important physical components of marine mammal habitat); and
- Mitigation and monitoring effectiveness.

Visual Monitoring

Marine mammal monitoring must be conducted in accordance with the Marine Mammal Monitoring Plan, dated March 2020. Marine mammal monitoring during pile

driving and removal must be conducted by NMFS-approved PSOs in a manner consistent with the following:

- Independent PSOs (i.e., not construction personnel) who have no other assigned tasks during monitoring periods must be used;
- Other PSOs may substitute education (degree in biological science or related field) or training for experience;
- Where a team of three or more PSOs are required, a lead observer or monitoring coordinator must be designated. The lead observer must have prior experience working as a marine mammal observer during construction;
- HPMS must submit PSO CVs for approval by NMFS prior to the onset of pile driving.

PSOs must have the following additional qualifications:

- Ability to conduct field observations and collect data according to assigned protocols;
- Experience or training in the field identification of marine mammals, including the identification of behaviors;
- Sufficient training, orientation, or experience with the construction operation to provide for personal safety during observations;
- Writing skills sufficient to prepare a report of observations including but not limited to the number and species of marine mammals observed; dates and times when in-water construction activities were conducted; dates, times, and reason for implementation of mitigation (or why mitigation was not implemented when required); and marine mammal behavior; and

- Ability to communicate orally, by radio or in person, with project personnel to provide real-time information on marine mammals observed in the area as necessary.

Three PSOs will be employed during all pile driving/removal and drilling activities. PSO locations will provide an unobstructed view of all water within the shutdown zone, and as much of the Level A and Level B harassment zones as possible.

PSO locations are as follows:

- (1) At or near the site of pile driving;
- (2) Big Gavanski Island- During vibratory pile driving and down-the-hole drilling, this PSO will be stationed on the north end of the island, and positioned to view north into Olga Straight and southeast toward the project area. For impact pile driving, this PSO will be stationed on the east side of the island, and positioned to be able to view north into Olga Straight and south toward the project area; and
- (3) Middle Island- During vibratory pile driving and down-the-hole drilling, this PSO will be stationed on the north end of the island and positioned to be able to view west toward Kruzoff Island and east toward the project area. During impact pile driving, this PSO will be stationed on the east side of the island and positioned to view south toward Sitka Channel and east toward the project area.

Monitoring will be conducted 30 minutes before, during, and 30 minutes after pile driving/removal and drilling activities. In addition, observers shall record all incidents of marine mammal occurrence, regardless of distance from activity, and shall document any behavioral reactions in concert with distance from piles being driven or removed or anchor shafts being drilled. Pile driving and drilling activities include the time to install,

remove, or drill inside a single pile or series of piles, as long as the time elapsed between uses of the pile driving or drilling equipment is no more than thirty minutes.

Reporting

A draft marine mammal monitoring report will be submitted to NMFS within 90 days after the completion of pile driving and removal activities. The report will include an overall description of work completed, a narrative regarding marine mammal sightings, and associated PSO data sheets. Specifically, the report must include:

- Date and time that monitored activity begins or ends;
- Construction activities occurring during each observation period;
- Weather parameters (*e.g.*, percent cover, visibility);
- Water conditions (*e.g.*, sea state, tide state);
- Species, numbers, and, if possible, sex and age class of marine mammals;
- Description of any observable marine mammal behavior patterns, including bearing and direction of travel and distance from pile driving activity;
- Distance from pile driving activities to marine mammals and distance from the marine mammals to the observation point;
- Locations of all marine mammal observations;
- Detailed information about any implementation of any mitigation triggered (*e.g.*, shutdowns and delays), a description of specific actions that ensued, and resulting behavior of the animal, if any.
- Description of attempts to distinguish between the number of individual animals taken and the number of incidences of take, such as ability to track groups or individuals.

- 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; and
- Other human activity in the area.

If no comments are received from NMFS within 30 days, the draft report will constitute the final report. If comments are received, a final report addressing NMFS comments must be submitted within 30 days after receipt of comments.

In the event that personnel involved in the construction activities discover an injured or dead marine mammal, the IHA-holder must immediately cease the specified activities and report the incident to the Office of Protected Resources (OPR) (301-427-8401), NMFS and to Alaska Regional Stranding Coordinator (907-586-7209) as soon as feasible. The report must include the following information:

- i. Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);
- ii. Species identification (if known) or description of the animal(s) involved;
- iii. Condition of the animal(s) (including carcass condition if the animal is dead);
- iv. Observed behaviors of the animal(s), if alive;
- v. If available, photographs or video footage of the animal(s); and
- vi. General circumstances under which the animal was discovered.

NMFS will work with HPMS to determine what, if anything, is necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. HPMS must not resume their activities until notified by NMFS.

Negligible Impact Analysis and Determination

NMFS has defined negligible impact as an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival (50 CFR 216.103). A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (*i.e.*, population-level effects). An estimate of the number of takes alone is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be “taken” through harassment, NMFS considers other factors, such as the likely nature of any responses (*e.g.*, intensity, duration), the context of any responses (*e.g.*, critical reproductive time or location, migration), as well as effects on habitat, and the likely effectiveness of the mitigation. We also assess the number, intensity, and context of estimated takes by evaluating this information relative to population status. Consistent with the 1989 preamble for NMFS’s implementing regulations (54 FR 40338; September 29, 1989), the impacts from other past and ongoing anthropogenic activities are incorporated into this analysis via their impacts on the environmental baseline (*e.g.*, as reflected in the regulatory status of the species, population size and growth rate where known, ongoing sources of human-caused mortality, or ambient noise levels).

To avoid repetition, the majority of our analyses apply to all of the species listed in Table 7, given that many of the anticipated effects of this project on different marine mammal stocks are expected to be relatively similar in nature. Where there are meaningful differences between species or stocks in anticipated individual responses to

activities, impact of expected take on the population due to differences in population status or impacts on habitat, they are described independently in the analysis below.

Pile driving/removal and drilling activities associated with the project, as outlined previously, have the potential to disturb or displace marine mammals. Specifically, the specified activities may result in take, in the form of Level A and Level B harassment, from underwater sounds generated from pile driving/removal and down-the-hole drilling. Potential takes could occur if individuals of these species are present in zones ensounded above the thresholds for Level A or Level B harassment, identified above, when these activities are underway.

The takes from Level A and Level B harassment will be due to potential behavioral disturbance, TTS and PTS. No mortality or serious injury is anticipated given the nature of the activity. Level A harassment is only anticipated for harbor seal and harbor porpoise. The potential for Level A harassment is minimized through the construction method and the implementation of the required mitigation measures (see *Mitigation* section).

Effects on individuals that are taken by Level B harassment, on the basis of reports in the literature as well as monitoring from other similar activities, will likely be limited to reactions such as increased swimming speeds, increased surfacing time, or decreased foraging (if such activity were occurring) (*e.g.*, Thorson and Reyff 2006; HDR, Inc. 2012; Lerma 2014; ABR 2016). Most likely for pile driving and down-the-hole drilling, individuals will simply move away from the sound source and be temporarily displaced from the areas of pile driving and drilling, although even this reaction has been observed primarily only in association with impact pile driving. Level B harassment will

be reduced to the level of least practicable adverse impact through use of mitigation measures described herein. If sound produced by project activities is sufficiently disturbing, animals are likely to simply avoid the area while the activity is occurring. While vibratory driving associated with the project may produce sound at distances of many kilometers from the project site, the project site itself is located in an active marine industrial area, as previously described. Therefore, we expect that animals annoyed by project sound will simply avoid the area and use more-preferred habitats, particularly as the project is expected to occur over just 19 in-water work days, with a maximum of eight hours of work per day, though less on most work days.

In addition to the expected effects resulting from authorized Level B harassment, we anticipate that harbor porpoises and harbor seals may sustain some limited Level A harassment in the form of auditory injury. However, animals that experience PTS will likely only receive slight PTS, i.e. minor degradation of hearing capabilities within regions of hearing that align most completely with the frequency range of the energy produced by pile driving, i.e. the low-frequency region below 2 kHz, not severe hearing impairment or impairment in the regions of greatest hearing sensitivity. If hearing impairment occurs, it is most likely that the affected animal will lose a few decibels in its hearing sensitivity, which in most cases is not likely to meaningfully affect its ability to forage and communicate with conspecifics.

The project is also not expected to have significant adverse effects on affected marine mammals' habitats. The project activities will not modify existing marine mammal habitat for a significant amount of time. The activities may cause some fish to leave the area of disturbance, thus temporarily impacting marine mammals' foraging

opportunities in a limited portion of the foraging range; but, because of the short duration of the activities and the relatively small area of the habitat that may be affected, the impacts to marine mammal habitat are not expected to cause significant or long-term negative consequences.

Steller sea lion critical habitat has been defined in Southeast Alaska at major haulouts and major rookeries (50 CFR 226.202), however, the action area does not overlap with any Steller sea lion critical habitat. The closest Steller sea lion critical habitat to the project area is Kaiuchali Island, a three-acre rocky islet located slightly less than one mile southwest of Biorka Island. It is listed as “Biorka Island” in the critical habitat descriptions, and is over 25 km (13.5 nmi) southwest of the project area.

Critical habitat was recently proposed for the humpback whale in Southeast Alaska, including Sitka Sound (84 FR 54354, October 9, 2019), but it has not yet been finalized. Additionally, Sitka Sound is within the seasonal southeast Alaska humpback whale feeding BIA from March through November (Ferguson *et al.*, 2015). Construction is expected to occur during the tail end of the season specified for the BIA; however, project activities will only overlap with the BIA for approximately one to two months, and the project is expected to occur over just 19 in-water work days, further reducing the temporal overlap with the BIA. Additionally, the area of the BIA that may be affected by the planned project is small relative to both the overall area of the BIA and the overall area of suitable humpback whale habitat outside of this BIA. Therefore, take of humpback whales using the southeast Alaska humpback whale feeding BIA is not expected to impact reproduction or survivorship.

Sitka Sound is also within a gray whale migratory corridor BIA (Ferguson *et al.*, 2015). Construction is expected to occur during the beginning of the period of highest density in the BIA during the southbound migration (November to January). The Sound is also within the southeast Alaska BIA, an important area for gray whale feeding. Construction is expected to overlap with the end of the period with the highest gray whale densities in the southeast Alaska BIA (May through November). However, as noted for humpback whales, project activities will only overlap with high animal densities in the gray whale migratory and feeding BIAs for approximately one to two months, and the project is expected to occur over just 19 in-water workdays, further reducing the temporal overlap with the BIAs. Additionally, the area of the feeding BIA in which impacts of the planned project may occur is small relative to both the overall area of the BIA and the overall area of suitable gray whale habitat outside of this BIA. The area of Sitka Sound affected is also small relative to the rest of the Sound, such that it allows animals within the migratory corridor to still utilize Sitka Sound without necessarily being disturbed by the construction. Therefore, take of gray whales using the feeding and migratory BIAs is not expected to impact reproduction or survivorship.

As noted previously, since January 1, 2019, elevated gray whale strandings have occurred along the west coast of North America from Mexico through Alaska. The event has been declared an UME, though a cause has not yet been determined. While three Level B harassment takes of gray whale are authorized, this is an extremely small portion of the stock (0.01 percent), and HPMS will be required to implement a shutdown zone that includes the entire Level A harassment zone for low-frequency cetaceans such as gray whales.

In summary and as described above, the following factors primarily support our preliminary determination that the impacts resulting from this activity are not expected to adversely affect the species or stock through effects on annual rates of recruitment or survival:

- No mortality or serious injury is anticipated or authorized;
- The relatively small number of Level A harassment exposures are anticipated to result only in slight PTS within the lower frequencies associated with pile driving;
- The anticipated incidents of Level B harassment will consist of, at worst, temporary modifications in behavior that will not result in fitness impacts to individuals;
- The area impacted by the specified activity is very small relative to the overall habitat ranges of all species, BIAs, and proposed humpback whale critical habitat; and
- The activity is expected to occur over 19 in-water workdays with a maximum of eight hours of work per day, though less on most days.

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the monitoring and mitigation measures, NMFS finds that the total marine mammal take from the activity will have a negligible impact on all affected marine mammal species or stocks.

Small Numbers

As noted above, only small numbers of incidental take may be authorized under sections 101(a)(5)(A) and (D) of the MMPA for specified activities other than military readiness activities. The MMPA does not define small numbers and so, in practice, where estimated numbers are available, NMFS compares the number of individuals taken to the most appropriate estimation of abundance of the relevant species or stock in our determination of whether an authorization is limited to small numbers of marine mammals. Additionally, other qualitative factors may be considered in the analysis, such as the temporal or spatial scale of the activities.

The number of takes for each species authorized to be taken as a result of this project is included in Table 7. Our analysis shows that less than one-third of the best available population abundance estimate of each stock could be taken by harassment. Furthermore, these percentages conservatively assume that all takes of killer whale will be accrued to a single stock, when multiple stocks are known to occur in the project area. For the Alaska stock of minke whale, a lack of an accepted stock abundance value did not allow for the calculation of an expected percentage of the population that will be affected. The most relevant estimate of partial stock abundance is 1,233 minke whales for a portion of the Gulf of Alaska (Zerbini *et al.* 2006). Given three takes by Level B harassment for the stock, comparison to the best estimate of stock abundance shows less than one percent of the stock is expected to be impacted. The number of animals authorized to be taken for these stocks is considered small relative to the relevant stock's abundances even if each estimated taking occurred to a new individual, which is an unlikely scenario.

Based on the analysis contained herein of the activity (including the mitigation and monitoring measures) and the anticipated take of marine mammals, NMFS finds that small numbers of marine mammals will be taken relative to the population size of the affected species or stocks.

Unmitigable Adverse Impact Analysis and Determination

In order to issue an IHA, NMFS must find that the specified activity will not have an “unmitigable adverse impact” on the subsistence uses of the affected marine mammal species or stocks by Alaskan Natives. NMFS has defined “unmitigable adverse impact” in 50 CFR 216.103 as an impact resulting from the specified activity: (1) That is likely to reduce the availability of the species to a level insufficient for a harvest to meet subsistence needs by: (i) Causing the marine mammals to abandon or avoid hunting areas; (ii) Directly displacing subsistence users; or (iii) Placing physical barriers between the marine mammals and the subsistence hunters; and (2) That cannot be sufficiently mitigated by other measures to increase the availability of marine mammals to allow subsistence needs to be met.

The project is in an area where subsistence hunting for harbor seals or sea lions could occur (Wolfe *et al.* 2013). Peak hunting season in southeast Alaska occurs during the month of November and again during March and April. During this time, seals are aggregated in shoal areas as they prey on forage species such as herring, making them easier to find and hunt (Wolfe *et al.* 2013). However, the project location is not preferred for hunting. There is little-to-no hunting documented in the vicinity and there are no harvest quotas for non-listed marine mammals. As such, the Old Sitka Dock North Dolphins Expansion Project is not expected to have impacts on the ability of hunters from

southeast Alaska subsistence communities to harvest marine mammals. Additionally, HPMS contacted the Sitka Tribe of Alaska, but they did not raise any concerns regarding subsistence impacts. Therefore, NMFS has determined that there will not be an unmitigable adverse impact on subsistence uses from HPMS's activities.

Endangered Species Act (ESA)

Section 7(a)(2) of the Endangered Species Act of 1973 (ESA: 16 U.S.C. 1531 *et seq.*) requires that each Federal agency insure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitat. To ensure ESA compliance for the issuance of IHAs, NMFS consults internally, in this case with the Alaska Region, Protected Resources Division Office, whenever we propose to authorize take for endangered or threatened species.

Two marine mammal species, Mexico DPS humpback whales and Western DPS Steller sea lions, occur in the project area and are listed as threatened and endangered, respectively, under the ESA. The NMFS Alaska Regional Office Protected Resources Division issued a Biological Opinion under section 7 of the ESA, on the issuance of an IHA to HPMS under section 101(a)(5)(D) of the MMPA by the NMFS Permits and Conservation Division. The Biological Opinion concluded that the action is not likely to jeopardize the continued existence of either species, and is not likely to destroy or adversely modify western DPS Steller sea lion critical habitat. As noted above, the proposed humpback whale critical habitat has not yet been finalized.

National Environmental Policy Act

To comply with the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq.*) and NOAA Administrative Order (NAO) 216-6A, NMFS must review our action (*i.e.*, the issuance of an incidental harassment authorization) with respect to potential impacts on the human environment.

This action is consistent with categories of activities identified in Categorical Exclusion B4 (incidental harassment authorizations with no anticipated serious injury or mortality) of the Companion Manual for NOAA Administrative Order 216-6A, which do not individually or cumulatively have the potential for significant impacts on the quality of the human environment and for which we have not identified any extraordinary circumstances that would preclude this categorical exclusion. Accordingly, NMFS has determined that the issuance of the IHA qualifies to be categorically excluded from further NEPA review.

Authorization

NMFS has issued an IHA to Halibut Point Marine Services LLC for the potential harassment of small numbers of seven marine mammal species incidental to the Old Sitka Dock North Dolphins Expansion project in Sitka, Alaska, provided the previously mentioned mitigation, monitoring and reporting requirements are conducted.

Dated: April 13, 2020.

Donna S. Wieting,

Director, Office of Protected Resources,

National Marine Fisheries Service.

[FR Doc. 2020-08085 Filed: 4/16/2020 8:45 am; Publication Date: 4/17/2020]