E 3510-22-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648-XD398]

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to U.S. Navy Mole Pier South Berth Floating Dry Dock Project

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 the U.S. Navy to incidentally harass marine mammals during construction associated with Mole Pier Floating Dry Dock project at Naval Base San Diego.

DATES: This Authorization is effective from March 1, 2024 through February 28, 2025.

ADDRESSES: 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.

FOR FURTHER INFORMATION CONTACT: Steven Tucker, 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 (referred to in shorthand as "mitigation"); and requirements pertaining to the mitigation, monitoring and reporting of the 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 February 16, 2022, NMFS received a request from the U.S. Navy, Navy Base San Diego (or, the Navy) for an IHA to take marine mammals incidental to Mole Pier Floating Dry Dock project in south-central San Diego Bay. The application was deemed adequate and complete on May 1, 2023. The Navy's request is for authorization to incidentally take California sea lions, harbor seals, and bottlenose dolphins, by Level B harassment only. Neither the U.S. Navy nor NMFS expect serious injury or mortality to result from this activity and, therefore, an IHA is appropriate.

NMFS previously issued an IHA to the U.S. Navy for similar work (87 FR 65578, October 31, 2022). The U.S. Navy has complied with all the requirements (*e.g.*,

mitigation, monitoring, and reporting) of the previous IHA, and information regarding their monitoring results is publicly available at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-construction-activities*.

Description of Activity

Overview

The U.S. Navy request is associated with demolition and construction activities related to partial demolition and construction of a floating dry dock and related facilities at Mole Pier, Navy Base San Diego. The purpose of the Mole Pier South Berth Floating Dry Dock (FDD) Project is to overcome current shortfall in dry dock availability for repair and maintenance of vessels at Navy Base San Diego. The planned activity remedies some of the constraints resulting from aging or obsolete facilities.

Activities that may result in Level B harassment include removal of existing piles and installation of new piles to support facilities that are necessary for repair and maintenance of vessels in furtherance of the U.S. Navy's Congressionally mandated responsibilities under 10 U.S.C. 5062. The specified activity also includes dredging and demolition of the existing deck at the mooring wharf, installation of mooring attachments, installation of a steel floating dry dock and construction of a ramp and pier. Demolition activities include vibratory removal or clipping of up to fifty-four 24 x 24-inch square concrete piles and seven 24-inch octagonal concrete piles. Pile driving and extraction activities will take place during 33 days of in-water work at the Mole Pier mooring wharf and the ramp. The Test Pile Program (TPP) described in the notice of proposed authorization (88 FR 47111, July 21, 2023) will not be undertaken. Permanent pile installations, expected to occur via impact hammer and/or jetting, consist of eighty 24-inch octagonal concrete piles at the mooring wharf and twenty-one 24-inch octagonal piles for the Ramp Pier and access to the FDD.

Dates and Duration

The U.S. Navy requested that the IHA be effective for a period of 1 year, from March 1, 2024 through February 28, 2025. During this period, the Navy expects to complete the pile driving and removal portions of the project during 59 workdays that may be non-consecutive, with all in-water activities conducted during daylight hours. Pile driving and removal activities may occur at any time during the proposed 1-year period of effectiveness.

Specific Geographic Region

The activities would occur in the south-central portion of San Diego Bay. San Diego Bay (the Bay) is a narrow, crescent-shaped natural embayment oriented northwest-southeast with an approximate length of 24 kilometers (km) and a total area of roughly 4 km^2 (11,000 acres; Port of San Diego, 2007). The width of the Bay ranges from 300 meters to 5.800 meters and depths range from 23 meters Mean Lower Low Water (MLLW) near the tip of Ballast Point to less than 1.2 meters at the southern end (Merkel and Associates, Inc., 2009). Approximately half of the Bay is less than 4.5 meters deep and much of it is less than 15 meters deep (Merkel and Associates, Inc., 2009). The northern and central portions of the Bay have been shaped by historical dredging and filling to support large ship navigation and shoreline development. The United States Army Corps of Engineers dredges the main navigation channel in the Bay to maintain a depth of 14 meters MLLW and is responsible for providing safe transit for private, commercial, and military vessels within the bay (NOAA, 2012). Outside of the navigation channel, the bay floor consists of platforms at depths that vary slightly (Merkel and Associates, Inc., 2009). Within the Central Bay, typical depths range from 10.7-11.6 meters MLLW to support large ship turning and anchorage, and small vessel marinas are typically dredged to depths of 4.6 meters MLLW (Merkel and Associates, Inc., 2009).

Figure 1 -- Project Location

San Diego Bay is heavily used by commercial, recreational, and military vessels, with an average of 82,413 vessel movements (in or out of the Bay) per year (approximately 225 vessel transits per day), a majority of which are presumed to occur during daylight hours. This number of transits does not include recreational boaters that use San Diego Bay, estimated to number 200,000 annually (San Diego Harbor Safety Committee, 2009). Background (ambient) noise in the south-central San Diego Bay averaged 126 decibels (dB) re: 1 micropascal (µPa) in 2019 (Dahl and Dall'Osto, 2019). Therefore, noise from non-impulsive sources associated with the specified activities is assumed to become indistinguishable from background noise as it diminishes to 126 dB with distance from the source (Dahl and Dall'Osto, 2019).

Detailed Description of the Specified Activity

The proposed FDD installation and associated dredging activities would occur within San Diego Bay at the south berth of the Mole Pier, which is located approximately 1.6 km (1 mile) south of the main entrance gate to Navy Base San Diego (NBSD), immediately south of Pier 8 and the Paleta Creek Channel, and north of Pier 10.

The Mole Pier floating dry dock project includes the following phases:

1) Relocation of the USS *Curtiss* and hoteling facilities that are currently moored along the south berth of the Mole Pier;

2) Dredging at the Mole Pier FDD sump, approaches, and turning basin to increase water-depths as well as subsequent sediment disposal activities;

3) Partial demolition of the existing decking at the mooring wharf;

4) Installation of mooring attachments and upgrades at the mooring wharf;

5) Demolition of existing Ramp Pier;

6) Utility modifications;

7) Placement and operation of a steel FDD; and

8) Construction of a new Ramp Pier with vehicle access bridge from the quay wall southeast of the 1 Mole Pier to the FDD.

Table 1 -- Proposed (parentheses) and Revised (bold) Pile Activities

Pile Location	Pile Size/Type	Pile Extraction Method[1]	Piles/ Day	# of Piles	Total Estimated Days
Demolition (Pile Extraction) [1]					
Mooring Wharf	24-inch Square Concrete	-Hydraulic Pile Clipper -Vibratory Extraction -High-pressure Water Jetting	5	(24) 24[3]	(5) 5
	24-inch Octagonal Concrete			(7) 7[3]	(2) 2
Ramp Pier	24-inch Square Concrete			(28) **29**	(6) 6
TPP (Cancelled/withdrawn)	N/A		(1) 0	(6) **0**	(6) **0**
		Total Piles Removed		(65) **60**	(19) **13**
Construction (Pile Installation) [2]					
Pile Location	**Pile Size/Type**	**Pile Installation Method[1]**	**Piles/ Day**	**# of Piles**	**Total Estimated Days**
TPP (Cancelled/withdrawn)	24-inch Octagonal Concrete	-Impact Hammer -High-pressure Water Jetting	(1) 0	(0) **0**	(0) **0**
Mooring Wharf			(3) 3	(80) **48**	(27) **16**
Ramp Pier & Intermediate Support Structure				(21) **12**	(7) **4**
		Total Piles Installed		(107) **60**	(40) **20**
		Total In-Water Pile Extraction/Installation Days			(59) **33**

Notes:

[1] While other methods of pile extraction are possible, cutting off the piles at mudline is the most likely method that will be used to extract piles though vibratory extraction equipment could be used if conditions warrant. No Level A/B take analysis conducted on the other pile extraction methods.

[2] Impact pile installation is the most likely method that will be used to install piles. High-pressure water jetting may be used either separately from, or at the same time as, impact pile installation.

[3] The removal of the piles at the Mooring Wharf are dependent on interferences during the installation of new piles. The anticipated quantity of removed piles is small and will not exceed the listed values.

Underwater demolition activities covered under this IHA application would occur over a period of 13 days at two primary locations: 1) the Mole Pier mooring wharf and 2) the Ramp Pier. Piles at the mooring wharf will only be removed if they obstruct installation of new piles. All of the piles that support the Ramp Pier are slated for removal and replacement in the course of constructing a new replacement pier. At both

locations, the concrete pier deck would be saw cut longitudinally and transversely at mid-span of every bent, allowing for removal in large but manageable sections, with weights of less than 50 tons (45 metric tons). While the section is rigged to the derrick crane, a hydraulic shearing tool attached to a barge-mounted excavator would be used to cut the piles just below pile cap. Once freed from the piles, the sections would be set onto a barge. Following the removal of the pier deck, the piles could be removed via multiple methods, including vibratory extraction, high-pressure water jetting, hydraulic pile clipper, wire saw, underwater chain saw, dead pull or via a combination of methods. Up to fifty-four 24-by-24-inch square concrete piles and seven 24-inch octagonal concrete piles would be removed from the area of the existing mooring wharf and the Ramp Pier.

Any of the pile extraction activities cited above may occur as part of the Project-related activities. However, given that the methods other than vibratory pile extraction entail lower source levels, we assume that take will not result. Vibratory pile driving is the only demolition-related activity expected to potentially result in incidental Level B harassment and subsequent take of marine mammals.

Pile installation activities would require 33 days. Similar to pile extraction activities, pile installation activities for the Project are broken up into separate phases: 1) installation of forty-eight 24-inch octagonal concrete piles at the mooring wharf; and 2) installation of twelve 24-inch octagonal concrete piles associated with the Ramp Pier and Intermediate Support Structure for personnel and vehicle access to the FDD. Piles installed for the mooring wharf and the Ramp Pier/Intermediate Support Structure would occur via an impact pile driver, high-pressure water jetting, or a combination of both methods. Vibratory pile installation is not expected.

The relocation of assets, dredging and sediment disposal, utility modifications, above-water demolition activities, and placement and operation of the FDD does not have the potential to result in harassment under the MMPA. Underwater sound associated with

pile extraction and installation would have the potential to harass marine mammals. The demolition and construction elements analyzed in the IHA are described below and would occur over 33 days of in-water work over the 1 year period of authorization.

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

Comments and Responses

A notice of NMFS' proposal to issue an IHA to the Navy was published in the **Federal Register** on July 21, 2023 (88 FR 47111). That notice described, in detail, the Navy's activities, the marine mammal species that may be affected by the activities, and the anticipated effects on marine mammals. In that notice, we requested public input on the request for authorization described therein, our analyses, the proposed authorization, and any other aspect of the notice of proposed IHA, and requested that interested persons submit relevant information, suggestions, and comments. This proposed notice was available for a 30-day public comment period. NMFS received no public comments.

Changes from the Proposed IHA to Final IHA

The Navy provided information about additional changes to project design and implementation, foregoing the six-pile Test Pile Program described in the proposed IHA **Federal Register** notice. After further review, the Navy now expects most piles to be removed by clipping them at the mud line, rather than vibratory extraction. In addition, the total number of construction piles to be installed has been reduced from 107 to 60 and the number of piles slated for removal has been revised downward from 65 to 60. There will be a commensurate reduction in in-water workdays, from 59 to 33. Pile types, methods of removal and installation and project footprint are otherwise unchanged. Due to the possibility of further adjustments to construction of the project, the Navy requests that the take estimates cited in the proposed IHA carry forward, and NMFS concurs with this request. There are no other changes. Therefore, NMFS has determined that the

project changes do not affect the preliminary small numbers finding or negligible impact determination.

Description of Marine Mammals in the Area of Specified Activities

The request provides information about marine mammals that are known to occur in the broader geographic region including near the mouth of San Diego Bay and North Bay. Based on monitoring of prior projects conducted at Navy Base San Diego and in the vicinity of the FDD project, three of the species discussed are most likely to occur in the project area: California sea lions, bottlenose dolphins, and harbor seals.

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. NMFS fully considered all of this information, and we refer the reader to these descriptions, instead of reprinting the information. Additional information regarding population trends and threats may be found in NMFS' 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 2 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 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 the table represent the total number of individuals that make up a given stock. NMFS' stock abundance estimates for most species represent the total estimate of individuals within the geographic area, if known, that comprises that stock. All managed stocks in this region are assessed in NMFS' U.S. Pacific SARs. All values presented in Table 2 are the most recent available at the time of publication and are available online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments*.

Table 2-- Marine Mammal Species Likely Impacted by the Specified Activities[1]

Common name	Scientific name	Stock	ESA/MMPA status; Strategic (Y/N)[2]	Stock abundance (CV, N_{min}, most recent abundance survey)[3]	PBR	Annual M/SI[4]
Odontoceti (toothed whales, dolphins, and porpoises)						
Family Delphinidae						
Bottlenose dolphin	*Tursiops truncatus*	California coastal	N	453	2.7	>2.0
Order Carnivora – Pinnipedia						
Family Otariidae (eared seals and sea lions)						
California Sea Lion	*Zalophus californianus*	United States	N	257,606	14,011	>321
Family Phocidae (earless seals)						
Harbor seal	*Phoca vitulina*	California	N	30,968	1,641	43

[1] Information on the classification of marine mammal species can be found on the web page for The Society for Marine Mammalogy's Committee on Taxonomy (*https://marinemammalscience.org/science-and-publications/list-marine-mammal-species-subspecies/*; Committee on Taxonomy (2022)).

[2] 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.

[3] 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.

[4] 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, vessel 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.

As indicated above, the 3 species in Table 2 temporally and spatially co-occur with the activity to the degree that take is reasonably likely to occur. Based on many years of observations and numerous Navy-funded surveys in San Diego Bay (Merkel and Associates, Inc., 2008; Sorensen and Swope, 2010; Graham and Saunders, 2014; Tierra

Data Inc., 2016), other marine mammals rarely occur south of the Coronado Bay Bridge, are not known to occur near Naval Base San Diego, and any occurrence in the project area would be very rare. Therefore, while common dolphins (*Delphinus delphis* and *Delphinus capensis*), and gray whales (*Eschrictius robustus*) have been sighted in North Bay and reported near the mouth of San Diego Bay respectively (Naval Facilities Engineering Command, Southwest and Port of San Diego Bay, 2013), they are not anticipated to occur in the project area and no take of these species is anticipated or proposed to be authorized.

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.*). Note that no direct measurements of hearing ability have been successfully completed for mysticetes (*i.e.*, low-frequency cetaceans). Subsequently, NMFS (2018) described generalized hearing ranges for these marine mammal hearing groups. Generalized hearing ranges were chosen based on the approximately 65 decibel (dB) threshold from the normalized composite audiograms, with the exception for lower limits for low-frequency cetaceans where the lower bound was deemed to be biologically implausible and the lower bound from Southall *et al.* (2007) retained. Marine mammal hearing groups and their associated hearing ranges are provided in Table 3.

Table 3 -- Marine Mammal Hearing Groups (NMFS, 2018)

Hearing Group	Generalized Hearing Range*
Low-frequency (LF) cetaceans (baleen whales)	7 Hz to 35 kHz
Mid-frequency (MF) cetaceans (dolphins, toothed whales, beaked whales, bottlenose whales)	150 Hz to 160 kHz
High-frequency (HF) cetaceans (true porpoises, *Kogia*, river dolphins, Cephalorhynchid, *Lagenorhynchus cruciger* & *L. australis*)	275 Hz to 160 kHz
Phocid pinnipeds (PW) (underwater) (true seals)	50 Hz to 86 kHz
Otariid pinnipeds (OW) (underwater) (sea lions and fur seals)	60 Hz to 39 kHz
* Represents the generalized hearing range for the entire group as a composite (*i.e.,* all species within the group), where individual species' hearing ranges are typically not as broad. Generalized hearing range chosen based on ~65 dB threshold from normalized composite audiogram, with the exception for lower limits for LF cetaceans (Southall *et al.,* 2007) and PW pinniped (approximation).	

The pinniped functional hearing group was modified from Southall *et al*. (2007) on the basis of data indicating that phocid species have consistently demonstrated an extended frequency range of hearing compared to otariids, especially in the higher frequency range (Hemilä *et al*., 2006; Kastelein *et al*., 2009; Reichmuth and Holt, 2013).

For more detail concerning these groups and associated frequency ranges, please see NMFS (2018) for a review of available information.

Potential Effects of Specified Activities on Marine Mammals and Their Habitat

The effects of underwater noise from the Navy's construction activities have the potential to result in behavioral harassment of marine mammals in the vicinity of the project area. The notice of the proposed IHA (88 FR 47111, July 21, 2023) included a discussion of the effects of anthropogenic noise on marine mammals and the potential effects of underwater noise from the Navy's construction activities on marine mammals and their habitat. That information and analysis was considered in these final IHA determinations and is not repeated here; please refer to the **Federal Register** notice of proposed IHA (88 FR 47111, July 21, 2023).

Estimated Take of Marine Mammals

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

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).

Here, authorized takes are by Level B harassment only, in the form behavioral response to noise, or short-term disruption of behavioral patterns resulting from exposure to sound generated during pile driving and extraction activities. Based on the nature of the activity, Level A harassment is neither anticipated nor authorized. As described previously, no serious injury or mortality is anticipated or authorized for this activity. Below, we describe how the take numbers are estimated.

For acoustic impacts, 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 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 take estimates.

Acoustic Thresholds

NMFS recommends the use of 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 auditory permanent threshold shift (PTS) of some degree (equated to Level A harassment).

Level B harassment is largely 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 μPa)) for continuous (*e.g.,* vibratory pile driving, drilling) sources, and above RMS SPL 160 dB re 1 μPa 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 (masking of vocalization/conspecific communication, predators, prey) may result in changes in behavior patterns that would not otherwise occur.

The specified activity includes the use of continuous (vibratory pile extraction) and impulsive (impact pile driving) sources, and therefore the RMS SPL thresholds of 120 and 160 dB re 1 μPa would typically be applicable. However, as discussed above, the Navy has established that the ambient noise in the project area is 126 dB re 1 mPa (rms). Since this is louder than the 120 dB threshold for continuous sources, 126 dB becomes the effective threshold for Level B harassment for continuous sources.

Level A harassment is described in detail in NMFS' Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 2.0) (Technical Guidance, 2018). The Technical Guidance 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). The Navy's specified activity includes the use of both impulsive (impact pile driving) and non-impulsive (vibratory extraction) sources.

The Level A harassment 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*.

No project activities are expected to approach levels that may induce PTS or other injury, and no take by Level A harassment is expected or authorized.

Table 4 -- Thresholds Identifying the Onset of Permanent Threshold Shift

	PTS Onset Acoustic Thresholds (Received Level)

Hearing Group	Impulsive	Non-impulsive
Low-Frequency (LF) Cetaceans	*Cell 1* $L_{pk,flat}$: 219 dB $L_{E,LF,24h}$: 183 dB	*Cell 2* $L_{E,LF,24h}$: 199 dB
Mid-Frequency (MF) Cetaceans	*Cell 3* $L_{pk,flat}$: 230 dB $L_{E,MF,24h}$: 185 dB	*Cell 4* $L_{E,MF,24h}$: 198 dB
High-Frequency (HF) Cetaceans	*Cell 5* $L_{pk,flat}$: 202 dB $L_{E,HF,24h}$: 155 dB	*Cell 6* $L_{E,HF,24h}$: 173 dB
Phocid Pinnipeds (PW) (Underwater)	*Cell 7* $L_{pk,flat}$: 218 dB $L_{E,PW,24h}$: 185 dB	*Cell 8* $L_{E,PW,24h}$: 201 dB
Otariid Pinnipeds (OW) (Underwater)	*Cell 9* $L_{pk,flat}$: 232 dB $L_{E,OW,24h}$: 203 dB	*Cell 10* $L_{E,OW,24h}$: 219 dB

Ensonified Area

Here, we describe the parameters of the specified activity used to estimate the ensonified area and application of related 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 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 pile driving and removal), 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 PTS. Inputs used in the optional User Spreadsheet tool, and the resulting estimated isopleths, are reported below.

Table 5 -- Calculated Extent of Level A and Level B Harassment Zones

Activity Description	Pile Size/Type & Source Levels[1]	Level A Harassment Zones[2] (meters)			Level B Harassment Zones[2] (meters)
		California sea lions	Harbor seals	Coastal bottlenose dolphins	All Species
Vibratory Extraction[3]	24-inch octagonal/square concrete (Production) (162 RMS)	0.0	6.8	1.0	3,525 x 1,055[5]
	24-inch octagonal concrete (TPP)[4] (162 RMS)	0.0	2.3	0.3	
Impact Driving[6]	24-inch octagonal concrete (TPP)[4] (188 Peak, 176 RMS, 166 SEL)	0.0	28.0	1.9	375
	24-inch octagonal concrete (Production) (188 Peak, 176 RMS, 166 SEL)	0.0	58.2	3.9	

[1] Sound source levels at 10 meters (m) (33 ft.) distance. Units for Peak and RMS are dB re 1 µPa. The unit for sound exposure level (SEL) is dB 1 μPa^2-sec.

[2] Level A distances are based on a site-specific model for California sea lions (Dall'Osto and Dahl, 2019) and a generic Practical Spreading Loss model (NMFS, 2018, 2020) for harbor seals and coastal bottlenose dolphins. The Level A harassment criteria are not exceeded for California sea lions based on the site-specific model (Dall'Osto and Dahl, 2019). Level B harassment distances are based on the site-specific model (Dall'Osto and Dahl, 2019). No take by Level A harassment is requested or proposed for authorization.

[3] Assumes 20 minutes of vibratory pile extraction, Weighting Factor Adjustment of 2.5 kHz, with 5 piles/day for Production, and 1 pile/day for the TPP.

[4] The TPP Piles will be installed via an impact hammer prior to the production piles, re-struck for testing approximately 1 week later, and then removed prior to the start of production pile driving.

[5] The distances represent the maximum north/south and east/west distance from the pile being driven. These distances are represented by the green line in Figure 6-1 of the Navy's application.

[6] Assumes 600 strikes per pile, 0.01 second single-strike duration, Weighting Factor Adjustment of 2.0 kHz, with 3 piles/day for Production, and 1 pile/day for the TPP.

Marine Mammal Occurrence

In this section we provide information about the occurrence of marine mammals, including density or other relevant information which will inform the take calculations. In the case of the Navy's FDD project, monitoring results from nearby projects provide the best available information about marine mammal presence and abundance in the project area. Accordingly, for purposes of estimating density of species that may occur in the

project area, sightings collected in the course of monitoring projects for work at other locations within the bounds of NBSD are used.

Due to the dynamic nature and multitude of overlapping uses of the north and north-central San Diego Bay, a number of marine mammal surveys have been conducted (Merkel and Associates, Inc., 2008; Sorensen and Swope, 2010; Graham and Saunders 2014; Naval Facilities Engineering Command, Southwest (NAVFAC SW) 2018b). Based on these surveys California sea lions are the predominant species observed. However, relative to the FDD project area, only one dedicated line transect survey (Sorensen and Swope, 2010) surveyed an area south of the Coronado Bridge. During the Sorensen and Swope (2010) survey, two sightings of one California sea lion each were reported in the water adjacent to NBSD. As presented in the NBSD Pier 6 Replacement Project's first year's interim report (NAVFAC SW, 2022) a clearer picture of marine mammal activity south of the Coronado Bay Bridge was developed during 132 days of observations. This recent monitoring effort found that California sea lions were the most common species observed south of the Coronado Bridge (69.9 percent), but coastal bottlenose dolphins (29.5 percent), and to a lesser extent harbor seals (0.6 percent), were observed as well. The Pier 6 Replacement Project data represents the best available science for an area that is close to the project area described here. Accordingly, the application uses these prior observations from the immediate vicinity as a basis for assessing potential project impacts to California sea lions, coastal bottlenose dolphins, and harbor seals by leveraging the numbers provided in NAVFAC SW (2022).

Take Estimation

Here, we describe how the information provided in the application was synthesized to produce the quantitative estimate of the take that informed the authorization. Changes described in **Changes from the Proposed IHA to Final IHA** above are expected to reduce the effects described below. However, due to the potential

for further changes that may arise during construction, the Navy requests that the higher take estimates that follow below, and that were developed based on the construction methods and materials described in the initial application.

The degree to which underwater noise propagates away from a noise source is dependent on a variety of factors, most notably by bathymetry and the presence or absence of reflective or absorptive conditions, including the sea surface and sediment type. The two models used to assess the potential distances to regulatory thresholds and to evaluate the potential for Level A/B harassment: (Dall'Osto and Dahl 2019; NMFS 2018, 2020), and a Practical Spreading Loss model (PSL). Dall'Osto and Dahl (2019) developed site-relevant acoustic models using point sources at three locations (Pier 1, Pier 6 and Pier 13) along the eastern extent of the south-central San Diego Bay on NBSD. Due to the similar bathymetry and location with respect to the channel, the Pier 13 modeling location, which is roughly 725 meters to the south of the Project location approximates the sound propagation profile from a notional source at the Mole Pier mooring wharf FFD location. Key to this profile is the dampening effect of sound due to the western slope of the dredged navigation channel, as well as channelization of sound to the north and south within the channel. While the Pier 13 point is not exactly in the project location, the model provides suitable representation of sound propagation in the project area with a higher degree of resolution than a generic PSL model would provide.

Harbor seals and coastal bottlenose dolphins were not included in the site-specific modeling effort for Level A harassment isopleth calculations. As a result, the NMFS user spreadsheet (NMFS 2020) was used to determine Level A harassment zones for these species. To determine zones for potential Level B harassment, the site-specific model was used for all species because the threshold criteria for Level B harassment are based solely on continuous or impulsive noise source and are not frequency-dependent.

Table 6 -- Estimated Takes from Level B Harassment

Species	*Expected Average Individuals Per Day*	*Requested[1] Level B Take*	*Stock Abundance*	*Instances of Take as Percent of Stock*
California sea lion	2	118	257, 606	0.05%
Harbor seal	1	59	30,968	0.19%
Coastal bottlenose dolphin	1	59	453	13%
[1]Based on 59 days of pile driving activity.				

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, impact on operations.

The following mitigation measures are required in order to avoid and minimize the potential for Level A harassment and to reduce, to the lowest extent practicable, exposure to noise exceeding Level B harassment criteria. The contractor is responsible for complying with all the mitigation measures listed below, whereas on-site Navy representatives will monitor the contractor's performance and require corrective action or stop work, if necessary, to ensure that requirements are met.

1) Time Restriction: The Navy plans to conduct in-water pile extraction/installation activities only when sufficient ambient light is available for visual observations (generally 30 minutes after sunrise and up to 45 minutes before sunset); however, the Lead Protected Species Observer will make a final determination as to when to start or stop activities based on ambient lighting conditions.

2) General Vessel and Machinery Stoppage: For in-water activities, including heavy machinery activities other than pile extraction/installation (*e.g.*, barge movements) or when using vessels, if a marine mammal comes within 10 m (33 ft.), the activity must cease operations and/or reduce vessel speed to the minimum level required to maintain steerage and safe working conditions.

3) Pre-Construction Briefing: Prior to the start of all in-water pile installation or extraction activities, briefings will be conducted for construction supervisors and crews, the monitoring team and when new personnel join the work. The briefing will explain responsibilities, communication procedures, the marine mammal protocols, and operational procedures for stopping/delaying in-water activities.

4) Protected Marine Species Visual Monitoring: Marine Species Visual Monitoring will assess and document any effects on marine mammals. PSOs will visually observe the surrounding waters for marine mammal presence, assess any potential Level B harassment and ensure effective notification of any animals sighted in established shutdown zones.

- Monitoring will take place from 30 minutes prior to initiation through 30 minutes post-completion of pile extraction/installation activities;
- During all observation periods, the PSOs will use binoculars and/or the naked eye to search continuously for protected marine species;
- Shutdown zone(s) may only be declared clear, and pile extraction/installation started, when the entire shutdown zone is visible (*i.e*., when not obscured by a poor light, rain, fog, *etc.*). If the applicable shutdown zone is obscured by fog or poor lighting conditions, activity at the location will not be initiated until the shutdown zone is visible.

  4) All observers shall have no other project-related tasks while recording data to address the following requirements:

  a. Date and time that pile extraction/installation begins or ends;
  b. Construction activities occurring during each observation period;
  c. Weather parameters (*e.g*., wind, temperature, percent cloud cover, and visibility);
  d. Tide stage and sea state (The Beaufort Sea State Scale will be used to determine sea-state);
  e. Species, numbers, and, if possible, sex and age class of marine mammals;
  f. Marine mammal behavior patterns observed, including bearing and direction of travel, and if possible, the correlation to Sound Pressure

Levels;

g. Distance from pile installation activities to marine mammals and distance of a sighted marine mammal from the observation point;

h. Locations of all PSOs; and

i. Other, relevant human activity in the area.

5) Soft Start: The use of soft-start procedures for impact pile driving are expected to provide additional protection to marine mammals by providing a warning and/or giving marine mammals a chance to leave the area prior to the hammer operating at full capacity.

6. Shutdown Zones:

Table 7 -- Shutdown Zones

Activity Description	Pile Size/Type & Source Levels	Shutdown Zones (meters)		
		California sea lions	Harbor seals	Coastal bottlenose dolphins
Vibratory Extraction	24-inch octagonal/square concrete (Production) (162 RMS)	10	10	10
	24-inch octagonal concrete (TPP) (162 RMS)	10	10	10
Impact Driving	24-inch octagonal concrete (TPP) (188 Peak, 176 RMS, 166 SEL)	10	30	10
	24-inch octagonal concrete (Production) (188 Peak, 176 RMS, 166 SEL)	10	60	10

- Based on the activity and species observed shutdown zones will be established around in-water pile extraction/installation activities to avoid the potential for Level A harassment of marine mammals.
- One Pier-based PSO will be stationed with clear view of the shutdown zone(s) and will be responsible for initiating shutdowns/delays of project activities, monitoring for animals in close proximity to the project site, and the collection of project-

related activity data (*i.e.*, pile extraction/installation start and stop times, shutdowns/delays);

- Visual surveys will occur for at least 30 minutes prior to the start of pile extraction/installation;
- If marine mammals covered under the IHA are present within the Level B harassment zone, in-water construction or demolition will be allowed to start without delay.
- If a marine mammal covered in the IHA enters an applicable shutdown zone, all pile extraction/installation activities at that location shall be delayed. The animal(s) shall be allowed to remain in the shutdown zone (*i.e.*, must leave of their own volition) and their behavior must be monitored and documented. Work will be allowed to start once the animal has been observed either leaving the shutdown area, or 15 minutes has elapsed since the last observation without re-detection of the animal;
- If a marine mammal covered in the IHA enters the applicable shutdown zone, the PSO shall direct a halt of all pile extraction/installation activities at that location and initiate mitigation. The animal(s) must be allowed to remain in the shutdown zone (*i.e.*, must leave of their own volition) and their behavior must be monitored and documented. Work may restart once the animal has been observed either leaving the shutdown area, or 15 minutes has elapsed since the last observation without re-detection of a marine mammal;
- If a marine mammal not covered in the IHA enters the applicable Level B harassment zone, all pile extraction/installation activities shall be halted. The animal(s) must be allowed to remain in the Level B harassment zone (*i.e.*, must leave of their own volition) and their behavior must be monitored and documented. Work will be allowed to restart once the animal has been observed either leaving the Level B harassment zone, or 60 minutes has elapsed since the last observation without re-detection of the animal; and

- In the unlikely event that environmental conditions, such as heavy fog, prevent the visual detection of marine mammals within the shutdown zone (see Table 7), in-water demolition or construction activities will not be initiated. If in-water demolition or construction activities have been initiated, and conditions deteriorate so that the shutdown zone is not completely visible, then activities will be delayed until the zone is fully visible.

Based on our evaluation of these measures NMFS has determined that the required 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.

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 Navy addresses the above requirements in depth in its NMFS-approved Marine Species Monitoring Plan and plans to implement the following procedures:

The Navy will retain independent PSOs to collect marine mammal sightings data, including behaviors, during site preparation in the pre-construction period, during all in-water workdays, through completion of in water construction and the demobilization of pile extraction/installation extraction equipment. To eliminate the potential for bias, all marine mammal observations will be logged, regardless of proximity to the Level A or Level B harassment zones. The efficacy of visual detection depends on several factors including the PSO's ability to detect the animal, the environmental conditions (visibility and sea state), and monitoring platforms. All observers shall be trained in marine mammal identification and behaviors, and satisfy the following criteria:

- Visual acuity in both eyes (correction is permissible) sufficient to discern moving targets at the water's surface with ability to estimate target size and distance. Use of binoculars or spotting scope may be necessary to correctly identify the target.

- Advanced education in biological science, wildlife management, mammalogy or related field (Bachelor's degree or higher is preferred), or equivalent Alaska Native traditional knowledge.
- Experience and ability to conduct field observations and collect data according to assigned protocols (this may include academic experience).
- Experience or training in the field identification of marine mammals (cetaceans and pinnipeds).
- Sufficient training, orientation or experience with vessel operation and pile driving operations to provide for personal safety during observations.
- Writing skills sufficient to prepare a report of observations. Reports should include such information as the number, type, and location of marine mammals observed; the behavior of marine mammals in the area of potential sound effects during construction; dates and times when observations and in-water construction activities were conducted; dates and times when in-water construction activities were suspended because of marine mammals, *etc.*
- Ability to communicate orally, by radio or in person, with project personnel to provide real time information on marine mammals observed in the area and necessary actions, as needed.

General Visual Monitoring Protocols: Trained PSOs will be placed at the best vantage point(s) practicable (*e.g.*, the crane barge, on shore, or any other suitable location) to monitor for marine mammals and implement shutdown/delay procedures, when applicable, by notifying the construction operator of a need for a work stoppage.

Marine Mammal Monitoring Protocols:

- Observation data will be recorded for any marine mammals within visual range of the PSO, regardless of proximity to the monitoring zones;

- Up to three PSOs at up to three locations will conduct the marine mammal monitoring depending on the activity and size of monitoring zones (see Figure 1-2 of the Navy's application). All PSOs will communicate with each other to enhance tracking of marine mammals that may be moving through the area and to minimize duplicate observation records of the same animal by different PSOs (*i.e.*, a re-sighting);
- Results of all protected marine mammal observations will be recorded on electronic tablet or hardcopy datasheets (see Appendix A for an example of a hard-copy datasheet);
- If an injured, sick, or dead marine mammal is observed, procedures outlined in Section 3.0 of the Navy's application will be followed:
    - In the event that personnel involved in the Project-related activities discover an injured or dead marine mammal, the Navy POC for the IHA shall report the incident to the Office of Protected Resources (OPR), NMFS, and the Regional Stranding Coordinator as soon as feasible;
    - If the death or injury was clearly caused by the specified activity, the IHA-holder must 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 IHA. The IHA-holder must not resume their activities until notified by NMFS.
    - The report will include the following information:
        - Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);
        - Species identification (if known) or description of the animal(s) involved;
        - Condition of the animal(s) (including carcass condition if the animal is dead);

- Observed behavior of the animal(s), if alive;
- If available, photographs or video footage of the animal(s); and
- General circumstances under which the animal was discovered.

  - In the event that an injured or dead marine mammal is discovered, and the Lead PSO determines that the cause of the injury or death is unknown and the death is relatively recent (*i.e.*, in less than a moderate state of decomposition as described in the next paragraph), the PSO will report to the Navy POC;
  - Within 24 hours, the Navy POC will report the incident to the NBSD Base Biologist, the NMFS OPR, and the appropriate West Coast Region Marine Mammal Network Stranding Coordinators as noted above;
  - The report will include the same information identified above. Pursuant to NMFS instruction and approval, activities may continue while the circumstances of the incident are under review;
  - In the event that an injured or dead marine mammal is discovered, and the Lead PSO determines that the injury or death is not a result of activities authorized in the IHA (*i.e.*, previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), the Lead PSO will report the incident to the Navy POC, who will report the animal(s) to the NBSD base biologist;
  - The appropriate West Coast Region Marine Mammal Network Stranding Coordinators, as noted above, will be notified within 24 hours of the discovery;
  - The PSOs will provide photographs or video footage (if available) or other documentation of the stranded animal sighting to the Navy POC under such a case; and
  - At no time should the PSO handle, or attempt to handle, a dead marine mammal.

Pre-Construction Monitoring

Visual surveys will occur for at least 30 minutes prior to the start of pile extraction/installation and mitigation measures will be initiated as described above.

Monitoring Concurrent with Construction

- If a marine mammal approaches, or appears to be approaching, the shutdown zone(s), the PSO who first observed the animal will alert the "Command" PSO, who will notify the construction crew of the animal's current status. In-water activities addressed in the IHA will be allowed to continue while the animal remains outside the shutdown zone;
- If shutdown and/or clearance procedures would result in an imminent concern for human safety, then the activity will be allowed to continue until the safety concern is addressed. During that timeframe, the animal(s) will be continuously monitored, and the Navy POC will be notified and consulted prior to re-initiation of Project-related activities; and
- Regardless of location within the Level B harassment zone, an initial behavior and the location of the animal(s) will be logged. Behaviors will be continually logged until the animal is either passed off to another PSO, the animal is no longer visible, or it has left the Level B harassment zone.

Post-Activity Monitoring

- Monitoring of all zones will continue for 30 minutes following completion of pile extraction/installation and drilling activities. These surveys will record all marine mammal observations following the same procedures as identified for the pre-construction monitoring time-period, and will focus on observing and reporting unusual or abnormal behaviors; and
- A summary report of recorded observations, work stoppages (if any) and an assessment of 1) effectiveness of mitigation and 2) recommendations for adjustment to

future monitoring protocols will be required within 90 days of project completion or expiration of an IHA.

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, this discussion of our analysis applies to all the species listed in Table 2, 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.

The takes from Level B harassment would be due to potential behavioral disturbance such as avoidance or temporary displacement or temporary shift in hearing threshold. No mortality is anticipated given the nature of the activity and measures designed to minimize the possibility of injury to marine mammals. The potential for harassment is minimized through the construction method and the implementation of the planned mitigation measures (see **Mitigation** section).

The nature of the pile driving project precludes the likelihood of serious injury or mortality. Take would occur within a limited, confined area (south-central San Diego Bay) of the stock's range. The duration and intensity of Level B harassment events will be minimized through use of mitigation measures described herein. Further the amount of take proposed to be authorized is extremely small when compared to stock abundance.

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 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 the short duration of noise-generating activities per day and that pile driving and removal would occur across 6 months, any harassment would be temporary. There are no other areas or times of known biological importance for any of the affected species.

In addition, it is unlikely that minor noise effects in a small, localized area of habitat would have any effect on the stocks' ability to recover. 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 will therefore not result in population-level impacts.

In summary and as described above, the following factors primarily support our 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;
- No important habitat areas have been identified within the project area;
- For all species, San Diego Bay is a peripheral part of their range;
- Among the suitable options for construction available, the Navy will select lower-impact techniques such as vibratory pile driving in lieu of impact driving, to the maximum extent practicable;
- The Navy will adhere to standards for soft-starts when impact driving and shut downs for all in-water activities subject to work stoppage; and
- Monitoring reports from similar work in San Diego Bay have documented little to no effect on individuals of the same species resulting from the specified activities.

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 finds that the total marine mammal take from the specified 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. Additionally, other qualitative factors may be considered in the analysis, such as the temporal or spatial scale of the activities.

The amount of take NMFS has authorized is below one-third of the estimated stock abundance of the three species that may be subject to Level B harassment from the proposed pile driving and extraction activities.

These estimated takes meet the "small numbers" criterion given that total requested instances of take equate to no more than 13 percent of any stock expected to be taken, less than benchmark of less than one-third of stock abundance often used to substantiate a small numbers finding. Comparing estimated instances of take against stock abundance for assessment of small numbers is a conservative approach and is likely to over-estimate the number of animals that may be affected by the activity.

Based on the analysis contained herein of the specified activity (including the mitigation and monitoring measures) and the anticipated take of marine mammals, NMFS 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 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 whenever we propose to authorize take for endangered or threatened species.

No incidental take of ESA-listed species is proposed for authorization or expected to result from this activity. Therefore, NMFS has determined that formal consultation under section 7 of the ESA is not required for this action.

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 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 the Navy for the incidental take of marine mammals due to in-water construction activities associated with the Floating Dry Dock Project at Naval Base San Diego in San Diego, California from March 1, 2024 to February 28, 2025, provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated.

Dated: September 28, 2023.

Kimberly Damon-Randall,

Director, Office of Protected Resources,

National Marine Fisheries Service.

[FR Doc. 2023-21920 Filed: 10/3/2023 8:45 am; Publication Date: 10/4/2023]