



DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RTID 0648-XE963

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Sand Island Pile Dike Repairs in the Columbia River

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

ACTION: Notice; proposed incidental harassment authorization; request for comments on proposed authorization and possible renewal.

SUMMARY: NMFS has received a request from the U.S. Army Corps of Engineers (USACE) for authorization to take marine mammals incidental to the Sand Island Pile Dike Repairs Project in the Mouth of the Columbia River (MCR). Pursuant to the Marine Mammal Protection Act (MMPA), NMFS is requesting comments on its proposal to issue an Incidental Harassment Authorization (IHA) to incidentally take marine mammals during the specified activities. NMFS is also requesting comments on possible one-time, 1-year renewal that could be issued under certain circumstances and if all requirements are met, as described in **Request for Public Comments** at the end of this notice. NMFS will consider public comments prior to making any final decision on the issuance of the requested MMPA authorization and agency responses will be summarized in the final notice of our decision.

DATES: Comments and information must be received no later than [*insert date 30 days after date of publication in the FEDERAL REGISTER*].

ADDRESSES: Comments should be addressed to Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service and should be submitted via email to ITP.pauline@noaa.gov. 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/national/marine-mammal-protection/incidental-take-authorizations-construction-activities>. In case of problems accessing these documents, please call the contact listed below.

Instructions: NMFS is not responsible for comments sent by any other method, to any other address or individual, or received after the end of the comment period.

Comments, including all attachments, must not exceed a 25-megabyte file size. All comments received are a part of the public record and will generally be posted online at <https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act> without change. All personal identifying information (*e.g.*, name, address) voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information or otherwise sensitive or protected information.

FOR FURTHER INFORMATION CONTACT: Robert Pauline, Office of Protected Resources, NMFS, (301) 427-8401.

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 proposed or, if the taking is limited to harassment, a notice of a proposed IHA is 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 the species or stocks for taking for certain subsistence uses (collectively referred to as “mitigation”); and requirements pertaining to the monitoring and reporting of the takings. The definitions of all applicable MMPA statutory terms used above are included in the relevant sections below and can be found in section 3 of the MMPA (16 U.S.C. 1362) and NMFS regulations at 50 CFR 216.103.

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 proposed action (*i.e.*, the issuance of an IHA) with respect to potential impacts on the human environment.

This action is consistent with categories of activities identified in Categorical Exclusion B4 (IHAs with no anticipated serious injury or mortality) of the Companion Manual for NAO 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 preliminarily determined that the issuance of the proposed IHA qualifies to be categorically excluded from further NEPA review.

Summary of Request

On February 26, 2025, NMFS received a request from the USACE for an IHA to take marine mammals incidental to the multi-year Sand Island Pile Dike Repairs project in the MCR. The USACE submitted the first revised version on May 2, 2025, followed by another revision on April 1, 2025. A final version was submitted on May 2, 2025. The

application was deemed adequate and complete on June 3, 2025. The USACE's request is for take of eight species of marine mammals by Level B harassment and take by Level A harassment for a subset of 4 of these species. Neither the USACE nor NMFS expect serious injury or mortality to result from these activities and, therefore, an IHA is appropriate.

This IHA request is part of the multi-year Sand Island Pile Dike Repairs project. NMFS previously issued two consecutive IHAs to the USACE for this project on August 22, 2022 (87 FR 51346) with effective dates of August 1, 2023 through July 31, 2024 (year 1) and August 1, 2024 through July 31, 2025 (year 2). NMFS also issued a modified IHA to replace the second of the two initial IHAs (89 FR 82986; October 10, 2024). The modified IHA increased authorized take of humpback whale and killer whale due to increased sightings of these species near the project area. The USACE complied with all the requirements (*e.g.*, mitigation, monitoring, and reporting) of the previous IHAs, and information regarding their monitoring results may be found in the **Estimated Take of Marine Mammals** section. This proposed IHA would cover the third year of the Sand Island Pile Dike Repairs project.

Description of Proposed Activity

Overview

The 2025-2026 proposed IHA would cover the same construction activities associated with the Sand Island Pile Dike Repairs project as those described for the consecutive year 1 and year 2 IHAs. All remaining work will be described below. NMFS refers the reader to the documents related to the previously issued consecutive IHAs for more detailed description of the project activities

(<https://www.fisheries.noaa.gov/action/incidental-take-authorization-army-corps-engineers-sand-island-pile-dikes-repairs-columbia>). These previous documents include the **Federal Register** notice of the issuance of consecutive 2023-2024 and 2024-2025

IHAs (87 FR 51346; August 22, 2022); **Federal Register** notice of issuance of modified 2024-2025 IHA (89 FR 82986; October 10, 2024); **Federal Register** notice of the proposed IHAs (87 FR 39481; July 1, 2022) and all associated references and documents. At the end of the year 2 IHA, the USACE had 235 24-in steel piles left to be installed by impact and vibratory driving as well as 8 existing 24-in steel barge piles that will be extracted via vibratory removal. A total of 243 piles will be driven/extracted over an estimated 34 work days. A brief description of the work remaining for the proposed IHA is contained below. We also refer the reader to USACE's previous and current applications and monitoring reports which can be found at:

<https://www.fisheries.noaa.gov/action/incidental-take-authorization-army-corps-engineers-sand-island-pile-dikes-repairs-columbia>.

Dates and Duration

The Sand Island Pile Dike Repairs Project began in-water construction work in August 2023. The first IHA was effective from August 1, 2023 to July 31, 2024, and the year 2 IHA was effective from August 1, 2024 through July 31, 2025. In-water work only occurred between August and October each year. The proposed IHA would be valid for the statutory maximum of one year from the date of effectiveness, and will become effective upon written notification from the applicant to NMFS, but not beginning later than one year from the date of issuance or extending beyond two years from the date of issuance.

Specific Geographic Region

The Sand Island pile dike system consists of four pile dikes near the MCR, between river mile (RM) 4 and RM 7. One of the pile dikes is connected to West Sand Island (4.01), two of the pile dikes are connected to East Sand Island (4.47, 5.15), and the fourth pile dike (6.37) is in open water and runs parallel to the Chinook Federal Navigation Channel on the upstream side. The three pile dikes connected to West Sand

Island and East Sand Island are located within Oregon, while the fourth pile dike in open water spans both Oregon and Washington. The Sand Island pile dikes are located in the downstream terminus of the Columbia River tidal estuary, which is dominated by freshwater inputs from the Columbia and Willamette rivers.



Figure 1. Location of Sand Island Pile Dikes

Detailed Description of the Specified Activity

Major project elements proposed for the 2025 IHA include removing existing timber piles, driving new steel pipe piles and placing rock for multiple purposes

including: scour protection at the base of the new piles, enhanced enrockment segments, shore connections, and revetment along the western portion of the shoreline at East Sand Island. Existing timber piles may be removed by pulling, cutting or snapping at the approximate level of the enrockment. Vibratory hammers will not be used for timber pile removal. Pile removal is expected to proceed incrementally as replacement repairs are made to ensure that overall function is maintained during construction. At the completion of work activities, the existing barge mooring piles will be removed with a vibratory hammer within the appropriate work window.

The USACE has installed 418 of the 600 24-inch, steel pipe piles at 2 of the 4 pile dike locations during the last 2 construction seasons. Another 24 24-inch, steel pipe piles will be installed as marker piles along the enrockment (see table 1). It is anticipated that vibratory hammers will be used to start the pile driving and will drive them 75 percent of the way, and impact hammers will be used to complete the pile driving for the remaining 25 percent. There are a combined 243 piles needing installation (227 steel piles + 8 marker piles) and 8 existing steel piles that need to be extracted.

Table 1 -- Remaining 24-inch Steel Pipe Piles to Complete Repairs

| Pile Dike (RM) | Steel Piling Installation | Steel Piles remaining | Marker Pile Installation | Marker Piles remaining | Barge Pile Extraction |
|----------------|---------------------------|-----------------------|--------------------------|------------------------|-----------------------|
| 4.01 | 132 | 10 | 2 | 0 | 0 |
| 4.47 | 132 | 77 | 4 | 4 | 0 |
| 5.15 | 140 | 140 | 4 | 4 | 0 |
| 6.37 | 196 | 0 | 14 | 0 | 0 |
| Total | 600 | 227 | 24 | 8 | 8 |

Estimated construction durations for major repair activities are shown in table 2. The dates of work are estimates as the Contractor will have the ability to perform the work as dictated by weather, equipment and pile availability within the defined work window.

Table 2 -- Estimated Duration of Pile Driving Activities

| Activity (RM) | Estimated Start | Piles remaining | Marker piles remaining | Pile Driving Days at 8 piles per Day | Est. Duration (Days) |
|---------------------------------|-----------------|-----------------|------------------------|--------------------------------------|----------------------|
| Pile Driving Activity Remaining | | | | | |
| New pile installation at 4.01 | 8/1/2025 | 10 | 0 | 2 | 8 |
| New Pile Installation 4.47 | 8/9/2025 | 77 | 4 | 11 | 14 |
| New Pile Installation 5.15 | 9/19/2025 | 140 | 4 | 18 | 32 |
| Remove Barge Piles | 10/26/2025 | 8 | 0 | 3 | 3 |

Proposed mitigation, monitoring, and reporting measures are described in detail later in this document (please see **Proposed Mitigation and Proposed Monitoring and Reporting**).

Description of Marine Mammals in the Area of Specified Activities

A description of the marine mammals in the area of the activities likely to be taken is found in the documents associated with the previous consecutive IHAs. These remain applicable to the proposed 2025-2026 IHA. Note that NMFS has reviewed the Stock Assessment Reports (SAR) and has revised table 3 with the most recent data available, including from the draft 2024 SARs, which differs for some species compared to the data in the table what was produced as part of the analysis of the year 1 and year 2 IHAs.

Table 3 lists all species or stocks for which take is expected and proposed to be authorized for this activity and summarizes information related to the population or stock, including regulatory status under the MMPA and Endangered Species Act (ESA) and potential biological removal (PBR), where known. 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 serious injury or mortality is anticipated or proposed to be authorized here, PBR and annual serious injury and mortality (M/SI) from anthropogenic sources are included here as gross indicators of the status of the species or stocks 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. Alaska and Pacific SARs. All values presented in table 3 are the most recent available at the time of publication (including from the draft 2024 SARs) and are available online at:

<https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments>.

Table 3 -- Marine Mammal Species with Estimated Take from the Specified Activities.

| 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 | <i>Eschrichtius robustus</i> | Eastern North Pacific | -, -, N | 26,960 (0.05, 25849, 2016) | 801 | 131 |
| Family Balaenopteridae (rorquals) | | | | | | |
| Humpback whale | <i>Megaptera novaeangliae</i> | Central America/Southern Mexico - CA/OR/WA | E, D, Y | 1,496 (0.171, 1,284, 2021) | 3.5 | 14.9 |
| | | Mainland Mexico - CA/OR/WA | T, D, Y | 3,477 (0.101, 3,185, 2018) | 43 | 22 |
| Superfamily Odontoceti (toothed whales, dolphins, and porpoises) | | | | | | |

| | | | | | | |
|--|---------------------------------|-----------------------------------|----------|---|--------|------|
| Family Delphinidae | | | | | | |
| Killer whale | <i>Orcinus orca</i> | West Coast Transient | - , -, N | 349 (N/A, 349, 2018) | 3.5 | 0.4 |
| Family Phocoenidae (porpoises) | | | | | | |
| Harbor porpoise | <i>Phocoena phocoena</i> | Northern Oregon/ Washington Coast | - , -, N | 22,074 (0.391, 16,068, 2022) | 161 | ≥3.2 |
| Order Carnivora – Superfamily Pinnipedia | | | | | | |
| Family Otariidae (eared seals and sea lions) | | | | | | |
| California sea lion | <i>Zalophus californianus</i> | U.S. Stock | - , -, N | 257,606 (N/A, 233,515, 2014) | 14,011 | >321 |
| Steller sea lion | <i>Eumetopias jubatus</i> | Eastern U.S. | - , -, N | 36,308 (N/A, 36,308, 2022) | 2,178 | 93.2 |
| Family Phocidae (earless seals) | | | | | | |
| Harbor seal | <i>Phoca vitulina richardii</i> | Oregon and Washington Coast | - , -, N | 22,549 (UNK, 19,561, 2022) ⁴ | UND | 10.6 |
| Northern elephant seal | <i>Mirounga angustirostris</i> | CA Breeding | - , -, N | 187,386 (N/A, 85,369, 2013) | 5,122 | 13.7 |

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: <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports-region> . Draft 2024 SAR available at: <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports#:~:text=Draft%202024%20Marine%20Mammal%20Stock%20Assessment%20Reports,-Alaska%20Marine%20Mammal&text=NOAA%20Fisheries%20prepares%20marine%20mammal,the%20Marine%20Mammal%20Protection%20Act>. CV is coefficient of variation; Nmin is the minimum estimate of stock abundance. In some cases, CV is not applicable.

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 – This is unlikely an underestimate of total abundance since it only includes data for the Washington portion of the Oregon-Washington Coastal Stock (Pearson *et al.*, 2024).

Marine Mammal Hearing

Hearing is the most important sensory modality for marine mammals underwater, and exposure to anthropogenic sound can have deleterious effects. To appropriately assess the potential effects of exposure to sound, it is necessary to understand the frequency ranges marine mammals are able to hear. Not all marine mammal species have equal hearing capabilities (*e.g.*, Richardson *et al.*, 1995; Wartzok and Ketten, 1999; Au and Hastings, 2008). To reflect this, Southall *et al.* (2007, 2019) recommended that marine mammals be divided into hearing groups based on directly measured (behavioral

or auditory evoked potential techniques) or estimated hearing ranges (behavioral response data, anatomical modeling, *etc.*). Generalized hearing ranges were chosen based on the ~65 decibel (dB) threshold from composite audiograms, previous analyses in NMFS (2018), and/or data from Southall *et al.* (2007) and Southall *et al.* (2019). We note that the names of two hearing groups and the generalized hearing ranges of all marine mammal hearing groups have been recently updated (NMFS 2024) as reflected in table 4.

Table 4 -- Marine Mammal Hearing Groups (NMFS, 2024)

| Hearing Group | Generalized Hearing Range* |
|---|----------------------------|
| Low-frequency (LF) cetaceans (baleen whales) | 7 Hz to 36 kHz |
| High-frequency (HF) cetaceans (dolphins, toothed whales, beaked whales, bottlenose whales) | 150 Hz to 160 kHz |
| Very High-frequency (VHF) cetaceans (true porpoises, <i>Kogia</i> , river dolphins, Cephalorhynchid, <i>Lagenorhynchus cruciger</i> & <i>L. australis</i>) | 200 Hz to 165 kHz |
| Phocid pinnipeds (PW) (underwater) (true seals) | 40 Hz to 90 kHz |
| Otariid pinnipeds (OW) (underwater) (sea lions and fur seals) | 60 Hz to 68 kHz |
| * Represents the generalized hearing range for the entire group as a composite (<i>i.e.</i> , all species within the group), where individual species' hearing ranges may not be as broad. Generalized hearing range chosen based on ~65 dB threshold from composite audiogram, previous analysis in NMFS 2018, and/or data from Southall <i>et al.</i> 2007; Southall <i>et al.</i> 2019. Additionally, animals are able to detect very loud sounds above and below that "generalized" hearing range. | |

For more detail concerning these groups and associated frequency ranges, please see NMFS (2024) for a review of available information.

Potential Effects of Specified Activities on Marine Mammals and Their Habitat

A description of the potential effects of the specified activities on marine mammals and their habitat may be found in the documents supporting the previous consecutive IHAs, which remains applicable to the proposed 2025-2026 IHA. These previous documents include the **Federal Register** notice of the issuance of consecutive 2023-2024 and 2024-2025 IHAs (87 FR 51346; August 22, 2022); **Federal Register**

notice of issuance of modified 2024-20245 IHA (89 FR 82986; October 10, 2024);

Federal Register notice of the proposed IHAs (87 FR 39481; July 1, 2022).

Estimated Take of Marine Mammals

This section provides an estimate of the number of incidental takes proposed for authorization through the IHA, which will inform NMFS' consideration of "small numbers," the negligible impact determinations, and impacts on subsistence uses.

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 would primarily be by Level B harassment, as use of the acoustic source/s (*i.e.*, impact driving, vibratory driving) has the potential to result in disruption of behavioral patterns for individual marine mammals. There is also some potential for auditory injury (AUD INJ) (Level A harassment) to result, primarily for very high frequency species, phocids and otariids. AUD INJ is unlikely to occur for low-frequency species and high-frequency species. The proposed mitigation and monitoring measures are expected to minimize the severity of the taking to the extent practicable.

As described previously, no serious injury or mortality is anticipated or proposed to be authorized for this activity. Below we describe how the proposed take numbers are estimated.

For acoustic impacts, generally speaking, we estimate take by considering: (1) acoustic criteria above which NMFS believes the best available science indicates marine mammals will likely be behaviorally harassed or incur some degree of AUD INJ; (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 factors can contribute to a basic calculation to provide an initial prediction of potential 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 proposed take estimates.

Acoustic Criteria

NMFS recommends the use of acoustic criteria 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 AUD INJ of some degree (equated to Level A harassment). We note that the criteria for AUD INJ, as well as the names of two hearing groups, have been recently updated (NMFS 2024) as reflected below in the Level A harassment section.

Level B Harassment – 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 or exposure context (*e.g.*, frequency, predictability, duty cycle, duration of the exposure, signal-to-noise ratio, distance to the source), the environment (*e.g.*, bathymetry, other noises in the area, predators in the area), and the receiving animals (hearing, motivation, experience, demography, life stage, depth) and can be difficult to predict (*e.g.*, Southall *et al.*, 2007, 2021, Ellison *et al.*, 2012). Based on what the available science indicates and the practical need to use a threshold based on a metric that is both predictable and measurable for most activities, NMFS typically uses a generalized acoustic threshold based on received level to estimate the onset of behavioral harassment. NMFS generally predicts that marine mammals are likely to be behaviorally harassed in a manner considered to be Level B harassment when

exposed to underwater anthropogenic noise above root-mean-squared pressure received levels (RMS SPL) of 120 dB (referenced to 1 micropascal (re 1 μ Pa)) for continuous (e.g., vibratory pile driving, drilling) and above RMS SPL 160 dB re 1 μ Pa for non-explosive impulsive (e.g., seismic airguns) or intermittent (e.g., scientific sonar) sources.

Generally speaking, Level B harassment take estimates based on these behavioral harassment thresholds are expected to include any likely takes by temporary threshold shift (TTS) as, in most cases, the likelihood of TTS occurs at distances from the source less than those at which behavioral harassment is likely. TTS of a sufficient degree can manifest as behavioral harassment, as reduced hearing sensitivity and the potential reduced opportunities to detect important signals (conspecific communication, predators, prey) may result in changes in behavior patterns that would not otherwise occur.

The USACE's proposed activity includes the use of continuous (*i.e.*, vibratory pile driving) and impulsive sources (*i.e.*, vibratory pile driving), and therefore the RMS SPL thresholds of 120 and 160 dB re 1 μ Pa are applicable.

Level A harassment – NMFS' Updated Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 3.0) (Updated Technical Guidance, 2024) identifies dual criteria to assess AUD INJ (Level A harassment) to five different underwater marine mammal groups (based on hearing sensitivity) as a result of exposure to noise from two different types of sources (impulsive or non-impulsive). The USACE's proposed activity includes includes the use of impulsive (*i.e.*, impact pile installation) and non-impulsive (*i.e.*, vibratory pile installation) sources.

The 2024 Updated Technical Guidance criteria include both updated thresholds and updated weighting functions for each hearing group. The thresholds are provided in the table 5 below. The references, analysis, and methodology used in the development of the criteria are described in NMFS' 2024 Updated Technical Guidance, which may be

accessed at: <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance-other-acoustic-tools>.

Table 5 -- Thresholds Identifying the Onset of Auditory Injury

| | AUD INJ Onset Acoustic Thresholds* (Received Level) | |
|---|---|---|
| Hearing Group | Impulsive | Non-impulsive |
| Low-Frequency (LF) Cetaceans | <i>Cell 1</i> $L_{pk,flat}$: 222 dB $L_{E,LF,24h}$: 183 dB | <i>Cell 2</i> $L_{E,LF,24h}$: 197 dB |
| High-Frequency (HF) Cetaceans | <i>Cell 3</i> $L_{pk,flat}$: 230 dB $L_{E,HF,24h}$: 193 dB | <i>Cell 4</i> $L_{E,HF,24h}$: 201 dB |
| Very High-Frequency (VHF) Cetaceans | <i>Cell 5</i> $L_{pk,flat}$: 202 dB $L_{E,VHF,24h}$: 159 dB | <i>Cell 6</i> $L_{E,VHF,24h}$: 181 dB |
| Phocid Pinnipeds (PW) (Underwater) | <i>Cell 7</i> $L_{pk,flat}$: 223 dB $L_{E,PW,24h}$: 183 dB | <i>Cell 8</i> $L_{E,PW,24h}$: 195 dB |
| Otariid Pinnipeds (OW) (Underwater) | <i>Cell 9</i> $L_{pk,flat}$: 230 dB $L_{E,OW,24h}$: 185 dB | <i>Cell 10</i> $L_{E,OW,24h}$: 199 dB |
| <p>*Dual metric criteria for impulsive sounds: Use whichever criteria results in the larger isopleth for calculating AUD INJ onset. If a non-impulsive sound has the potential of exceeding the peak sound pressure level criteria associated with impulsive sounds, the PK SPL criteria are recommended for consideration for non-impulsive sources.</p> <p>Note: Peak sound pressure level ($L_{p,0-pk}$) has a reference value of 1 μPa, and weighted cumulative sound exposure level ($L_{E,p}$) has a reference value of 1 μPa²s. In this table, criteria are abbreviated to be more reflective of International Organization for Standardization standards (ISO 2017, ISO 220). The subscript “flat” is being included to indicate peak sound pressure are flat weighted or unweighted within the generalized hearing range of marine mammals underwater (<i>i.e.</i>, 7 Hz to 165 kHz). The subscript associated with cumulative sound exposure level criteria indicates the designated marine mammal auditory weighting function (LF, HF, and VHF cetaceans, and PW and OW pinnipeds) and that the recommended accumulation period is 24 hours. The weighted cumulative sound exposure level criteria could be exceeded in a multitude of ways (<i>i.e.</i>, varying exposure levels and durations, duty cycle). When possible, it is valuable for action proponents to indicate the conditions under which these criteria will be exceeded.</p> | | |

Ensonified Area

Here, we describe operational and environmental parameters of the activity that are used in estimating the area ensonified above the acoustic thresholds, including source levels and transmission loss coefficient.

The ensonified area associated with Level A harassment is more technically challenging to predict due to the need to account for a duration component. Therefore, NMFS developed an optional User Spreadsheet tool to accompany the 2024 Updated Technical Guidance that can be used to relatively simply predict an isopleth distance for use in conjunction with marine mammal density or occurrence to help predict potential

takes. We note that because of some of the assumptions included in the methods underlying this optional tool, we anticipate that the resulting isopleth estimates are typically going to be overestimates of some degree, which may result in an overestimate of potential take by Level A harassment. However, this optional tool offers the best way to estimate isopleth distances when more sophisticated modeling methods are not available or practical. For stationary sources such as impact and vibratory driving, the optional User Spreadsheet tool predicts the distance at which, if a marine mammal remained at that distance for the duration of the activity, it would be expected to incur AUD INJ. Inputs used in the optional User Spreadsheet tool, and the resulting estimated isopleths, are reported below.

Table 6 -- Estimated Unattenuated Underwater Sound Pressure Levels Associated with Vibratory and Impact Pile Driving

| Pile Type & Activity | Sound Pressure Level (SPL) | | |
|---|--|-----------------------|-----------------------|
| | 24-Inch Steel Pile Installation w/impact hammer ¹ | 203 dB _{PK} | 190 dB _{RMS} |
| 24-Inch Steel Pile Installation or Removal w/vibratory ² | 194 dB _{PK} | 154 dB _{RMS} | Not Available |

¹ Caltrans 2015

² Caltrans 2020

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:

$$TL = B \times \text{Log}10(R1/R2),$$

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 TL , a practical spreading value of 15 is used as the TL coefficient in the above formula and is used to determine the distances to the Level A harassment and Level B harassment thresholds. The ensonified area associated with Level A harassment is more technically challenging to predict due to the need to account for a duration component. Therefore, NMFS developed an optional User Spreadsheet tool to accompany the 2024 Updated Technical Guidance that can be used to relatively simply predict an isopleth distance for use in conjunction with marine mammal density or occurrence to help predict potential takes. We note that because of some of the assumptions included in the methods underlying this optional tool, we anticipate that the resulting isopleth estimates are typically going to be overestimates of some degree, which may result in an overestimate of potential take by Level A harassment. However, this optional tool offers the best way to estimate isopleth distances when more sophisticated modeling methods are not available or practical. For stationary sources, such as vibratory pile driving, the optional User Spreadsheet tool predicts the distance at which, if a marine mammal remained at that distance for the duration of the activity, it would be expected to incur auditory injury. Inputs used in the optional User Spreadsheet tool and resulting estimated isopleths are reported below tables 7 and 8.

Table 7 -- User Spreadsheet Inputs

| User Spreadsheet Variables and Inputs | | |
|--|--|-----------------------------|
| | 24-in pile/Impact | 24-inch pile/Vibratory |
| Spreadsheet tab used | E.1) Impact Pile Driving (Stationary Source) | A.1) Vibratory pile driving |
| Sound Pressure Level (dB) | 177 dB SEL/203 pK | 154 dB RMS |
| Distance associated with sound pressure level (meters) | 10 | |
| Transmission loss constant | 15 | |

| | | |
|---|-----|-------|
| Number of piles per day | 8 | |
| Strikes/pile | 225 | |
| Duration to drive pile (minutes) | | 18 |
| Duration of sound production in a day (seconds) | | 8,640 |
| Marine Mammal WFA (kHz) | 2 | 2.5 |

Table 8 -- Calculated Level A and Level B Isopleths (m)

| Noise Generation Type | AUD INJ/ Level A | | | | | Level B All Groups |
|--|------------------|----|-----|--------------------|---------------------|--------------------------------|
| | LF | HF | VHF | Phocid Pinniped | Otariid Pinniped | Isopleth Distances (meters) |
| 24-inch Steel Pile Impact Installation | 587 | 75 | 908 | 521 | 195 | 1,000 (160 dB) |
| 24-inch Steel Pile Vibratory Installation | 6 | 2 | 3 | 7 | 2 | 1,848 (120 dB) |

Marine Mammal Occurrence and Take Estimation

In this section we provide information about the occurrence of marine mammals, which will inform the take calculations. We will also describe how this information is synthesized to produce a quantitative estimate of the take that is reasonably likely to occur and proposed for authorization. With the exception of northern elephant seal, the methodologies utilized for estimating take of authorized species differs from what was contained in the initial proposed IHA (87 FR 39481; July 1, 2022), final IHA (87 FR 51346; August 22, 2022), and modified final IHA (89 FR 82986; October 10, 2024)

Federal Register notices. Monitoring data from year 1 and year 2 of this project was used to estimate take for this proposed IHA as it is considered the best available scientific information. The project's location and seasonality (August-October) remain unchanged while the duration of the activity for the proposed activity (34 days) is similar to the number of work days utilized in year 1 (33) and year 2 (44). Note that the USACE did not request authorization of take of gray whale in the previous IHAs and none was authorized.

Humpback whale

Protected Species Observers (PSOs) did not spot any humpback whales according to the year 1 (33 days of in-water work) Sand Island monitoring report. The year 2 (44 days of in-water work) Sand Island monitoring reports submitted by the USACE did record 7 potential Level B harassment takes and an additional 15 sightings. Whales were sighted on 14 percent of in-water workdays (6 out of 44 days) and the average daily rate when whales were observed was four (3.66 rounded up). We conservatively assume that all sightings, whether within Level B harassment zones or not, represent animals expected to be present in the action area which could therefore be subject to incidental take. In order to address potential for increased occurrence of humpback whales, as occurred from year 1 to year 2, we assume that humpback whales would be present on approximately 25 percent of workdays (34) under the proposed IHA. Therefore, whales would be present on 9 work days. Nine days multiplied by a daily sightings rate of 4 animals would result in 36 takes.

Therefore, the USACE has requested and NMFS proposes to authorize 36 takes by Level B harassment. No take by Level A harassment is anticipated or proposed for authorization. Any humpback whales entering into the Level A harassment zone will result in shutdown of in-water activities by the USACE. The proposed takes will be split between the Central America/Southern Mexico-CA/OR/WA stock and the Mainland

Mexico-CA/OR/WA stock with respective percentages of 42 and 58 percent (Wade *et al.* 2021).

Gray whale

The previous IHAs did not authorize take of gray whale since they were rarely observed in the MCR. No sightings were reported in the year 1 or year 2 monitoring reports. However, there have recently been sightings of two individuals upriver of the work area (Tidwell, 2024). Therefore, the USACE has requested authorization of four takes (two groups of two) by Level B harassment to account for the possibility of the species entering the work area. NMFS concurs and proposes to authorize four takes of gray whale by Level B harassment. No take by Level A harassment is anticipated and none is proposed for authorization.

Killer whale

It is rare that killer whales are observed in the MCR, although limited numbers of West Coast Transient (WCT) killer whales have been observed there in recent years and could potentially be present during proposed work, but larger groupings of more than 20 animals occasionally form (WDFW, 2016). Sightings in the MCR include 1 sighting of T125A (Jetsam) in a pod of 8-12 total WCT killer whales in 2018 (Frankowicz K.) and pod T137 composed of 4 WCT killer whales in 2022 (Tomlinson). PSOs did not spot any killer whales according to the year 1 and year 2 Sand Island monitoring reports submitted by the USACE.

Given that limited numbers of killer whales have been reported in the past, the USACE requests authorization of 12 takes by Level B harassment which is equivalent to the largest pod size observed in the MCR. No Level A harassment take is being requested due to infrequent sightings of the species and the ease of spotting such at a considerable distance. Any in-water work would cease if killer whales were to approach the estimated harassment isopleths. NMFS concurs with the USACE's request to authorize 12 killer

whale takes by Level B harassment. No take by Level A harassment is anticipated and none is proposed for authorization.

Harbor porpoise

The year 1 monitoring report listed 2 harbor porpoise sightings while the year 2 report contained a total of 17 sightings with 3 of those recorded as potential takes by Level B harassment. The maximum number of sightings on a single day was 7 on August 3, 2024. The 17 observations occurred over 7 different days during a total of 44 in-water work days. Analysis of this information shows that sightings occurred on 16 percent (15.9 rounded up) of in-water work days during the year 2 IHA effective period.

For the purposes of estimating take, we assume that all sightings represent animals present and that may be subject to incidental take. It was also assumed that the maximum number of porpoises recorded on a single day (7) may occur on 5 total days during the project, resulting in 35 total exposures. We assume that some take by Level A harassment may occur due to larger estimated Level A harassment zones and the difficulty of effectively observing harbor porpoise. Based on the size of the Level A harassment area associated with very-high frequency cetaceans, we assume that 20 percent of the total estimated exposures could result in AUD INJ. Therefore, NMFS is proposing to authorize 7 takes of harbor porpoise by Level A harassment and 28 takes by Level B harassment.

Pinnipeds

The Level A harassment and B harassment estimated takes of pinnipeds is based on the maximum daily sightings of harbor seals, California sea lions, and Steller sea lions from the previous 2 years of work. Sightings recorded in the monitoring reports include both takes by harassment as well as sightings that did not result in take. Such sightings could have occurred if an animal was observed beyond the estimated harassment areas or during periods when the contractor was not actively engaged in pile driving operations.

After reviewing the year 1 and year 2 monitoring reports, the USACE determined the maximum daily sightings were 16 harbor seals (year 1), 20 California sea lions (year 2), and 9 Steller sea lions (year 1). The maximum daily sightings for each species was multiplied by the number of work days in 2025 (34). The estimated total take is shown in table 10. Based on the size of the estimated Level A harassment zones, and potential difficulty observing pinnipeds at the larger distances, Level A harassment takes were estimated to be 10 percent of the total take for each pinniped species.

Table 10 -- Estimated Take of Pinniped Species by Level A and Level B Harassment

| Species | Harbor seal HS | California sea lion | Steller sea lion |
|---|----------------|---------------------|------------------|
| Max Daily Sightings Year 1 (2023-2024) | 16 | 13 | 9 |
| Max Daily Sightings Year 2 (2024-2025) | 13 | 20 | 8 |
| Estimated total take (Max daily * 34 days) | 544 | 680 | 306 |
| Level A harassment (10 percent of total take) | 54 | 68 | 31 |
| Level B harassment | 490 | 612 | 275 |

While no northern elephant seals were observed during the previous 2 years of monitoring, the species has been observed near the mouth of the Columbia River. Based on the rare sightings in and around the Columbia River, the USACE estimates that no more than two northern elephant seals per month during August, September, and October may enter the project area and be taken by Level B harassment. It is unlikely that northern elephant seals would be found within the Level A harassment zone even during impact driving (521 m isopleth). If they were seen approaching the Level A harassment zone, the USACE would be able to detect them and implement the required shutdown measures. Therefore, the USACE has requested and NMFS is proposing to authorize six northern elephant seal takes by Level B harassment.

The results of this estimated take analysis can be found in table 11, where the number of takes for all species that NMFS proposes for authorization are presented.

Table 11 -- Proposed Take by Stock, Harassment Type, and as a Percentage of Stock Abundance

| Species | Authorized Take by Level A Harassment | Authorized Take by Level B Harassment | Total Proposed Take | Stock | Stock Abundance | Percent of Stock |
|------------------------|---------------------------------------|---------------------------------------|---------------------|--|-----------------|------------------|
| Humpback whale | 0 | 15 | 15 | Central America/Southern Mexico—California/Oregon/Washington | 1,494 | 1.0 |
| | 0 | 21 | 21 | Mainland Mexico—CA/OR/WA | 3,477 | 0.60 |
| Gray whale | 0 | 4 | 4 | Eastern North Pacific | 26,960 | 0.01 |
| Killer whale | 0 | 12 | 12 | West Coast Transient | 349 | 3.44 |
| Harbor porpoise | 7 | 28 | 35 | Northern Oregon/Washington Coast | 22,074 | 0.16 |
| California sea lion | 68 | 612 | 680 | U.S. | 257,606 | 0.26 |
| Steller sea lion | 31 | 275 | 306 | Eastern | 36,308 | 0.84 |
| Harbor seal | 54 | 490 | 544 | Oregon/Washington Coast | 22,549 | 2.41 |
| Northern elephant seal | 0 | 6 | 6 | California Breeding | 187,363 | <0.01 |

Proposed Mitigation

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 the activity, and other means of effecting the least practicable impact on the species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of the 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 the 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, NMFS considers 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 and impact on operations.

The proposed mitigation measures are similar to those stated in the **Federal Register** notice of the issuance of consecutive 2023-2024 and 2024-2025 IHAs (87 FR 51346; August 22, 2022) and the **Federal Register** notice of issuance of modified 2024-2025 IHA (89 FR 82986; October 10, 2024) and are described below.

Time Restrictions

The USACE has described in its description of the project that pile driving would occur only during daylight hours (no sooner than 30 minutes after sunrise through no later than 30 minutes before sunset), when visual monitoring of marine mammals can be conducted. In addition, to minimize impacts to ESA-listed fish species, all in-water construction would be limited to the months of August through October.

Shutdown Zones

The USACE must establish shutdown zones for all pile driving activities. The purpose of a shutdown zone is generally to define an area within which shutdown of the activity would occur upon sighting of a marine animal (or in anticipation of an animal entering the defined area). Shutdown zones vary based on the activity type and duration and marine mammal hearing group. As proposed by USACE, a minimum shutdown zone of 25 m would be implemented for all in-water construction activities to avoid physical interaction with marine mammals. Marine mammal monitoring would be conducted during all pile driving activities to ensure that shutdowns occur, as required. Proposed shutdown zones for each activity type are shown in table 12. Pile driving would not commence until all marine mammals are clear of their respective shutdown zones.

The USACE would also establish shutdown zones for all marine mammals for which take has not been authorized or for which incidental take has been authorized but the authorized number of takes has been met. These zones are equivalent to the Level B harassment zones for each activity (see table 12).

Table 12 -- Shutdown and Level B Harassment Monitoring Zones

| Pile type and method | Shutdown Zones (m) | | | | | Level B Harassment Monitoring Zone (m) |
|--|--------------------|-------------|--------------|-----------------|------------------|--|
| | LF Cetacean | HF Cetacean | VHF Cetacean | Phocid Pinniped | Otariid Pinniped | |
| 24-in Steel pipe Pile Impact Installation | 600 | 75 | 300 | 50 | 195 | 1,000 |
| 24-in Steel pipe Pile Vibratory Installation | 25 | 25 | 25 | 25 | 25 | 1,848 |

Protected Species Observers

USACE must employ PSOs and establish monitoring locations as described below. The USACE must monitor the project area to the maximum extent possible based

on the required number of PSOs, required monitoring locations, and environmental conditions

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

Monitoring for Level A and Level B Harassment

PSOs would monitor the Level B harassment zones to the extent practicable, and all of the 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 areas outside the shutdown zones and thus prepare for a potential cessation of activity should the animal enter the shutdown zone.

Pre-Activity Monitoring

Prior to the start of daily in-water construction activity, or whenever a break in pile driving of 30 minutes or longer occurs, PSOs would observe the shutdown and monitoring zones for a period of 30 minutes. The shutdown zone would 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 zones, pile driving activity would be delayed or halted. If pile driving is delayed or halted due to the presence of a marine mammal, the activity would not commence or resume until either the animal has voluntarily exited and been visually confirmed beyond the shutdown zones or 15 minutes have passed without re-detection of the animal.

Pile driving activity must be halted upon observation of either a species for which incidental take is not authorized or a species for which incidental take has been authorized but the authorized number of takes has been met, entering or within the harassment zone (as shown in table 2).

The USACE, construction supervisors and crews, PSOs, and relevant USACE staff must avoid direct physical interaction with marine mammals during construction activity. If a marine mammal comes within 10 meters of such activity, operations must cease and vessels must reduce speed to the minimum level required to maintain steerage and safe working conditions, as necessary to avoid direct physical interaction.

When a marine mammal for which Level B harassment take is authorized is present in the Level B harassment zone, activities would begin and Level B harassment take would be recorded. If work ceases for more than 30 minutes, the pre-activity monitoring of the shutdown zones would commence. A determination that the shutdown zone is clear must be made during a period of good visibility (*i.e.*, the entire shutdown zone and surrounding waters must be visible to the naked eye).

Soft Start

Soft-start procedures are used 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 would be required to provide an initial set of three strikes from the hammer at reduced energy, followed by a 30-second waiting period, then two subsequent reduced-energy strike sets. Soft start would 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 30 minutes or longer.

Based on our evaluation of the applicant's proposed measures, NMFS has preliminarily determined that the proposed mitigation measures provide the means of

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.

Proposed 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 while conducting the activities. Effective reporting is critical both to compliance as well as 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 activity; 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.

The proposed monitoring and reporting measures are similar to those described in the **Federal Register** notice of the issuance of consecutive 2023-2024 and 2024-2025 IHAs (87 FR 51346; August 22, 2022) and the **Federal Register** notice of issuance of modified 2024-20245 IHA (89 FR 82986; October 10, 2024) and are described below.

Visual Monitoring

Marine mammal monitoring during pile driving activities would be conducted by PSOs meeting NMFS' standards and in a manner consistent with the following:

- Independent PSOs (*i.e.*, not construction personnel) who have no other assigned tasks during monitoring periods would be used;
- At least one PSO would have prior experience performing the duties of a PSO during construction activity pursuant to a NMFS-issued incidental take authorization;
- Other PSOs may substitute other relevant experience, education (degree in biological science or related field), or training for prior experience performing the duties of a PSO during construction activity pursuant to a NMFS-issued incidental take authorization; and
- Where a team of three or more PSOs is required, a lead observer or monitoring coordinator would be designated. The lead observer would be required to have prior experience working as a marine mammal observer during construction.

- PSOs must be approved by NMFS prior to beginning any activity subject to this IHA.

PSOs would 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.

The USACE would have at least two PSOs stationed in the project area to monitor during all pile driving activities. One PSO would be positioned at the work site on the construction barge to observe Level A harassment and shutdown zones. At least one PSO would monitor from a boat to ensure full visual coverage of the Level B harassment zone(s) and alert construction crews of marine mammals entering the Level B harassment zone and/or approaching the Level A harassment zones. Additional PSOs may be employed during periods of low or obstructed visibility to ensure the entirety of the shutdown zones are monitored.

PSOs must record all observations of marine mammals, regardless of distance from the pile being driven, as well as the additional data indicated below.

Reporting

A draft marine mammal monitoring report would be submitted to NMFS within 90 days after the completion of pile driving activities, or 60 days prior to a requested date of issuance of any future IHAs for the project, or other projects at the same location, whichever comes first. The marine mammal report would include an overall description of work completed, a narrative regarding marine mammal sightings, and associated PSO data sheets. Specifically, the report would include:

- Dates and times (begin and end) of all marine mammal monitoring;
- Construction activities occurring during each daily observation period, including: (a) How many and what type of piles were driven or removed and the method (*i.e.*, impact or vibratory); and (b) the total duration of time for each pile (vibratory driving) number of strikes for each pile (impact driving);
- PSO locations during marine mammal monitoring; and
- Environmental conditions during monitoring periods (at beginning and end of PSO shift and whenever conditions change significantly), including Beaufort sea state and any other relevant weather conditions including cloud cover, fog, sun glare, and overall visibility to the horizon, and estimated observable distance.

For each observation of a marine mammal, the following would be reported:

- Name of PSO who sighted the animal(s) and PSO location and activity at time of sighting;
- Time of sighting;
- Identification of the animal(s) (*e.g.*, genus/species, lowest possible taxonomic level, or unidentified), PSO confidence in identification, and the composition of the group if there is a mix of species;

- Distance and location of each observed marine mammal relative to the pile being driven or hole being drilled for each sighting;
- Estimated number of animals (min/max/best estimate);
- Estimated number of animals by cohort (adults, juveniles, neonates, group composition, *etc.*);
- Description of any marine mammal behavioral observations (*e.g.*, observed behaviors such as feeding or traveling), including an assessment of behavioral responses thought to have resulted from the activity (*e.g.*, no response or changes in behavioral state such as ceasing feeding, changing direction, flushing, or breaching);
- Number of marine mammals detected within the harassment zones, by species; and
- Detailed information about implementation of any mitigation (*e.g.*, shutdowns and delays), a description of specified actions that ensued, and resulting changes in behavior of the animal(s), if any.

If no comments are received from NMFS within 30 days, the draft reports would constitute the final reports. If comments are received, a final report addressing NMFS' comments would be required to be submitted within 30 days after receipt of comments. All PSO datasheets and/or raw sighting data would be submitted with the draft marine mammal report.

In the event that personnel involved in the construction activities discover an injured or dead marine mammal, the USACE would report the incident to the Office of Protected Resources (OPR) (*PR.ITP.MonitoringReports@noaa.gov*), NMFS and to the West Coast Region (WCR) regional stranding coordinator as soon as feasible. If the death or injury was clearly caused by the specified activity, the USACE would immediately cease the specified activities until NMFS is able to review the circumstances of the

incident and determine what, if any, additional measures are appropriate to ensure compliance with the terms of the IHAs. The USACE would not resume their activities until notified by NMFS.

The report would include the following information:

1. Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);
2. Species identification (if known) or description of the animal(s) involved;
3. Condition of the animal(s) (including carcass condition if the animal is dead);
4. Observed behaviors of the animal(s), if alive;
5. If available, photographs or video footage of the animal(s); and
6. General circumstances under which the animal was discovered.

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 impacts or responses (*e.g.*, intensity, duration), the context of any impacts or responses (*e.g.*, critical reproductive time or location, foraging impacts affecting energetics), 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' 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 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 discussion of our analysis applies to all the species listed in table 11, given that the anticipated effects of this activity on these different marine mammal stocks are expected to be similar. There is little information about the nature or severity of the impacts, or the size, status, or structure of any of these species or stocks that would lead to a different analysis for this activity.

Pile driving activities associated with the Sand Island Pile Dike Repairs Project have the potential to disturb or displace marine mammals. Specifically, the project activities may result in take, in the form of Level A and Level B harassment, from underwater sounds generated from pile driving. Potential takes could occur if individuals are present in the ensonified zone when these activities are underway.

The takes by Level B harassment would be due to potential behavioral disturbance and TTS. Takes by Level A harassment would be due to auditory injury. No mortality or serious injury is anticipated given the nature of the activity, even in the absence of the required mitigation. The potential for harassment is minimized through the implementation of the proposed mitigation measures (see **Proposed Mitigation** section).

Take by Level A harassment is proposed for authorization to account for the potential that an animal could enter and remain within the area between a Level A harassment zone and the shutdown zone for a duration long enough to be taken by Level A harassment. Any take by Level A harassment is expected to arise from, at most, a small degree of auditory injury because animals would need to be exposed to higher levels and/or longer duration than are expected to occur here in order to incur any more than a

small degree of auditory injury. Additionally, some subset of the individuals that are behaviorally harassed could also simultaneously incur some small degree of TTS for a short duration of time. Because of the small degree anticipated, though, any auditory injury or TTS potentially incurred here would not be expected to adversely impact individual fitness, let alone annual rates of recruitment or survival.

Behavioral responses of marine mammals to pile driving at the project site, if any, are expected to be mild and temporary. Marine mammals within the Level B harassment zone may not show any visual cues they are disturbed by activities or could become alert, avoid the area, leave the area, or display other mild responses that are not observable such as changes in vocalization patterns. Given that pile driving and removal would occur across a maximum of 34 days over a 3-month period, any harassment would be temporary.

Take would occur within a limited, confined area (Sand Islands in the MCR) of the stocks' ranges. Given the availability of suitable habitat nearby, any displacement of marine mammals from the project areas is not expected to affect marine mammals' fitness, survival, and reproduction due to the limited geographic area that would be affected in comparison to the much larger habitat for marine mammals within the lower Columbia River and immediately outside the river along the Oregon and Washington coasts.

The intensity and duration of take by Level A harassment and Level B harassment would be minimized through use of mitigation measures described herein. Further, there are no areas of specific biological importance (*e.g.*, ESA critical habitat, other BIAs, or other areas) for any other species are known to co-occur with the project area; and

Any impacts on marine mammal prey that would occur during the USACE's proposed activity would have, at most, short-term effects on foraging of individual marine mammals, and likely no effect on the populations of marine mammals as a whole.

Indirect effects on marine mammal prey during the construction are expected to be minor, and these effects are unlikely to cause substantial effects on marine mammals at the individual level, with no expected effect on annual rates of recruitment or survival.

In addition, it is unlikely that elevated noise in a small, localized area of habitat would have any effect on the stocks' annual rates of recruitment or survival. In combination, we believe that these factors, as well as the available body of evidence from other similar activities, demonstrate that the potential effects of the specified activities will have only minor, short-term effects on individuals. The specified activities are not expected to impact rates of recruitment or survival, and would therefore not result in population-level impacts.

Monitoring reports from Sand Island Pile Dikes location during Year 1 and Year 2 have documented little to no behavioral effect on individuals of the same species that could be impacted by the specified activities, suggesting the degree/intensity of behavioral harassment would be minimal.

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 any of the species or stocks through effects on annual rates of recruitment or survival:

- No serious injury or mortality is anticipated or authorized;
- The intensity of anticipated takes by Level B harassment is relatively low for all stocks and would not be of a duration or intensity expected to result in impacts on reproduction or survival;
- The ensounded areas are very small relative to the overall habitat ranges of all species and stocks, and will not adversely affect ESA-designated critical habitat for any species or any areas of known biological importance;

- The lack of anticipated significant or long-term negative effects to marine mammal habitat;
- The availability of nearby areas of similar habitat value (*e.g.*, foraging and haulout habitats) within and outside the MCR;
- Impacts on marine mammal feeding are not expected to result in significant or long-term consequences for individuals, or to accrue to adverse impacts on their populations;
- The USACE would implement mitigation measures, such as soft-starts for impact pile driving and shutdowns to minimize the numbers of marine mammals exposed to injurious levels of sound, and to ensure that take by Level A harassment, is at most, a small degree of auditory injury.
- Previous marine mammal monitoring reports for similar activities at the same location have documented little to no behavioral effect on individuals.

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 proposed monitoring and mitigation measures, NMFS preliminarily finds that the total marine mammal take from the proposed activity will have a negligible impact on all affected marine mammal species or stocks.

Small Numbers

As noted previously, only take of small numbers of marine mammals 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. When the predicted number of individuals to be taken is fewer than

one-third of the species or stock abundance, the take is considered to be of small numbers (see 86 FR 5322; January 19, 2021). Additionally, other qualitative factors may be considered in the analysis, such as the temporal or spatial scale of the activities.

The instances of take NMFS has proposed to authorize is below one-third of the estimate stock abundance for all species. The number of animals proposed for authorization that could be taken from these stocks would be considered small relative to the relevant stocks' abundances even if each estimated taking occurred to a new individual.

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

Unmitigable Adverse Impact Analysis and Determination

There are no relevant subsistence uses of the affected marine mammal stocks or species implicated by this action. Therefore, NMFS has determined that the total taking of affected species or stocks would not have an unmitigable adverse impact on the availability of such species or stocks for taking for subsistence purposes.

Endangered Species Act

Section 7(a)(2) of the ESA of 1973 (16 U.S.C. 1531 *et seq.*) requires that each Federal agency ensures 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 whenever we propose to authorize take for endangered or threatened species.

NMFS is proposing to authorize take of humpback whale Mainland Mexico and Central America/Southern Mexico DPS, which are listed under the ESA. The effects of

this proposed Federal action were adequately analyzed in NMFS' Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Sand Island Pile Dike Repair Project, dated June 14, 2022 which concluded that the take NMFS proposes to authorize through this IHA would not jeopardize the continued existence of any endangered or threatened species.

Proposed Authorization

As a result of these preliminary determinations, NMFS proposes to issue an IHA to the USACE for conducting construction activity at Sand Island in the MCR, provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated. A draft of the proposed IHA can be found at:

<https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-construction-activities>.

Request for Public Comments

We request comment on our analyses, the proposed authorization, and any other aspect of this notice of proposed IHA for the proposed Sand Island Pile Dike repair project. We also request comment on the potential renewal of this proposed IHA as described in the paragraph below. Please include with your comments any supporting data or literature citations to help inform decisions on the request for this IHA or a subsequent renewal IHA.

On a case-by-case basis, NMFS may issue a one-time, 1-year renewal IHA following notice to the public providing an additional 15 days for public comments when (1) up to another year of identical or nearly identical activities as described in the **Description of Proposed Activity** section of this notice is planned or (2) the activities as described in the **Description of Proposed Activity** section of this notice would not be completed by the time the IHA expires and a renewal would allow for completion of the

activities beyond that described in the *Dates and Duration* section of this notice, provided all of the following conditions are met:

- A request for renewal is received no later than 60 days prior to the needed renewal IHA effective date (recognizing that the renewal IHA expiration date cannot extend beyond 1 year from expiration of the initial IHA).

- The request for renewal must include the following:

- (1) An explanation that the activities to be conducted under the requested renewal IHA are identical to the activities analyzed under the initial IHA, are a subset of the activities, or include changes so minor (*e.g.*, reduction in pile size) that the changes do not affect the previous analyses, mitigation and monitoring requirements, or take estimates (with the exception of reducing the type or amount of take).

- (2) A preliminary monitoring report showing the results of the required monitoring to date and an explanation showing that the monitoring results do not indicate impacts of a scale or nature not previously analyzed or authorized.

- Upon review of the request for renewal, the status of the affected species or stocks, and any other pertinent information, NMFS determines that there are no more than minor changes in the activities, the mitigation and monitoring measures will remain the same and appropriate, and the findings in the initial IHA remain valid.

Dated: June 16, 2025.

Tanya Dobrzynski,

Acting Director, Office of Protected Resources,

National Marine Fisheries Service.